

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 2567

**NJDEP Case #s 89-12-12-1442
and 91-08-27-1414**

May 2000

VOLUME 4 OF 4

ANALYTICAL SERVICES

01

EMSL

environmental

materials

asbestos

ANALYTICAL DATA REPORT FOR U.S. ARMY, FORT MONMOUTH SELF-M-PW-EV

Building 173
Fort Monmouth, NJ 07703

PROJECT : # 91-8-27-1414

EMSL Project: # 9508472

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Ann Arbor, MI 48103
(313) 668-6810

1720 S. Amphlett Boulevard
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(415) 570-5401

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection	Date Received
Bldg. 2567:				
1852.1, MW1-2926925	95-24199	Aqueous	5/25/95 @ 1022	5/26/95
1852.2, MW2-2926926	95-24200	Aqueous	5/25/95 @ 0913	5/26/95
1852.3, MW3-2926947	95-24201	Aqueous	5/25/95 @ 1114	5/26/95
1852.4, MW4-2926948	95-24202	Aqueous	5/25/95 @ 0944	5/26/95
1852.5, MW5-2931783	95-24203	Aqueous	5/25/95 @ 1150	5/26/95
1850.2 Trip Blank	95-24197	Aqueous	5/25/95 @ 0610	5/26/95
1850.3 Field Blank	95-24198	Aqueous	5/25/95 @ 1350	5/26/95
1852.6 Duplicate	95-24204	Aqueous	5/25/95 *	5/26/95

* Note: Time of collection was not noted on Chain of Custody.

Laboratory Name

EMSL ANALYTICAL, INC.

Certification No.

NJDEP No. 04653
PADER No. 68-367
NY-ELAP No. 10896

Supervisor/Manager Signature
Printed Name

Paul V. Laraia
Paul V. Laraia

Date

06-27-95

REPORT NARRATIVE

All initial runs for the Ft. Monmouth P.O. #IJO #95-0091/SAI were analyzed within hold. The samples were taken by EMSL between the dates of 5/18/95 thru 5/25/95.

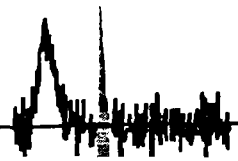
There was a problem with the water used for the field and trip blanks. On certain days the field crew used DI water from the incorrect system resulting in low level contamination of Toluene, 2-Chlorotoluene and sometimes Chlorobenzene. However the resultant concentrations of these compounds were very low and the samples accompanying these field and trip blanks did not show these compounds to be present.

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EMSL

SAMPLE DATA SUMMARY PACKAGE



EMSL

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Date of Report: 06/23/95
Project Number: 09508472
Lab ID: 95-0024199
Date Collected: 05/25/95 10:22
Collected By: Client
Date Received: 05/26/95 07:00

Client Project: 91-8-27-1414

Client Designation: Bldg.2567 MW1-2926925 *FMETL # 1852,1*

	Conc.	Unit
METALS		
Lead	<0.0025	mg/l
ORGANIC		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l

US Army Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET *FMETL # 1852.1*
EPA 524.2

Bldg 2567 MWI-2426925

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524199
 Lab File ID: C8404.D
 Date Received: 05/26/95
 Date Analyzed: 06/07/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	1.5	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.70	
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET FMETL # 1852.1
EPA 524.2

B/dy 2567 MWI 2926925

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524199
Lab File ID: C8404.D
Date Received: 05/26/95
Date Analyzed: 06/07/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	.50	U
106-43-4-----	4-Chlorotoluene	.50	U
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.50	U
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	110	D
75-65-0-----	tertiary-Butyl alcohol	930	D

COMMENT

U= Not Detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

Bld 92567
9524199V

MWI-2926925

07

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: 9524199VSample wt/vol: 25.0 (g/mL) MLLab File ID: C8404.DLevel: (low/med) LOWDate Received: 5/26/95% Moisture: not dec. NADate Analyzed: 6/7/95GC Column: DB-624 X 75MID: 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/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	21.77	1	J
2.	Column Bleed	22.95	1	J
3.				
4.				
5.				
6.				
7.				
8.				
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27.				
28.				
29.				
30.				

BLDG.#: 2567 MW#: 1 NJDEPE WELL ID # 2926925 7a

U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

DATE: 5-25-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #:

SAMPLERS NAMES: Tom Baxter Susan Palilonis

WEATHER CONDITIONS: hazy, overcast, humid

ELEVATION OF CASING SURVEY MARK: _____

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 13.32 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: _____ FT

LENGTH OF SCREENED SECTION: _____ FT

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 4.36 FT

ELEVATION OF GW PRIOR TO PURGING: _____ FT

THICKNESS OF LNAPL PRIOR TO PURGING: 8 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

① REMOVED: <1 PPM ⁰⁹⁴⁷ none detected D.O. 2.1 ppm

pH: 6.82 TEMP: 17.9 C, SPECIFIC CONDUCTIVITY: 441 $\mu\text{S}/\text{cm}$

DEPTH OF WELL: _____ FT

HEIGHT OF WATER: _____ FT

EVACUATED GAL. H2O: 18 GAL (8.96 X .65 X 3 = 17.472)

PURGING START TIME: 0954 END TIME: 10:11

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0

GPM) pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 18 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 7.04 FT

② DISSOLVED OXYGEN: 2.5 ppm pH: 6.87 TEMP: 19.0 °C

SPECIFIC CONDUCTIVITY: 926 $\mu\text{S}/\text{cm}$

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP
FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 10:19 END TIME: 10:22

③ DISSOLVED OXYGEN: 2.6 ppm pH: 6.97 TEMP: 18.9 °C

SPECIFIC CONDUCTIVITY: 214 $\mu\text{S}/\text{cm}$

COMMENTS: on site 0945 flush surface well, 17.472
when on standing H2O. inside gas/dissolved present
but water inside casing. inside pipe casing too high for
cover to close - only 5.2 ft.

4/21/95

EMSL

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Date of Report: 06/23/95
Project Number: 09508472
Lab ID: 95-0024200
Date Collected: 05/25/95 09:13
Collected By: Client
Date Received: 05/26/95 07:00

Client Project: 91-8-27-1414

Client Designation: Bldg.2567 MW2-2926926 *FMETL# 1852.2*

	Conc.	Unit
METALS		
Lead	<0.0025	mg/l
ORGANIC		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l

U S Army Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1852,2

Bldg 2567 MW 2-2926926

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524200
Lab File ID: C8411.D
Date Received: 05/26/95
Date Analyzed: 06/08/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	.90	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.50	U
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.80	
1330-29-7----	Xylene (total)	6.5	

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FmETL #1852.2

Bldg 2567 MW2-2926926

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524200
Lab File ID: C8411.D
Date Received: 05/26/95
Date Analyzed: 06/08/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

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

100-42-1-----Styrene	.50	U
98-82-8-----Isopropylbenzene	1.1	
108-86-1-----Bromobenzene	.50	U
96-18-4-----1,2,3-Trichloropropane	.50	U
103-65-1-----n-Propylbenzene	1.3	
95-49-8-----2-Chlorotoluene	.50	U
106-43-4-----4-Chlorotoluene	.50	U
108-67-8-----1,3,5-Trimethylbenzene	1.0	
98-06-6-----tert-Butylbenzene	.50	U
95-63-6-----1,2,4-Trimethylbenzene	8.8	
135-98-8-----sec-Butylbenzene	.50	U
541-73-1-----1,3-Dichlorobenzene	.50	U
106-46-7-----1,4-Dichlorobenzene	.50	U
99-87-6-----4-Isopropyltoluene	.50	U
95-50-1-----1,2-Dichlorobenzene	.50	U
104-51-8-----n-Butylbenzene	.50	U
96-12-8-----1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----1,2,4-Trichlorobenzene	.50	U
87-68-3-----Hexachlorobutadiene	.50	U
91-20-3-----Naphthalene	11.	
87-61-6-----1,2,3-Trichlorobenzene	.50	U
1634-04-4----Methyl-tertiary butyl ether	3.1	
75-65-0-----tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

IE

SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS8492567
9524200V
MW2-2926926

11

Lab Name: EMSL ANALYTICAL Contract: _____
Project No. _____ Site: _____ Location: _____ Group: _____
Matrix: (soil/water) WATER Lab Sample ID: 9524200V
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8411.D
Level: (low/med) LOW Date Received: 5/26/95
% Moisture: not dec. NA Date Analyzed: 6/8/95
GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 13 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 622-96-8	Benzene, 1-ethyl-4-methyl-	19.81	3	J
2. 95-36-3	1,2,4-Trimethylbenzene	21.36	4	J
3.	Unknown	21.74	11	J
4. 934-80-5	Benzene, 4-ethyl-1,2-dimethy	22.40	1	J
5. 1758-88-9	Benzene, 2-ethyl-1,4-dimethy	22.58	1	J
6.	Unknown	22.66	1	J
7. 767-58-8	Indan, 1-methyl-	22.79	3	J
8. 527-53-7	Benzene, 1,2,3,5-tetramethyl	23.32	1	J
9. 488-23-3	Benzene, 1,2,3,4-tetramethyl	23.42	1	J
10. 27133-93-3	2,3-Dihydro-1-methylindene	23.91	1	J
11. 874-35-1	1H-Indene, 2,3-dihydro-5-met	24.18	1	J
12. 824-22-6	1H-Indene, 2,3-dihydro-4-met	24.21	4	J
13.	Unknown	24.51	3	J
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

BLDG.#: 2567 MW#: 2 NJDEPE WELL ID # 2926926 11a

U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

DATE: 5-25-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Tom Baxter Susan Palilonis

WEATHER CONDITIONS: hazy, humid, overcast

ELEVATION OF CASING SURVEY MARK: _____

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 12.47 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: _____ FT

LENGTH OF SCREENED SECTION: _____ FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 4.03 FT

ELEVATION OF GW PRIOR TO PURGING: _____ FT

THICKNESS OF LNAPL PRIOR TO PURGING: 8 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: 1.8 PPM Well Cap not secure D.O. 2.4 ppm

① pH: 6.30 TEMP: 18.5 C, SPECIFIC CONDUCTIVITY: 1100 μ scm

DEPTH OF WELL: _____ FT

HEIGHT OF WATER: _____ FT

EVACUATED GAL. H2O: 17 GAL (8.44 X .65 X 3 = 16.458)

PURGING START TIME: 0857 END TIME: 0906

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0

GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 17 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 6.19 FT

② DISSOLVED OXYGEN: 2.0 ppm pH: 6.34 TEMP: 13.5 °C

SPECIFIC CONDUCTIVITY: 825 μ scm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 0910 END TIME: 0913

③ DISSOLVED OXYGEN: 1.7 ppm pH: 6.30 TEMP: 12.6 °C

SPECIFIC CONDUCTIVITY: 822 μ scm

COMMENTS: No bolts on cover so cap not tight.
on site 236 please surface well to see if it is inside
casing has water. Also, in case

12

EMSL

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFPM-PW-EV
Building 173
Fort Monmouth NJ 07703

Date of Report: 07/18/95
Project Number: 09508472
Lab ID: 95-0024201
Date Collected: 05/25/95 11:14
Collected By: Client
Date Received: 05/26/95 07:00

Client Project: 91-8-27-1414

Client Designation: Bldg.2567 MW3-2926947

	Conc.	Unit
	-----	-----
METALS		
Lead	0.0027	mg/l
ORGANIC		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1852.3

C/dy 2507 MW3-2926947

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 5 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524201
Lab File ID: C8420.D
Date Received: 05/26/95
Date Analyzed: 06/08/95
Dilution Factor: 1:5
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	2.5	U
74-87-3-----	Chloromethane	2.5	U
74-83-9-----	Bromomethane	2.5	U
75-01-4-----	Vinyl Chloride	2.5	U
75-00-3-----	Chloroethane	2.5	U
75-69-4-----	Trichlorofluoromethane	2.5	U
75-09-2-----	Methylene Chloride	21	B
156-60-65----	trans-1,2-Dichloroethene	2.5	U
75-35-4-----	1,1-Dichloroethene	2.5	U
75-34-3-----	1,1-Dichloroethane	2.5	U
594-20-7-----	2,2-Dichloropropane	2.5	U
74-97-1-----	Bromochloromethane	2.5	U
156-59-2-----	cis-1,2-Dichloroethene	2.5	U
67-66-3-----	Chloroform	2.5	U
563-58-6-----	1,1-Dichloropropene	2.5	U
107-06-2-----	1,2-Dichloroethane	2.5	U
71-55-6-----	1,1,1-Trichloroethane	2.5	U
74-95-3-----	Dibromomethane	2.5	U
56-23-1-----	Carbon Tetrachloride	2.5	U
75-27-4-----	Bromodichloromethane	2.5	U
78-87-1-----	1,2-Dichloropropane	2.5	U
10061-01-1----	cis-1,3-Dichloropropene	2.5	U
142-28-9-----	1,3-Dichloropropane	2.5	U
79-01-6-----	Trichloroethene	2.5	U
124-48-1-----	Dibromochloromethane	2.5	U
79-00-1-----	1,1,2-Trichloroethane	2.5	U
71-43-2-----	Benzene	94	
10061-02-6----	trans-1,3-Dichloropropene	2.5	U
75-25-2-----	Bromoform	2.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	2.5	U
127-18-4-----	Tetrachloroethene	2.5	U
79-34-1-----	1,1,2,2-Tetrachloroethane	2.5	U
108-88-3-----	Toluene	3.8	
106-93-4-----	1,2-Dibromoethane	2.5	U
108-90-7-----	Chlorobenzene	2.5	U
100-41-4-----	Ethylbenzene	6.3	
1330-29-7-----	Xylene (total)	190	

U= Not Detected

US ARMY Ft. Monmouth NJ

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMEIL# 1852,3

Bldg 2567 MW 3-2926947

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524201
Lab File ID: C8420.D
Date Received: 05/26/95
Date Analyzed: 06/08/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	2.5	U
98-82-8-----	Isopropylbenzene	17	
108-86-1-----	Bromobenzene	2.5	U
96-18-4-----	1,2,3-Trichloropropane	2.5	U
103-65-1-----	n-Propylbenzene	13	
95-49-8-----	2-Chlorotoluene	2.5	U
106-43-4-----	4-Chlorotoluene	2.5	U
108-67-8-----	1,3,5-Trimethylbenzene	12	
98-06-6-----	tert-Butylbenzene	2.5	U
95-63-6-----	1,2,4-Trimethylbenzene	8.6	
135-98-8-----	sec-Butylbenzene	2.5	U
541-73-1-----	1,3-Dichlorobenzene	2.5	U
106-46-7-----	1,4-Dichlorobenzene	2.5	U
99-87-6-----	4-Isopropyltoluene	2.5	U
95-50-1-----	1,2-Dichlorobenzene	2.5	U
104-51-8-----	n-Butylbenzene	2.5	U
96-12-8-----	1,2-Dibromo-3-chloropropane	2.5	U
120-82-1-----	1,2,4-Trichlorobenzene	2.5	U
87-68-3-----	Hexachlorobutadiene	2.5	U
91-20-3-----	Naphthalene	9.4	
87-61-6-----	1,2,3-Trichlorobenzene	2.5	U
1634-04-4----	Methyl-tertiary butyl ether	400	D
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

IE

SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDSBLDg 2567
9524201D
mw3-2926947

15

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9524201V

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

Lab File ID: C8420.D

Level: (low/med) LOW

Date Received: 5/26/95

% Moisture: not dec. NA

Date Analyzed: 6/8/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 5.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 14

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 78-78-4	Butane, 2-methyl-	5.03	25	J
2. 109-66-0	Pentane	5.59	4	J
3.	Unknown Hydrocarbon	5.61	3	J
4. 96-37-7	Cyclopentane, methyl-	9.72	23	J
5.	Unknown Hydrocarbon	9.74	9	J
6. 110-82-7	Cyclohexane	10.89	11	J
7.	Unknown Hydrocarbon	10.90	3	J
8.	Unknown Hydrocarbon	13.81	3	J
9. 611-14-3	Benzene, 1-ethyl-2-methyl-	19.76	4	J
10. 620-14-4	Benzene, 1-ethyl-3-methyl-	20.29	3	J
11. 95-36-3	1,2,4-Trimethylbenzene	21.37	17	J
12.	Unknown Hydrocarbon	21.74	41	J
13. 767-58-8	Indan, 1-methyl-	22.79	5	J
14. 27133-93-3	2,3-Dihydro-1-methylindene	24.20	3	J
15.				
16.				
17.				
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28.				
29.				
30.				

BLDG.#: 2567 MW#: 3 NJDEPE WELL ID # 2926947

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 5-25-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Tom Baxter Susan Palilonis

WEATHER CONDITIONS: humid overcast, hot

ELEVATION OF CASING SURVEY MARK: _____

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 12.74 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: _____ FT

LENGTH OF SCREENED SECTION: _____ FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 3.69 FT

ELEVATION OF GW PRIOR TO PURGING: _____ FT

THICKNESS OF LNAPL PRIOR TO PURGING: _____ FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS
REMOVED: 2.0 PPM ^{1027 am} D.O. 1.9 ppm

① PH: 6.72 TEMP: 18.6 C, SPECIFIC CONDUCTIVITY: 204 μ scm

DEPTH OF WELL: _____ FT

HEIGHT OF WATER: _____ FT

EVACUATED GAL. H2O: _____ GAL (9.05 X .65 X 3 = 17.6475)

PURGING START TIME: 1034 END TIME: 1105

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0 GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 18 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 7.26 FT

② DISSOLVED OXYGEN: 2.9 ppm PH: 6.49 TEMP: 20.0 °C

SPECIFIC CONDUCTIVITY: 537 μ scm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP
FSPM 1992) TEFLON® BAILER

③ START TIME OF SAMPLING: 1112 END TIME: 1114

DISSOLVED OXYGEN: _____ ppm PH: 6.53 TEMP: 18.9 °C

SPECIFIC CONDUCTIVITY: 557 μ scm

COMMENTS: on site 1020 flush and/or well - see photo.
No inside gasket/seal, inside casing, led w/ water
tail pipe photo

16

EMSL

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Date of Report: 07/18/95
Project Number: 09508472
Lab ID: 95-0024202
Date Collected: 05/25/95 09:44
Collected By: Client
Date Received: 05/26/95 07:00

Client Project: 91-8-27-1414

Client Designation: Bldg.2567 MW4-2926948

	Conc.	Unit
METALS		
Lead	<0.0025	mg/l
ORGANIC		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1852.4

Bldg 2561 MW 4-2926948

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524202
Lab File ID: C8412.D
Date Received: 05/26/95
Date Analyzed: 06/08/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	1.0	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1852.4

Bldg 2567 MW 4-2936948

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524202
Lab File ID: C8412.D
Date Received: 05/26/95
Date Analyzed: 06/08/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	.50	U
106-43-4-----	4-Chlorotoluene	.50	U
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.50	U
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

Bldg 2567
9524202V
MW4-292648

19

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: 9524202VSample wt/vol: 25.0 (g/mL) MLLab File ID: C8412.DLevel: (low/med) LOWDate Received: 5/26/95% Moisture: not dec. NADate Analyzed: 6/8/95GC Column: DB-624 X 75MID: 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.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
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30.				

BLDG.#: 2567 MW#: 4 NJDEPE WELL ID # 2926948

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 5-25-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Tom Baxter Susan Palilonis

WEATHER CONDITIONS: hazy, hot, humid, overcast

ELEVATION OF CASING SURVEY MARK:

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 11.83 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: FT

LENGTH OF SCREENED SECTION: FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 3.08 FT

ELEVATION OF GW PRIOR TO PURGING: FT

THICKNESS OF LNAPL PRIOR TO PURGING: FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

① REMOVED: 41 PPM ⁰⁹²¹ not detected D.O. 1.3 ppm
PH: 7.00 TEMP: 17.1 C, SPECIFIC CONDUCTIVITY: 115 µS/cm
DEPTH OF WELL: FT

HEIGHT OF WATER: FT

EVACUATED GAL. H2O: 18 GAL (8.75 X .65 X 3 = 17.0625)

PURGING START TIME: 0924 END TIME: 0933

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0 GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 18 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 4.9 / FT

② DISSOLVED OXYGEN: 1.3 ppm PH: 5.93 TEMP: 16.7 °C

SPECIFIC CONDUCTIVITY: 316 µS/cm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 0938 END TIME: 0944

③ DISSOLVED OXYGEN: 1.4 ppm PH: 5.90 TEMP: 16.5 °C

SPECIFIC CONDUCTIVITY: 344 µS/cm

COMMENTS: on site 0920 *Grass around well high!
flush surface well
clean / no odor

20

EMSL

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Date of Report: 07/18/95
Project Number: 09508472
Lab ID: 95-0024203
Date Collected: 05/25/95 11:50
Collected By: Client
Date Received: 05/26/95 07:00

Client Project: 91-8-27-1414

Client Designation: Bldg.2567 MW5-2931783

Conc.	Unit
-------	------

METALS

Lead

0.0040	mg/l
--------	------

ORGANIC

Volatiles

Methyl tertiary-butyl ether

see attached ug/l

tert-Butyl alcohol

see attached ug/l

Volatiles by 524.2 w/ Library Search

see attached ug/l

U S Army Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL # 1852,5

Sldg 2567 MWS-2931783

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524203
 Lab File ID: C8416.D
 Date Received: 05/26/95
 Date Analyzed: 06/08/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	1.2	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.50	U
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	U

U= Not Detected

US ARMY Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET *FMETL #1852.5*
EPA 524.2

Bldg 2567 MW5-A31783

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524203
 Lab File ID: C8416.D
 Date Received: 05/26/95
 Date Analyzed: 06/08/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	.50	U
106-43-4-----	4-Chlorotoluene	.50	U
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.50	U
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

BLDG 2567
9524203V
MWS-2931783

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9524203V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8416.D

Level: (low/med) LOW

Date Received: 5/26/95

% Moisture: not dec. NA

Date Analyzed: 6/8/95

GC Column: DB-624 X 75M

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.	NONE FOUND			
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BLDG.#: 2567 MW#: 5 NJDEPE WELL ID # 2931783

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 5-25-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653SAMPLERS NAMES: Tom Baxter Susan PalilanisWEATHER CONDITIONS: Hazy, humid, Hot

ELEVATION OF CASING SURVEY MARK: _____

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 15.17 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: _____ FT

LENGTH OF SCREENED SECTION: _____ FT

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 7.59 FT

ELEVATION OF GW PRIOR TO PURGING: _____ FT

THICKNESS OF LNAPL PRIOR TO PURGING: 2 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

① REMOVED: 72 PPM ^{1124 am} DO. 1.7 ppm
PH: 5.95 TEMP: 18.4 C, SPECIFIC CONDUCTIVITY: 173 $\mu\text{S/cm}$

DEPTH OF WELL: _____ FT

HEIGHT OF WATER: _____ FT

EVACUATED GAL. H2O: 15 GAL (7.58 X .65 X 3 = 14.781)PURGING START TIME: 11:30 END TIME: 11:38PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0 GPM) PumpPURGE RATE (<0.5 GPM): 2 GPMTOTAL VOLUME PURGED: 15 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 7.17 FT② DISSOLVED OXYGEN: 1.7 ppm PH: 5.95 TEMP: 16.0 °CSPECIFIC CONDUCTIVITY: 145 $\mu\text{S/cm}$

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON® BAILER

③ START TIME OF SAMPLING: 1145 END TIME: 1150DISSOLVED OXYGEN: 1.4 ppm PH: 5.83 TEMP: 16.3 °CSPECIFIC CONDUCTIVITY: 19.3COMMENTS: on site 1122am, well hard to access & brush too high.TICKS! skin on standing waterclean w/ no odor*Duplicate

EMSL

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFPM-PW-EV
Building 173
Fort Monmouth NJ 07703

Date of Report: 06/23/95
Project Number: 09508472
Lab ID: 95-0024204
Date Collected: 05/25/95 00:00
Collected By: Client
Date Received: 05/26/95 07:00

Client Project: 91-8-27-1414

Client Designation: Duplicate

FMETL # 1852.6 Bldg. 2567

Conc.	Unit
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METALS

Lead

<0.0025	mg/l
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ORGANIC

Volatiles

Methyl tertiary-butyl ether

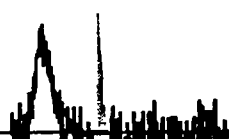
see attached ug/l

tert-Butyl alcohol

see attached ug/l

Volatiles by 524.2 w/ Library Search

see attached ug/l



US Army Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL # 1852.6
Bldg 2567
Duplicate

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524204
Lab File ID: C8413.D
Date Received: 05/26/95
Date Analyzed: 06/08/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	1.0	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.50	U
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	U

U= Not Detected

US Army Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL # 1852.6
Bldg 2567

Duplicate

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524204
Lab File ID: C8413.D
Date Received: 05/26/95
Date Analyzed: 06/08/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L COMMENT

100-42-1-----Styrene	.50	U
98-82-8-----Isopropylbenzene	.50	U
108-86-1-----Bromobenzene	.50	U
96-18-4-----1,2,3-Trichloropropane	.50	U
103-65-1-----n-Propylbenzene	.50	U
95-49-8-----2-Chlorotoluene	.50	U
106-43-4-----4-Chlorotoluene	.50	U
108-67-8-----1,3,5-Trimethylbenzene	.50	U
98-06-6-----tert-Butylbenzene	.50	U
95-63-6-----1,2,4-Trimethylbenzene	.50	U
135-98-8-----sec-Butylbenzene	.50	U
541-73-1-----1,3-Dichlorobenzene	.50	U
106-46-7-----1,4-Dichlorobenzene	.50	U
99-87-6-----4-Isopropyltoluene	.50	U
95-50-1-----1,2-Dichlorobenzene	.50	U
104-51-8-----n-Butylbenzene	.50	U
96-12-8-----1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----1,2,4-Trichlorobenzene	.50	U
87-68-3-----Hexachlorobutadiene	.50	U
91-20-3-----Naphthalene	.50	U
87-61-6-----1,2,3-Trichlorobenzene	.50	U
1634-04-4----Methyl-tertiary butyl ether	.50	U
75-65-0-----tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

US ARMY Ft. Monmouth N.J.
1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL # 1852.6
SAMPLE NO.

84g 2567
9524204V
Duplicate

27

Lab Name: EMSL ANALYTICAL Contract: _____
Project No. _____ Site: _____ Location: _____ Group: _____
Matrix: (soil/water) WATER Lab Sample ID: 9524204V
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8413.D
Level: (low/med) LOW Date Received: 5/26/95
% Moisture: not dec. NA Date Analyzed: 6/8/95
GC Column: DB-624 X 75M 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.	NONE FOUND			
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EMSL

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Date of Report: 06/23/95
Project Number: 09508471
Lab ID: 95-0024197
Date Collected: 05/25/95 06:10
Collected By: Client
Date Received: 05/26/95 07:00

Client Project: None

Client Designation: Trip Blank

Conc.	Unit
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ORGANIC

Volatiles

Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l

US ARMY Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1850,2
Bldg. 2567

TRIP BLANK

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524197
Lab File ID: C8401.D
Date Received: 05/26/95
Date Analyzed: 06/07/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	1.5	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	1.0	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U

U= Not Detected

US Army Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET *FMEK #1850.2*
EPA 524.2 *Bldg 2567*
TRIP Blank

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524197
 Lab File ID: C8401.D
 Date Received: 05/26/95
 Date Analyzed: 06/07/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO. COMPOUND COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	7.7	
106-43-4-----	4-Chlorotoluene	2.5	
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.60	
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9524197V
TB

31

Lab Name: EMSL ANALYTICAL Contract: _____
Project No. _____ Site: _____ Location: _____ Group: _____
Matrix: (soil/water) WATER Lab Sample ID: 9524197V
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8401.D
Level: (low/med) LOW Date Received: 5/26/95
% Moisture: not dec. NA Date Analyzed: 6/7/95
GC Column: DB-624 X 75M 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/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
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Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Date of Report: 06/23/95
Project Number: 09508471
Lab ID: 95-0024198
Date Collected: 05/25/95 13:50
Collected By: Client
Date Received: 05/26/95 07:00

Client Project: None

Client Designation: Field Blank

FMETL # 1850,3 Bldg. 2567

Conc.	Unit
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METALS

Lead-CLP

<0.0025	mg/l
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ORGANIC

Volatiles

Methyl tertiary-butyl ether

see attached	ug/l
--------------	------

tert-Butyl alcohol

see attached	ug/l
--------------	------

Volatiles by 524.2 w/ Library Search

see attached	ug/l
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US Army Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL#1850.3
Bldg. 2567

Field Blank

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524198
Lab File ID: C8402.D
Date Received: 05/26/95
Date Analyzed: 06/07/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	1.6	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	1.6	
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1850.3
Bldg 2567

Field Blank

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524198
Lab File ID: C8402.D
Date Received: 05/26/95
Date Analyzed: 06/07/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	7.7	
106-43-4-----	4-Chlorotoluene	6.4	
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.60	
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

IE
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

BLA 2567

9524198V

FB

35

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9524198V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8402.D

Level: (low/med) LOW

Date Received: 5/26/95

% Moisture: not dec. NA

Date Analyzed: 6/7/95

GC Column: DB-624 X 75M

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.	NONE FOUND			
2.				
3.				
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LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR
ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

	Check If Complete
1. Cover Page, Title Page listing Lab Certification #, facility name, address & date of report.	<u>X</u>
2. Table of Contents	<u>X</u>
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds.	<u>X</u>
4. Summary Table cross-referencing field ID #'s vs. Lab ID #'s.	<u>X</u>
5. Document bound, paginated and legible.	<u>X</u>
6. Chain of Custody	<u>X</u>
7. Methodology Summary	<u>X</u>
8. Laboratory Chronicle and Holding Time Check.	<u>X</u>
9. Results submitted on a dry weight basis (if applicable).	<u>X</u>
10. Method Detection Limits.	<u>X</u>
11. Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEP CLP.	<u>X</u>
12. Non-Conformance Summary	<u>X</u>

Paul Tencio
Laboratory Manager or Environmental
Consultant's Signature

06-28-95
Date

QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

A. Checklist which must be attached to the Summary

The following information must be reported in the Closure Plan Implementation Summary for all laboratory analyses performed in the compliance with the site assessment requirements:

Page #	
<u>1</u>	1. Name and address of the facility.
<u>1</u>	2. Name of the laboratory performing the sample analysis.
<u>1</u>	3. NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18.
<u>1</u>	4. Laboratory sample identification number.
<u>1</u>	5. Customer sample identification number corresponding to the laboratory sample identification.
<u>1</u>	6. Sample Location (also on the site diagram).
<u>1</u>	7. Matrix of the sample analyzed (i.e., water or sediments; including soil, sediment, and sludges). All sediment results must be reported on a dry weight basis.
<u>44-45</u>	8. The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136).
<u>1</u>	9. The signature of the person completing the report form.
<u>1</u>	10. The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed.
<u>46</u>	11. A list of all parameters (constituents and conditions) for which the analyses were performed.
<u>3-35</u>	12. Sample results and corresponding units for each parameter.

**EMSL**

CHAIN OF CUSTODY AND PRESERVATION CHECKLIST

U.S. ARMY FORT MONMOUTH

9508477

P.O. #: IJO # 95-0091 / SAI

Chain of Custody

Project #: 91-8-27-1414		Sampler: EMSL (Dexter)		Date / Time 5-25-95		Analysis Parameters		Start: _____	
Customer: Charles Appleby SELF-PL-8V		Site Name: Bldg 2567		500A 524.2+L1000 MTGE-TGA-XYLENE Lead				Finish: _____	
Phone: 908-532-6004		MW Sampling							
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles					Preservation Method
1850.1	5/25 1022	Bldg 2567 MW1-2926925	ag	4	x	x		24189	
2	0913	MW2-2926926		4	x	x		24202	
3	1114	MW3-2926947		4	x	x		24201	
4	0944	MW4-2926948		4	x	x		24202	
5	1150	MW5-2931783		4	x	x		24203	
1850.2	0610	TRIP Blank		3	x			24197	
1850.3	1350	Field Blank		9	x	x		24198	
1850.6	—	Duplicate		4	x	x		24204	
Relinquished By (signature)		Date / Time		Received By (signature)		Shipped By: EMSL			
		5-25-95 1500							
Relinquished By (signature)		Date / Time		Received for Lab by (signature):		Date / Time			
		1				5/26/02 02:02			

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

(ORIGINAL on BACK)

NW 5-
2931

HOPE ROAD

Road
Laboratory846
646-4mm

646-2mm

646-1mm
646-1mm
646-1mm

July 25, 67

INTERNAL CHAIN OF CUSTODY

EMSL LAB ID NO. 95-24198 to 95-24204

PROJECT NO. 9508472

SAMPLE/CONTAINERS

PARAMETERS

[illegible]

INTERNAL CUSTODY

EMSL

Project #: 9508472

Lab ID #'s: 95-241976 95-24204

Analyst

	Name (please print)	Signature	Date
1. Base/Neutrals			
2. Acids			
3. Pesticides			
4. Herbicides			
5. PCB's			
6. Metals:			
Flame			
Furnace	<u>Mike Boyle</u>	<u>[Signature]</u>	<u>6/7/95</u>
ICP			
7. Volatiles:			
GC			
GC/MS	<u>Scott Kessler</u>	<u>[Signature]</u>	<u>6/7, 6/8/95</u>
8. TOC			
9. TOX			
10. Phenols (Total)			
11. Cyanide (Total)			
12. TPH -IR			
13. Mercury			
14. Other			
15. Other			
16. Other			

METHODOLOGY SUMMARY

METHODOLOGY SUMMARY

EPA Method 524.2 - Aqueous

This is a purge and trap gas chromatograph/mass spectrometer (GC/MS) method. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer.

An HP5890/5970 GC/MS was used with a capillary column (DB-624 0.53 mm ID).

Method detection limits are as stated.

Metals - Aqueous (Total)

This is a procedure used to determine metals concentrations in aqueous matrices. It involves an acidic digestion under oxidizing conditions of approximately 100 milliliters of sample. Nitric and hydrochloric acids as well as hydrogen peroxide are employed in the digestion. The digested sample is filtered and diluted to 100 milliliters. The analysis is performed by ICP, furnace atomic absorption or flame atomic absorption. Reference methods are SW-846 3rd Edition, September 1986, Revised July 1992, EPA Methods for the Chemical Analysis of Water and Wastes, Revised, March 1983 and Methods for the Determination of Metals in Environmental Samples EPA/600/4-91/010 June 1991.

LABORATORY CHRONICLE

Lab ID: 95-24197 to 95-24204

Client: U.S. Army, Fort Monmouth

	I	DATE	II	<u>Hold Time</u>
Date Sampled		5/25/95		
Receipt/Refrigeration		5/26/95		
Extractions				
1. Metals, Aqueous		6/5/95		6 months
Analyses				
1. Volatile Organics, aqueous		6/7-8/95		14 days
2. Metals (Lead), aqueous		6/7/95		6 months

QC Supervisor
Review & Approval(Signature) *Peter B. Panton*
(Printed Name) Peter B. Panton(Date) 6-27-95

NOTE: If fractions are re-extracted and re-analyzed because the initial endeavors failed to meet the required Quality Control Criteria, the dates of re-extraction and/or re-analysis will be entered in Column II Additionally.

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	<u>No</u>	<u>Yes</u>
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)	_____	<u>X</u>
2. GC/MS Tune Specifications		
a. BFB Meet Criteria	_____	<u>X</u>
b. DFTPP Meet Criteria	<u>NA</u>	_____
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.	_____	<u>X</u>
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.	_____	<u>X</u>
5. GC/MS Calibration - Initial Requirements		
a. Calibration Check Compounds	_____	<u>X</u>
b. System Performance Check Compounds	_____	<u>X</u>
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	_____	<u>X</u>
a. VOA Fraction <u>Methylene Chloride 1.4 - 2.2 ppb.</u>	_____	
b. B/N Fraction _____	_____	
c. Acid Fraction _____	_____	
7. Surrogate Recoveries Meet Criteria	_____	<u>X</u>
If not met, list those compounds and their recoveries which fall outside the acceptable range:		
a. VOA Fraction _____	_____	
b. B/N Fraction _____	_____	
c. Acid Fraction _____	_____	
If not met, were the calculations checked and the results qualified as "estimated"?		
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)	<u>X</u>	_____
a. VOA Fraction <u>See MS/MSD forms</u>	_____	
b. B/N Fraction _____	_____	
c. Acid Fraction _____	_____	
9. Internal Standard Area/Retention Time Shift Meet Criteria	_____	<u>X</u>

		<u>No</u>	<u>Yes</u>
10.	Extraction Holding Time Met	NA	

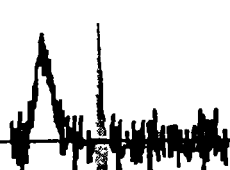
11.	Analysis Holding Time Met	X
-----	---------------------------	---

12. Definitions:
U=Not Detected. J=Detected, but below report detection limit.
B=Compound found in blank. E=Estimated concentration. NA=Not Applicable

Additional Comments:

Laboratory Manager

Date:



METALS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORM

	<u>No</u>	<u>Yes</u>
1. Calibration Summary Meet Criteria	_____	<u>X</u>
2. ICP Interference Check Sample Results Summary Submitted (if applicable) Meet Criteria	<u>NA</u>	_____
3. Serial Dilution Summary Submitted (if applicable) / Meet Criteria	<u>NA</u>	_____
4. Laboratory Control Sample Summary Submitted (if applicable) / Meet Criteria	_____	<u>X</u>
5. Blank Contamination - If yes, list compounds and concentrations in each blank.	_____	<u>X</u>

6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (if not met, list those compounds and their recoveries which fall outside the acceptable range)	_____	<u>X</u>

7. Extraction Holding Time Met	_____	<u>X</u>
If not met, list number of days exceeded for each sample:		

8. Analysis Holding Time Met	_____	<u>X</u>
If not met, list number of days exceeded for each sample:		

9. Definitions: U=Not Detected. J=Detected, but below report detection limit. B=Compound found in blank, E=Estimated concentration. NA=Not Applicable		

Additional Comments: _____

Laboratory Manager: _____

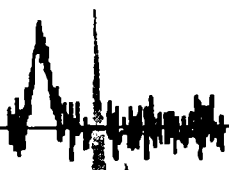
Paul Tarrig

Date: _____

06-28-95

EMSL

GC/MS VOLATILE ORGANIC DATA PACKAGE



5A

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

Lab Name: EMSL ANALYTICAL Contract: _____

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

Lab File ID: C8236.D BFB Injection Date: 05/26/95

Instrument ID: 5972-INSTRUMENT-1 BFB Injection Time: 0953

GC Column DB-62 ID: 0.53 (mm) Heated Purge: (Y / N) _____

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.8
75	30.0 - 60.0% of mass 95	52.3
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	Greater than 50.0% of mass 95	57.2
175	5.0 - 9.0% of mass 174	4.2 (7.4) 1
176	95.0 - 101.0% of mass 174	55.4 (96.9) 1
177	5.0 - 9.0% of mass 176	3.2 (5.8) 2

1-Value is % mass 174

2-Value is % mass 176

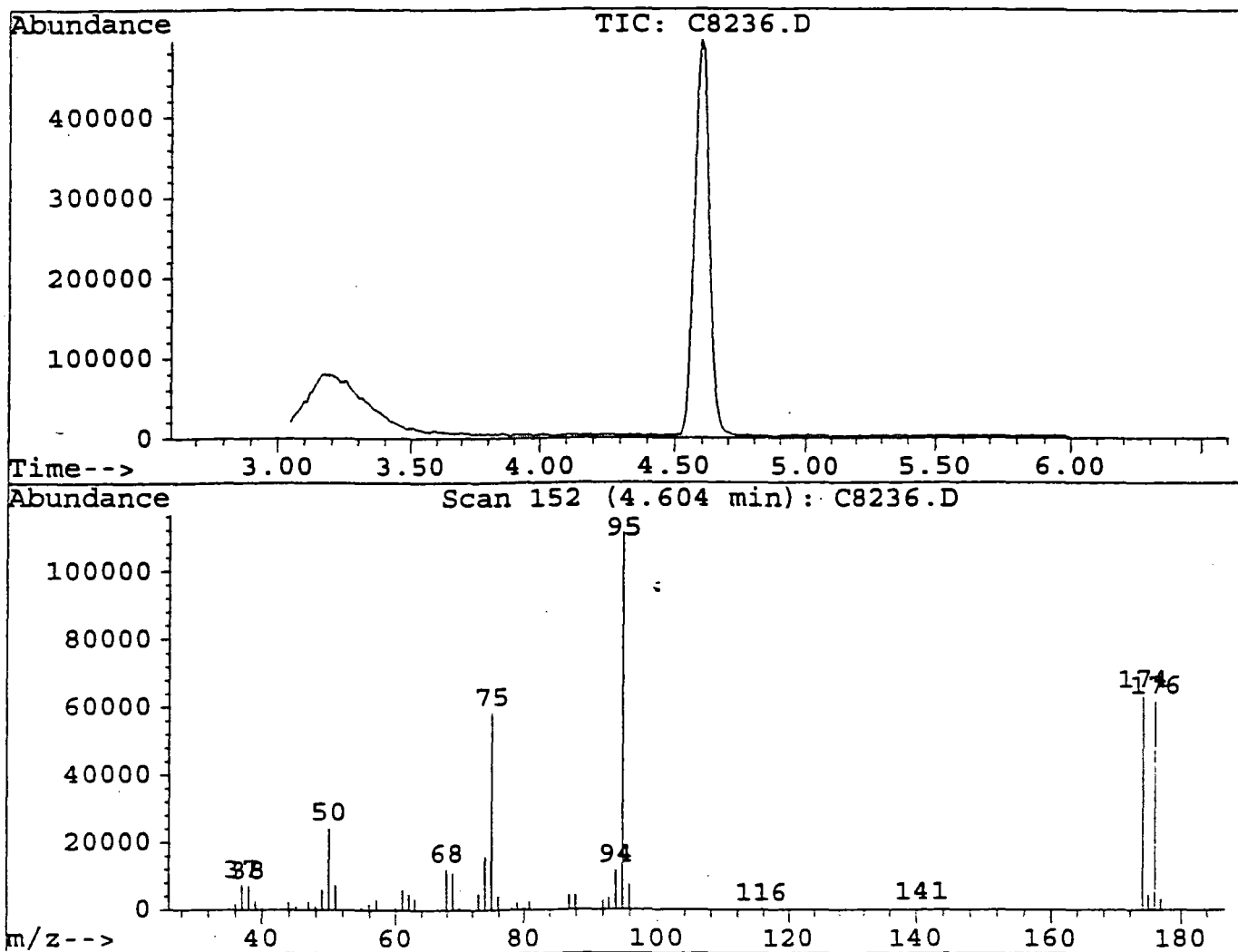
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	4 PPB STANDARD	C8237.D	05/26/95	1035
02	10 PPB STANDARD	C8238.D	05/26/95	1117
03	20 PPB STANDARD	C8239.D	05/26/95	1151
04	30 PPB STANDARD	C8240.D	05/26/95	1226
05	40 PPB STANDARD	C8241.D	05/26/95	1300
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

Data File : D:\HPCHEM\1\DATA\C8236.D
Acq On : 26 May 95 9:53 am
Sample : BFB TUNE
Misc : 25 NG INJECTION

Vial: 1
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics



Peak Apex is scan: 152

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.8	24232	PASS
75	95	30	60	52.3	58152	PASS
95	95	100	100	100.0	111200	PASS
96	95	5	9	6.8	7580	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	57.2	63568	PASS
175	174	5	9	7.4	4678	PASS
176	174	95	101	96.9	61624	PASS
177	176	5	9	5.8	3577	PASS

Scan 152 (4.604 min): C8236.D
BFB TUNE

53

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1948	50.95	7307	72.95	4912	92.05	2865
37.00	7455	54.75	959	73.95	15989	92.95	3574
38.00	7055	55.95	1728	74.95	58152	93.95	11832
39.00	2560	57.00	3162	75.95	4270	94.95	111200
40.00	629	59.90	1118	76.95	625	95.95	7580
43.90	2201	61.00	6169	78.00	812	115.75	506
45.00	1268	62.00	4780	78.90	2214	140.90	844
46.95	2491	62.90	3458	79.90	782	142.80	807
47.95	1002	67.95	12140	80.80	2619	173.95	63568
48.95	6125	68.95	11009	86.90	4356	174.85	4678
49.95	24232	69.95	836	87.95	4439	175.85	61624

Scan 152 (4.604 min): C8236.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.85	3577						

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Fri May 26 16:05:53 1995
 Response via : Initial Calibration

Calibration Files

4 =C8237.D 10 =C8238.D 20 =C8239.D
 30 =C8240.D 40 =C8241.D

Compound		4	10	20	30	40	Avg	%RSD
-----ISTD-----								
1)	Fluorobenzene							
2) M	Dichlorodifluorometha	0.410	0.422	0.387	0.385	0.379	0.396	4.69
3) M	Chloromethane	0.227	0.249	0.227	0.232	0.232	0.233	3.89
4) M	Vinyl chloride	0.262	0.275	0.259	0.260	0.259	0.263	2.58
5) M	Bromomethane	0.193	0.197	0.170	0.166	0.164	0.178	8.95
6) M	Chloroethane	0.164	0.171	0.161	0.152	0.122	0.154	12.48
7) M	Trichlorofluoromethan	0.583	0.600	0.585	0.589	0.581	0.588	1.25
8) M	1,1-Dichloroethene	0.255	0.266	0.258	0.257	0.254	0.258	1.92
9) M	Methylene chloride		0.352	0.271	0.240	0.232	0.274	19.95
10) M	trans-1,2-Dichloroeth	0.274	0.279	0.270	0.271	0.270	0.273	1.39
11)	Hexane						0.000#	-1.00
12) M	1,1-Dichloroethane	0.547	0.545	0.539	0.543	0.552	0.545	0.89
13) M	2,2-Dichloropropane	0.561	0.546	0.527	0.525	0.514	0.534	3.50
14) M	cis-1,2-Dichloroethen	0.263	0.262	0.253	0.251	0.256	0.257	2.11
15)	2-Butanone						0.000#	-1.00
16) M	Bromochloromethane	0.089	0.088	0.089	0.089	0.094	0.090	2.82
17) M	Chloroform	0.511	0.509	0.507	0.507	0.524	0.512	1.38
18) M	1,1,1-Trichloroethane	0.573	0.566	0.561	0.564	0.567	0.566	0.77
19) M	Carbon tetrachloride	0.537	0.520	0.520	0.526	0.526	0.526	1.35
20) M	1,1-Dichloropropene	0.498	0.506	0.486	0.494	0.488	0.495	1.59
21) M	Benzene	0.874	0.885	0.858	0.866	0.870	0.871	1.14
22) M	1,2-Dichloroethane	0.206	0.210	0.214	0.214	0.225	0.214	3.36
23) M	Trichloroethene	0.387	0.388	0.383	0.386	0.386	0.386	0.51
24) M	1,2-Dichloropropane	0.282	0.281	0.283	0.286	0.293	0.285	1.76
25) M	Dibromomethane	0.112	0.113	0.112	0.117	0.124	0.115	4.28
26) M	Bromodichloromethane	0.388	0.385	0.398	0.397	0.412	0.396	2.72
27) M	cis-1,3-Dichloroprope	0.338	0.335	0.343	0.340	0.356	0.342	2.38
28) M	Toluene	0.646	0.605	0.610	0.613	0.619	0.619	2.61
29) M	trans-1,3-Dichloropro	0.226	0.229	0.236	0.239	0.252	0.236	4.31
30) M	1,1,2-Trichloroethane	0.107	0.107	0.109	0.110	0.118	0.110	4.12
31) M	Tetrachloroethene	0.395	0.386	0.380	0.388	0.389	0.388	1.40
32) M	1,3-Dichloropropane	0.217	0.213	0.221	0.218	0.226	0.219	2.24
33) M	Dibromochloromethane	0.208	0.205	0.215	0.216	0.231	0.215	4.72
34) M	1,2-Dibromomethane	0.145	0.145	0.153	0.153	0.166	0.152	5.54
35) M	Chlorobenzene	0.650	0.638	0.636	0.640	0.657	0.644	1.38
36) M	1,1,1,2-Tetrachloroet	0.256	0.247	0.253	0.257	0.265	0.256	2.62
37) M	Ethylbenzene	1.316	1.279	1.288	1.308	1.320	1.302	1.38
38) M	Xylene (para & meta)	0.479	0.463	0.465	0.465	0.466	0.468	1.38
39) M	Xylene (Ortho)	0.417	0.409	0.412	0.413	0.418	0.414	0.93
40) M	Styrene	0.634	0.626	0.639	0.643	0.663	0.641	2.12
41) M	Bromoform	0.098	0.099	0.107	0.106	0.117	0.105	7.26
42) M	Isopropylbenzene	1.330	1.302	1.317	1.350	1.352	1.330	1.60
43) S	4-Bromofluorobenzene	0.498	0.480	0.493	0.500	0.522	0.499	3.05

(#) = Out of Range

VOA524.M

Fri May 26 16:06:32 1995

VOA

Page 1

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Fri May 26 16:05:53 1995
 Response via : Initial Calibration

Calibration Files

4 =C8237.D 10 =C8238.D 20 =C8239.D
 30 =C8240.D 40 =C8241.D

	Compound	4	10	20	30	40	Avg	%RSD
44) M	Bromobenzene	0.236	0.232	0.239	0.242	0.251	0.240	3.08
45) M	1,1,2,2-Tetrachloroet	0.110	0.112	0.121	0.120	0.127	0.118	6.04
46) M	1,2,3-Trichloropropan	0.143	0.138	0.144	0.141	0.150	0.143	2.93
47) M	n-Propylbenzene	1.736	1.684	1.719	1.754	1.761	1.731	1.79
48) M	2-Chlorotoluene	0.967	0.923	0.956	0.968	0.988	0.960	2.50
49) M	4-Chlorotoluene	1.153	1.113	1.108	1.151	1.176	1.140	2.54
50) M	1,3,5-Trimethylbenzen	1.107	1.066	1.095	1.117	1.122	1.101	2.04
51) M	tert-Butylbenzene	1.149	1.111	1.135	1.158	1.157	1.142	1.71
52) M	1,2,4-Trimethylbenzen	1.012	0.993	1.014	1.002	1.025	1.009	1.21
53) M	sec-Butylbenzene	1.707	1.634	1.688	1.722	1.715	1.693	2.10
54) M	1,3-Dichlorobenzene	0.481	0.468	0.490	0.495	0.511	0.489	3.28
55) M	4-Isopropyltoluene	1.257	1.228	1.267	1.280	1.290	1.264	1.88
56) M	1,4-Dichlorobenzene	0.483	0.464	0.482	0.487	0.510	0.485	3.39
57) S	1,2-Dichlorobenzene-d	0.223	0.219	0.228	0.230	0.238	0.228	3.15
58) M	1,2-Dichlorobenzene	0.371	0.351	0.359	0.366	0.374	0.364	2.53
59) M	n-Butylbenzene	1.362	1.297	1.353	1.381	1.382	1.355	2.55
60) M	1,2-Dibromo-3-chlorop	0.027	0.027	0.030	0.031	0.034	0.030	10.29
61) M	1,2,4-Trichlorobenzen	0.254	0.256	0.266	0.271	0.293	0.268	5.88
62) M	Hexachlorobutadiene	0.317	0.304	0.330	0.331	0.334	0.323	3.81
63) M	Naphthalene	0.219	0.220	0.225	0.233	0.262	0.232	7.66
64) M	1,2,3-Trichlorobenzen	0.183	0.175	0.184	0.186	0.207	0.187	6.31
65)	Methyl-tert butyl eth	0.289	0.286	0.292	0.288	0.306	0.292	2.82
66)	tert-Butyl Alcohol		0.004	0.005	0.005	0.005	0.004	8.73

Quantitation Report

56

Data File : d:\hpchem\1\data\c8237.d
 Acq On : 26 May 95 10:35 am
 Sample : 4 PPB STANDARD
 Misc :
 Quant Time: May 26 15:22 1995

Vial: 2
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Fri May 26 16:05:53 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	695393	5.00	ug/L	-0.09

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.10	95	138448	2.12	ug/L	42.31%
57) 1,2-Dichlorobenzene-d4	21.88	152	62134	1.72	ug/L	34.47%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.28	85	227954	3.55	ug/L	92
3) Chloromethane	3.65	50	126260	3.35	ug/L	100
4) Vinyl chloride	3.86	62	145560	3.46	ug/L	97
5) Bromomethane	4.54	94	107256	3.74	ug/L	100
6) Chloroethane	4.76	64	91319	3.57	ug/L	90
7) Trichlorofluoromethane	5.35	101	324396	3.90	ug/L	91
8) 1,1-Dichloroethene	6.42	96	141941	3.68	ug/L	98
9) Methylene chloride	7.41	84	319236	9.50	ug/L	100
10) trans-1,2-Dichloroethene	7.97	96	152530	3.73	ug/L	94
12) 1,1-Dichloroethane	8.76	63	304419	3.74	ug/L	95
13) 2,2-Dichloropropane	9.82	77	311983	4.42	ug/L	99
14) cis-1,2-Dichloroethene	9.82	96	146539	3.80	ug/L	99
16) Bromochloromethane	10.24	128	49545	3.27	ug/L	88
17) Chloroform	10.40	83	284036	3.95	ug/L	99
18) 1,1,1-Trichloroethane	10.73	97	318569	4.20	ug/L	98
19) Carbon tetrachloride	11.03	117	299000	4.01	ug/L	97
20) 1,1-Dichloropropene	11.01	75	277299	3.91	ug/L	96
21) Benzene	11.35	78	486262	3.81	ug/L	99
22) 1,2-Dichloroethane	11.36	62	114527	4.02	ug/L	98
23) Trichloroethene	12.48	95	215417	3.81	ug/L	92
24) 1,2-Dichloropropane	12.83	63	156823	3.58	ug/L	99
25) Dibromomethane	13.02	93	62165	3.54	ug/L	95
26) Bromodichloromethane	13.30	83	215761	3.85	ug/L	95
27) cis-1,3-Dichloropropene	14.06	75	187920	3.78	ug/L	99
28) Toluene	14.64	92	359379	4.19	ug/L	98
29) trans-1,3-Dichloropropene	14.99	75	125469	3.72	ug/L	96
30) 1,1,2-Trichloroethane	15.30	83	59496	3.61	ug/L	98
31) Tetrachloroethene	15.60	166	219930	3.61	ug/L	90
32) 1,3-Dichloropropane	15.58	76	120535	3.72	ug/L	100
33) Dibromochloromethane	15.99	129	115733	3.36	ug/L	99
34) 1,2-Dibromomethane	16.19	107	80701	3.46	ug/L	99
35) Chlorobenzene	17.07	112	361810	3.72	ug/L	96
36) 1,1,1,2-Tetrachloroethane	17.20	131	142326	3.50	ug/L	95
37) Ethylbenzene	17.26	91	732369	4.06	ug/L	98
38) Xylene (para & meta)	17.47	106	533017	7.95	ug/L	92
39) Xylene (Ortho)	18.17	106	231743	3.89	ug/L	90
40) Styrene	18.18	104	352838	3.78	ug/L	87

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

Quantitation Report

57

Data File : d:\hpcchem\1\data\c8237.d
Acq On : 26 May 95 10:35 am
Sample : 4 PPB STANDARD
Misc :
Quant Time: May 26 15:22 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.51	173	54547	3.31	ug/L	97
42) Isopropylbenzene	18.83	105	739665	3.93	ug/L	89
44) Bromobenzene	19.38	156	131056	3.44	ug/L #	86
45) 1,1,2,2-Tetrachloroethane	19.32	83	61247	3.65	ug/L	98
46) 1,2,3-Trichloropropane	19.40	75	79406	3.74	ug/L	97
47) n-Propylbenzene	19.56	91	965762	4.01	ug/L	99
48) 2-Chlorotoluene	19.73	91	538039	4.23	ug/L	92
49) 4-Chlorotoluene	19.91	91	641340	4.20	ug/L m	96
50) 1,3,5-Trimethylbenzene	19.88	105	616118	4.04	ug/L	96
51) tert-Butylbenzene	20.48	119	639160	3.80	ug/L	88
52) 1,2,4-Trimethylbenzene	20.57	105	562733	3.89	ug/L	91
53) sec-Butylbenzene	20.88	105	949602	3.96	ug/L	97
54) 1,3-Dichlorobenzene	21.08	146	267522	3.41	ug/L	98
55) 4-Isopropyltoluene	21.14	119	699174	3.73	ug/L	95
56) 1,4-Dichlorobenzene	21.23	146	268966	3.43	ug/L m	96
58) 1,2-Dichlorobenzene	21.91	146	206476	3.45	ug/L	95
59) n-Butylbenzene	21.89	91	757856	3.95	ug/L	95
60) 1,2-Dibromo-3-chloropropan	23.32	75	15013	3.81	ug/L	81
61) 1,2,4-Trichlorobenzene	24.89	180	141353	3.40	ug/L	93
62) Hexachlorobutadiene	25.23	225	176270	4.13	ug/L	97
63) Naphthalene	25.35	128	122077	3.12	ug/L	100
64) 1,2,3-Trichlorobenzene	25.82	180	101707	3.60	ug/L	99
65) Methyl-tert butyl ether	8.01	73	160639	4.38	ug/L #	100
66) tert-Butyl Alcohol	7.72	59	2491	0.68	ug/L m	100

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

Quantitation Report

58

Data File : d:\hpcchem\1\data\c8238.d
 Acq On : 26 May 95 11:17 am
 Sample : 10 PPB STANDARD
 Misc :
 Quant Time: May 26 15:59 1995

Vial: 3
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Fri May 26 16:05:53 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.84	96	770985	5.00	ug/L	-0.09
System Monitoring Compounds				%Recovery		
43) 4-Bromofluorobenzene	19.09	95	370331	5.10	ug/L	102.07%
57) 1,2-Dichlorobenzene-d4	21.88	152	169129	4.23	ug/L	84.62%
Target Compounds				Qvalue		
2) Dichlorodifluoromethane	3.28	85	650612	9.13	ug/L	100
3) Chloromethane	3.64	50	383966	9.18	ug/L	96
4) Vinyl chloride	3.87	62	423851	9.09	ug/L	98
5) Bromomethane	4.52	94	303978	9.57	ug/L	93
6) Chloroethane	4.76	64	264421	9.32	ug/L	94
7) Trichlorofluoromethane	5.34	101	924458	10.04	ug/L	100
8) 1,1-Dichloroethene	6.42	96	410654	9.60	ug/L	96
9) Methylene chloride	7.41	84	542259	14.55	ug/L m	99
10) trans-1,2-Dichloroethene	7.97	96	429522	9.48	ug/L	100
12) 1,1-Dichloroethane	8.76	63	840489	9.32	ug/L	97
13) 2,2-Dichloropropane	9.83	77	841576	10.74	ug/L	96
14) cis-1,2-Dichloroethene	9.83	96	403406	9.42	ug/L	98
16) Bromochloromethane	10.24	128	135650	8.08	ug/L #	88
17) Chloroform	10.40	83	785334	9.85	ug/L	99
18) 1,1,1-Trichloroethane	10.73	97	873470	10.39	ug/L	99
19) Carbon tetrachloride	11.03	117	801421	9.70	ug/L	100
20) 1,1-Dichloropropene	11.01	75	780145	9.93	ug/L	96
21) Benzene	11.35	78	1364187	9.64	ug/L	99
22) 1,2-Dichloroethane	11.36	62	323971	10.26	ug/L	99
23) Trichloroethene	12.48	95	597831	9.52	ug/L	92
24) 1,2-Dichloropropane	12.83	63	432807	8.91	ug/L	99
25) Dibromomethane	13.03	93	174304	8.95	ug/L	99
26) Bromodichloromethane	13.29	83	593524	9.55	ug/L	96
27) cis-1,3-Dichloropropene	14.06	75	516054	9.37	ug/L	96
28) Toluene	14.64	92	932739	9.81	ug/L	100
29) trans-1,3-Dichloropropene	14.98	75	353858	9.46	ug/L	95
30) 1,1,2-Trichloroethane	15.30	83	165554	9.05	ug/L	98
31) Tetrachloroethene	15.61	166	594723	8.81	ug/L	97
32) 1,3-Dichloropropane	15.58	76	328378	9.15	ug/L	99
33) Dibromochloromethane	15.99	129	315396	8.25	ug/L	98
34) 1,2-Dibromomethane	16.19	107	223316	8.62	ug/L	93
35) Chlorobenzene	17.07	112	983363	9.11	ug/L	94
36) 1,1,1,2-Tetrachloroethane	17.20	131	380569	8.45	ug/L m	0
37) Ethylbenzene	17.26	91	1971808	9.86	ug/L	99
38) Xylene (para & meta)	17.47	106	1428718	19.21	ug/L	96
39) Xylene (Ortho)	18.17	106	630244	9.53	ug/L	96
40) Styrene	18.19	104	965656	9.34	ug/L	94

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

Quantitation Report

59

Data File : d:\hpchem\1\data\c8238.d
Acq On : 26 May 95 11:17 am
Sample : 10 PPB STANDARD
Misc :
Quant Time: May 26 15:59 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.51	173	153005	8.38	ug/L m	0
42) Isopropylbenzene	18.83	105	2008385	9.63	ug/L m	45
44) Bromobenzene	19.38	156	357587	8.46	ug/L	94
45) 1,1,2,2-Tetrachloroethane	19.32	83	171968	9.24	ug/L	97
46) 1,2,3-Trichloropropane	19.40	75	213285	9.05	ug/L	98
47) n-Propylbenzene	19.57	91	2596029	9.72	ug/L	97
48) 2-Chlorotoluene	19.73	91	1422833	10.08	ug/L	95
49) 4-Chlorotoluene	19.91	91	1716410	10.14	ug/L m	98
50) 1,3,5-Trimethylbenzene	19.89	105	1643038	9.71	ug/L	98
51) tert-Butylbenzene	20.48	119	1713787	9.19	ug/L	90
52) 1,2,4-Trimethylbenzene	20.56	105	1530473	9.54	ug/L	94
53) sec-Butylbenzene	20.88	105	2518935	9.48	ug/L	98
54) 1,3-Dichlorobenzene	21.08	146	722076	8.30	ug/L	96
55) 4-Isopropyltoluene	21.14	119	1893823	9.12	ug/L	95
56) 1,4-Dichlorobenzene	21.24	146	715067	8.22	ug/L m	94
58) 1,2-Dichlorobenzene	21.91	146	541575	8.16	ug/L	95
59) n-Butylbenzene	21.89	91	2000405	9.41	ug/L	96
60) 1,2-Dibromo-3-chloropropan	23.31	75	41781	9.56	ug/L	95
61) 1,2,4-Trichlorobenzene	24.89	180	394479	8.55	ug/L	99
62) Hexachlorobutadiene	25.23	225	469504	9.93	ug/L	98
63) Naphthalene	25.34	128	339645	7.82	ug/L	100
64) 1,2,3-Trichlorobenzene	25.81	180	269640	8.61	ug/L	95
65) Methyl-tert butyl ether	7.99	73	440628	10.83	ug/L #	100
66) tert-Butyl Alcohol	7.72	59	12035	2.96	ug/L	100

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

c8238.d VOA524.M

Fri May 26 16:08:21 1995

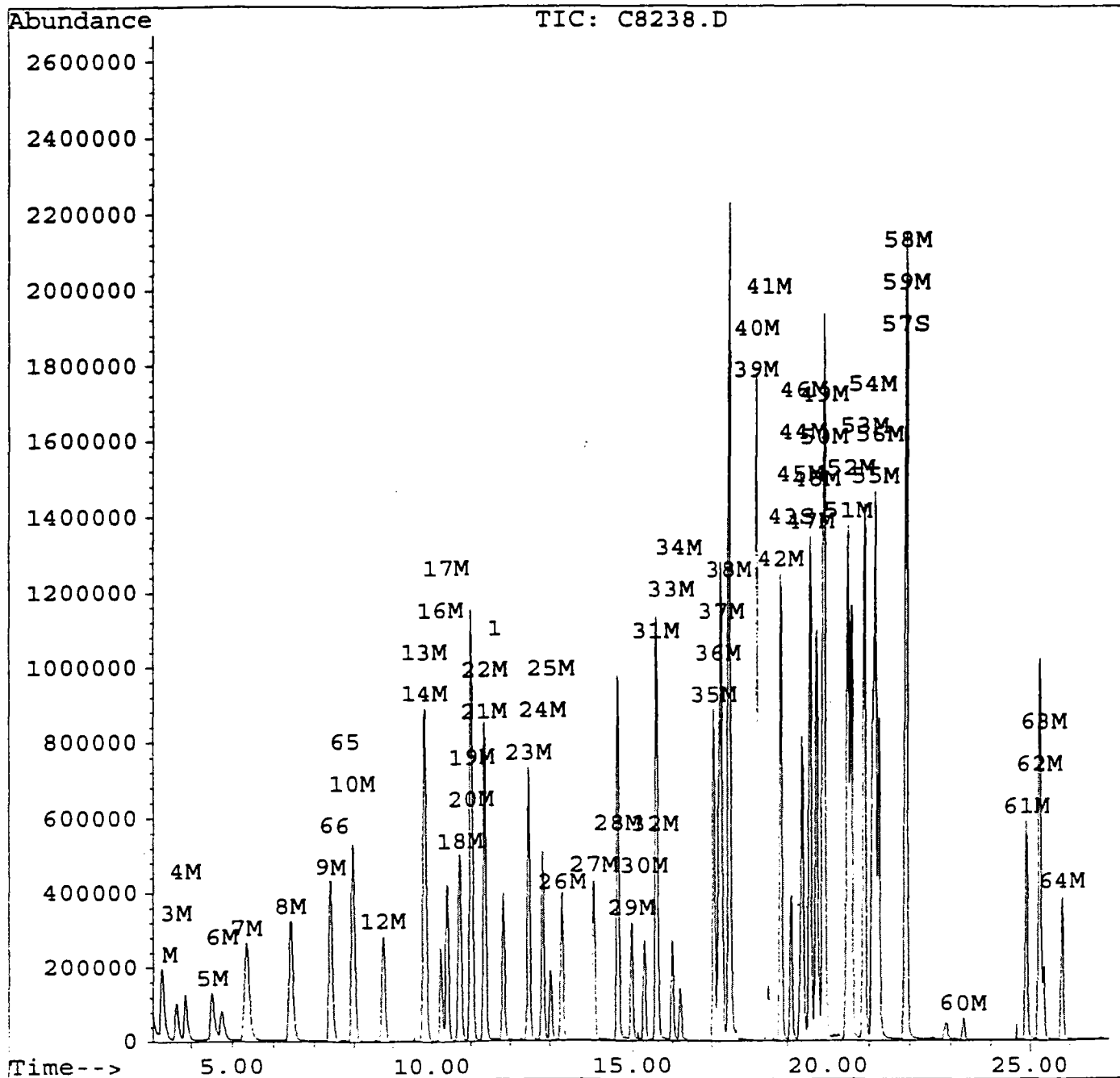
VOA

Page 2

Data File : d:\hpchem\1\data\c8238.d
Acq On : 26 May 95 11:17 am
Sample : 10 PPB STANDARD
Misc :
Quant Time: May 26 15:59 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8239.d
 Acq On : 26 May 95 11:51 am
 Sample : 20 PPB STANDARD
 Misc :
 Quant Time: May 26 15:53 1995

Vial: 4
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

61

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Fri May 26 16:05:53 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.84	96	715239	5.00	ug/L	-0.09

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.10	95	705539	10.48	ug/L	209.62%
57) 1,2-Dichlorobenzene-d4	21.88	152	325789	8.79	ug/L	175.71%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.29	85	1105977	16.74	ug/L	99
3) Chloromethane	3.66	50	650013	16.75	ug/L	99
4) Vinyl chloride	3.89	62	740002	17.11	ug/L	100
5) Bromomethane	4.52	94	485674	16.48	ug/L	93
6) Chloroethane	4.74	64	459311	17.45	ug/L	92
7) Trichlorofluoromethane	5.35	101	1674654	19.60	ug/L	95
8) 1,1-Dichloroethene	6.43	96	738739	18.61	ug/L	98
9) Methylene chloride	7.40	84	775969	22.45	ug/L	96
10) trans-1,2-Dichloroethene	7.98	96	771488	18.36	ug/L	100
12) 1,1-Dichloroethane	8.76	63	1541660	18.42	ug/L	99
13) 2,2-Dichloropropane	9.84	77	1507599	20.74	ug/L	95
14) cis-1,2-Dichloroethene	9.83	96	723609	18.22	ug/L	95
16) Bromochloromethane	10.24	128	255840	16.43	ug/L #	87
17) Chloroform	10.40	83	1450799	19.62	ug/L m	0
18) 1,1,1-Trichloroethane	10.72	97	1604334	20.57	ug/L m	0
19) Carbon tetrachloride	11.03	117	1488607	19.42	ug/L	99
20) 1,1-Dichloropropene	11.01	75	1391827	19.09	ug/L	99
21) Benzene	11.36	78	2454890	18.69	ug/L	98
22) 1,2-Dichloroethane	11.36	62	611769	20.89	ug/L	98
23) Trichloroethene	12.48	95	1094910	18.80	ug/L	90
24) 1,2-Dichloropropane	12.84	63	809803	17.96	ug/L	99
25) Dibromomethane	13.03	93	321601	17.80	ug/L	98
26) Bromodichloromethane	13.30	83	1137821	19.73	ug/L	96
27) cis-1,3-Dichloropropene	14.05	75	981011	19.20	ug/L	95
28) Toluene	14.64	92	1745202	19.79	ug/L	98
29) trans-1,3-Dichloropropene	14.98	75	675693	19.48	ug/L m	53
30) 1,1,2-Trichloroethane	15.30	83	312764	18.44	ug/L	95
31) Tetrachloroethene	15.61	166	1088014	17.38	ug/L	97
32) 1,3-Dichloropropane	15.59	76	630863	18.95	ug/L	96
33) Dibromochloromethane	16.00	129	614117	17.31	ug/L	97
34) 1,2-Dibromomethane	16.20	107	438464	18.25	ug/L	97
35) Chlorobenzene	17.06	112	1819994	18.18	ug/L	94
36) 1,1,1,2-Tetrachloroethane	17.20	131	725017	17.35	ug/L m	0
37) Ethylbenzene	17.26	91	3685485	19.86	ug/L	98
38) Xylene (para & meta)	17.47	106	2660124	38.56	ug/L	90
39) Xylene (Ortho)	18.17	106	1177400	19.20	ug/L	88
40) Styrene	18.19	104	1828264	19.06	ug/L	91

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

Quantitation Report

Data File : d:\hpcchem\1\data\c8239.d
Acq On : 26 May 95 11:51 am
Sample : 20 PPB STANDARD
Misc :
Quant Time: May 26 15:53 1995

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

62

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.50	173	304765	18.00	ug/L m	0
42) Isopropylbenzene	18.83	105	3768696	19.48	ug/L m	45
44) Bromobenzene	19.37	156	682381	17.40	ug/L #	89
45) 1,1,2,2-Tetrachloroethane	19.32	83	345604	20.02	ug/L	97
46) 1,2,3-Trichloropropane	19.39	75	411958	18.84	ug/L	97
47) n-Propylbenzene	19.57	91	4919179	19.86	ug/L	98
48) 2-Chlorotoluene	19.72	91	2734593	20.88	ug/L	93
49) 4-Chlorotoluene	19.91	91	3170150	20.18	ug/L	92
50) 1,3,5-Trimethylbenzene	19.89	105	3133027	19.95	ug/L	97
51) tert-Butylbenzene	20.48	119	3247650	18.76	ug/L	89
52) 1,2,4-Trimethylbenzene	20.56	105	2901790	19.49	ug/L	97
53) sec-Butylbenzene	20.88	105	4827977	19.58	ug/L	99
54) 1,3-Dichlorobenzene	21.08	146	1403188	17.40	ug/L	97
55) 4-Isopropyltoluene	21.15	119	3624786	18.82	ug/L	95
56) 1,4-Dichlorobenzene	21.24	146	1378003	17.08	ug/L m	96
58) 1,2-Dichlorobenzene	21.91	146	1028245	16.71	ug/L	97
59) n-Butylbenzene	21.89	91	3870404	19.62	ug/L	97
60) 1,2-Dibromo-3-chloropropan	23.31	75	87006	21.47	ug/L	87
61) 1,2,4-Trichlorobenzene	24.89	180	759956	17.76	ug/L	99
62) Hexachlorobutadiene	25.23	225	943039	21.49	ug/L	97
63) Naphthalene	25.33	128	643210	15.97	ug/L	100
64) 1,2,3-Trichlorobenzene	25.81	180	527272	18.16	ug/L	99
65) Methyl-tert butyl ether	8.01	73	836258	22.17	ug/L #	100
66) tert-Butyl Alcohol	7.73	59	26154	6.93	ug/L	100

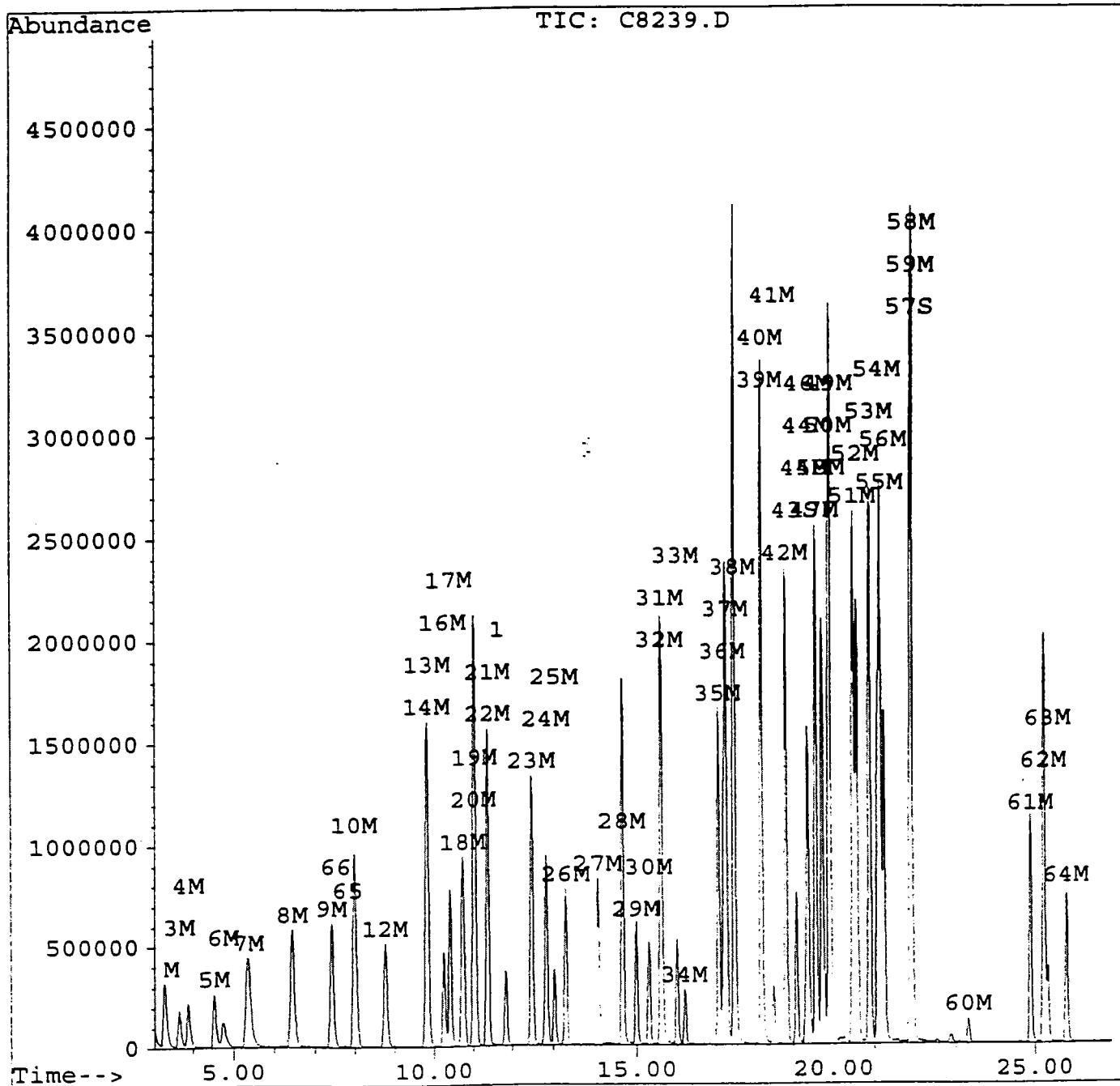
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8239.d
 Acq On : 26 May 95 11:51 am
 Sample : 20 PPB STANDARD
 Misc :
 Quant Time: May 26 15:53 1995

Vial: 4 63
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Fri May 26 16:05:53 1995
 Response via : Multiple Level Calibration



Quantitation Report

64

Data File : d:\hpcchem\1\data\c8240.d
 Acq On : 26 May 95 12:26 pm
 Sample : 30 PPB STANDARD
 Misc :
 Quant Time: May 26 15:31 1995

Vial: 5
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Fri May 26 16:05:53 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.83	96	707858	5.00	ug/L	-0.10
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.09	95	1062620	15.95	ug/L	319.00%
57) 1,2-Dichlorobenzene-d4	21.88	152	489408	13.34	ug/L	266.70%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.29	85	1634270	24.99	ug/L	98
3) Chloromethane	3.66	50	984170	25.63	ug/L	100
4) Vinyl chloride	3.88	62	1106079	25.84	ug/L	100
5) Bromomethane	4.50	94	702972	24.10	ug/L	92
6) Chloroethane	4.72	64	647108	24.84	ug/L	99
7) Trichlorofluoromethane	5.32	101	2502534	29.59	ug/L	99
8) 1,1-Dichloroethene	6.42	96	1092314	27.81	ug/L	94
9) Methylene chloride	7.40	84	1020488	29.83	ug/L	97
10) trans-1,2-Dichloroethene	7.96	96	1150685	27.67	ug/L	95
12) 1,1-Dichloroethane	8.76	63	2307375	27.86	ug/L	98
13) 2,2-Dichloropropane	9.83	77	2228288	30.98	ug/L	97
14) cis-1,2-Dichloroethene	9.83	96	1065313	27.11	ug/L	93
16) Bromochloromethane	10.24	128	379255	24.61	ug/L	# 82
17) Chloroform	10.40	83	2154764	29.45	ug/L	99
18) 1,1,1-Trichloroethane	10.72	97	2396695	31.05	ug/L	99
19) Carbon tetrachloride	11.03	117	2233730	29.45	ug/L	100
20) 1,1-Dichloropropene	11.02	75	2098843	29.09	ug/L	98
21) Benzene	11.36	78	3677001	28.29	ug/L	99
22) 1,2-Dichloroethane	11.37	62	906868	31.29	ug/L	98
23) Trichloroethene	12.48	95	1640085	28.46	ug/L	91
24) 1,2-Dichloropropane	12.83	63	1214345	27.22	ug/L	100
25) Dibromomethane	13.03	93	494826	27.67	ug/L	97
26) Bromodichloromethane	13.30	83	1685621	29.53	ug/L	m 66
27) cis-1,3-Dichloropropene	14.06	75	1443936	28.55	ug/L	m 0
28) Toluene	14.64	92	2604382	29.84	ug/L	97
29) trans-1,3-Dichloropropene	14.98	75	1013926	29.53	ug/L	98
30) 1,1,2-Trichloroethane	15.30	83	468063	27.88	ug/L	99
31) Tetrachloroethene	15.60	166	1648174	26.60	ug/L	97
32) 1,3-Dichloropropane	15.58	76	925183	28.08	ug/L	100
33) Dibromochloromethane	16.00	129	918828	26.18	ug/L	99
34) 1,2-Dibromomethane	16.19	107	650390	27.36	ug/L	94
35) Chlorobenzene	17.07	112	2720037	27.45	ug/L	m 0
36) 1,1,1,2-Tetrachloroethane	17.20	131	1093624	26.44	ug/L	m 0
37) Ethylbenzene	17.26	91	5555166	30.24	ug/L	97
38) Xylene (para & meta)	17.47	106	3951154	57.87	ug/L	91
39) Xylene (Ortho)	18.17	106	1755270	28.92	ug/L	92
40) Styrene	18.18	104	2731131	28.76	ug/L	87

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

Quantitation Report

Data File : d:\hpchem\1\data\c8240.d
Acq On : 26 May 95 12:26 pm
Sample : 30 PPB STANDARD
Misc :
Quant Time: May 26 15:31 1995

Vial: 5 65
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.50	173	450885	26.90	ug/L m	0
42) Isopropylbenzene	18.83	105	5734485	29.95	ug/L m	45
44) Bromobenzene	19.37	156	1026534	26.45	ug/L #	88
45) 1,1,2,2-Tetrachloroethane	19.33	83	508409	29.75	ug/L m	0
46) 1,2,3-Trichloropropane	19.39	75	599222	27.69	ug/L #	57
47) n-Propylbenzene	19.57	91	7449042	30.39	ug/L	99
48) 2-Chlorotoluene	19.73	91	4112354	31.73	ug/L	93
49) 4-Chlorotoluene	19.91	91	4889333	31.45	ug/L m	98
50) 1,3,5-Trimethylbenzene	19.88	105	4744702	30.53	ug/L	95
51) tert-Butylbenzene	20.48	119	4918253	28.71	ug/L	86
52) 1,2,4-Trimethylbenzene	20.56	105	4256753	28.89	ug/L	95
53) sec-Butylbenzene	20.88	105	7312067	29.96	ug/L	99
54) 1,3-Dichlorobenzene	21.08	146	2102035	26.33	ug/L	97
55) 4-Isopropyltoluene	21.14	119	5435557	28.52	ug/L	94
56) 1,4-Dichlorobenzene	21.23	146	2067871	25.90	ug/L m	96
58) 1,2-Dichlorobenzene	21.91	146	1555987	25.55	ug/L m	44
59) n-Butylbenzene	21.89	91	5865257	30.04	ug/L	97
60) 1,2-Dibromo-3-chloropropan	23.32	75	130755	32.60	ug/L	85
61) 1,2,4-Trichlorobenzene	24.89	180	1151444	27.19	ug/L	97
62) Hexachlorobutadiene	25.22	225	1405948	32.37	ug/L	97
63) Naphthalene	25.34	128	988735	24.80	ug/L	100
64) 1,2,3-Trichlorobenzene	25.81	180	788297	27.43	ug/L	97
65) Methyl-tert butyl ether	8.01	73	1221403	32.71	ug/L #	100
66) tert-Butyl Alcohol	7.76	59	39667	10.62	ug/L	100

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

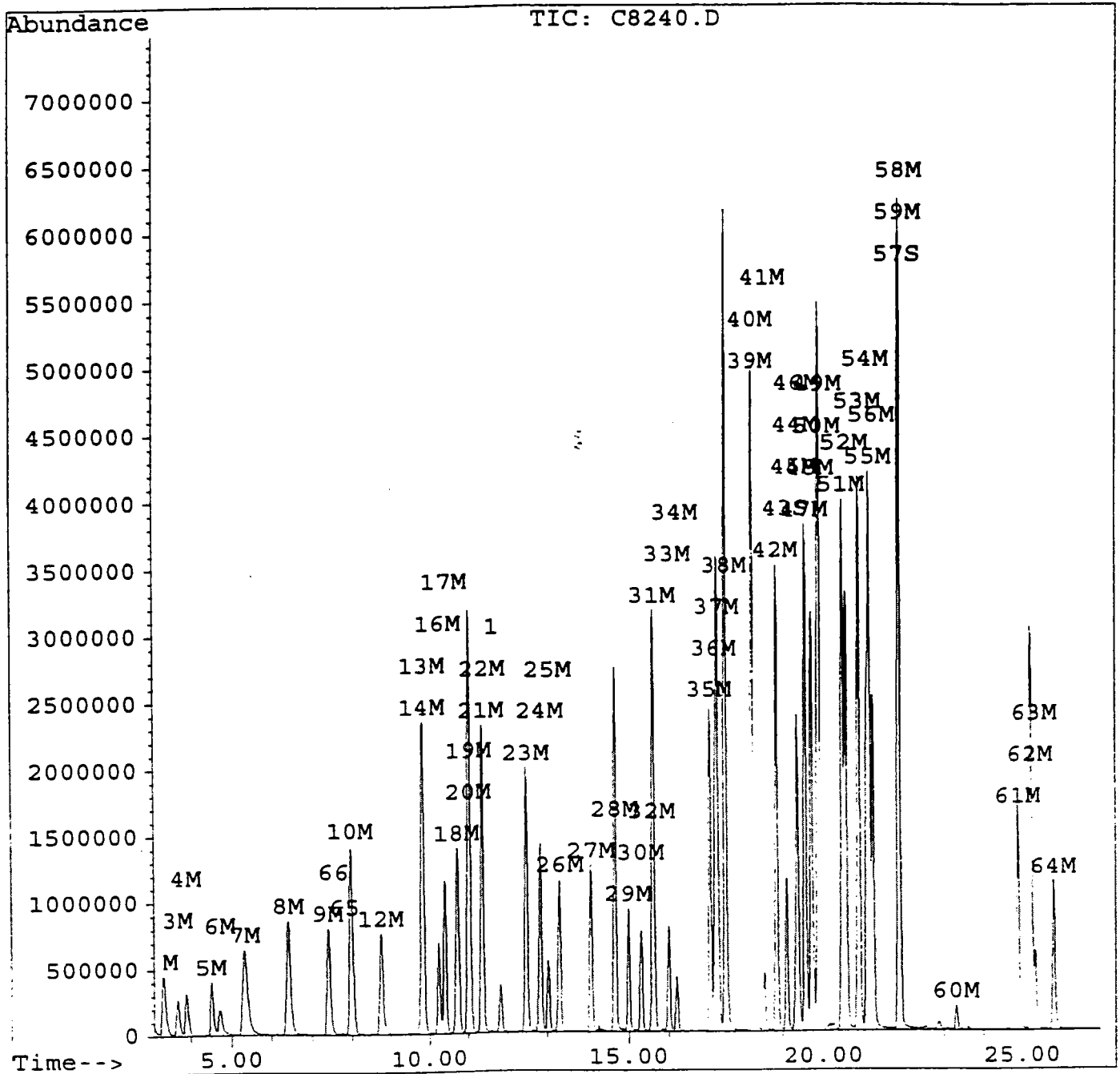
Quantitation Report

66

Data File : d:\hpchem\1\data\c8240.d
 Acq On : 26 May 95 12:26 pm
 Sample : 30 PPB STANDARD
 Misc :
 Quant Time: May 26 15:31 1995

Vial: 5
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Fri May 26 16:05:53 1995
 Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8241.d
 Acq On : 26 May 95 1:00 pm
 Sample : 40 PPB STANDARD
 Misc :
 Quant Time: May 26 15:35 1995

Vial: 6
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Fri May 26 16:05:53 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.83	96	677208	5.00	ug/L	-0.10

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.10	95	1414597	22.19	ug/L	443.88%
57) 1,2-Dichlorobenzene-d4	21.88	152	645268	18.38	ug/L	367.55%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.29	85	2050828	32.77	ug/L	99
3) Chloromethane	3.66	50	1255453	34.18	ug/L	98
4) Vinyl chloride	3.88	62	1403518	34.27	ug/L	99
5) Bromomethane	4.50	94	887089	31.79	ug/L	95
6) Chloroethane	4.68	64	660776	26.52	ug/L	99
7) Trichlorofluoromethane	5.29	101	3146458	38.89	ug/L	98
8) 1,1-Dichloroethene	6.40	96	1373656	36.56	ug/L	94
9) Methylene chloride	7.39	84	1256580	38.40	ug/L	93
10) trans-1,2-Dichloroethene	7.96	96	1461616	36.74	ug/L m	0
12) 1,1-Dichloroethane	8.74	63	2990291	37.74	ug/L m	0
13) 2,2-Dichloropropane	9.82	77	2784319	40.46	ug/L	96
14) cis-1,2-Dichloroethene	9.83	96	1387660	36.91	ug/L	95
16) Bromochloromethane	10.23	128	511825	34.71	ug/L #	88
17) Chloroform	10.39	83	2839115	40.56	ug/L	100
18) 1,1,1-Trichloroethane	10.71	97	3074057	41.62	ug/L	100
19) Carbon tetrachloride	11.02	117	2848789	39.26	ug/L	100
20) 1,1-Dichloropropene	11.00	75	2646146	38.33	ug/L	97
21) Benzene	11.35	78	4715775	37.92	ug/L	98
22) 1,2-Dichloroethane	11.36	62	1219926	43.99	ug/L	100
23) Trichloroethene	12.48	95	2092020	37.94	ug/L	92
24) 1,2-Dichloropropane	12.83	63	1588792	37.22	ug/L	100
25) Dibromomethane	13.02	93	670030	39.16	ug/L	97
26) Bromodichloromethane	13.30	83	2234626	40.92	ug/L m	85
27) cis-1,3-Dichloropropene	14.05	75	1927356	39.84	ug/L	97
28) Toluene	14.64	92	3353871	40.17	ug/L	99
29) trans-1,3-Dichloropropene	14.98	75	1365218	41.56	ug/L	97
30) 1,1,2-Trichloroethane	15.30	83	640167	39.86	ug/L	96
31) Tetrachloroethene	15.60	166	2106507	35.54	ug/L	98
32) 1,3-Dichloropropane	15.58	76	1225150	38.86	ug/L	98
33) Dibromochloromethane	15.99	129	1250833	37.25	ug/L	99
34) 1,2-Dibromomethane	16.19	107	896884	39.43	ug/L	97
35) Chlorobenzene	17.07	112	3558221	37.53	ug/L m	0
36) 1,1,1,2-Tetrachloroethane	17.20	131	1437465	36.33	ug/L m	0
37) Ethylbenzene	17.26	91	7148780	40.68	ug/L	98
38) Xylene (para & meta)	17.47	106	5046126	77.25	ug/L	90
39) Xylene (Ortho)	18.17	106	2266726	39.03	ug/L	90
40) Styrene	18.19	104	3590160	39.52	ug/L	90

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

Quantitation Report

68

Data File : d:\hpchem\1\data\c8241.d
Acq On : 26 May 95 1:00 pm
Sample : 40 PPB STANDARD
Misc :
Quant Time: May 26 15:35 1995

Vial: 6
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.51	173	635283	39.62	ug/L m	0
42) Isopropylbenzene	18.83	105	7325849	39.99	ug/L m	45
44) Bromobenzene	19.37	156	1361555	36.68	ug/L #	90
45) 1,1,2,2-Tetrachloroethane	19.32	83	689989	42.21	ug/L m	0
46) 1,2,3-Trichloropropane	19.40	75	810580	39.16	ug/L	97
47) n-Propylbenzene	19.57	91	9540387	40.68	ug/L	98
48) 2-Chlorotoluene	19.73	91	5352127	43.16	ug/L	92
49) 4-Chlorotoluene	19.92	91	6372870	42.85	ug/L m	98
50) 1,3,5-Trimethylbenzene	19.89	105	6077505	40.88	ug/L	95
51) tert-Butylbenzene	20.48	119	6270177	38.26	ug/L	87
52) 1,2,4-Trimethylbenzene	20.56	105	5551247	39.38	ug/L	93
53) sec-Butylbenzene	20.88	105	9291157	39.79	ug/L	97
54) 1,3-Dichlorobenzene	21.08	146	2769985	36.27	ug/L	96
55) 4-Isopropyltoluene	21.15	119	6986951	38.31	ug/L	95
56) 1,4-Dichlorobenzene	21.08	146	2761726	36.15	ug/L	96
58) 1,2-Dichlorobenzene	21.91	146	2026169	34.77	ug/L	97
59) n-Butylbenzene	21.89	91	7484823	40.07	ug/L	96
60) 1,2-Dibromo-3-chloropropan	23.31	75	186592	48.63	ug/L	86
61) 1,2,4-Trichlorobenzene	24.88	180	1588732	39.22	ug/L	98
62) Hexachlorobutadiene	25.23	225	1808777	43.53	ug/L	98
63) Naphthalene	25.32	128	1420685	37.25	ug/L	100
64) 1,2,3-Trichlorobenzene	25.81	180	1119071	40.70	ug/L	100
65) Methyl-tert butyl ether	8.00	73	1658962	46.44	ug/L #	100
66) tert-Butyl Alcohol	7.77	59	51615	14.45	ug/L	100

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

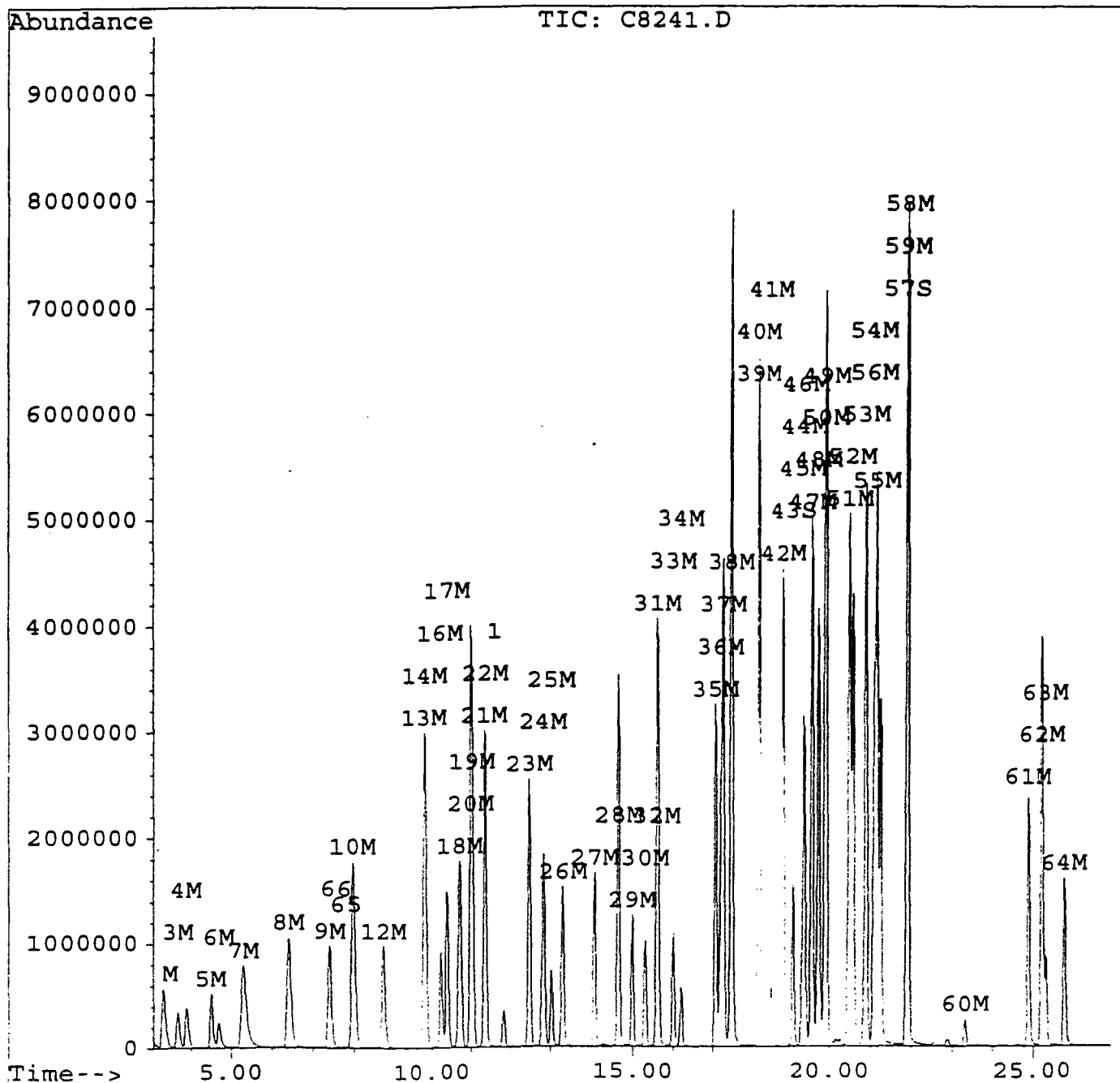
Quantitation Report

69

Data File : d:\hpchem\1\data\c8241.d
Acq On : 26 May 95 1:00 pm
Sample : 40 PPB STANDARD
Misc :
Quant Time: May 26 15:35 1995

Vial: 6
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Fri May 26 16:05:53 1995
Response via : Multiple Level Calibration



m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	829	51.05	5810	73.05	5017	92.05	1999
37.10	5727	56.10	1628	74.05	14058	92.95	3043
38.10	5372	57.10	2662	75.05	43488	94.05	9344
39.10	1981	60.00	1206	76.05	3866	95.05	88944
40.00	781	61.00	4179	77.10	666	96.05	6074
44.00	1746	62.00	3671	78.00	564	140.90	815
45.00	905	63.00	2997	78.90	2208	173.95	46896
47.05	1336	68.05	9926	79.90	654	174.95	3384
48.05	683	69.05	8107	81.00	2024	175.95	46968
49.05	3656	69.95	635	87.00	2385	176.95	3105
50.05	19808	71.95	513	88.05	3711		

VOLATILE CONTINUING CALIBRATION CHECK

73

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: 5972-INSTRUMENT 1Calibration Date: 6/7/95Time: 1655Lab File ID: C8393.DInit. Calib. Date(s): 5/26/95Heated Purge: (Y/N) N

Init. Calib. Times: _____

GC Column: DB-624 X 7ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.396	0.334		15.7	30.0
Chloromethane	0.233	0.197		15.5	30.0
Vinyl chloride	0.263	0.227		13.7	30.0
Bromomethane	0.178	0.164		7.9	30.0
Chloroethane	0.154	0.145		5.8	30.0
Trichlorofluoromethane	0.588	0.533		9.4	30.0
1,1-Dichloroethene	0.258	0.236		8.5	30.0
Methylene chloride	0.274	0.272		0.7	30.0
trans-1,2-Dichloroethene	0.273	0.261		4.4	30.0
1,1-Dichloroethane	0.545	0.526		3.5	30.0
2,2-Dichloropropane	0.534	0.518		3.0	30.0
cis-1,2-Dichloroethene	0.257	0.249		3.1	30.0
Bromochloromethane	0.090	0.089		1.1	30.0
Chloroform	0.512	0.501		2.1	30.0
1,1,1-Trichloroethane	0.566	0.560		1.1	30.0
Carbon tetrachloride	0.526	0.507		3.6	30.0
1,1-Dichloropropene	0.495	0.475		4.0	30.0
Benzene	0.871	0.854		2.0	30.0
1,2-Dichloroethane	0.214	0.223		-4.2	30.0
Trichloroethene	0.386	0.379		1.8	30.0
1,2-Dichloropropane	0.285	0.288		-1.1	30.0
Dibromomethane	0.115	0.119		-3.5	30.0
Bromodichloromethane	0.396	0.406		-2.5	30.0
cis-1,3-Dichloropropene	0.342	0.345		-0.9	30.0
Toluene	0.619	0.618		0.2	30.0
trans-1,3-Dichloropropene	0.236	0.248		-5.1	30.0
1,1,2-Trichloroethane	0.110	0.113		-2.7	30.0
Tetrachloroethene	0.388	0.369		4.9	30.0
1,3-Dichloropropane	0.219	0.235		-7.3	30.0
Dibromochloromethane	0.215	0.221		-2.8	30.0
1,2-Dibromomethane	0.152	0.162		-6.6	30.0
Chlorobenzene	0.644	0.630		2.2	30.0
1,1,1,2-Tetrachloroethane	0.256	0.264		-3.1	30.0
Ethylbenzene	1.302	1.311		-0.7	30.0
Xylene (para & meta)	0.468	0.457		2.4	30.0
Xylene (Ortho)	0.414	0.416		-0.5	30.0

VOLATILE CONTINUING CALIBRATION CHECK

74

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: 5972-INSTRUMENT 1Calibration Date: 6/7/95Time: 1655Lab File ID: C8393.DInit. Calib. Date(s): 5/26/95Heated Purge: (Y/N) N

Init. Calib. Times: _____

GC Column: DB-624 X 7ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Styrene	0.641	0.642		-0.2	30.0
Bromoform	0.105	0.115		-9.5	30.0
Isopropylbenzene	1.330	1.306		1.8	30.0
Bromobenzene	0.240	0.250		-4.2	30.0
1,1,2,2-Tetrachloroethane	0.118	0.136		-15.3	30.0
1,2,3-Trichloropropane	0.143	0.163		-14.0	30.0
n-Propylbenzene	1.731	1.743		-0.7	30.0
2-Chlorotoluene	0.960	1.033		-7.6	30.0
4-Chlorotoluene	1.140	1.174		-3.0	30.0
1,3,5-Trimethylbenzene	1.101	1.101		0.0	30.0
tert-Butylbenzene	1.142	1.170		-2.5	30.0
1,2,4-Trimethylbenzene	1.009	1.042		-3.3	30.0
sec-Butylbenzene	1.693	1.642		3.0	30.0
1,3-Dichlorobenzene	0.489	0.501		-2.5	30.0
4-Isopropyltoluene	1.264	1.290		-2.1	30.0
1,4-Dichlorobenzene	0.485	0.499		-2.9	30.0
1,2-Dichlorobenzene	0.364	0.384		-5.5	30.0
n-Butylbenzene	1.355	1.388		-2.4	30.0
1,2-Dibromo-3-chloropropane	0.030	0.035		-16.7	30.0
1,2,4-Trichlorobenzene	0.268	0.276		-3.0	30.0
Hexachlorobutadiene	0.323	0.309		4.3	30.0
Naphthalene	0.232	0.251		-8.2	30.0
1,2,3-Trichlorobenzene	0.187	0.204		-9.1	30.0
4-Bromofluorobenzene	0.499	0.471		5.6	30.0
1,2-Dichlorobenzene-d4	0.228	0.222		2.6	30.0
<i>THTBÉ</i>	<i>0.242</i>	<i>0.318</i>		<i>-8.7</i>	<i>30.0</i>
<i>TBA</i>	<i>0.004</i>	<i>0.006</i>		<i>-23.2</i>	<i>30.0</i>

Evaluate Continuing Calibration Report

75

Data File : D:\HPCHEM\1\DATA\C8393.D

Acq On : 7 Jun 95 4:55 pm

Sample : 10 PPB CHK STANDARD

Misc :

Vial: 2

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1	Fluorobenzene	1.000	1.000	0.0	88	0.07
2 M	Dichlorodifluoromethane	0.396	0.334	15.8	69	0.06
3 M	Chloromethane	0.233	0.197	15.4	70	0.08
4 M	Vinyl chloride	0.263	0.227	13.7	73	0.08
5 M	Bromomethane	0.178	0.164	7.6	73	0.08
6 M	Chloroethane	0.154	0.145	5.7	74	0.08
7 M	Trichlorofluoromethane	0.588	0.533	9.2	78	0.10
8 M	1,1-Dichloroethene	0.258	0.236	8.4	78	0.10
9 M	Methylene chloride	0.274	0.272	0.7	68	0.09
10 M	trans-1,2-Dichloroethene	0.273	0.261	4.4	82	0.09
11	Hexane	0.000	0.000#	0.0	0#	-9.46#
12 M	1,1-Dichloroethane	0.545	0.526	3.5	85	0.09
13 M	2,2-Dichloropropane	0.534	0.518	3.1	83	0.08
14 M	cis-1,2-Dichloroethene	0.257	0.249	3.3	83	0.08
15	2-Butanone	0.000	0.000#	0.0	0#	-0.10
16 M	Bromochloromethane	0.090	0.089	1.3	89	0.08
17 M	Chloroform	0.512	0.501	2.1	86	0.09
18 M	1,1,1-Trichloroethane	0.566	0.560	1.0	87	0.08
19 M	Carbon tetrachloride	0.526	0.507	3.6	86	0.07
20 M	1,1-Dichloropropene	0.495	0.475	3.9	83	0.08
21 M	Benzene	0.871	0.854	1.9	85	0.09
22 M	1,2-Dichloroethane	0.214	0.223	-4.4	93	0.08
23 M	Trichloroethene	0.386	0.379	1.7	86	0.08
24 M	1,2-Dichloropropane	0.285	0.288	-1.2	90	0.08
25 M	Dibromomethane	0.115	0.119	-3.3	93	0.07
26 M	Bromodichloromethane	0.396	0.406	-2.6	93	0.08
27 M	cis-1,3-Dichloropropene	0.342	0.345	-0.8	91	0.08
28 M	Toluene	0.619	0.618	0.1	90	0.07
29 M	trans-1,3-Dichloropropene	0.236	0.248	-5.0	95	0.07
30 M	1,1,2-Trichloroethane	0.110	0.113	-2.7	93	0.07
31 M	Tetrachloroethene	0.388	0.369	4.8	84	0.06
32 M	1,3-Dichloropropane	0.219	0.235	-7.3	97	0.08
33 M	Dibromochloromethane	0.215	0.221	-3.0	95	0.07
34 M	1,2-Dibromomethane	0.152	0.162	-6.3	98	0.07
35 M	Chlorobenzene	0.644	0.630	2.2	87	0.07
36 M	1,1,1,2-Tetrachloroethane	0.256	0.264	-3.2	94	0.07
37 M	Ethylbenzene	1.302	1.311	-0.7	90	0.06
38 M	Xylene (para & meta)	0.468	0.457	2.2	87	0.07
39 M	Xylene (Ortho)	0.414	0.416	-0.6	89	0.07
40 M	Styrene	0.641	0.642	-0.2	90	0.06
41 M	Bromoform	0.105	0.115	-9.0	102	0.06
42 M	Isopropylbenzene	1.330	1.306	1.8	88	0.06

(#) = Out of Range

C8393.D VOA524.M

Thu Jun 08 13:28:52 1995

VOA

Page 1

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8393.D
 Acq On : 7 Jun 95 4:55 pm
 Sample : 10 PPB CHK STANDARD
 Misc :

Vial: 2 76
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
3 S	4-Bromofluorobenzene	0.499	0.471	5.5	86	0.07
44 M	Bromobenzene	0.240	0.250	-4.4	95	0.06
45 M	1,1,2,2-Tetrachloroethane	0.118	0.136	-15.0	107	0.05
6 M	1,2,3-Trichloropropane	0.143	0.163	-13.9	104	0.05
47 M	n-Propylbenzene	1.731	1.743	-0.7	91	0.06
48 M	2-Chlorotoluene	0.960	1.033	-7.5	98	0.06
9 M	4-Chlorotoluene	1.140	1.174	-3.0	93	0.06
0 M	1,3,5-Trimethylbenzene	1.101	1.101	0.0	91	0.05
51 M	tert-Butylbenzene	1.142	1.170	-2.5	93	0.06
2 M	1,2,4-Trimethylbenzene	1.009	1.042	-3.3	92	0.06
3 M	sec-Butylbenzene	1.693	1.642	3.0	88	0.06
54 M	1,3-Dichlorobenzene	0.489	0.501	-2.4	94	0.06
55 M	4-Isopropyltoluene	1.264	1.290	-2.0	92	0.06
6 M	1,4-Dichlorobenzene	0.485	0.499	-2.8	94	0.06
7 S	1,2-Dichlorobenzene-d4	0.228	0.222	2.6	89	0.06
58 M	1,2-Dichlorobenzene	0.364	0.384	-5.3	96	0.06
9 M	n-Butylbenzene	1.355	1.388	-2.4	94	0.06
0 M	1,2-Dibromo-3-chloropropane	0.030	0.035	-15.7	112	0.05
61 M	1,2,4-Trichlorobenzene	0.268	0.276	-3.1	95	0.05
2 M	Hexachlorobutadiene	0.323	0.309	4.5	89	0.06
3 M	Naphthalene	0.232	0.251	-8.4	100	0.06
64 M	1,2,3-Trichlorobenzene	0.187	0.204	-9.4	103	0.06
65	Methyl-tert butyl ether	0.292	0.318	-8.7	98	0.09
6	tert-Butyl Alcohol	0.004	0.006	-23.2	124	0.07

Quantitation Report

77

Data File : d:\hpchem\1\data\c8393.d
 Acq On : 7 Jun 95 4:55 pm
 Sample : 10 PPB CHK STANDARD
 Misc :
 Quant Time: Jun 8 12:45 1995

Vial: 2
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.91	96	677243	5.00	ug/L	0.07
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.16	95	319186	4.72	ug/L	94.49%
57) 1,2-Dichlorobenzene-d4	21.94	152	150263	4.87	ug/L	97.38%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.34	85	451863	8.42	ug/L	99
3) Chloromethane	3.73	50	267340	8.46	ug/L	98
4) Vinyl chloride	3.95	62	307322	8.63	ug/L	100
5) Bromomethane	4.60	94	222562	9.24	ug/L	96
6) Chloroethane	4.84	64	196832	9.43	ug/L	89
7) Trichlorofluoromethane	5.45	101	722458	9.08	ug/L	98
8) 1,1-Dichloroethene	6.52	96	320180	9.16	ug/L	98
9) Methylene chloride	7.50	84	368206	9.93	ug/L	93
10) trans-1,2-Dichloroethene	8.07	96	352963	9.56	ug/L	96
12) 1,1-Dichloroethane	8.85	63	712916	9.65	ug/L	97
13) 2,2-Dichloropropane	9.91	77	701749	9.69	ug/L	98
14) cis-1,2-Dichloroethene	9.91	96	336673	9.67	ug/L	91
16) Bromochloromethane	10.32	128	120399	9.87	ug/L	92
17) Chloroform	10.48	83	678252	9.79	ug/L	100
18) 1,1,1-Trichloroethane	10.81	97	759140	9.90	ug/L	95
19) Carbon tetrachloride	11.11	117	686783	9.64	ug/L	99
20) 1,1-Dichloropropene	11.10	75	643805	9.61	ug/L	97
21) Benzene	11.45	78	1157227	9.81	ug/L	99
22) 1,2-Dichloroethane	11.45	62	302094	10.44	ug/L	100
23) Trichloroethene	12.56	95	513898	9.83	ug/L	97
24) 1,2-Dichloropropane	12.91	63	390522	10.12	ug/L	96
25) Dibromomethane	13.11	93	161513	10.33	ug/L	96
26) Bromodichloromethane	13.38	83	550186	10.26	ug/L	99
27) cis-1,3-Dichloropropene	14.14	75	467172	10.08	ug/L	97
28) Toluene	14.72	92	836812	9.99	ug/L	94
29) trans-1,3-Dichloropropene	15.06	75	336082	10.50	ug/L	98
30) 1,1,2-Trichloroethane	15.38	83	153595	10.27	ug/L	97
31) Tetrachloroethene	15.68	166	500087	9.52	ug/L	97
32) 1,3-Dichloropropane	15.67	76	318056	10.73	ug/L	97
33) Dibromochloromethane	16.07	129	299785	10.30	ug/L	96
34) 1,2-Dibromomethane	16.26	107	219474	10.63	ug/L	94
35) Chlorobenzene	17.14	112	853432	9.78	ug/L	96
36) 1,1,1,2-Tetrachloroethane	17.27	131	357626	10.32	ug/L	97
37) Ethylbenzene	17.33	91	1775565	10.07	ug/L	96
38) Xylene (para & meta)	17.54	106	1238859	19.56	ug/L	91
39) Xylene (Ortho)	18.24	106	563584	10.06	ug/L	96
40) Styrene	18.25	104	870125	10.02	ug/L	93

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

Quantitation Report

78

Data File : d:\hpcchem\1\data\c8393.d
Acq On : 7 Jun 95 4:55 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 8 12:45 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.57	173	155629	10.90	ug/L	91
42) Isopropylbenzene	18.89	105	1769070	9.82	ug/L	91
44) Bromobenzene	19.44	156	339062	10.44	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.38	83	183658	11.50	ug/L	98
46) 1,2,3-Trichloropropane	19.45	75	220925	11.39	ug/L #	39
47) n-Propylbenzene	19.63	91	2361052	10.07	ug/L	100
48) 2-Chlorotoluene	19.79	91	1398573	10.75	ug/L	98
49) 4-Chlorotoluene	19.98	91	1590655	10.30	ug/L	81
50) 1,3,5-Trimethylbenzene	19.94	105	1491690	10.00	ug/L	100
51) tert-Butylbenzene	20.54	119	1585335	10.25	ug/L	99
52) 1,2,4-Trimethylbenzene	20.62	105	1411754	10.33	ug/L	96
53) sec-Butylbenzene	20.94	105	2224364	9.70	ug/L	98
54) 1,3-Dichlorobenzene	21.14	146	678728	10.24	ug/L	99
55) 4-Isopropyltoluene	21.20	119	1746824	10.20	ug/L	97
56) 1,4-Dichlorobenzene	21.31	146	675633	10.28	ug/L	92
58) 1,2-Dichlorobenzene	21.98	146	519703	10.53	ug/L m	0
59) n-Butylbenzene	21.95	91	1880046	10.24	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.37	75	46930	11.57	ug/L	83
61) 1,2,4-Trichlorobenzene	24.94	180	374355	10.31	ug/L	96
62) Hexachlorobutadiene	25.30	225	417898	9.55	ug/L	99
63) Naphthalene	25.40	128	340492	10.84	ug/L	100
64) 1,2,3-Trichlorobenzene	25.87	180	276725	10.94	ug/L	99
65) Methyl-tert butyl ether	8.09	73	430215	10.87	ug/L	97
66) tert-Butyl Alcohol	7.80	59	14935	24.63	ug/L	100

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

Quantitation Report

79

Data File : d:\hpchem\1\data\c8393.d

Acq On : 7 Jun 95 4:55 pm

Sample : 10 PPB CHK STANDARD

Misc :

Quant Time: Jun 8 12:45 1995

Vial: 2

Operator: SRK

Inst : 5972 - In

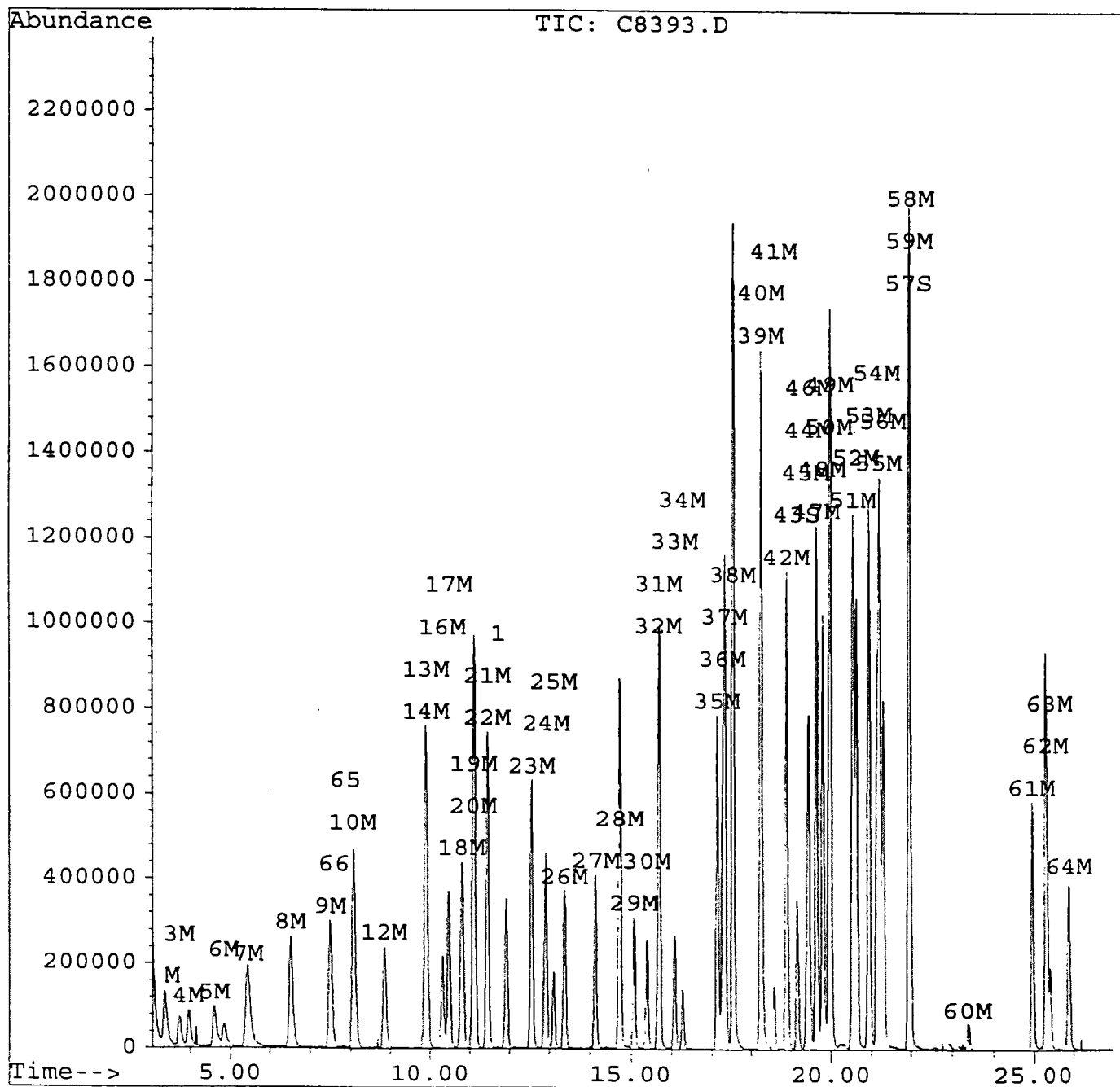
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration



Quantitation Report

80

Data File : d:\hpchem\1\data\c8394.d
 Acq On : 7 Jun 95 5:32 pm
 Sample : 1 PPB CHK STANDARD
 Misc :
 Quant Time: Jun 7 18:00 1995

Vial: 3
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.91	96	615987	5.00	ug/L	0.07

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.15	95	336480	5.48	ug/L	109.52%
57) 1,2-Dichlorobenzene-d4	21.94	152	162453	5.79	ug/L	115.75%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.38	85	48141	0.99	ug/L	79
3) Chloromethane	3.75	50	29653	1.03	ug/L	79
4) Vinyl chloride	3.94	62	31848	0.98	ug/L	96
5) Bromomethane	4.62	94	27614	1.26	ug/L	98
6) Chloroethane	4.86	64	21770	1.15	ug/L	99
7) Trichlorofluoromethane	5.45	101	74735	1.03	ug/L	100
8) 1,1-Dichloroethene	6.53	96	33182	1.04	ug/L	98
9) Methylene chloride	7.49	84	145704	4.32	ug/L	99
10) trans-1,2-Dichloroethene	8.07	96	37290	1.11	ug/L	95
12) 1,1-Dichloroethane	8.85	63	78114	1.16	ug/L	90
13) 2,2-Dichloropropane	9.91	77	72985	1.11	ug/L	98
14) cis-1,2-Dichloroethene	9.92	96	36490	1.15	ug/L	97
16) Bromochloromethane	10.32	128	12704	1.15	ug/L	# 74
17) Chloroform	10.48	83	73811	1.17	ug/L	100
18) 1,1,1-Trichloroethane	10.81	97	79139	1.13	ug/L	91
19) Carbon tetrachloride	11.12	117	70610	1.09	ug/L	93
20) 1,1-Dichloropropene	11.09	75	67390	1.11	ug/L	94
21) Benzene	11.45	78	127206	1.19	ug/L	95
22) 1,2-Dichloroethane	11.45	62	33233	1.26	ug/L	100
23) Trichloroethene	12.56	95	54428	1.14	ug/L	95
24) 1,2-Dichloropropane	12.91	63	42461	1.21	ug/L	89
25) Dibromomethane	13.11	93	18031	1.27	ug/L	96
26) Bromodichloromethane	13.38	83	61449	1.26	ug/L	96
27) cis-1,3-Dichloropropene	14.14	75	52272	1.24	ug/L	100
28) Toluene	14.73	92	92928	1.22	ug/L	89
29) trans-1,3-Dichloropropene	15.07	75	36348	1.25	ug/L	92
30) 1,1,2-Trichloroethane	15.38	83	16102	1.18	ug/L	# 85
31) Tetrachloroethene	15.68	166	54268	1.14	ug/L	96
32) 1,3-Dichloropropane	15.67	76	34513	1.28	ug/L	99
33) Dibromochloromethane	16.06	129	31145	1.18	ug/L	90
34) 1,2-Dibromomethane	16.26	107	22455	1.20	ug/L	92
35) Chlorobenzene	17.14	112	94241	1.19	ug/L	96
36) 1,1,1,2-Tetrachloroethane	17.27	131	37763	1.20	ug/L	97
37) Ethylbenzene	17.33	91	188788	1.18	ug/L	98
38) Xylene (para & meta)	17.53	106	135884	2.36	ug/L	98
39) Xylene (Ortho)	18.23	106	58289	1.14	ug/L	# 79
40) Styrene	18.25	104	94319	1.19	ug/L	94

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

Quantitation Report

Data File : d:\hpchem\1\data\c8394.d
 Acq On : 7 Jun 95 5:32 pm
 Sample : 1 PPB CHK STANDARD
 Misc :
 Quant Time: Jun 7 18:00 1995

Vial: 3 **81**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.56	173	15796	1.22	ug/L	79
42) Isopropylbenzene	18.89	105	183967	1.12	ug/L	92
44) Bromobenzene	19.43	156	37049	1.25	ug/L #	88
45) 1,1,2,2-Tetrachloroethane	19.40	83	19387	1.33	ug/L	96
46) 1,2,3-Trichloropropane	19.46	75	24182	1.37	ug/L	96
47) n-Propylbenzene	19.64	91	244715	1.15	ug/L	96
48) 2-Chlorotoluene	19.79	91	150772	1.27	ug/L	100
49) 4-Chlorotoluene	19.98	91	178075	1.27	ug/L	79
50) 1,3,5-Trimethylbenzene	19.94	105	155904	1.15	ug/L	98
51) tert-Butylbenzene	20.54	119	168635	1.20	ug/L	100
52) 1,2,4-Trimethylbenzene	20.63	105	152186	1.22	ug/L	98
53) sec-Butylbenzene	20.94	105	236499	1.13	ug/L	98
54) 1,3-Dichlorobenzene	21.14	146	76296	1.27	ug/L	96
55) 4-Isopropyltoluene	21.20	119	179872	1.15	ug/L	95
56) 1,4-Dichlorobenzene	21.30	146	73777	1.23	ug/L	91
58) 1,2-Dichlorobenzene	21.99	146	57815	1.29	ug/L	89
59) n-Butylbenzene	21.96	91	192369	1.15	ug/L	98
60) 1,2-Dibromo-3-chloropropan	23.39	75	4882	1.32	ug/L	95
61) 1,2,4-Trichlorobenzene	24.95	180	46633	1.41	ug/L	88
62) Hexachlorobutadiene	25.29	225	45087	1.13	ug/L	96
63) Naphthalene	25.40	128	45063	1.58	ug/L	100
64) 1,2,3-Trichlorobenzene	25.88	180	35982	1.56	ug/L	91
65) Methyl-tert butyl ether	8.08	73	51947	1.44	ug/L	97

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

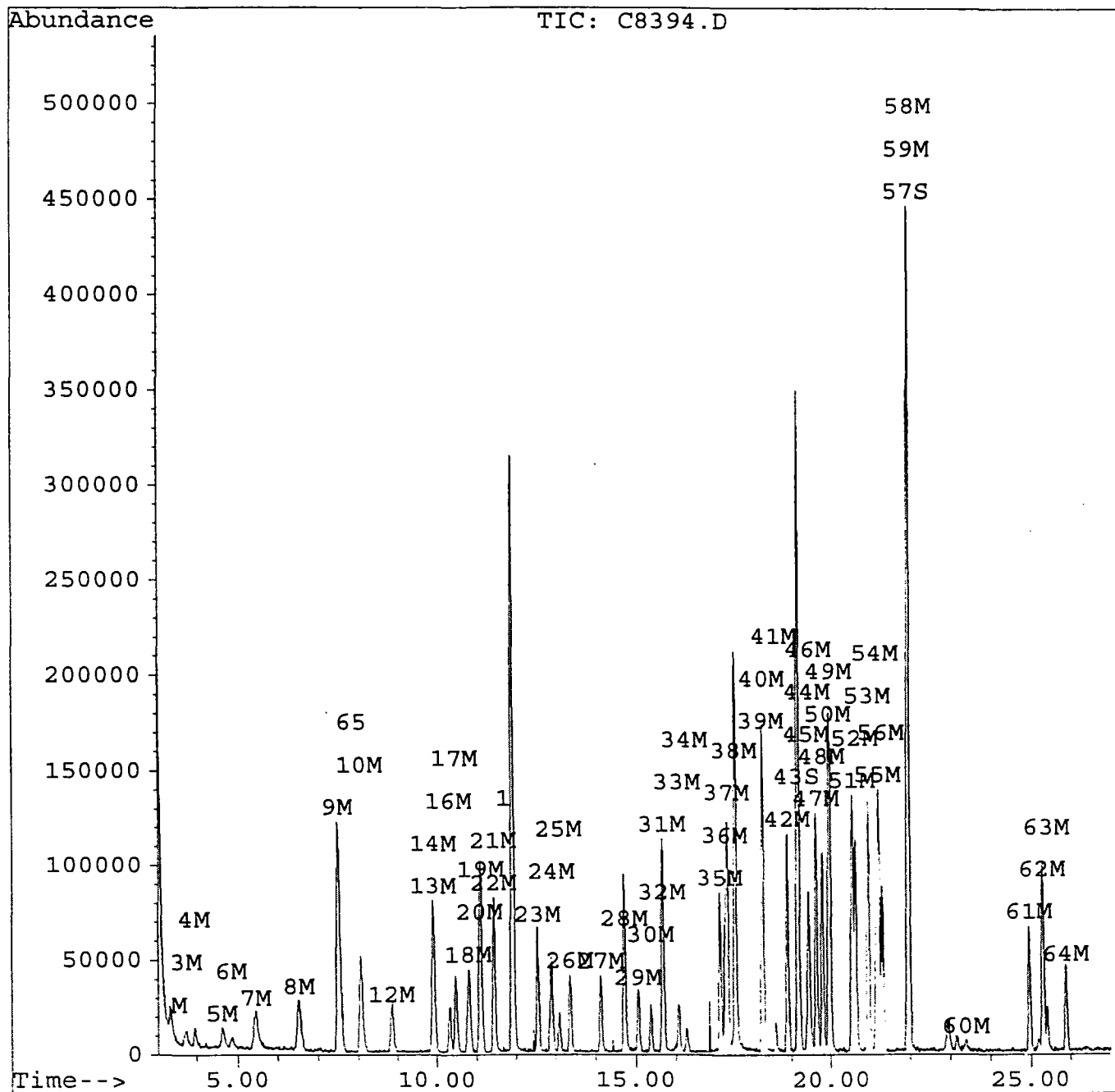
Quantitation Report

82

Data File : d:\hpchem\1\data\c8394.d
 Acq On : 7 Jun 95 5:32 pm
 Sample : 1 PPB CHK STANDARD
 Misc :
 Quant Time: Jun 7 18:00 1995

Vial: 3
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration



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

Lab Name : EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID: C8407.DBFB Injection Date: 6/8/95Instrument ID: 5972-INSTRUMENT 1BFB Injection Time: 1551GC Column: DB-624 X 75M ID: 0.53 (mm)

Heated Purge: (Y/N) _____

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.8
75	30.0 - 66.0% of mass 95	50.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	52.8
175	4.0 - 9.0% of mass 174	4.2 (7.9)1
176	93.0 - 101.0% of mass 174	51.5 (97.5)1
177	5.0 - 9.0% of mass 176	3.2 (6.3)2

1-Value is % mass 174

2-Value is % mass 176

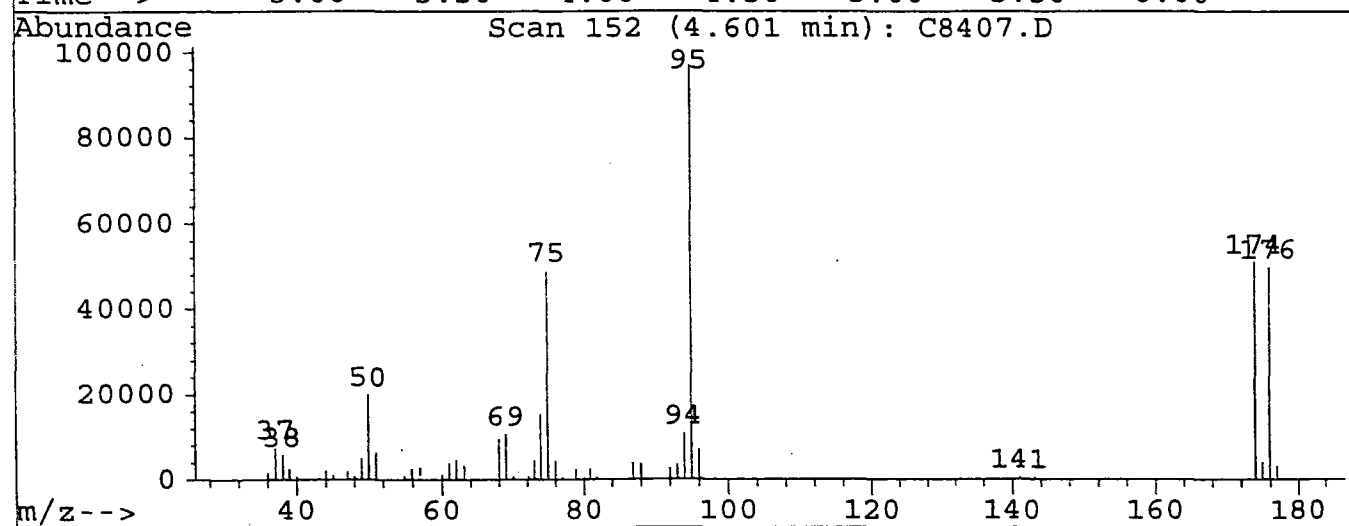
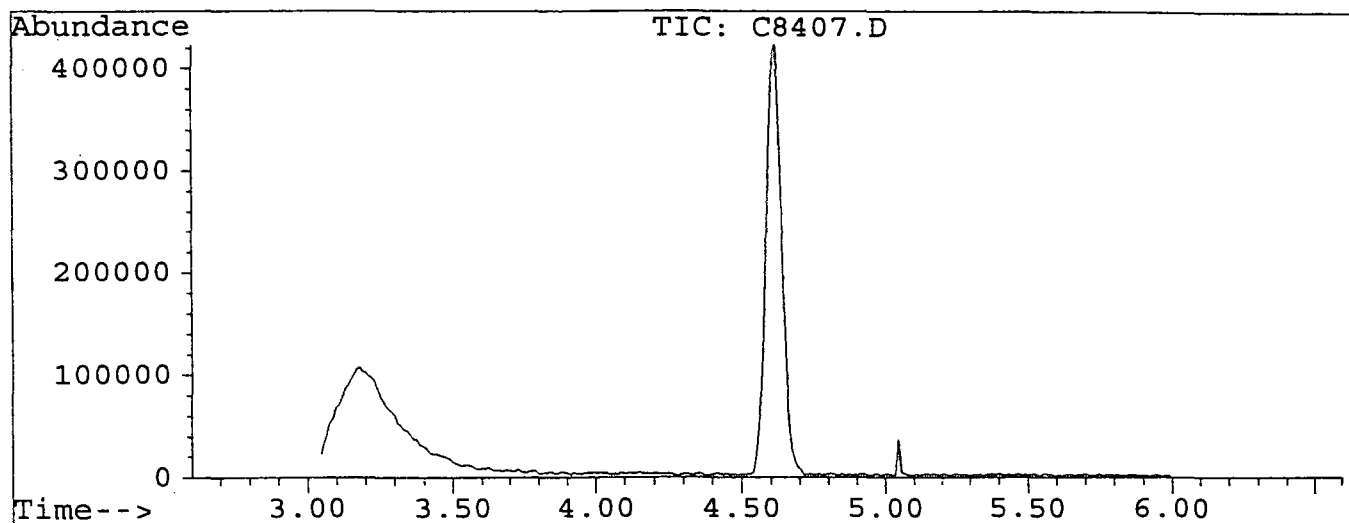
This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C8408.D	6/8/95	1606
02	1PPB STD	1PPB STD	C8409.D	6/8/95	1644
03	VBLK01	M. BLANK	C8410.D	6/8/95	1722
04	9524200V	9524200V	C8411.D	6/8/95	1800
05	9524202V	9524202V	C8412.D	6/8/95	1838
06	9524204V	9524204V	C8413.D	6/8/95	1915
07	9524205V	9524205V	C8414.D	6/8/95	1951
08	9524206V	9524206V	C8415.D	6/8/95	2027
09	9524203V	9524203V	C8416.D	6/8/95	2103
10	9523965D	9523965D	C8417.D	6/8/95	2138
11	9523960D	9523960D	C8418.D	6/8/95	2213
12	9523962D	9523962D	C8419.D	6/8/95	2248
13	9524201V	9524201D	C8420.D	6/8/95	2323
14	9523963D	9523963D	C8421.D	6/8/95	2358
15					
16					
17					
18					
19					
20					
21					
22					

Data File : D:\HPCHEM\1\DATA\C8407.D
Acq On : 8 Jun 95 3:51 pm
Sample : BFB TUNE
Misc : 25 NG INJECTION

Vial: 1
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics



Peak Apex is scan: 152

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	20096	PASS
75	95	30	60	50.7	49032	PASS
95	95	100	100	100.0	96776	PASS
96	95	5	9	7.4	7138	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	52.8	51088	PASS
175	174	5	9	7.9	4056	PASS
176	174	95	101	97.5	49792	PASS
177	176	5	9	6.3	3116	PASS

Scan 152 (4.601 min): C8407.D
BFB TUNE

85

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1673	50.05	20096	70.05	821	86.90	3996
37.10	7621	51.05	6557	72.25	737	87.95	3750
38.10	5857	54.95	883	73.05	4507	91.95	2567
39.00	2556	55.95	2553	73.95	15520	92.95	3664
40.00	751	57.00	2958	74.95	49032	93.95	10959
43.10	532	60.00	1288	76.05	4333	94.95	96776
44.00	2101	61.00	3945	76.95	602	95.95	7138
45.00	1030	62.00	4677	78.90	2442	141.00	694
47.05	1835	63.10	3295	80.00	618	143.10	558
48.05	816	68.05	9749	80.90	2580	173.95	51088
49.05	5116	69.05	10849	81.80	654	174.95	4056

Scan 152 (4.601 min): C8407.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.95	49792						
176.95	3116						

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: 5972-INSTRUMENT 1Calibration Date: 6/8/95Time: 1606Lab File ID: C8408.DInit. Calib. Date(s): 5/26/95Heated Purge: (Y/N) N

Init. Calib. Times: _____

GC Column: DB-624 X 7ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.396	0.407		-2.8	30.0
Chloromethane	0.233	0.230		1.3	30.0
Vinyl chloride	0.263	0.266		-1.1	30.0
Bromomethane	0.178	0.184		-3.4	30.0
Chloroethane	0.154	0.168		-9.1	30.0
Trichlorofluoromethane	0.588	0.590		-0.3	30.0
1,1-Dichloroethene	0.258	0.266		-3.1	30.0
Methylene chloride	0.274	0.317		-15.7	30.0
trans-1,2-Dichloroethene	0.273	0.284		-4.0	30.0
1,1-Dichloroethane	0.545	0.570		-4.6	30.0
2,2-Dichloropropane	0.534	0.559		-4.7	30.0
cis-1,2-Dichloroethene	0.257	0.271		-5.4	30.0
Bromochloromethane	0.090	0.095		-5.6	30.0
Chloroform	0.512	0.531		-3.7	30.0
1,1,1-Trichloroethane	0.566	0.588		-3.9	30.0
Carbon tetrachloride	0.526	0.534		-1.5	30.0
1,1-Dichloropropene	0.495	0.509		-2.8	30.0
Benzene	0.871	0.916		-5.2	30.0
1,2-Dichloroethane	0.214	0.235		-9.8	30.0
Trichloroethene	0.386	0.399		-3.4	30.0
1,2-Dichloropropane	0.285	0.309		-8.4	30.0
Dibromomethane	0.115	0.129		-12.2	30.0
Bromodichloromethane	0.396	0.438		-10.6	30.0
cis-1,3-Dichloropropene	0.342	0.376		-9.9	30.0
Toluene	0.619	0.653		-5.5	30.0
trans-1,3-Dichloropropene	0.236	0.266		-12.7	30.0
1,1,2-Trichloroethane	0.110	0.125		-13.6	30.0
Tetrachloroethene	0.388	0.385		0.8	30.0
1,3-Dichloropropane	0.219	0.243		-11.0	30.0
Dibromochloromethane	0.215	0.236		-9.8	30.0
1,2-Dibromomethane	0.152	0.170		-11.8	30.0
Chlorobenzene	0.644	0.669		-3.9	30.0
1,1,1,2-Tetrachloroethane	0.256	0.274		-7.0	30.0
Ethylbenzene	1.302	1.393		-7.0	30.0
Xylene (para & meta)	0.468	0.483		-3.2	30.0
Xylene (Ortho)	0.414	0.435		-5.1	30.0

7A
VOLATILE CONTINUING CALIBRATION CHECK

87

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/8/95 Time: 1606

Lab File ID: C8408.D Init. Calib. Date(s): 5/26/95

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

GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Styrene	0.641	0.678		-5.8	30.0
Bromoform	0.105	0.121		-15.2	30.0
Isopropylbenzene	1.330	1.373		-3.2	30.0
Bromobenzene	0.240	0.261		-8.8	30.0
1,1,2,2-Tetrachloroethane	0.118	0.152		-28.8	30.0
1,2,3-Trichloropropane	0.143	0.150		-4.9	30.0
n-Propylbenzene	1.731	1.853		-7.0	30.0
2-Chlorotoluene	0.960	1.025		-6.8	30.0
4-Chlorotoluene	1.140	1.220		-7.0	30.0
1,3,5-Trimethylbenzene	1.101	1.159		-5.3	30.0
tert-Butylbenzene	1.142	1.216		-6.5	30.0
1,2,4-Trimethylbenzene	1.009	1.106		-9.6	30.0
sec-Butylbenzene	1.693	1.764		-4.2	30.0
1,3-Dichlorobenzene	0.489	0.525		-7.4	30.0
4-Isopropyltoluene	1.264	1.354		-7.1	30.0
1,4-Dichlorobenzene	0.485	0.531		-9.5	30.0
1,2-Dichlorobenzene	0.364	0.403		-10.7	30.0
n-Butylbenzene	1.355	1.475		-8.9	30.0
1,2-Dibromo-3-chloropropane	0.030	0.035		-16.7	30.0
1,2,4-Trichlorobenzene	0.268	0.305		-13.8	30.0
Hexachlorobutadiene	0.323	0.318		1.5	30.0
Naphthalene	0.232	0.283		-22.0	30.0
1,2,3-Trichlorobenzene	0.187	0.223		-19.3	30.0
4-Bromofluorobenzene	0.499	0.536		-7.4	30.0
1,2-Dichlorobenzene-d4	0.228	0.249		-9.2	30.0
<i>m</i> TBE	0.292	0.343		-17.4	30.0
TIBA	0.004	0.005		-9.8	30.0

Evaluate Continuing Calibration Report

88

Data File : D:\HPCHEM\1\DATA\C8408.D

Acq On : 8 Jun 95 4:06 pm

Sample : 10 PPB CHK STANDARD

Misc :

Vial: 2

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1	Fluorobenzene	1.000	1.000	0.0	87	0.06
2 M	Dichlorodifluoromethane	0.396	0.407	-2.8	84	0.05
3 M	Chloromethane	0.233	0.230	1.5	80	0.07
4 M	Vinyl chloride	0.263	0.266	-1.1	84	0.08
5 M	Bromomethane	0.178	0.184	-3.3	81	0.07
6 M	Chloroethane	0.154	0.168	-9.3	86	0.07
7 M	Trichlorofluoromethane	0.588	0.590	-0.4	86	0.08
8 M	1,1-Dichloroethene	0.258	0.266	-3.2	87	0.09
9 M	Methylene chloride	0.274	0.317	-15.9	79	0.07
10 M	trans-1,2-Dichloroethene	0.273	0.284	-4.0	89	0.06
11	Hexane	0.000	0.000#	0.0	0#	-9.46#
12 M	1,1-Dichloroethane	0.545	0.570	-4.5	91	0.08
13 M	2,2-Dichloropropane	0.534	0.559	-4.6	89	0.06
14 M	cis-1,2-Dichloroethene	0.257	0.271	-5.4	90	0.06
15	2-Butanone	0.000	0.000#	0.0	0#	0.00
16 M	Bromochloromethane	0.090	0.095	-5.3	94	0.06
17 M	Chloroform	0.512	0.531	-3.9	91	0.07
18 M	1,1,1-Trichloroethane	0.566	0.588	-3.8	91	0.06
19 M	Carbon tetrachloride	0.526	0.534	-1.5	90	0.05
20 M	1,1-Dichloropropene	0.495	0.509	-2.9	88	0.06
21 M	Benzene	0.871	0.916	-5.2	90	0.06
22 M	1,2-Dichloroethane	0.214	0.235	-10.1	98	0.06
23 M	Trichloroethene	0.386	0.399	-3.4	90	0.05
24 M	1,2-Dichloropropane	0.285	0.309	-8.3	96	0.05
25 M	Dibromomethane	0.115	0.129	-11.5	99	0.05
26 M	Bromodichloromethane	0.396	0.438	-10.5	99	0.06
27 M	cis-1,3-Dichloropropene	0.342	0.376	-9.8	98	0.05
28 M	Toluene	0.619	0.653	-5.6	94	0.05
29 M	trans-1,3-Dichloropropene	0.236	0.266	-12.3	101	0.05
30 M	1,1,2-Trichloroethane	0.110	0.125	-13.2	102	0.04
31 M	Tetrachloroethene	0.388	0.385	0.7	87	0.04
32 M	1,3-Dichloropropane	0.219	0.243	-11.2	100	0.05
33 M	Dibromochloromethane	0.215	0.236	-9.8	101	0.05
34 M	1,2-Dibromomethane	0.152	0.170	-11.5	102	0.05
35 M	Chlorobenzene	0.644	0.669	-3.9	92	0.04
36 M	1,1,1,2-Tetrachloroethane	0.256	0.274	-7.2	97	0.05
37 M	Ethylbenzene	1.302	1.393	-7.0	95	0.04
38 M	Xylene (para & meta)	0.468	0.483	-3.2	91	0.04
39 M	Xylene (Ortho)	0.414	0.435	-5.1	93	0.04
40 M	Styrene	0.641	0.678	-5.8	94	0.04
41 M	Bromoform	0.105	0.121	-14.5	106	0.03
42 M	Isopropylbenzene	1.330	1.373	-3.2	92	0.04

(#) = Out of Range

C8408.D VOA524.M

Fri Jun 09 11:33:31 1995

VOA

Page 1

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C8408.D

Acq On : 8 Jun 95 4:06 pm

Sample : 10 PPB CHK STANDARD

Misc :

Vial: 2

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

89

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
43 S	4-Bromofluorobenzene	0.499	0.536	-7.5	97	0.04
44 M	Bromobenzene	0.240	0.261	-8.6	98	0.03
45 M	1,1,2,2-Tetrachloroethane	0.118	0.152	-29.3	119	0.03
46 M	1,2,3-Trichloropropane	0.143	0.150	-5.1	95	0.04
47 M	n-Propylbenzene	1.731	1.853	-7.1	96	0.03
48 M	2-Chlorotoluene	0.960	1.025	-6.7	97	0.04
49 M	4-Chlorotoluene	1.140	1.220	-7.0	96	0.04
50 M	1,3,5-Trimethylbenzene	1.101	1.159	-5.3	95	0.03
51 M	tert-Butylbenzene	1.142	1.216	-6.5	95	0.04
52 M	1,2,4-Trimethylbenzene	1.009	1.106	-9.6	97	0.04
53 M	sec-Butylbenzene	1.693	1.764	-4.2	94	0.03
54 M	1,3-Dichlorobenzene	0.489	0.525	-7.3	98	0.04
55 M	4-Isopropyltoluene	1.264	1.354	-7.1	96	0.04
56 M	1,4-Dichlorobenzene	0.485	0.531	-9.4	100	0.03
57 S	1,2-Dichlorobenzene-d4	0.228	0.249	-9.4	99	0.03
58 M	1,2-Dichlorobenzene	0.364	0.403	-10.6	100	0.04
59 M	n-Butylbenzene	1.355	1.475	-8.9	99	0.04
60 M	1,2-Dibromo-3-chloropropane	0.030	0.035	-15.6	111	0.04
61 M	1,2,4-Trichlorobenzene	0.268	0.305	-13.7	104	0.03
62 M	Hexachlorobutadiene	0.323	0.318	1.6	91	0.03
63 M	Naphthalene	0.232	0.283	-22.2	112	0.04
64 M	1,2,3-Trichlorobenzene	0.187	0.223	-19.4	111	0.04
65	Methyl-tert butyl ether	0.292	0.343	-17.4	105	0.07
66	tert-Butyl Alcohol	0.004	0.005	-9.8	110	0.06

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

C8408.D VOA524.M

Fri Jun 09 11:33:39 1995

VOA

Page 2

Quantitation Report

90

Data File : d:\hpchem\1\data\c8408.d
 Acq On : 8 Jun 95 4:06 pm
 Sample : 10 PPB CHK STANDARD
 Misc :
 Quant Time: Jun 9 10:14 1995

Vial: 2
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.90	96	672457	5.00	ug/L	0.06
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	360627	5.38	ug/L	107.52%
57) 1,2-Dichlorobenzene-d4	21.91	152	167644	5.47	ug/L	109.42%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.33	85	547697	10.28	ug/L	95
3) Chloromethane	3.71	50	308948	9.85	ug/L	98
4) Vinyl chloride	3.95	62	357666	10.11	ug/L	94
5) Bromomethane	4.59	94	247014	10.33	ug/L	100
6) Chloroethane	4.83	64	226434	10.93	ug/L	94
7) Trichlorofluoromethane	5.43	101	793590	10.04	ug/L	99
8) 1,1-Dichloroethene	6.51	96	358139	10.32	ug/L	93
9) Methylene chloride	7.48	84	426933	11.59	ug/L	96
10) trans-1,2-Dichloroethene	8.03	96	381440	10.40	ug/L	96
12) 1,1-Dichloroethane	8.84	63	766658	10.45	ug/L	98
13) 2,2-Dichloropropane	9.89	77	751505	10.46	ug/L	100
14) cis-1,2-Dichloroethene	9.89	96	364213	10.54	ug/L	95
16) Bromochloromethane	10.30	128	127497	10.53	ug/L	94
17) Chloroform	10.46	83	714736	10.39	ug/L	99
18) 1,1,1-Trichloroethane	10.79	97	790689	10.38	ug/L	97
19) Carbon tetrachloride	11.09	117	717859	10.15	ug/L	100
20) 1,1-Dichloropropene	11.08	75	684335	10.29	ug/L	96
21) Benzene	11.42	78	1232020	10.52	ug/L	97
22) 1,2-Dichloroethane	11.43	62	316479	11.01	ug/L m	0
23) Trichloroethene	12.53	95	536817	10.34	ug/L	96
24) 1,2-Dichloropropane	12.88	63	415082	10.83	ug/L	100
25) Dibromomethane	13.09	93	173135	11.15	ug/L	99
26) Bromodichloromethane	13.35	83	588715	11.05	ug/L	97
27) cis-1,3-Dichloropropene	14.11	75	505444	10.98	ug/L	99
28) Toluene	14.69	92	878279	10.56	ug/L	98
29) trans-1,3-Dichloropropene	15.04	75	357099	11.23	ug/L	94
30) 1,1,2-Trichloroethane	15.34	83	168113	11.32	ug/L	96
31) Tetrachloroethene	15.65	166	517460	9.93	ug/L	96
32) 1,3-Dichloropropane	15.63	76	327295	11.12	ug/L	95
33) Dibromochloromethane	16.05	129	317390	10.98	ug/L	99
34) 1,2-Dibromomethane	16.24	107	228462	11.15	ug/L	95
35) Chlorobenzene	17.11	112	899977	10.39	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.25	131	368735	10.72	ug/L	96
37) Ethylbenzene	17.30	91	1873104	10.70	ug/L	96
38) Xylene (para & meta)	17.51	106	1297906	20.64	ug/L	94
39) Xylene (Ortho)	18.21	106	584537	10.51	ug/L #	88
40) Styrene	18.23	104	911853	10.58	ug/L	99

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

Quantitation Report

Data File : d:\hpchem\1\data\c8408.d
 Acq On : 8 Jun 95 4:06 pm
 Sample : 10 PPB CHK STANDARD
 Misc :
 Quant Time: Jun 9 10:14 1995

Vial: 2 **91**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.54	173	162366	11.45	ug/L	89
42) Isopropylbenzene	18.87	105	1846972	10.32	ug/L	93
44) Bromobenzene	19.41	156	350359	10.86	ug/L	97
45) 1,1,2,2-Tetrachloroethane	19.36	83	205070	12.93	ug/L	99
46) 1,2,3-Trichloropropane	19.44	75	202369	10.51	ug/L #	81
47) n-Propylbenzene	19.60	91	2492007	10.71	ug/L	100
48) 2-Chlorotoluene	19.77	91	1378702	10.67	ug/L	97
49) 4-Chlorotoluene	19.95	91	1641100	10.70	ug/L	83
50) 1,3,5-Trimethylbenzene	19.92	105	1559167	10.53	ug/L	100
51) tert-Butylbenzene	20.52	119	1635721	10.65	ug/L	97
52) 1,2,4-Trimethylbenzene	20.60	105	1487227	10.96	ug/L	98
53) sec-Butylbenzene	20.91	105	2372653	10.42	ug/L	97
54) 1,3-Dichlorobenzene	21.12	146	705618	10.73	ug/L	99
55) 4-Isopropyltoluene	21.18	119	1820833	10.71	ug/L	97
56) 1,4-Dichlorobenzene	21.27	146	713837	10.94	ug/L	90
58) 1,2-Dichlorobenzene	21.95	146	542276	11.06	ug/L	97
59) n-Butylbenzene	21.93	91	1984341	10.89	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.36	75	46562	11.56	ug/L	93
61) 1,2,4-Trichlorobenzene	24.92	180	409753	11.37	ug/L	98
62) Hexachlorobutadiene	25.26	225	427511	9.84	ug/L	98
63) Naphthalene	25.38	128	381105	12.22	ug/L	100
64) 1,2,3-Trichlorobenzene	25.85	180	299945	11.94	ug/L	95
65) Methyl-tert butyl ether	8.07	73	461155	11.74	ug/L	97
66) tert-Butyl Alcohol	7.79	59	13217	21.95	ug/L	100

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

Quantitation Report

92

Data File : d:\hpchem\1\data\c8408.d

Acq On : 8 Jun 95 4:06 pm

Sample : 10 PPB CHK STANDARD

Misc :

Quant Time: Jun 9 10:14 1995

Vial: 2

Operator: SRK

Inst : 5972 - In

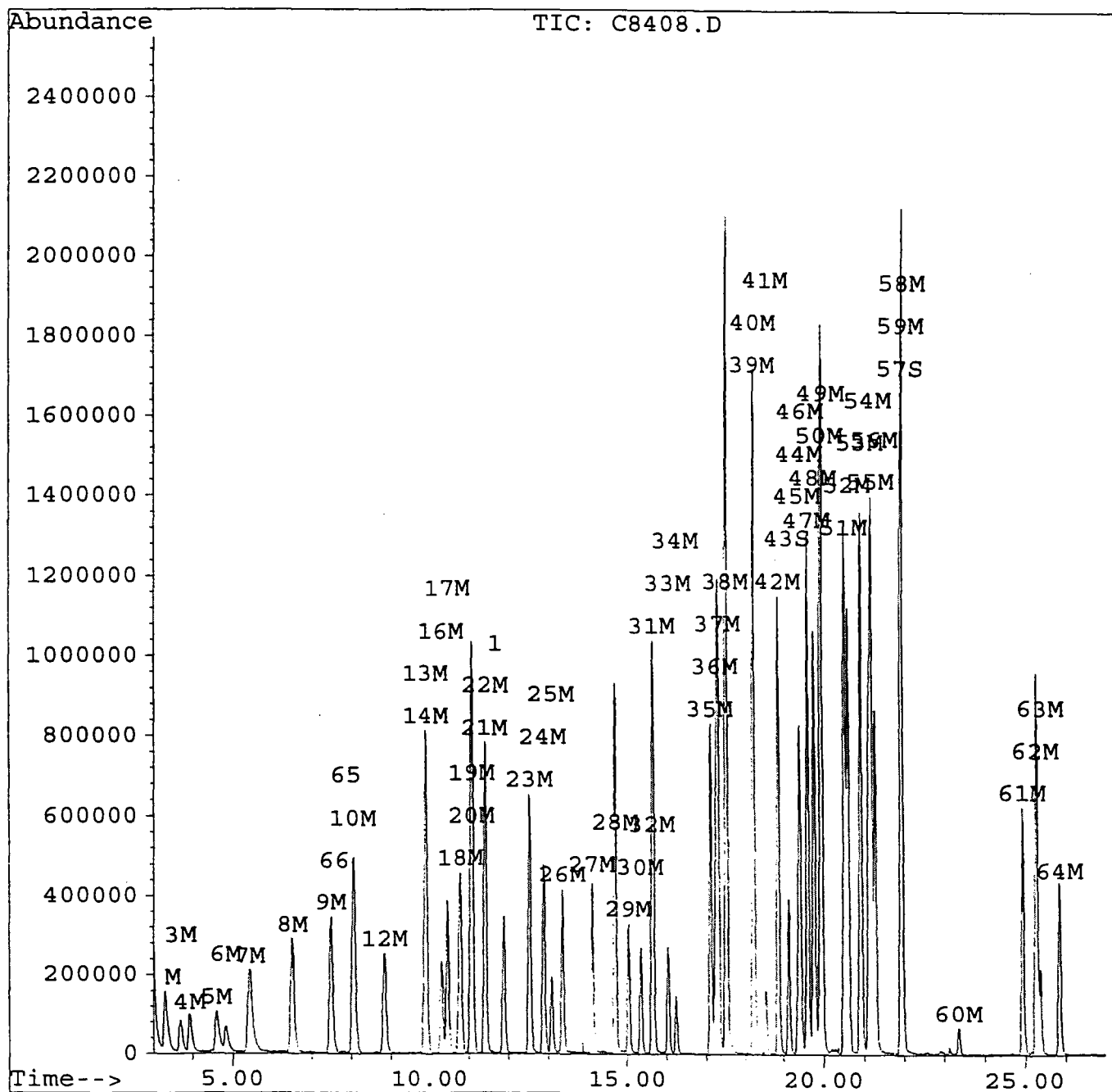
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration



Quantitation Report

93

Data File : d:\hpcchem\1\data\c8409.d

Acq On : 8 Jun 95 4:44 pm

Sample : 1 PPB CHK STANDARD

Misc :

Quant Time: Jun 8 17:11 1995

Vial: 3

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.89	96	653233	5.00	ug/L	0.05

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.13	95	342295	5.25	ug/L	105.06%
57) 1,2-Dichlorobenzene-d4	21.91	152	165142	5.55	ug/L	110.96%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.33	85	54193	1.05	ug/L	93
3) Chloromethane	3.72	50	33230	1.09	ug/L	94
4) Vinyl chloride	3.95	62	34200	1.00	ug/L	90
5) Bromomethane	4.63	94	30876	1.33	ug/L	84
6) Chloroethane	4.84	64	20950	1.04	ug/L	90
7) Trichlorofluoromethane	5.42	101	78344	1.02	ug/L	90
8) 1,1-Dichloroethene	6.51	96	33659	1.00	ug/L	92
9) Methylene chloride	7.48	84	188014	5.26	ug/L	97
10) trans-1,2-Dichloroethene	8.03	96	38033	1.07	ug/L	95
12) 1,1-Dichloroethane	8.82	63	82195	1.15	ug/L	93
13) 2,2-Dichloropropane	9.88	77	75278	1.08	ug/L	93
14) cis-1,2-Dichloroethene	9.89	96	36290	1.08	ug/L	93
16) Bromochloromethane	10.30	128	12902	1.10	ug/L	95
17) Chloroform	10.45	83	73316	1.10	ug/L	96
18) 1,1,1-Trichloroethane	10.79	97	81390	1.10	ug/L	94
19) Carbon tetrachloride	11.10	117	69836	1.02	ug/L	96
20) 1,1-Dichloropropene	11.08	75	67393	1.04	ug/L	96
21) Benzene	11.43	78	129770	1.14	ug/L	96
22) 1,2-Dichloroethane	11.42	62	37028	1.33	ug/L	96
23) Trichloroethene	12.53	95	54068	1.07	ug/L	96
24) 1,2-Dichloropropane	12.88	63	43212	1.16	ug/L	89
25) Dibromomethane	13.08	93	17644	1.17	ug/L	94
26) Bromodichloromethane	13.35	83	61869	1.20	ug/L	97
27) cis-1,3-Dichloropropene	14.11	75	51381	1.15	ug/L	93
28) Toluene	14.69	92	92492	1.14	ug/L	100
29) trans-1,3-Dichloropropene	15.05	75	34973	1.13	ug/L	94
30) 1,1,2-Trichloroethane	15.34	83	18003	1.25	ug/L	97
31) Tetrachloroethene	15.65	166	52311	1.03	ug/L	99
32) 1,3-Dichloropropane	15.63	76	35869	1.25	ug/L	99
33) Dibromochloromethane	16.05	129	31717	1.13	ug/L	88
34) 1,2-Dibromomethane	16.24	107	23302	1.17	ug/L	96
35) Chlorobenzene	17.11	112	92978	1.10	ug/L	95
36) 1,1,1,2-Tetrachloroethane	17.24	131	37815	1.13	ug/L	97
37) Ethylbenzene	17.30	91	186913	1.10	ug/L	95
38) Xylene (para & meta)	17.51	106	131975	2.16	ug/L	95
39) Xylene (Ortho)	18.20	106	58510	1.08	ug/L #	87
40) Styrene	18.23	104	90593	1.08	ug/L	97

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

c8409.d VOA524.M

Fri Jun 09 14:31:50 1995

VOA

Page 1

Quantitation Report

94

Data File : d:\hpchem\1\data\c8409.d

Acq On : 8 Jun 95 4:44 pm

Sample : 1 PPB CHK STANDARD

Misc :

Quant Time: Jun 8 17:11 1995

Vial: 3

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.54	173	16128	1.17	ug/L	77
42) Isopropylbenzene	18.87	105	183489	1.06	ug/L	87
44) Bromobenzene	19.41	156	37413	1.19	ug/L	91
45) 1,1,2,2-Tetrachloroethane	19.35	83	20105	1.31	ug/L	96
46) 1,2,3-Trichloropropane	19.44	75	24598	1.32	ug/L	90
47) n-Propylbenzene	19.60	91	240363	1.06	ug/L	98
48) 2-Chlorotoluene	19.77	91	153690	1.22	ug/L	95
49) 4-Chlorotoluene	19.95	91	172239	1.16	ug/L	79
50) 1,3,5-Trimethylbenzene	19.92	105	153491	1.07	ug/L	97
51) tert-Butylbenzene	20.51	119	161287	1.08	ug/L	100
52) 1,2,4-Trimethylbenzene	20.60	105	148042	1.12	ug/L	97
53) sec-Butylbenzene	20.91	105	227837	1.03	ug/L	98
54) 1,3-Dichlorobenzene	21.12	146	70529	1.10	ug/L	98
55) 4-Isopropyltoluene	21.17	119	174283	1.06	ug/L	97
56) 1,4-Dichlorobenzene	21.27	146	74104	1.17	ug/L	90
58) 1,2-Dichlorobenzene	21.96	146	56757	1.19	ug/L	96
59) n-Butylbenzene	21.93	91	183453	1.04	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.34	75	4855	1.24	ug/L #	86
61) 1,2,4-Trichlorobenzene	24.92	180	41822	1.19	ug/L	93
62) Hexachlorobutadiene	25.26	225	42666	1.01	ug/L	97
63) Naphthalene	25.38	128	40111	1.32	ug/L	100
64) 1,2,3-Trichlorobenzene	25.84	180	32426	1.33	ug/L	92
65) Methyl-tert butyl ether	8.09	73	53334	1.40	ug/L	94

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

c8409.d VOA524.M

Fri Jun 09 14:31:55 1995

VOA

Page 2

Quantitation Report

95

Data File : d:\hpchem\1\data\c8409.d

Acq On : 8 Jun 95 4:44 pm

Sample : 1 PPB CHK STANDARD

Misc :

Quant Time: Jun 8 17:11 1995

Vial: 3

Operator: SRK

Inst : 5972 - In

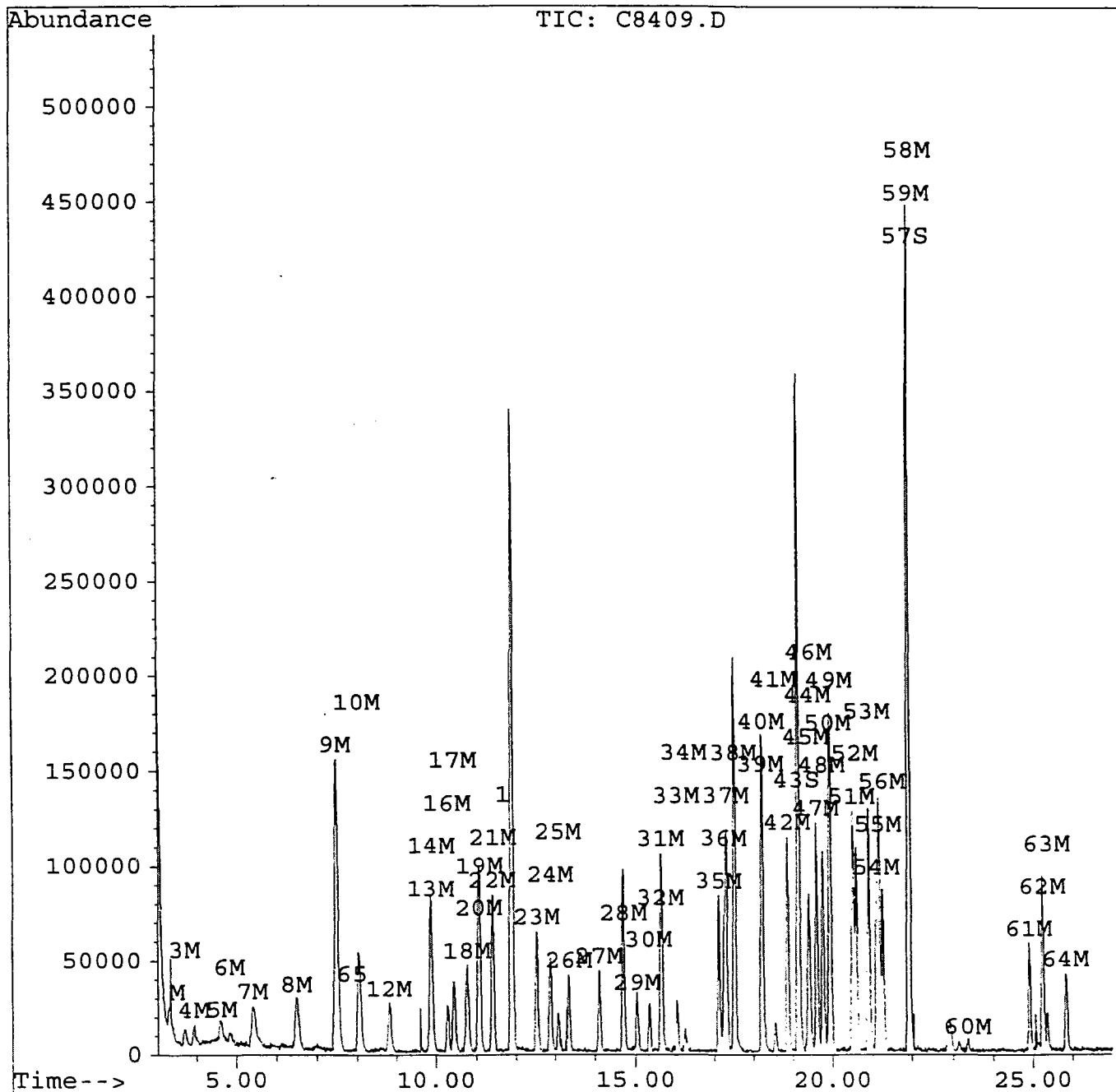
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration



5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

96

Lab Name : EMSL ANALYTICAL Contract: _____
 Project No.: _____ Site: _____ Location: _____ Group: _____
 Lab File ID: C8426.D BFB Injection Date: 6/9/95
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1740
 GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) _____

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.5
75	30.0 - 66.0% of mass 95	49.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	56.1
175	4.0 - 9.0% of mass 174	4.1 (7.2)1
176	93.0 - 101.0% of mass 174	55.5 (98.9)1
177	5.0 - 9.0% of mass 176	3.8 (6.8)2

1-Value is % mass 174

2-Value is % mass 176

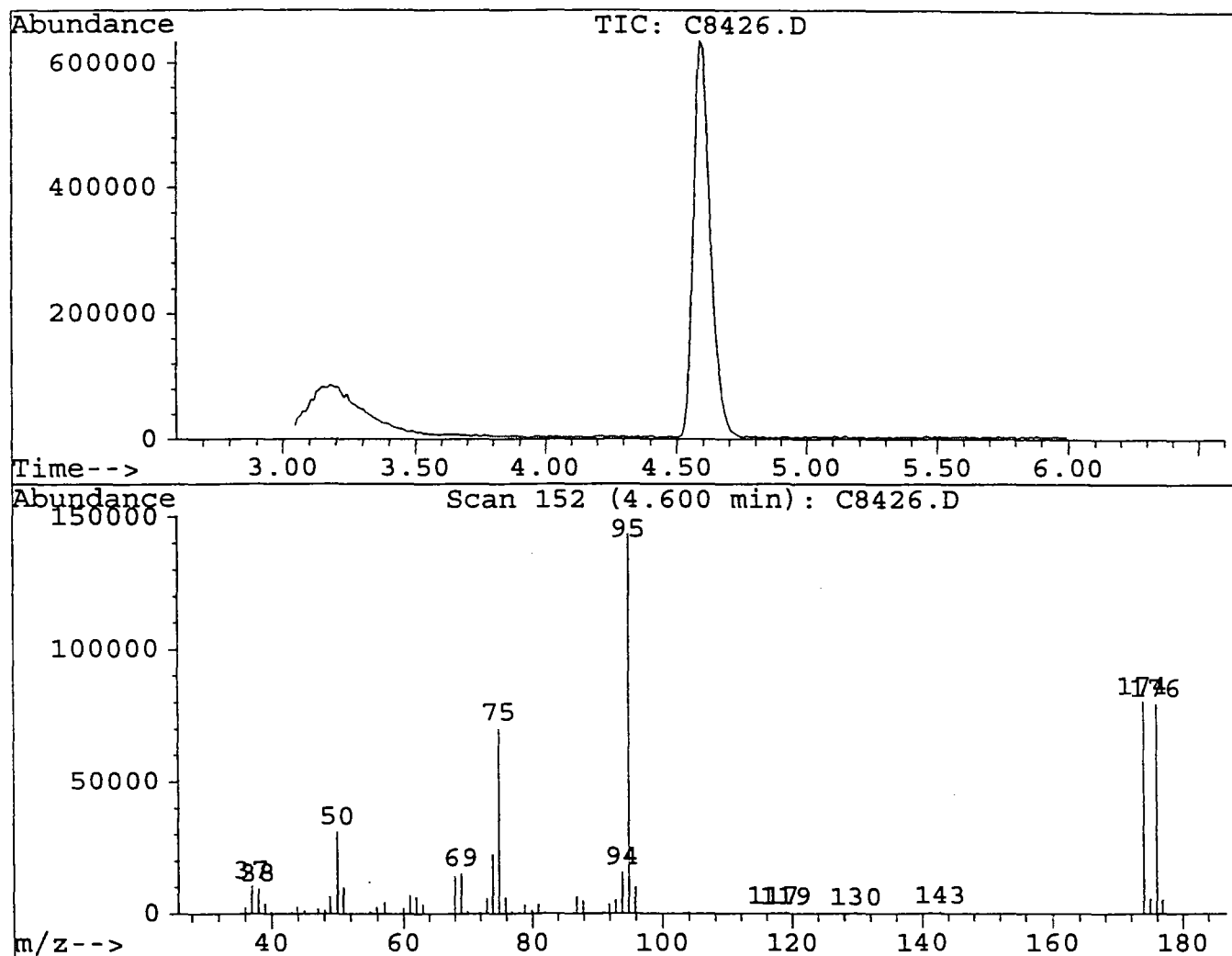
This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C8427.D	6/9/95	1756
02	1PPB STD	1PPB STD	C8428.D	6/9/95	1831
03	VBLK01	M. BLANK	C8429.D	6/9/95	1906
04	9525251V	9525251V	C8430.D	6/9/95	1941
05	9525252V	9525252V	C8431.D	6/9/95	2015
06	9525292V	9525292V	C8432.D	6/9/95	2050
07	9524667V	9524667V	C8433.D	6/9/95	2125
08	9525689V	9525689V	C8434.D	6/9/95	2159
09	9524836V	9524836V	C8435.D	6/9/95	2233
10	9525275V	9525275V	C8436.D	6/9/95	2308
11	9524199D	9524199D	C8437.D	6/9/95	2342
12	9524201D	9524201D	C8438.D	6/10/95	0016
13	9524292MS	24292MS	C8439.D	6/10/95	0050
14	9524292MSD	24292MSD	C8440.D	6/10/95	0124
15	10PPBQCS	10PPBQCS	C8441.D	6/10/95	0158
16					
17					
18					
19					
20					
21					
22					

Data File : D:\HPCHEM\1\DATA\C8426.D
Acq On : 9 Jun 95 5:40 pm
Sample : BFB TUNE
Misc : 25 NG INJECTION

Vial: 1
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics



Peak Apex is scan: 152

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.5	30848	PASS
75	95	30	60	49.0	70216	PASS
95	95	100	100	100.0	143424	PASS
96	95	5	9	7.0	10111	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	56.1	80432	PASS
175	174	5	9	7.2	5823	PASS
176	174	95	101	98.9	79576	PASS
177	176	5	9	6.8	5444	PASS

Scan 152 (4.600 min): C8426.D
BFB TUNE

98

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	2484	48.95	6435	68.05	14427	79.90	1298
37.00	10463	50.05	30848	69.05	15199	80.90	3598
38.00	9415	50.95	9846	70.05	1232	81.90	680
39.00	3721	54.95	922	71.85	616	86.90	6581
39.90	866	55.95	2494	73.05	5918	87.95	4974
41.00	528	57.10	4278	73.95	22720	91.05	676
43.10	748	60.00	2211	74.95	70216	91.95	3594
43.90	2748	61.00	6986	75.95	6001	92.95	5083
45.00	1403	62.00	6429	76.85	871	93.95	15617
47.05	2123	63.00	3915	78.00	762	94.95	143424
48.05	1305	63.80	567	78.80	3439	95.95	10111

Scan 152 (4.600 min): C8426.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.95	505						
103.90	936						
116.95	717						
119.00	671						
129.75	501						
141.10	650						
142.80	1030						
173.95	80432						
174.95	5823						
175.95	79576						
176.85	5444						

7A
VOLATILE CONTINUING CALIBRATION CHECK

99

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 6/9/95 Time: 1756

Lab File ID: C8427.D Init. Calib. Date(s): 5/26/95

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

GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.396	0.412		-4.0	30.0
Chloromethane	0.233	0.235		-0.9	30.0
Vinyl chloride	0.263	0.278		-5.7	30.0
Bromomethane	0.178	0.192		-7.9	30.0
Chloroethane	0.154	0.171		-11.0	30.0
Trichlorofluoromethane	0.588	0.600		-2.0	30.0
1,1-Dichloroethene	0.258	0.270		-4.7	30.0
Methylene chloride	0.274	0.342		-24.8	30.0
trans-1,2-Dichloroethene	0.273	0.282		-3.3	30.0
1,1-Dichloroethane	0.545	0.570		-4.6	30.0
2,2-Dichloropropane	0.534	0.554		-3.7	30.0
cis-1,2-Dichloroethene	0.257	0.265		-3.1	30.0
Bromochloromethane	0.090	0.093		-3.3	30.0
Chloroform	0.512	0.529		-3.3	30.0
1,1,1-Trichloroethane	0.566	0.582		-2.8	30.0
Carbon tetrachloride	0.526	0.521		1.0	30.0
1,1-Dichloropropene	0.495	0.514		-3.8	30.0
Benzene	0.871	0.893		-2.5	30.0
1,2-Dichloroethane	0.214	0.226		-5.6	30.0
Trichloroethene	0.386	0.390		-1.0	30.0
1,2-Dichloropropane	0.285	0.306		-7.4	30.0
Dibromomethane	0.115	0.122		-6.1	30.0
Bromodichloromethane	0.396	0.417		-5.3	30.0
cis-1,3-Dichloropropene	0.342	0.361		-5.6	30.0
Toluene	0.619	0.634		-2.4	30.0
trans-1,3-Dichloropropene	0.236	0.253		-7.2	30.0
1,1,2-Trichloroethane	0.110	0.117		-6.4	30.0
Tetrachloroethene	0.388	0.376		3.1	30.0
1,3-Dichloropropane	0.219	0.229		-4.6	30.0
Dibromochloromethane	0.215	0.221		-2.8	30.0
1,2-Dibromomethane	0.152	0.160		-5.3	30.0
Chlorobenzene	0.644	0.646		-0.3	30.0
1,1,1,2-Tetrachloroethane	0.256	0.265		-3.5	30.0
Ethylbenzene	1.302	1.335		-2.5	30.0
Xylene (para & meta)	0.468	0.474		-1.3	30.0
Xylene (Ortho)	0.414	0.424		-2.4	30.0

VOLATILE CONTINUING CALIBRATION CHECK

100

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Instrument ID: 5972-INSTRUMENT 1Calibration Date: 6/9/95Time: 1756Lab File ID: C8427.DInit. Calib. Date(s): 5/26/95Heated Purge: (Y/N) N

Init. Calib. Times: _____

GC Column: DB-624 X 7ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Styrene	0.641	0.656		-2.3	30.0
Bromoform	0.105	0.109		-3.8	30.0
Isopropylbenzene	1.330	1.325		0.4	30.0
Bromobenzene	0.240	0.247		-2.9	30.0
1,1,2,2-Tetrachloroethane	0.118	0.133		-12.7	30.0
1,2,3-Trichloropropane	0.143	0.150		-4.9	30.0
n-Propylbenzene	1.731	1.771		-2.3	30.0
2-Chlorotoluene	0.960	1.053		-9.7	30.0
4-Chlorotoluene	1.140	1.158		-1.6	30.0
1,3,5-Trimethylbenzene	1.101	1.105		-0.4	30.0
tert-Butylbenzene	1.142	1.164		-1.9	30.0
1,2,4-Trimethylbenzene	1.009	1.054		-4.5	30.0
sec-Butylbenzene	1.693	1.694		-0.1	30.0
1,3-Dichlorobenzene	0.489	0.495		-1.2	30.0
4-Isopropyltoluene	1.264	1.291		-2.1	30.0
1,4-Dichlorobenzene	0.485	0.495		-2.1	30.0
1,2-Dichlorobenzene	0.364	0.382		-4.9	30.0
n-Butylbenzene	1.355	1.405		-3.7	30.0
1,2-Dibromo-3-chloropropane	0.030	0.031		-3.3	30.0
1,2,4-Trichlorobenzene	0.268	0.279		-4.1	30.0
Hexachlorobutadiene	0.323	0.305		5.6	30.0
Naphthalene	0.232	0.250		-7.8	30.0
1,2,3-Trichlorobenzene	0.187	0.199		-6.4	30.0
4-Bromofluorobenzene	0.499	0.510		-2.2	30.0
1,2-Dichlorobenzene-d4	0.228	0.241		-5.7	30.0

MTBE

0.292

0.320

-9.5

30.0

TBA

0.004

0.005

-1.0

30.0

Evaluate Continuing Calibration Report

101

Data File : D:\HPCHEM\1\DATA\C8427.D

Acq On : 9 Jun 95 5:56 pm

Sample : 10 PPB CHK STANDARD

Misc :

Vial: 2

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1	Fluorobenzene	1.000	1.000	0.0	94	0.02
2 M	Dichlorodifluoromethane	0.396	0.412	-3.9	92	0.03
3 M	Chloromethane	0.233	0.235	-0.7	89	0.04
4 M	Vinyl chloride	0.263	0.278	-5.8	96	0.04
5 M	Bromomethane	0.178	0.192	-7.8	92	0.04
6 M	Chloroethane	0.154	0.171	-10.8	94	0.04
7 M	Trichlorofluoromethane	0.588	0.600	-2.2	95	0.04
8 M	1,1-Dichloroethene	0.258	0.270	-4.5	96	0.04
9 M	Methylene chloride	0.274	0.342	-24.8	92	0.03
10 M	trans-1,2-Dichloroethene	0.273	0.282	-3.3	96	0.03
11	Hexane	0.000	0.000#	0.0	0#	-9.46#
12 M	1,1-Dichloroethane	0.545	0.570	-4.6	99	0.03
13 M	2,2-Dichloropropane	0.534	0.554	-3.7	96	0.03
14 M	cis-1,2-Dichloroethene	0.257	0.265	-3.2	96	0.03
15	2-Butanone	0.000	0.000#	0.0	0#	0.03
16 M	Bromochloromethane	0.090	0.093	-3.1	100	0.03
17 M	Chloroform	0.512	0.529	-3.3	98	0.04
18 M	1,1,1-Trichloroethane	0.566	0.582	-2.8	97	0.03
19 M	Carbon tetrachloride	0.526	0.521	0.9	95	0.02
20 M	1,1-Dichloropropene	0.495	0.514	-3.9	96	0.02
21 M	Benzene	0.871	0.893	-2.6	95	0.03
22 M	1,2-Dichloroethane	0.214	0.226	-5.7	102	0.03
23 M	Trichloroethene	0.386	0.390	-0.9	95	0.02
24 M	1,2-Dichloropropane	0.285	0.306	-7.4	103	0.02
25 M	Dibromomethane	0.115	0.122	-5.6	102	0.01
26 M	Bromodichloromethane	0.396	0.417	-5.4	102	0.03
27 M	cis-1,3-Dichloropropene	0.342	0.361	-5.5	102	0.02
28 M	Toluene	0.619	0.634	-2.5	99	0.02
29 M	trans-1,3-Dichloropropene	0.236	0.253	-6.9	104	0.02
30 M	1,1,2-Trichloroethane	0.110	0.117	-6.1	103	0.01
31 M	Tetrachloroethene	0.388	0.376	3.0	92	0.01
32 M	1,3-Dichloropropane	0.219	0.229	-4.7	102	0.03
33 M	Dibromochloromethane	0.215	0.221	-2.8	102	0.02
34 M	1,2-Dibromomethane	0.152	0.160	-5.1	105	0.02
35 M	Chlorobenzene	0.644	0.646	-0.2	96	0.02
36 M	1,1,1,2-Tetrachloroethane	0.256	0.265	-3.7	102	0.02
37 M	Ethylbenzene	1.302	1.335	-2.5	99	0.01
38 M	Xylene (para & meta)	0.468	0.474	-1.4	97	0.01
39 M	Xylene (Ortho)	0.414	0.424	-2.5	98	0.01
40 M	Styrene	0.641	0.656	-2.4	99	0.01
41 M	Bromoform	0.105	0.109	-3.5	104	0.01
42 M	Isopropylbenzene	1.330	1.325	0.4	96	0.01

(#) = Out of Range

C8427.D VOA524.M

Tue Jun 20 14:43:31 1995

VOA

Page 1

Evaluate Continuing Calibration Report

102

Data File : D:\HPCHEM\1\DATA\C8427.D
Acq On : 9 Jun 95 5:56 pm
Sample : 10 PPB CHK STANDARD
Misc :

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
43 S	4-Bromofluorobenzene	0.499	0.510	-2.3	100	0.02
44 M	Bromobenzene	0.240	0.247	-3.1	101	0.01
45 M	1,1,2,2-Tetrachloroethane	0.118	0.133	-13.2	113	0.01
46 M	1,2,3-Trichloropropane	0.143	0.150	-4.8	103	0.01
47 M	n-Propylbenzene	1.731	1.771	-2.3	99	0.01
48 M	2-Chlorotoluene	0.960	1.053	-9.7	108	0.01
49 M	4-Chlorotoluene	1.140	1.158	-1.5	98	0.02
50 M	1,3,5-Trimethylbenzene	1.101	1.105	-0.3	98	0.01
51 M	tert-Butylbenzene	1.142	1.164	-1.9	99	0.01
52 M	1,2,4-Trimethylbenzene	1.009	1.054	-4.5	100	0.02
53 M	sec-Butylbenzene	1.693	1.694	-0.1	98	0.01
54 M	1,3-Dichlorobenzene	0.489	0.495	-1.2	100	0.01
55 M	4-Isopropyltoluene	1.264	1.291	-2.1	99	0.02
56 M	1,4-Dichlorobenzene	0.485	0.495	-2.1	101	0.01
57 S	1,2-Dichlorobenzene-d4	0.228	0.241	-5.6	104	0.01
58 M	1,2-Dichlorobenzene	0.364	0.382	-4.8	103	0.02
59 M	n-Butylbenzene	1.355	1.405	-3.7	102	0.01
60 M	1,2-Dibromo-3-chloropropane	0.030	0.031	-3.6	108	0.01
61 M	1,2,4-Trichlorobenzene	0.268	0.279	-4.2	103	0.01
62 M	Hexachlorobutadiene	0.323	0.305	5.7	95	0.01
63 M	Naphthalene	0.232	0.250	-7.9	107	0.01
64 M	1,2,3-Trichlorobenzene	0.187	0.199	-6.6	108	0.01
65	Methyl-tert butyl ether	0.292	0.320	-9.5	106	0.05
66	tert-Butyl Alcohol	0.004	0.005	-1.0	109	0.02

Quantitation Report

Data File : d:\hpchem\1\data\c8427.d

Acq On : 9 Jun 95 5:56 pm

Sample : 10 PPB CHK STANDARD

Misc :

Quant Time: Jun 11 11:30 1995

Vial: 2 **103**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.86	96	728549	5.00	ug/L	0.02
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.11	95	371856	5.12	ug/L	102.33%
57) 1,2-Dichlorobenzene-d4	21.89	152	175332	5.28	ug/L	105.63%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.31	85	599788	10.39	ug/L	96
3) Chloromethane	3.68	50	342485	10.07	ug/L	96
4) Vinyl chloride	3.91	62	405528	10.58	ug/L	94
5) Bromomethane	4.56	94	279232	10.78	ug/L	98
6) Chloroethane	4.80	64	248889	11.08	ug/L	97
7) Trichlorofluoromethane	5.39	101	874609	10.22	ug/L	98
8) 1,1-Dichloroethene	6.46	96	392875	10.45	ug/L	99
9) Methylene chloride	7.44	84	498003	12.48	ug/L	94
10) trans-1,2-Dichloroethene	8.00	96	410303	10.33	ug/L	96
12) 1,1-Dichloroethane	8.79	63	831031	10.46	ug/L	95
13) 2,2-Dichloropropane	9.86	77	807143	10.37	ug/L	98
14) cis-1,2-Dichloroethene	9.86	96	386265	10.32	ug/L	97
16) Bromochloromethane	10.27	128	135271	10.31	ug/L	98
17) Chloroform	10.43	83	770420	10.33	ug/L	98
18) 1,1,1-Trichloroethane	10.76	97	847999	10.28	ug/L	97
19) Carbon tetrachloride	11.06	117	759163	9.91	ug/L	98
20) 1,1-Dichloropropene	11.04	75	749055	10.39	ug/L	99
21) Benzene	11.39	78	1301540	10.26	ug/L	97
22) 1,2-Dichloroethane	11.40	62	329193	10.57	ug/L	99
23) Trichloroethene	12.50	95	567597	10.09	ug/L	98
24) 1,2-Dichloropropane	12.85	63	446145	10.74	ug/L	99
25) Dibromomethane	13.05	93	177665	10.56	ug/L	96
26) Bromodichloromethane	13.32	83	607909	10.54	ug/L	97
27) cis-1,3-Dichloropropene	14.08	75	525897	10.55	ug/L	96
28) Toluene	14.67	92	923595	10.25	ug/L	98
29) trans-1,3-Dichloropropene	15.01	75	368371	10.69	ug/L	98
30) 1,1,2-Trichloroethane	15.31	83	170630	10.61	ug/L	99
31) Tetrachloroethene	15.62	166	548078	9.70	ug/L	98
32) 1,3-Dichloropropane	15.61	76	333809	10.47	ug/L	99
33) Dibromochloromethane	16.02	129	321770	10.28	ug/L	100
34) 1,2-Dibromomethane	16.21	107	233393	10.51	ug/L	95
35) Chlorobenzene	17.09	112	940676	10.02	ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.22	131	386438	10.37	ug/L	97
37) Ethylbenzene	17.27	91	1944784	10.25	ug/L	99
38) Xylene (para & meta)	17.48	106	1382225	20.29	ug/L	95
39) Xylene (Ortho)	18.18	106	618067	10.25	ug/L	95
40) Styrene	18.20	104	956337	10.24	ug/L	96

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

c8427.d VOA524.M

Sun Jun 11 12:27:34 1995

VOA

Page 1

Quantitation Report

104

Data File : d:\hpchem\1\data\c8427.d
Acq On : 9 Jun 95 5:56 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Jun 11 11:30 1995

Vial: 2
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.52	173	159035	10.35	ug/L	89
42) Isopropylbenzene	18.84	105	1931107	9.96	ug/L m	0
44) Bromobenzene	19.39	156	360386	10.31	ug/L	93
45) 1,1,2,2-Tetrachloroethane	19.34	83	194425	11.32	ug/L	89
46) 1,2,3-Trichloropropane	19.41	75	218665	10.48	ug/L	92
47) n-Propylbenzene	19.58	91	2580987	10.23	ug/L	100
48) 2-Chlorotoluene	19.74	91	1535028	10.97	ug/L	99
49) 4-Chlorotoluene	19.93	91	1687296	10.15	ug/L	83
50) 1,3,5-Trimethylbenzene	19.90	105	1609699	10.03	ug/L	99
51) tert-Butylbenzene	20.49	119	1696239	10.19	ug/L	99
52) 1,2,4-Trimethylbenzene	20.58	105	1536276	10.45	ug/L	97
53) sec-Butylbenzene	20.89	105	2468090	10.01	ug/L	98
54) 1,3-Dichlorobenzene	21.09	146	721542	10.12	ug/L	99
55) 4-Isopropyltoluene	21.16	119	1880974	10.21	ug/L	98
56) 1,4-Dichlorobenzene	21.25	146	721416	10.21	ug/L	92
58) 1,2-Dichlorobenzene	21.93	146	556745	10.48	ug/L	98
59) n-Butylbenzene	21.90	91	2047332	10.37	ug/L	98
60) 1,2-Dibromo-3-chloropropan	23.33	75	45217	10.36	ug/L	87
61) 1,2,4-Trichlorobenzene	24.90	180	406686	10.42	ug/L	98
62) Hexachlorobutadiene	25.24	225	443898	9.43	ug/L	98
63) Naphthalene	25.35	128	364747	10.79	ug/L	100
64) 1,2,3-Trichlorobenzene	25.82	180	290134	10.66	ug/L	96
65) Methyl-tert butyl ether	8.05	73	465930	10.95	ug/L	99
66) tert-Butyl Alcohol	7.75	59	13177	20.20	ug/L	100

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

Quantitation Report

105

Data File : d:\hpchem\1\data\c8427.d

Acq On : 9 Jun 95 5:56 pm

Sample : 10 PPB CHK STANDARD

Misc :

Quant Time: Jun 11 11:30 1995

Vial: 2

Operator: SRK

Inst : 5972 - In

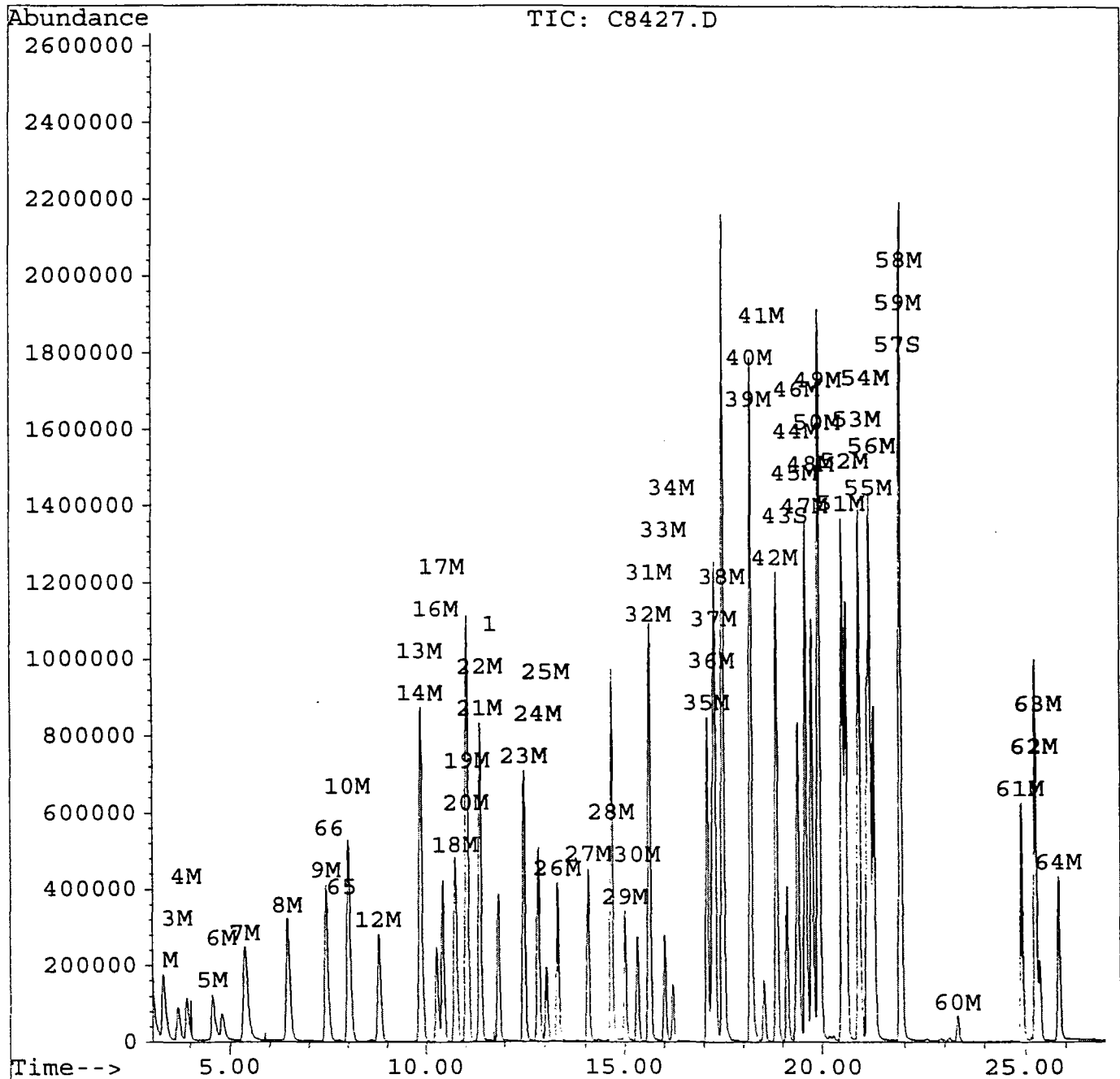
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration



Quantitation Report

106

Data File : d:\hpcchem\1\data\c8428.d

Acq On : 9 Jun 95 6:31 pm

Sample : 1 PPB CHK STANDARD

Misc :

Quant Time: Jun 9 18:59 1995

Vial: 3

Operator: SRK

Inst : 5972 - In

Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M

Title : 524.2 Purgable Organics

Last Update : Tue May 30 13:15:19 1995

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.87	96	688176	5.00	ug/L	0.03

System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.11	95	358312	5.22 ug/L	104.39%
57) 1,2-Dichlorobenzene-d4	21.90	152	168375	5.37 ug/L	107.39%

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.31	85	66054	1.21 ug/L	95
3) Chloromethane	3.68	50	37100	1.16 ug/L	94
4) Vinyl chloride	3.91	62	38063	1.05 ug/L	86
5) Bromomethane	4.59	94	32195	1.32 ug/L	88
6) Chloroethane	4.81	64	24425	1.15 ug/L	98
7) Trichlorofluoromethane	5.39	101	89833	1.11 ug/L	98
8) 1,1-Dichloroethene	6.47	96	39932	1.12 ug/L	95
9) Methylene chloride	7.46	84	238596	6.33 ug/L	97
10) trans-1,2-Dichloroethene	8.00	96	40430	1.08 ug/L	97
12) 1,1-Dichloroethane	8.81	63	88595	1.18 ug/L	90
13) 2,2-Dichloropropane	9.86	77	83017	1.13 ug/L	97
14) cis-1,2-Dichloroethene	9.86	96	40881	1.16 ug/L	93
16) Bromochloromethane	10.28	128	14216	1.15 ug/L	# 90
17) Chloroform	10.43	83	82400	1.17 ug/L	93
18) 1,1,1-Trichloroethane	10.74	97	88314	1.13 ug/L	98
19) Carbon tetrachloride	11.06	117	78251	1.08 ug/L	95
20) 1,1-Dichloropropene	11.04	75	81618	1.20 ug/L	98
21) Benzene	11.39	78	138842	1.16 ug/L	91
22) 1,2-Dichloroethane	11.39	62	35409	1.20 ug/L	95
23) Trichloroethene	12.51	95	61221	1.15 ug/L	94
24) 1,2-Dichloropropane	12.86	63	48164	1.23 ug/L	89
25) Dibromomethane	13.05	93	19885	1.25 ug/L	90
26) Bromodichloromethane	13.31	83	64815	1.19 ug/L	94
27) cis-1,3-Dichloropropene	14.08	75	55347	1.18 ug/L	99
28) Toluene	14.67	92	99695	1.17 ug/L	99
29) trans-1,3-Dichloropropene	15.01	75	37324	1.15 ug/L	96
30) 1,1,2-Trichloroethane	15.33	83	18172	1.20 ug/L	# 78
31) Tetrachloroethene	15.63	166	58266	1.09 ug/L	90
32) 1,3-Dichloropropane	15.61	76	36095	1.20 ug/L	98
33) Dibromochloromethane	16.01	129	34524	1.17 ug/L	98
34) 1,2-Dibromomethane	16.22	107	23851	1.14 ug/L	95
35) Chlorobenzene	17.09	112	102425	1.16 ug/L	96
36) 1,1,1,2-Tetrachloroethane	17.22	131	41952	1.19 ug/L	99
37) Ethylbenzene	17.28	91	203716	1.14 ug/L	96
38) Xylene (para & meta)	17.49	106	147537	2.29 ug/L	98
39) Xylene (Ortho)	18.19	106	65981	1.16 ug/L	92
40) Styrene	18.20	104	101687	1.15 ug/L	95

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

c8428.d VOA524.M

Sun Jun 11 12:28:47 1995

VOA

Page 1

Quantitation Report

107

Data File : d:\hpchem\1\data\c8428.d
Acq On : 9 Jun 95 6:31 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 9 18:59 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.52	173	17031	1.17	ug/L	89
42) Isopropylbenzene	18.84	105	201551	1.10	ug/L	88
44) Bromobenzene	19.38	156	39375	1.19	ug/L #	83
45) 1,1,2,2-Tetrachloroethane	19.33	83	21303	1.31	ug/L	90
46) 1,2,3-Trichloropropane	19.41	75	26783	1.36	ug/L	99
47) n-Propylbenzene	19.58	91	270596	1.14	ug/L	98
48) 2-Chlorotoluene	19.74	91	166327	1.26	ug/L	98
49) 4-Chlorotoluene	19.93	91	188052	1.20	ug/L	86
50) 1,3,5-Trimethylbenzene	19.90	105	178094	1.17	ug/L	98
51) tert-Butylbenzene	20.49	119	182475	1.16	ug/L	97
52) 1,2,4-Trimethylbenzene	20.58	105	162481	1.17	ug/L	98
53) sec-Butylbenzene	20.89	105	264686	1.14	ug/L	95
54) 1,3-Dichlorobenzene	21.10	146	80622	1.20	ug/L	97
55) 4-Isopropyltoluene	21.16	119	196736	1.13	ug/L	98
56) 1,4-Dichlorobenzene	21.25	146	82472	1.24	ug/L	94
58) 1,2-Dichlorobenzene	21.92	146	61697	1.23	ug/L	92
59) n-Butylbenzene	21.90	91	218920	1.17	ug/L	94
60) 1,2-Dibromo-3-chloropropan	23.34	75	5020	1.22	ug/L #	69
61) 1,2,4-Trichlorobenzene	24.90	180	48287	1.31	ug/L	97
62) Hexachlorobutadiene	25.24	225	52159	1.17	ug/L	99
63) Naphthalene	25.34	128	46441	1.45	ug/L	100
64) 1,2,3-Trichlorobenzene	25.83	180	37713	1.47	ug/L	96
65) Methyl-tert butyl ether	8.04	73	54593	1.36	ug/L	94

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

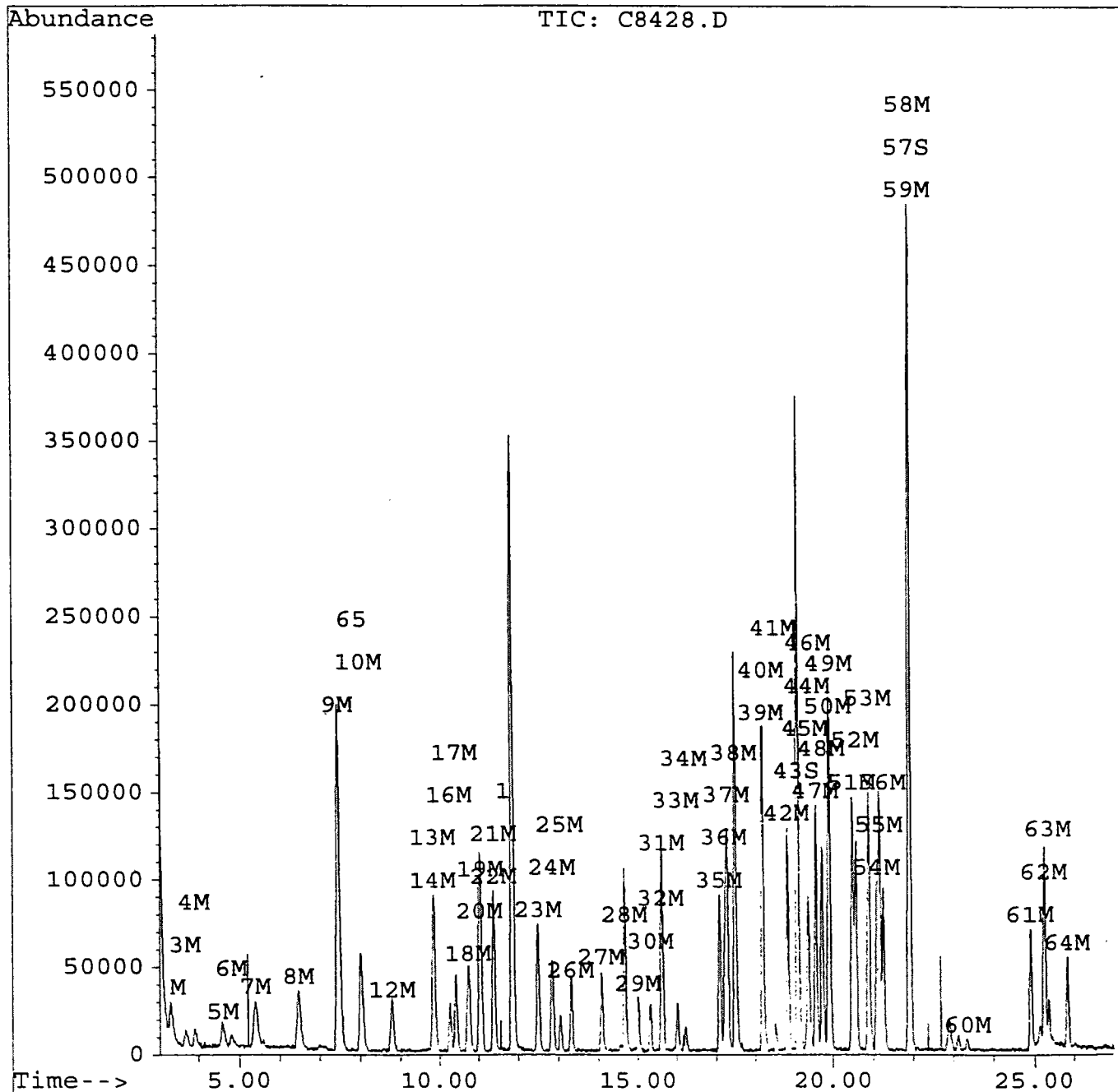
Quantitation Report

108

Data File : d:\hpchem\1\data\c8428.d
Acq On : 9 Jun 95 6:31 pm
Sample : 1 PPB CHK STANDARD
Misc :
Quant Time: Jun 9 18:59 1995

Vial: 3
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



Quantitation Report

109

Data File : d:\hpchem\1\data\c8441.d
 Acq On : 10 Jun 95 1:58 am
 Sample : 10 PPB QCS
 Misc :
 Quant Time: Jun 11 11:57 1995

Vial: 17
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.88	96	674646	5.00	ug/L	0.04
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	342758	5.09	ug/L	101.86%
57) 1,2-Dichlorobenzene-d4	21.91	152	159477	5.19	ug/L	103.75%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.33	85	404876	7.57	ug/L	91
3) Chloromethane	3.71	50	254488	8.08	ug/L	100
4) Vinyl chloride	3.93	62	346658	9.77	ug/L	99
5) Bromomethane	4.59	94	246686	10.28	ug/L	97
6) Chloroethane	4.82	64	217652	10.47	ug/L	98
7) Trichlorofluoromethane	5.40	101	837710	10.57	ug/L	99
8) 1,1-Dichloroethene	6.49	96	380967	10.94	ug/L	94
9) Methylene chloride	7.47	84	460547	12.47	ug/L	100
10) trans-1,2-Dichloroethene	8.03	96	401004	10.90	ug/L	97
12) 1,1-Dichloroethane	8.82	63	811631	11.03	ug/L	99
13) 2,2-Dichloropropane	9.88	77	664325	9.21	ug/L	98
14) cis-1,2-Dichloroethene	9.88	96	363400	10.48	ug/L	94
16) Bromochloromethane	10.29	128	123642	10.18	ug/L	100
17) Chloroform	10.45	83	749319	10.85	ug/L	98
18) 1,1,1-Trichloroethane	10.78	97	831579	10.88	ug/L	97
19) Carbon tetrachloride	11.09	117	766799	10.81	ug/L	97
20) 1,1-Dichloropropene	11.06	75	752666	11.28	ug/L	98
21) Benzene	11.40	78	1269682	10.81	ug/L	97
22) 1,2-Dichloroethane	11.42	62	298119	10.34	ug/L	99
23) Trichloroethene	12.52	95	550334	10.57	ug/L	96
24) 1,2-Dichloropropane	12.88	63	415527	10.81	ug/L	100
25) Dibromomethane	13.08	93	161177	10.34	ug/L	99
26) Bromodichloromethane	13.34	83	572187	10.71	ug/L	100
27) cis-1,3-Dichloropropene	14.10	75	470006	10.18	ug/L	98
28) Toluene	14.68	92	901746	10.80	ug/L	99
29) trans-1,3-Dichloropropene	15.02	75	312064	9.78	ug/L	99
30) 1,1,2-Trichloroethane	15.34	83	154413	10.37	ug/L	87
31) Tetrachloroethene	15.65	166	567762	10.85	ug/L	98
32) 1,3-Dichloropropane	15.62	76	308881	10.46	ug/L	99
33) Dibromochloromethane	16.03	129	301577	10.40	ug/L	98
34) 1,2-Dibromomethane	16.23	107	209511	10.19	ug/L	100
35) Chlorobenzene	17.10	112	920713	10.59	ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.24	131	354242	10.26	ug/L	97
37) Ethylbenzene	17.29	91	1887317	10.74	ug/L	99
38) Xylene (para & meta)	17.50	106	1377004	21.82	ug/L	99
39) Xylene (Ortho)	18.20	106	605715	10.85	ug/L	93
40) Styrene	18.22	104	893522	10.33	ug/L	99

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

c8441.d VOA524.M

Sun Jun 11 12:32:15 1995

VOA

Page 1

Quantitation Report

110

Data File : d:\hpchem\1\data\c8441.d
Acq On : 10 Jun 95 1:58 am
Sample : 10 PPB QCS
Misc :
Quant Time: Jun 11 11:57 1995

Vial: 17
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.54	173	144276	10.14	ug/L	90
42) Isopropylbenzene	18.86	105	2013160	11.22	ug/L	89
44) Bromobenzene	19.41	156	337962	10.44	ug/L #	88
45) 1,1,2,2-Tetrachloroethane	19.35	83	175999	11.06	ug/L	100
46) 1,2,3-Trichloropropane	19.43	75	197084	10.20	ug/L #	77
47) n-Propylbenzene	19.60	91	2600923	11.14	ug/L	99
48) 2-Chlorotoluene	19.76	91	1482099	11.44	ug/L	100
49) 4-Chlorotoluene	19.94	91	1673699	10.88	ug/L m	89
50) 1,3,5-Trimethylbenzene	19.91	105	1555985	10.47	ug/L	96
51) tert-Butylbenzene	20.51	119	1707974	11.08	ug/L	99
52) 1,2,4-Trimethylbenzene	20.59	105	1533723	11.26	ug/L	99
53) sec-Butylbenzene	20.91	105	2533026	11.09	ug/L	99
54) 1,3-Dichlorobenzene	21.11	146	707993	10.73	ug/L	97
55) 4-Isopropyltoluene	21.17	119	1854121	10.87	ug/L	97
56) 1,4-Dichlorobenzene	21.27	146	698539	10.67	ug/L	91
58) 1,2-Dichlorobenzene	21.94	146	530719	10.79	ug/L	98
59) n-Butylbenzene	21.92	91	2049032	11.21	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.34	75	41066	10.16	ug/L	89
61) 1,2,4-Trichlorobenzene	24.92	180	390393	10.80	ug/L	100
62) Hexachlorobutadiene	25.26	225	470619	10.79	ug/L	98
63) Naphthalene	25.37	128	340286	10.87	ug/L	100
64) 1,2,3-Trichlorobenzene	25.84	180	276189	10.96	ug/L	91

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

c8441.d VOA524.M

Sun Jun 11 12:32:20 1995

VOA

Page 2

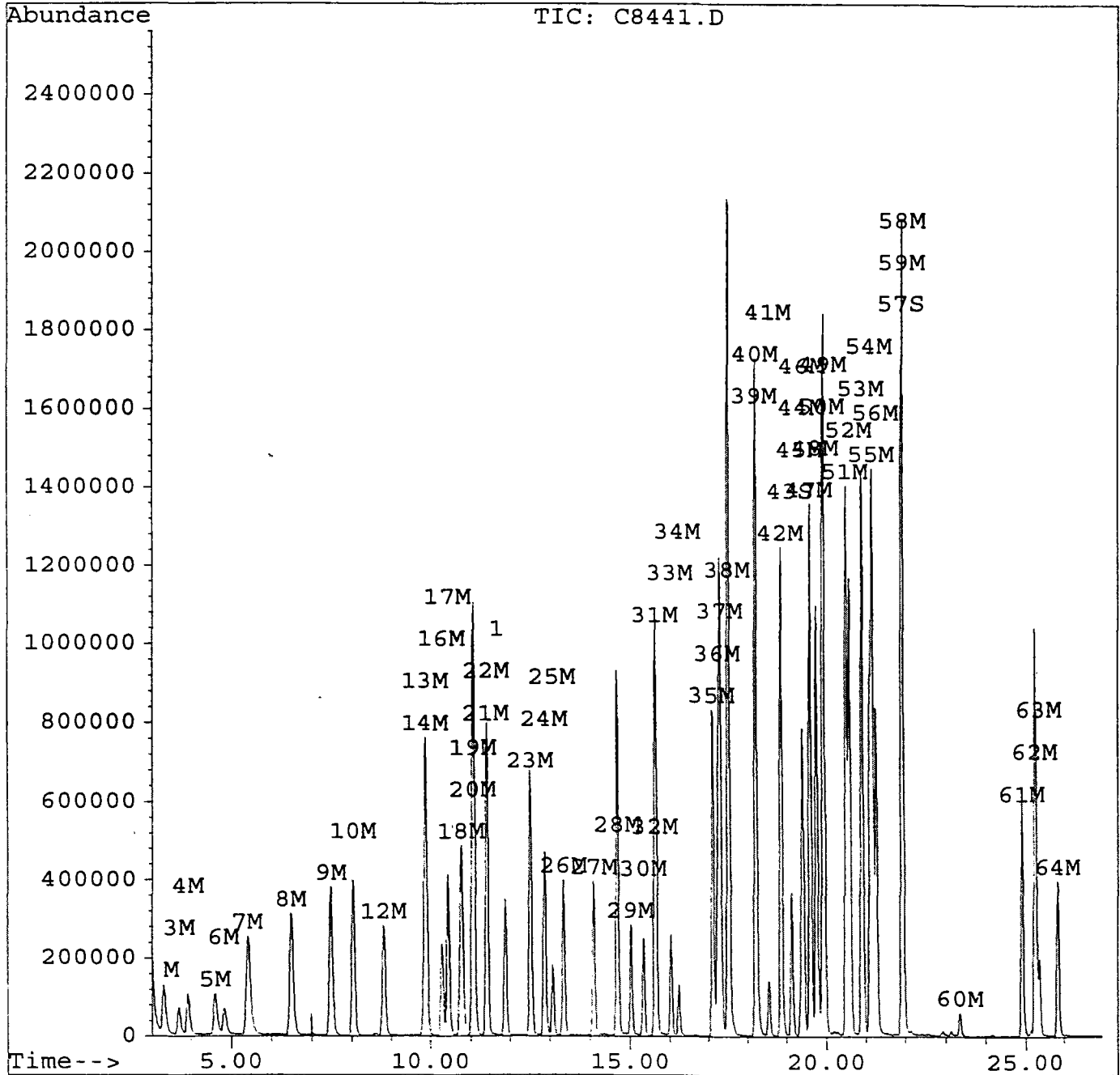
Quantitation Report

111

Data File : d:\hpchem\1\data\c8441.d
 Acq On : 10 Jun 95 1:58 am
 Sample : 10 PPB QCS
 Misc :
 Quant Time: Jun 11 11:57 1995

Vial: 17
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

112

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): C8393.DDate Analyzed: 6/7/95Instrument ID: 5972-INSTRUMENT 1Time Analyzed: 1655GC Column: DB-624 X 75MID: 0.53 (mm)Heated Purge (Y/N) N

	IS1 (FBZ)					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
8 HOUR STD	677243	11.91				
UPPER LIMIT	1354486	12.41				
LOWER LIMIT	338622	11.41				
SAMPLE NO.						
01 1PPB STD	615987	11.91				
02 VBLK01	534236	11.91				
03 9523969V	615203	11.92				
04 9523970V	585904	11.92				
05 9523959V	600438	11.92				
06 9523967V	591728	11.92				
07 9523968V	623668	11.92				
08 9524197V	628315	11.92				
09 9524198V	594619	11.91				
10 9524196V	594132	11.93				
11 9524199V	584583	11.92				
12 9524199MS	554159	11.92				
13 9524199MSD	548354	11.92				
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% 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

113

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Lab File ID (Standard): C8408.DDate Analyzed: 6/8/95Instrument ID: 5972-INSTRUMENT 1Time Analyzed: 1606GC Column: DB-624 X 75MID: 0.53 (mm)Heated Purge (Y/N) N

	IS1 (FBZ)					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
8 HOUR STD	672457	11.90				
UPPER LIMIT	1344914	12.40				
LOWER LIMIT	336229	11.40				
SAMPLE NO.						
01 1PPB STD	653233	11.89				
02 VBLK01	703042	11.88				
03 9524200V	630956	11.89				
04 9524202V	627705	11.89				
05 9524204V	633701	11.88				
06 9524205V	643396	11.89				
07 9524206V	653055	11.88				
08 9524203V	638214	11.88				
09 9523965D	647336	11.88				
10 9523960D	555049	11.88				
11 9523962D	605154	11.88				
12 9524201V	546027	11.89				
13 9523963D	587278	11.90				
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% 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

114

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): C8427.D Date Analyzed: 6/9/95

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1756

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge (Y/N) N

	IS1 (FBZ)					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
8 HOUR STD	728549	11.86				
UPPER LIMIT	1457098	12.36				
LOWER LIMIT	364275	11.36				
SAMPLE NO.						
01 1PPB STD	688176	11.87				
02 VBLK01	677180	11.87				
03 9525251V	670390	11.87				
04 9525252V	675337	11.87				
05 9525292V	673587	11.87				
06 9524667V	666568	11.87				
07 9525689V	681876	11.87				
08 9524836V	712782	11.88				
09 9525275V	699781	11.87				
10 9524199D	624296	11.87				
11 9524201D	704537	11.88				
12 9524292MS	694521	11.88				
13 9524292MSD	716703	11.88				
14 10PPBQCS	674646	11.88				
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% 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.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: <u>EMSL ANALYTICAL</u>	Lab Sample ID: <u>9524197 TB</u>
Matrix (soil/water): <u>WATER</u>	Lab File ID: <u>C8401.D</u>
Sample wt/vol: <u>25 mL</u>	Date Received: <u>05/26/95</u>
Level (low/med): <u>LOW</u>	Date Analyzed: <u>06/07/95</u>
% Moisture: not dec.: <u>NA</u>	Dilution Factor: <u>1</u>
GC Column: <u>DB-624 x 75m</u> ID: <u>0.53mm</u>	Soil Aliquot Volume: <u>NA</u>
Soil Extract Volume: <u>NA</u>	

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	1.5	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	1.0	
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL Lab Sample ID: 9524197 7B
 Matrix (soil/water): WATER Lab File ID: C8401.D
 Sample wt/vol: 25 mL Date Received: 05/26/95
 Level (low/med): LOW Date Analyzed: 06/07/95
 % Moisture: not dec.: NA Dilution Factor: 1
 GC Column: DB-624 x 75m ID: 0.53mm Soil Aliquot Volume: NA
 Soil Extract Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	7.7	
106-43-4-----	4-Chlorotoluene	2.5	
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.60	
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9524197V
TB

117

Lab Name: EMSL ANALYTICAL Contract: _____
Project No. _____ Site: _____ Location: _____ Group: _____
Matrix: (soil/water) WATER Lab Sample ID: 9524197V
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8401.D
Level: (low/med) LOW Date Received: 5/26/95
% Moisture: not dec. NA Date Analyzed: 6/7/95
GC Column: DB-624 X 75M 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/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
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

118

Data File : d:\hpchem\1\data\c8401.d
Acq On : 7 Jun 95 9:44 pm
Sample : 9524197
Misc : 25 ML
Quant Time: Jun 8 13:11 1995

Vial: 10
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.92	96	628315	5.00	ug/L	0.08

System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.16	95	333641	5.32	ug/L	106.46%
57) 1,2-Dichlorobenzene-d4	21.94	152	160812	5.62	ug/L	112.34%

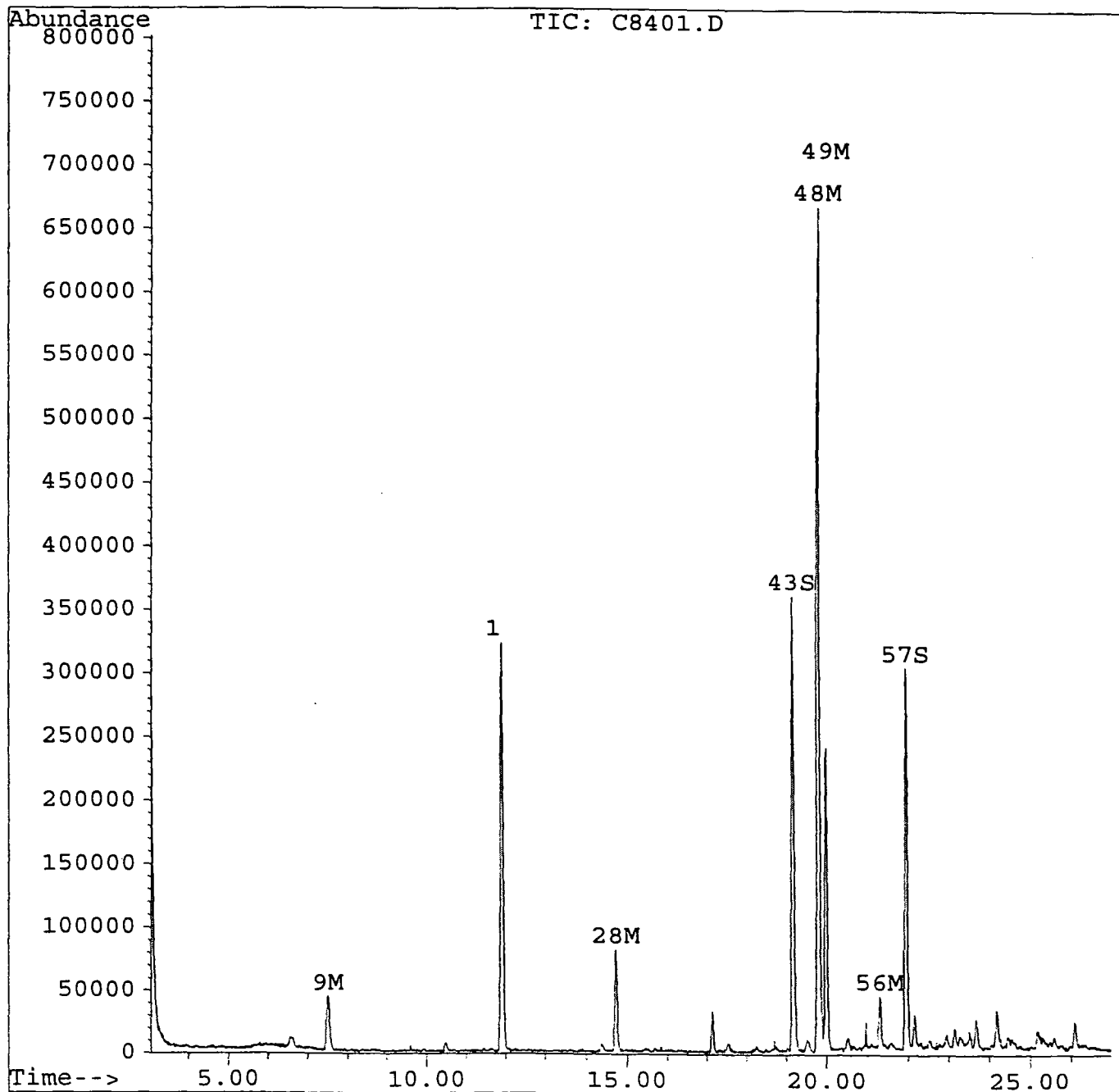
Target Compounds						Qvalue
9) Methylene chloride	7.51	84	51341	1.49	ug/L	95
28) Toluene	14.73	92	77104	0.99	ug/L	86
48) 2-Chlorotoluene	19.79	91	936856	7.76	ug/L	99
49) 4-Chlorotoluene	19.98	91	355992	2.48	ug/L	88
56) 1,4-Dichlorobenzene	21.30	146	33968	0.56	ug/L	90

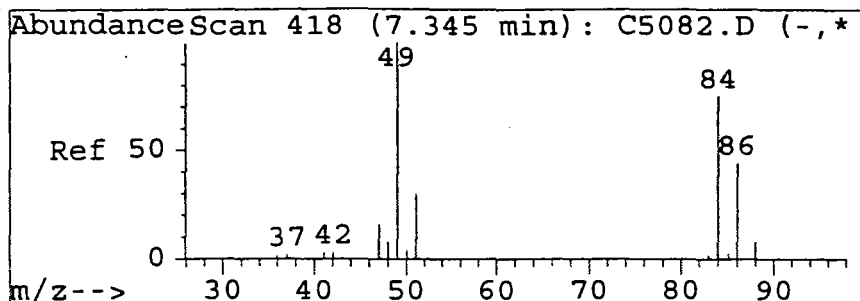
Quantitation Report

Data File : d:\hpchem\1\data\c8401.d
Acq On : 7 Jun 95 9:44 pm
Sample : 9524197
Misc : 25 ML
Quant Time: Jun 8 13:11 1995

Vial: 10119
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration





#9

Methylene chloride

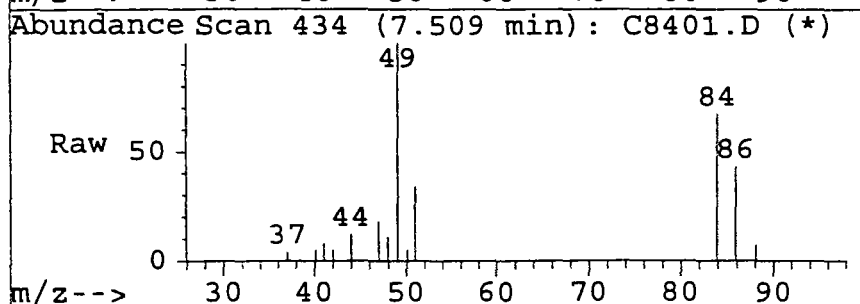
Concen: 1.49 ug/L

RT: 7.51 min Scan# 434

Delta R.T. 0.10 min

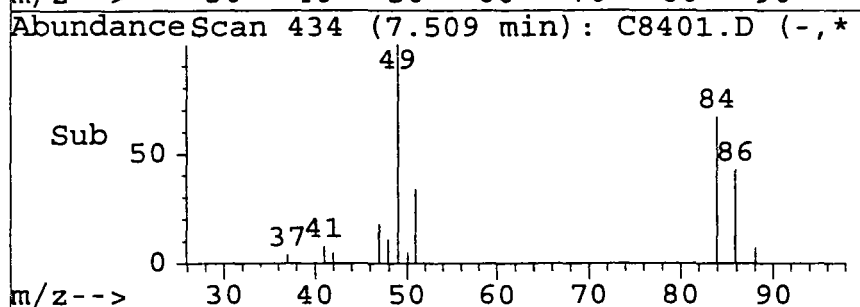
Lab File: c8401.d

Acq: 7 Jun 95 9:44 pm

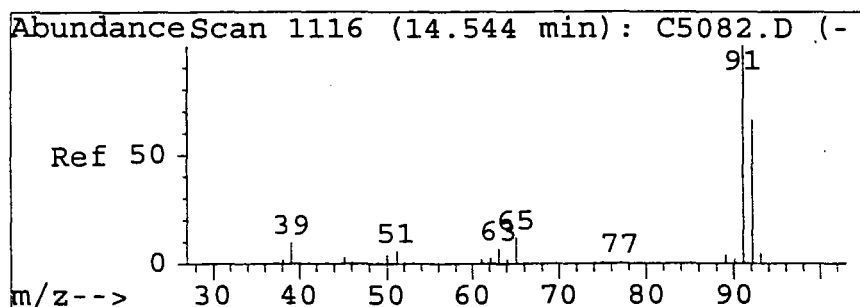


Tgt Ion:84 Resp: 51341

Ion	Ratio	Lower	Upper
84	100		
86	64.2	43.1	83.1
49	148.5	136.3	176.3
0	0.0	0.0	0.0



Abundance	Ion	Ratio	Lower	Upper
20000	Ion 84.00	(83.		
	Ion 86.00	(85.		
	Ion 49.00	(48.		



#28

Toluene

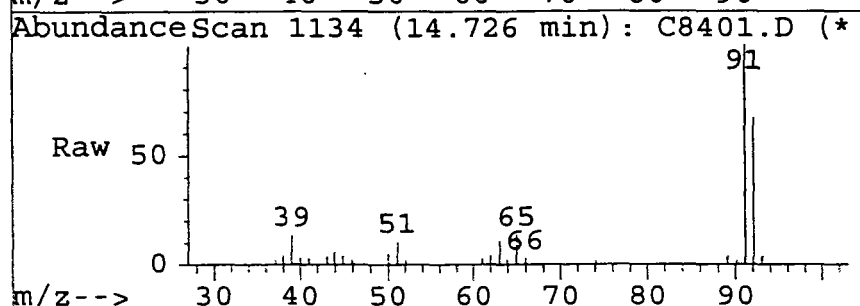
Concen: 0.99 ug/L

RT: 14.73 min Scan# 1134

Delta R.T. 0.08 min

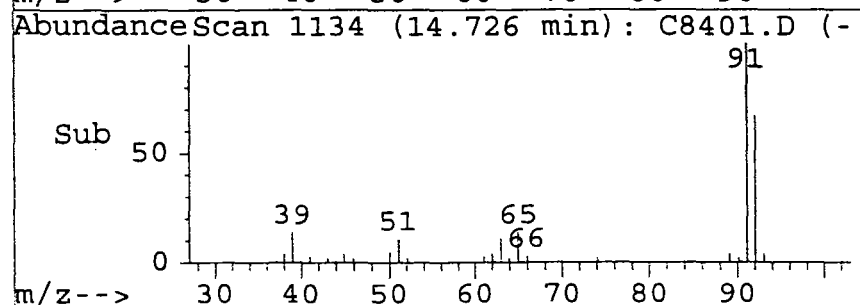
Lab File: c8401.d

Acq: 7 Jun 95 9:44 pm



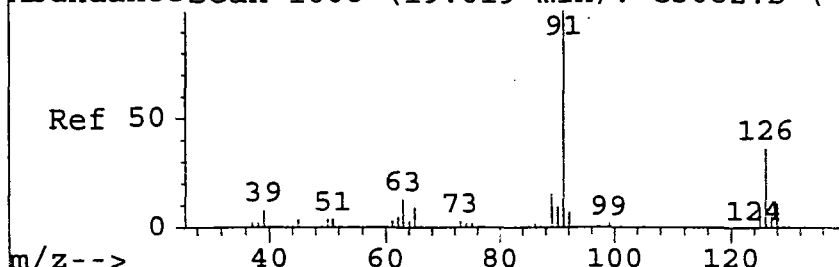
Tgt Ion:92 Resp: 77104

Ion	Ratio	Lower	Upper
92	100		
91	149.6	149.4	189.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Abundance	Ion	Ratio	Lower	Upper
30000	Ion 92.00	(91.		
	Ion 91.00	(90.		

AbundanceScan 1608 (19.619 min): C5082.D (-



#48

2-Chlorotoluene

Concen: 7.76 ug/L

RT: 19.79 min Scan# 1625

Delta R.T. 0.06 min

Lab File: c8401.d

Acq: 7 Jun 95 9:44 pm

Tgt Ion:91 Resp: 936856

Ion Ratio Lower Upper

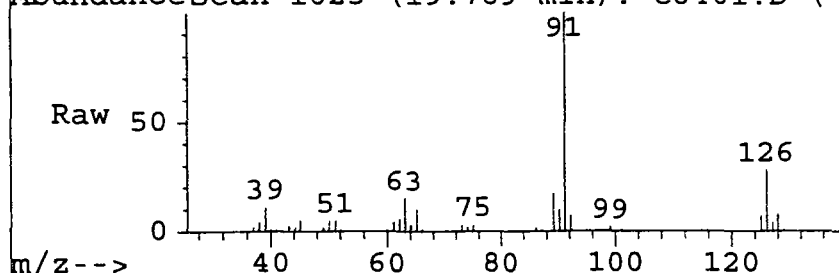
91 100

126 27.6 8.1 48.1

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1625 (19.789 min): C8401.D (*)



AbundanceIon 91.00 (90.

Ion 126.00 (125

19.79

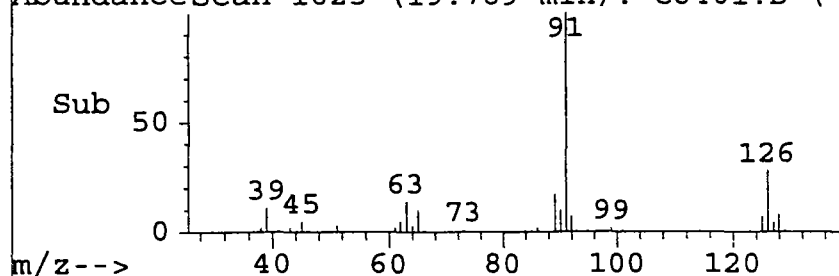
200000

100000

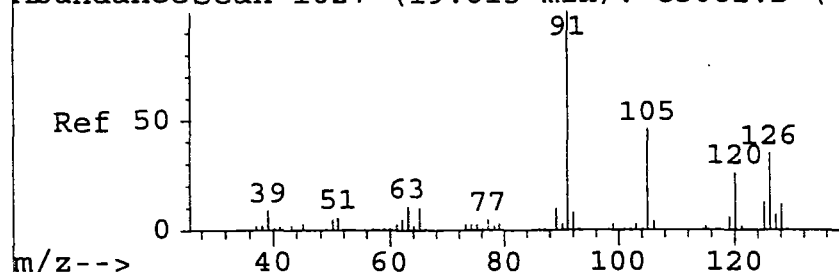
0

Time-->19.51 19.97

AbundanceScan 1625 (19.789 min): C8401.D (-



AbundanceScan 1627 (19.815 min): C5082.D (-



#49

4-Chlorotoluene

Concen: 2.48 ug/L

RT: 19.98 min Scan# 1644

Delta R.T. 0.07 min

Lab File: c8401.d

Acq: 7 Jun 95 9:44 pm

Tgt Ion:91 Resp: 355992

Ion Ratio Lower Upper

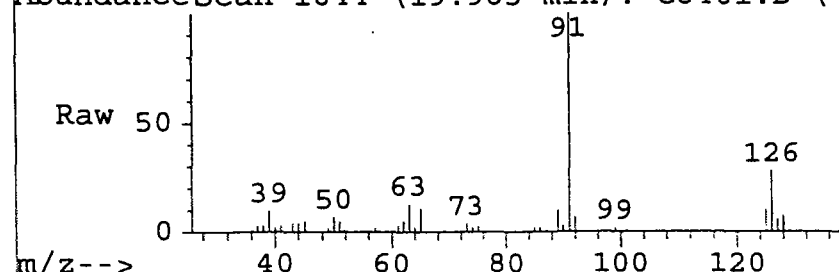
91 100

126 28.2 14.9 54.9

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1644 (19.985 min): C8401.D (*)



AbundanceIon 91.00 (90.

Ion 126.00 (125

19.98

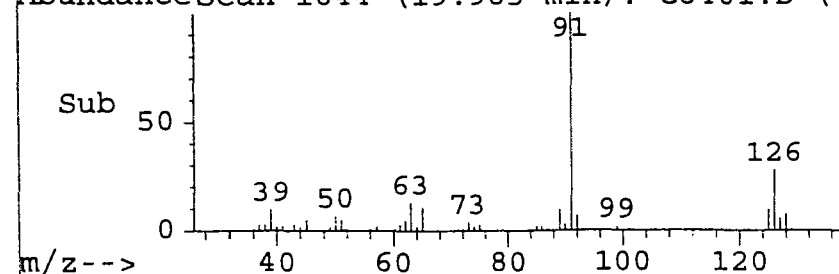
200000

100000

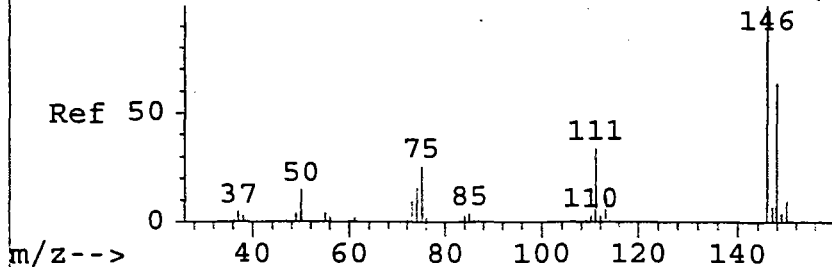
0

Time-->19.75 20.26

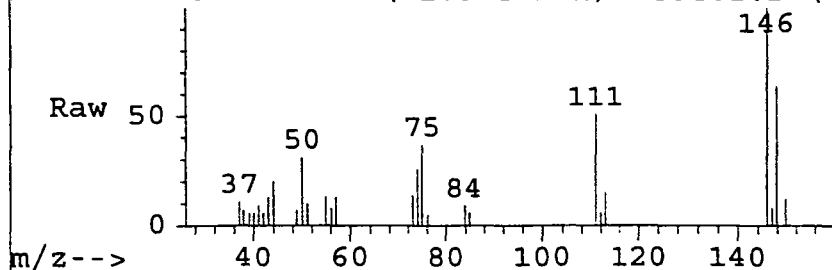
AbundanceScan 1644 (19.985 min): C8401.D (-



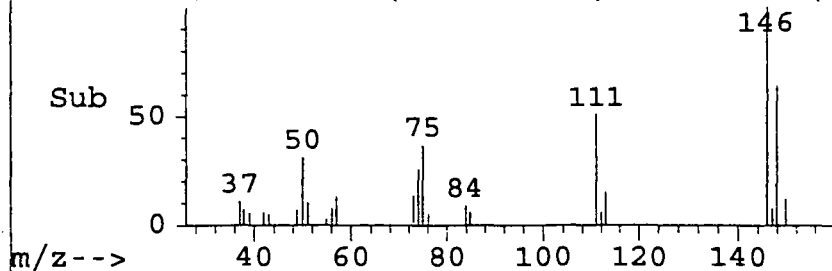
AbundanceScan 1755 (21.135 min): C5082.D (-



AbundanceScan 1772 (21.304 min): C8401.D (*)



AbundanceScan 1772 (21.304 min): C8401.D (-



#56

1,4-Dichlorobenzene

Concen: 0.56 ug/L

RT: 21.30 min Scan# 1772

Delta R.T. 0.06 min

Lab File: c8401.d

Acq: 7 Jun 95 9:44 pm

Tgt Ion:146 Resp: 33968

Ion Ratio Lower Upper

146 100

111 50.6 14.4 54.4

148 64.3 44.4 84.4

0 0.0 0.0 0.0

AbundanceIon 146.00 (145

Ion 111.00 (110

Ion 148.00 (147

10000 21.30

5000

0

Time--21.10 21.45

122

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524198 FB
 Lab File ID: C8402.D
 Date Received: 05/26/95
 Date Analyzed: 06/07/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	1.6	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	1.6	U
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL Lab Sample ID: 9524198 FB
 Matrix (soil/water): WATER Lab File ID: C8402.D
 Sample wt/vol: 25 mL Date Received: 05/26/95
 Level (low/med): LOW Date Analyzed: 06/07/95
 % Moisture: not dec.: NA Dilution Factor: 1
 GC Column: DB-624 x 75m ID: 0.53mm Soil Aliquot Volume: NA
 Soil Extract Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	7.7	
106-43-4-----	4-Chlorotoluene	6.4	
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.60	
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

125

9524198V
FB

Lab Name: EMSL ANALYTICAL Contract: _____
Project No. _____ Site: _____ Location: _____ Group: _____
Matrix: (soil/water) WATER Lab Sample ID: 9524198V
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8402.D
Level: (low/med) LOW Date Received: 5/26/95
% Moisture: not dec. NA Date Analyzed: 6/7/95
GC Column: DB-624 X 75M 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/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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21.				
22.				
23.				
24.				
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26.				
27.				
28.				
29.				
30.				

Quantitation Report

126

Data File : d:\hpchem\1\data\c8402.d
 Acq On : 7 Jun 95 10:19 pm
 Sample : 9524198
 Misc : 25 ML
 Quant Time: Jun 8 13:13 1995

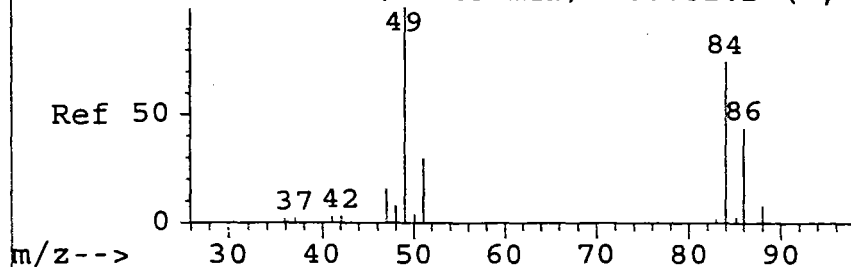
Vial: 11
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

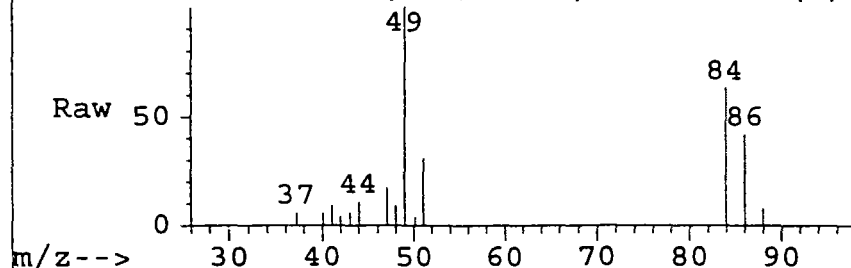
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.91	96	594619	5.00	ug/L	0.07
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.16	95	330501	5.57	ug/L	111.44%
57) 1,2-Dichlorobenzene-d4	21.94	152	158917	5.87	ug/L	117.30%
Target Compounds						Qvalue
9) Methylene chloride	7.50	84	52325	1.61	ug/L	97
28) Toluene	14.73	92	114144	1.55	ug/L	94
48) 2-Chlorotoluene	19.79	91	877791	7.69	ug/L	97
49) 4-Chlorotoluene	19.97	91	358841	2.65	ug/L m	85
56) 1,4-Dichlorobenzene	21.30	146	31572	0.55	ug/L	87

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

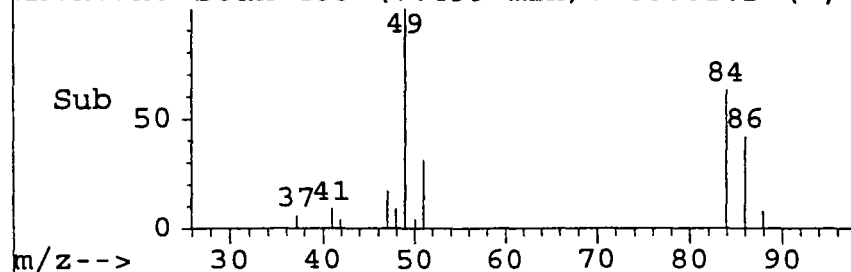
AbundanceScan 418 (7.345 min): C5082.D (-,*



AbundanceScan 433 (7.499 min): C8402.D (*)



AbundanceScan 433 (7.499 min): C8402.D (-,*



#9

Methylene chloride

Concen: 1.61 ug/L

RT: 7.50 min Scan# 433

Delta R.T. 0.09 min

Lab File: c8402.d

Acq: 7 Jun 95 10:19 pm

Tgt Ion:84 Resp: 52325

Ion Ratio Lower Upper

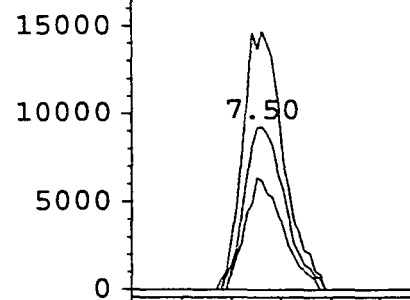
84 100

86 67.0 43.1 83.1

49 159.3 136.3 176.3

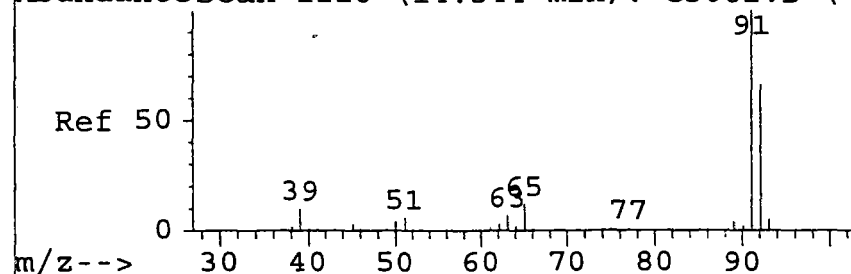
0 0.0 0.0 0.0

Abundance Ion 84.00 (83.
20000 Ion 86.00 (85.
Ion 49.00 (48.

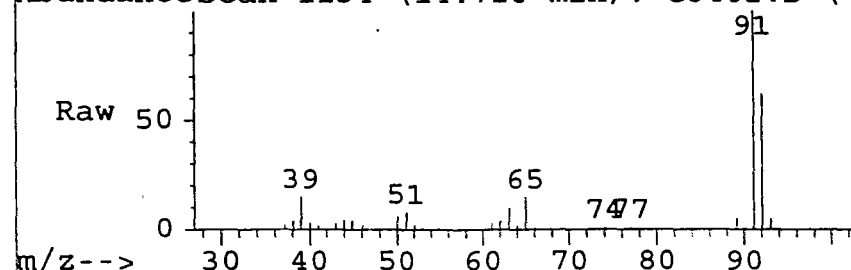


Time-->7.24 7.73

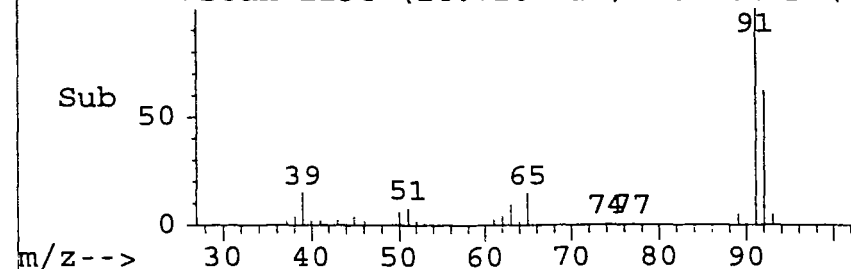
AbundanceScan 1116 (14.544 min): C5082.D (-



AbundanceScan 1134 (14.726 min): C8402.D (*)



AbundanceScan 1134 (14.726 min): C8402.D (-



#28

Toluene

Concen: 1.55 ug/L

RT: 14.73 min Scan# 1134

Delta R.T. 0.08 min

Lab File: c8402.d

Acq: 7 Jun 95 10:19 pm

Tgt Ion:92 Resp: 114144

Ion Ratio Lower Upper

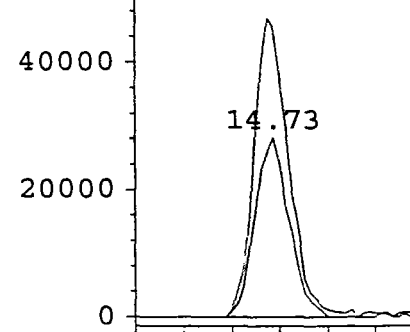
92 100

91 160.6 149.4 189.4

0 0.0 0.0 0.0

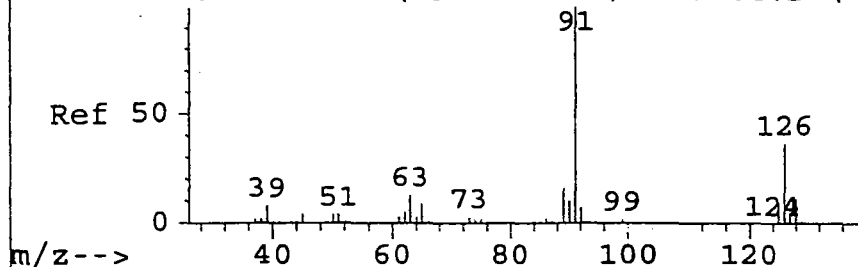
0 0.0 0.0 0.0

Abundance Ion 92.00 (91.
Ion 91.00 (90.



Time-->14.49 14.90

AbundanceScan 1608 (19.619 min): C5082.D (-



#48

2-Chlorotoluene

Concen: 7.69 ug/L

RT: 19.79 min Scan# 1625

Delta R.T. 0.06 min

Lab File: c8402.d

Acq: 7 Jun 95 10:19 pm

Tgt Ion:91 Resp: 877791

Ion Ratio Lower Upper

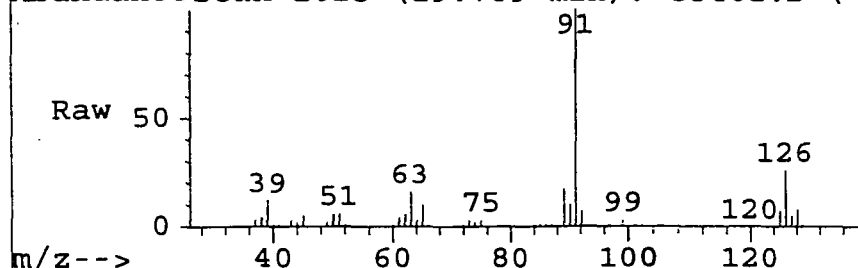
91 100

126 26.3 8.1 48.1

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1625 (19.789 min): C8402.D (*)



AbundanceIon 91.00 (90.

Ion 126.00 (125

19.79

200000

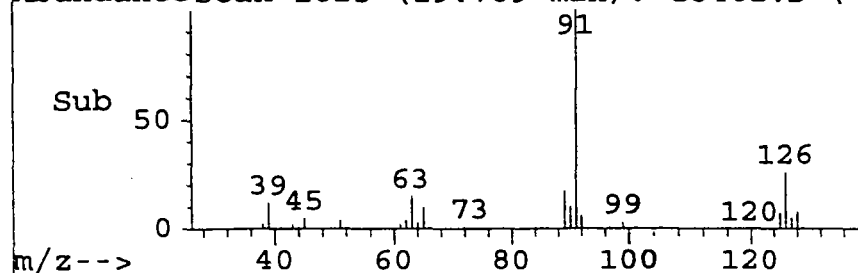
100000

0

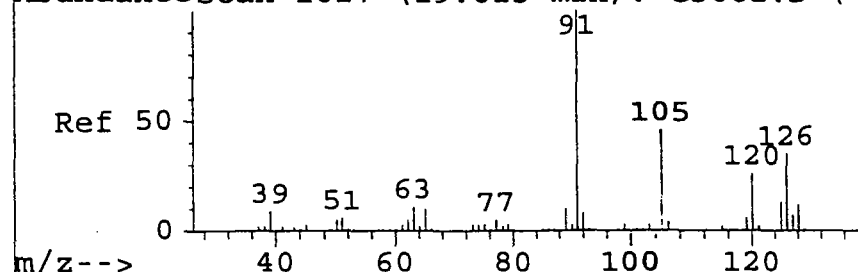
Time-->19.40

19.96

AbundanceScan 1625 (19.789 min): C8402.D (-



AbundanceScan 1627 (19.815 min): C5082.D (-



#49

4-Chlorotoluene

Concen: 2.65 ug/L m

RT: 19.97 min Scan# 1643

Delta R.T. 0.06 min

Lab File: c8402.d

Acq: 7 Jun 95 10:19 pm

Tgt Ion:91 Resp: 358841

Ion Ratio Lower Upper

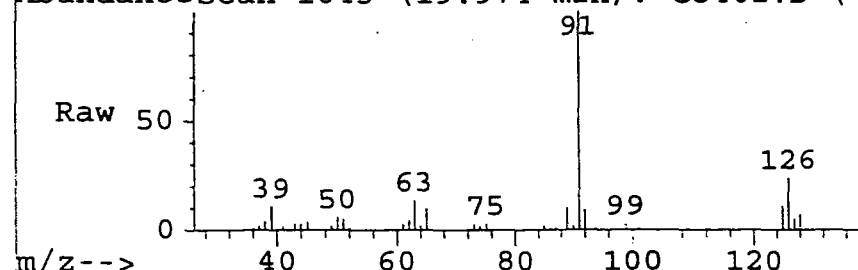
91 100

126 34.9 14.9 54.9

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1643 (19.974 min): C8402.D (*)



AbundanceIon 91.00 (90.

Ion 126.00 (125

19.97

200000

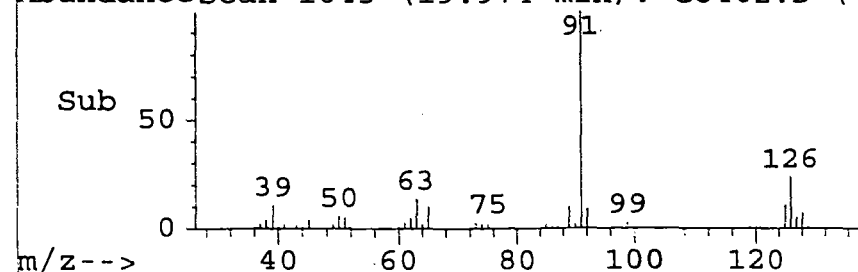
100000

0

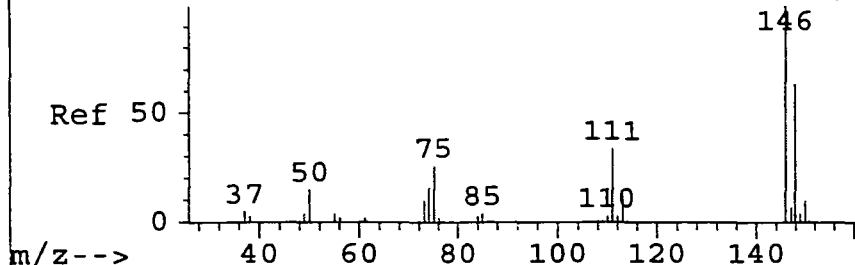
Time-->19.77

20.24

AbundanceScan 1643 (19.974 min): C8402.D (-



Abundance Scan 1755 (21.135 min): C5082.D (-



#56

1,4-Dichlorobenzene

Concen: 0.55 ug/L

RT: 21.30 min Scan# 1772

Delta R.T. 0.06 min

Lab File: c8402.d

Acq: 7 Jun 95 10:19 pm

130

Tgt Ion:146 Resp: 31572

Ion Ratio Lower Upper

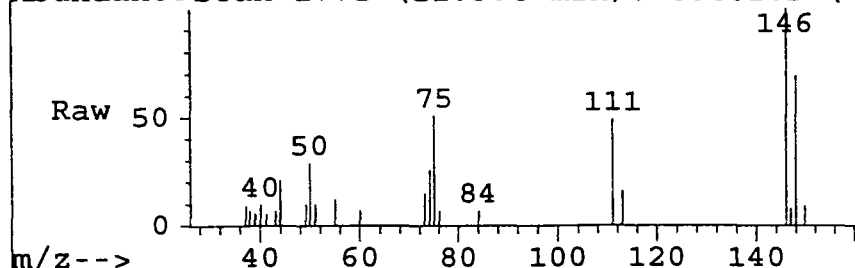
146 100

111 49.5 14.4 54.4

148 68.8 44.4 84.4

0 0.0 0.0 0.0

Abundance Scan 1772 (21.304 min): C8402.D (*)



Abundance Ion 146.00 (145

Ion 111.00 (110

Ion 148.00 (147

10000

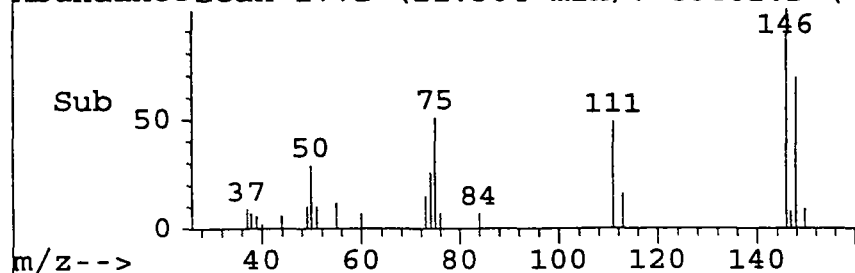
21.30

5000

0

Time-->21.11 21.46

Abundance Scan 1772 (21.304 min): C8402.D (-



1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524199 MWI-2926925
 Lab File ID: C8404.D
 Date Received: 05/26/95
 Date Analyzed: 06/07/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	1.5	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.70	
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524199 MWI-2426925
 Lab File ID: C8404.D
 Date Received: 05/26/95
 Date Analyzed: 06/07/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NO. COMPOUND COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	.50	U
106-43-4-----	4-Chlorotoluene	.50	U
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.50	U
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	110	D
75-65-0-----	tertiary-Butyl alcohol	930	D

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

133

9524199V

MWL-2926925

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No. _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9524199V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8404.D

Level: (low/med) LOW

Date Received: 5/26/95

% Moisture: not dec. NA

Date Analyzed: 6/7/95

GC Column: DB-624 X 75M

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/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	21.77	1	J
2.	Column Bleed	22.95	1	J
3.				
4.				
5.				
6.				
7.				
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27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c8404.d
Acq On : 7 Jun 95 11:29 pm
Sample : 9524199
Misc : 25 ML
Quant Time: Jun 8 13:21 1995

Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

134

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.92	96	584583	5.00	ug/L	0.09
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.16	95	324437	5.56	ug/L	111.27%
57) 1,2-Dichlorobenzene-d4	21.96	152	148498	5.57	ug/L	111.50%
Target Compounds						Qvalue
9) Methylene chloride	7.50	84	48448	1.51	ug/L	97
28) Toluene	14.73	92	52761	0.73	ug/L	97
38) Xylene (para & meta)	17.54	106	29538	0.54	ug/L	94
65) Methyl-tert butyl ether	8.09	73	4489504	131.45	ug/L m	0
66) tert-Butyl Alcohol	7.80	59	571930	1092.72	ug/L m	100

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

c8404.d VOA524.M

Fri Jun 09 14:28:24 1995

VOA

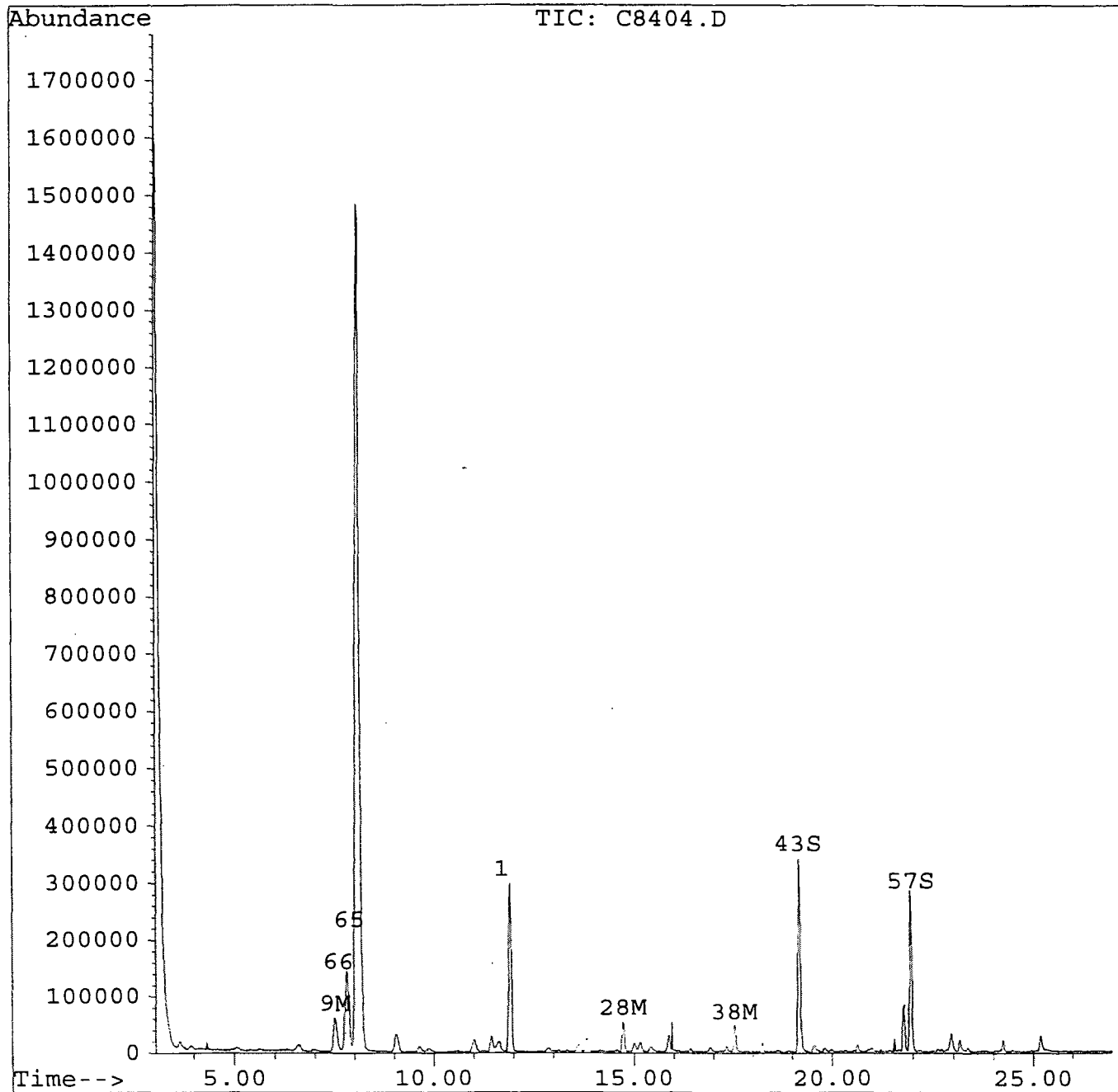
Page 1

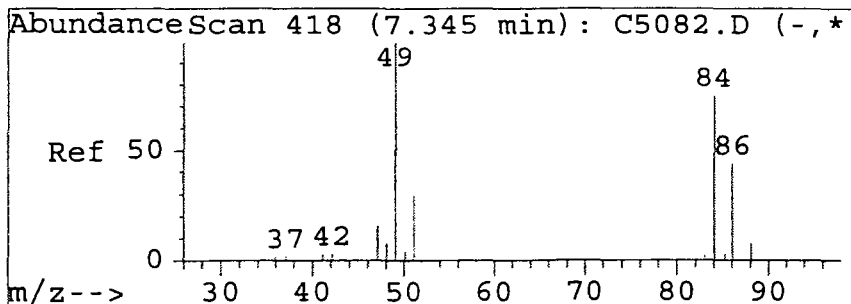
Quantitation Report

Data File : d:\hpchem\1\data\c8404.d
Acq On : 7 Jun 95 11:29 pm
Sample : 9524199
Misc : 25 ML
Quant Time: Jun 8 13:21 1995

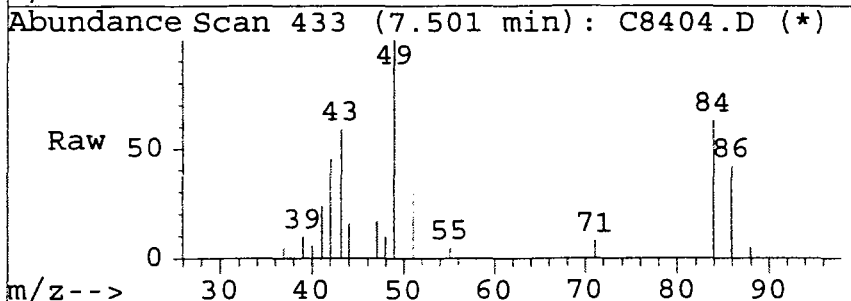
Vial: 13 **135**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

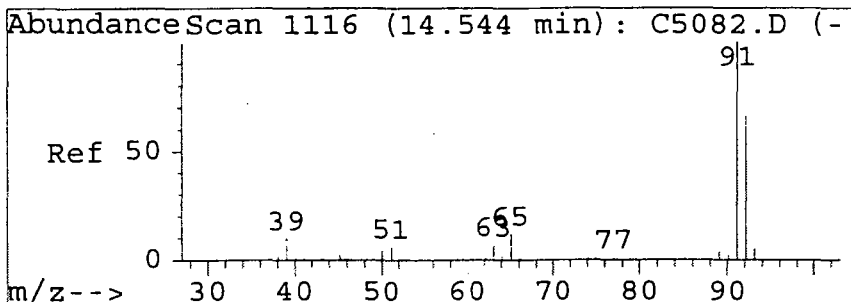
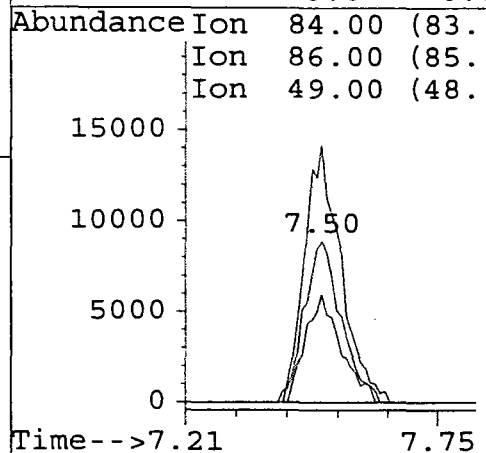
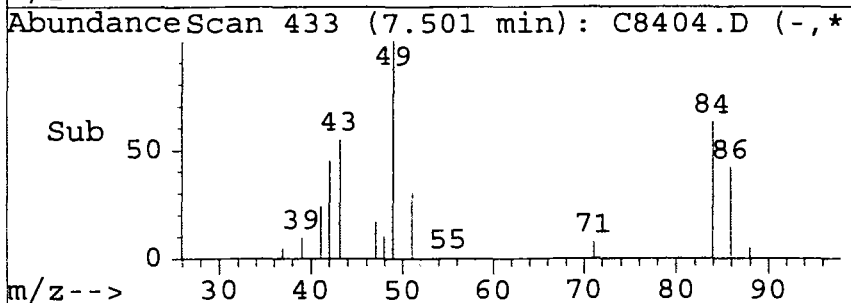




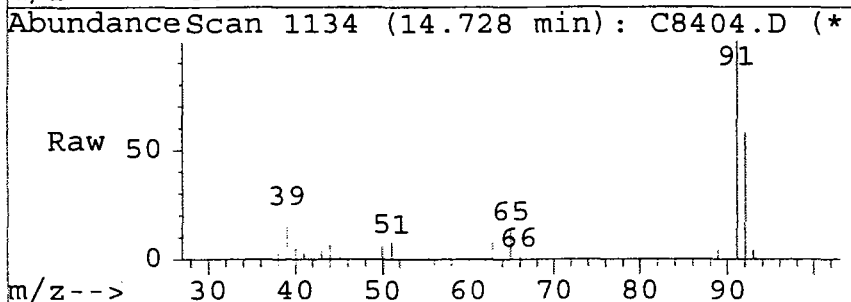
#9
Methylene chloride 136
Concen: 1.51 ug/L
RT: 7.50 min Scan# 433
Delta R.T. 0.10 min
Lab File: c8404.d
Acq: 7 Jun 95 11:29 pm



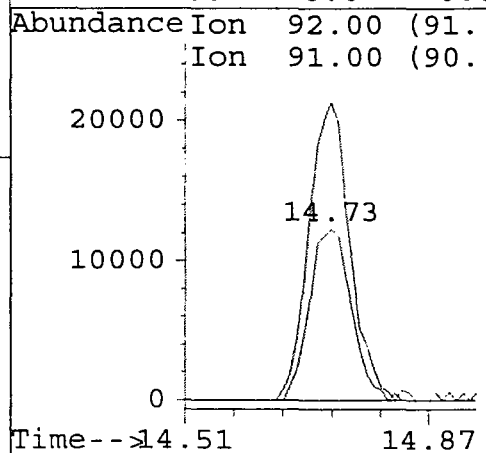
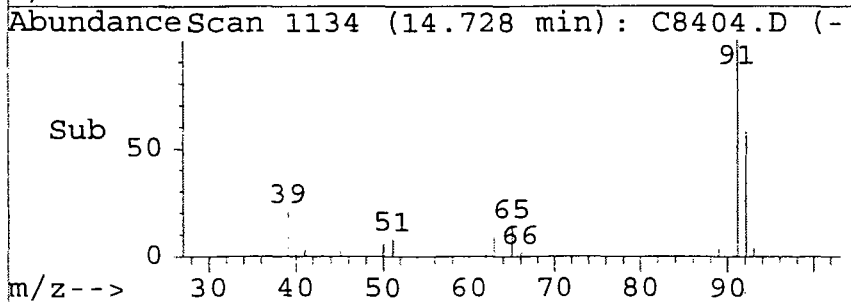
Tgt Ion:84 Resp: 48448
Ion Ratio Lower Upper
84 100
86 67.4 43.1 83.1
49 159.2 136.3 176.3
0 0.0 0.0 0.0



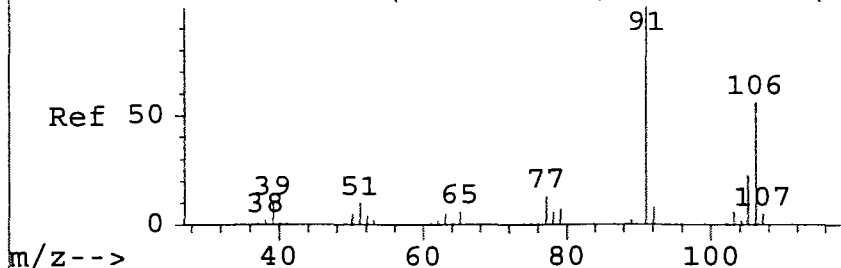
#28
Toluene
Concen: 0.73 ug/L
RT: 14.73 min Scan# 1134
Delta R.T. 0.09 min
Lab File: c8404.d
Acq: 7 Jun 95 11:29 pm



Tgt Ion:92 Resp: 52761
Ion Ratio Lower Upper
92 100
91 173.7 149.4 189.4
0 0.0 0.0 0.0
0 0.0 0.0 0.0



AbundanceScan 1389 (17.360 min): C5082.D (-



#38

Xylene (para & meta)

Concen: 0.54 ug/L

RT: 17.54 min Scan# 1407

Delta R.T. 0.07 min

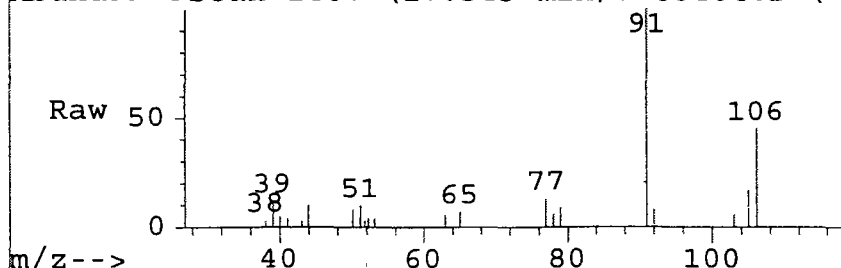
Lab File: c8404.d

Acq: 7 Jun 95 11:29 pm

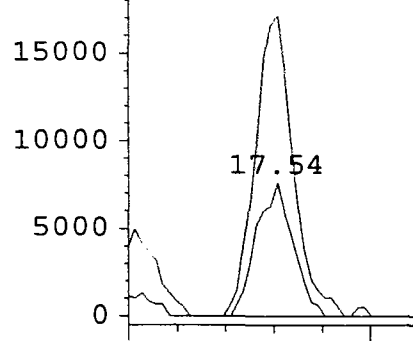
137

Tgt Ion:	106	Resp:	29538
Ion	Ratio	Lower	Upper
106	100		
91	224.5	195.1	235.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

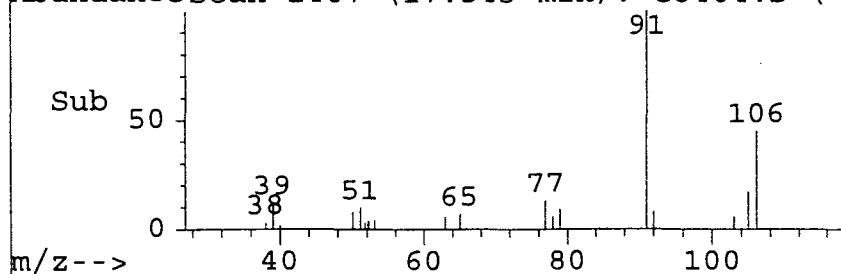
AbundanceScan 1407 (17.543 min): C8404.D (*)



AbundanceIon 106.00 (105
20000 Ion 91.00 (90.

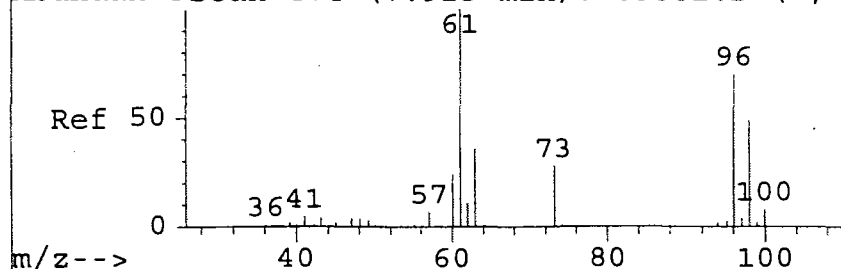


AbundanceScan 1407 (17.543 min): C8404.D (-



Time-->17.32 17.69

AbundanceScan 474 (7.923 min): C5082.D (-,*



#65

Methyl-tert butyl ether

Concen: 131.45 ug/L m

RT: 8.09 min Scan# 490

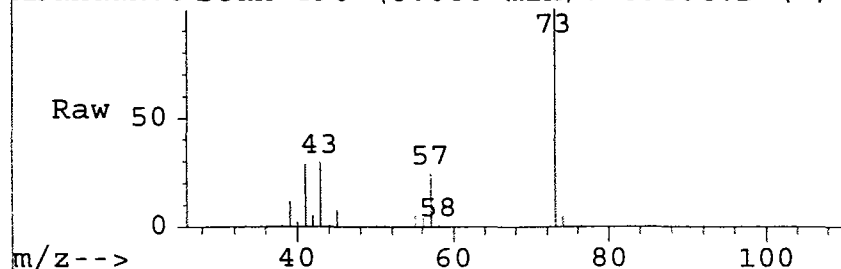
Delta R.T. 0.10 min

Lab File: c8404.d

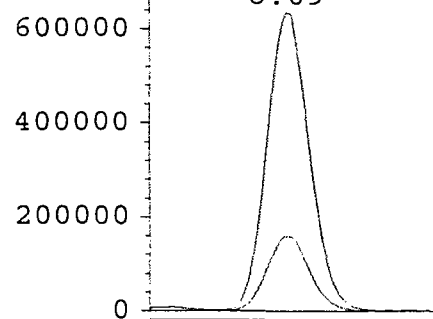
Acq: 7 Jun 95 11:29 pm

Tgt Ion:	73	Resp:	4489504
Ion	Ratio	Lower	Upper
73	100		
57	25.3	3.4	43.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

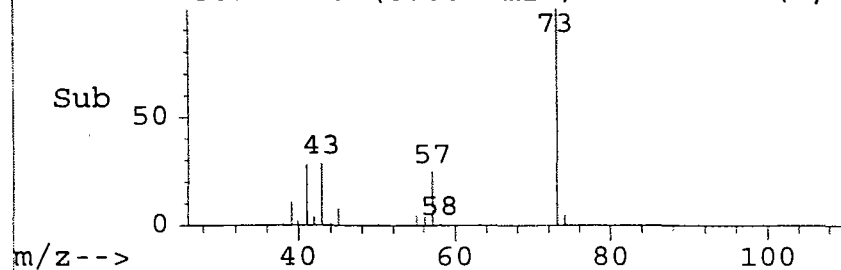
Abundance Scan 490 (8.088 min): C8404.D (*)



AbundanceIon 73.00 (72.
Ion 57.00 (56.
8.09

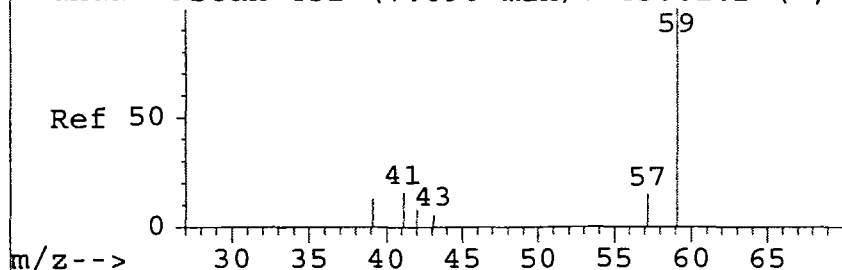


AbundanceScan 490 (8.088 min): C8404.D (-,*

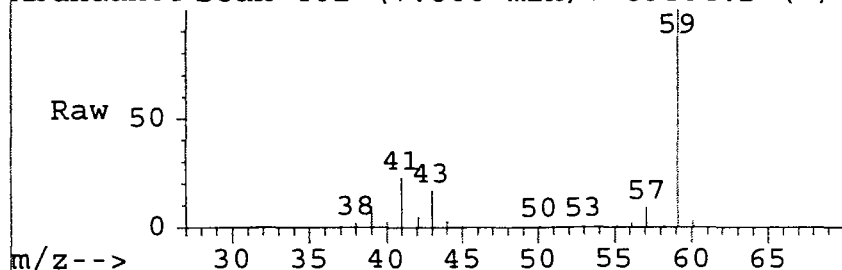


Time-->7.76 8.37

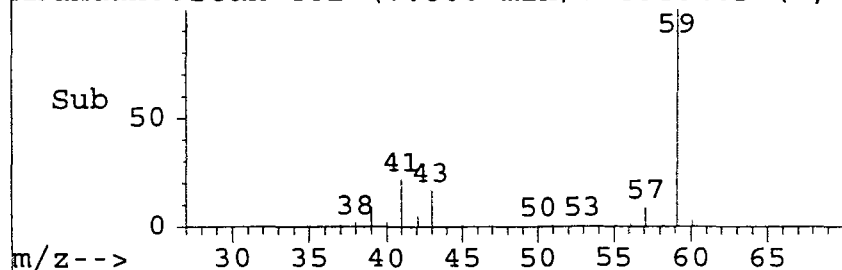
Abundance Scan 452 (7.696 min): C5082.D (-, *



Abundance Scan 462 (7.800 min): C8404.D (*)



Abundance Scan 462 (7.800 min): C8404.D (-, *



#66

tert-Butyl Alcohol

Concen: 1092.72 ug/L m

RT: 7.80 min Scan# 462

Delta R.T. 0.07 min

Lab File: c8404.d

Acq: 7 Jun 95 11:29 pm

Tgt Ion: 59 Resp: 571930

Ion Ratio Lower Upper

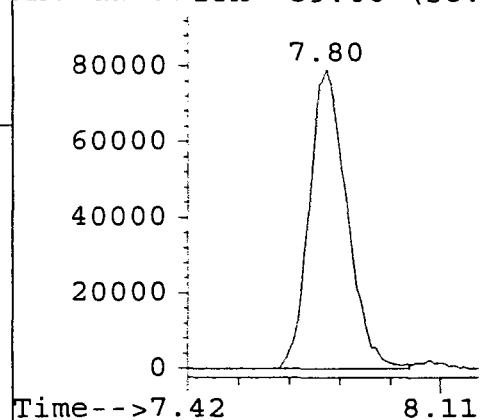
59 100

0 0.0 0.0 0.0

0 0.0 0.0 0.0

0 0.0 0.0 0.0

Abundance Ion 59.00 (58.



Quantitation Report

Data File : d:\hpchem\1\data\c8437.d
 Acq On : 9 Jun 95 11:42 pm
 Sample : 9524199 DILUTION
 Misc : 1250 UL 1:20
 Quant Time: Jun 11 11:46 1995

Vial: 12 **139**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.87	96	624296	5.00	ug/L	0.03
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.12	95	319292	5.13	ug/L	102.54%
57) 1,2-Dichlorobenzene-d4	21.92	152	146099	5.14	ug/L	102.72%
Target Compounds						Qvalue
65) Methyl-tert butyl ether	8.05	73	205121	5.62	ug/L	93
66) tert-Butyl Alcohol	7.78	59	26117	46.72	ug/L	100

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

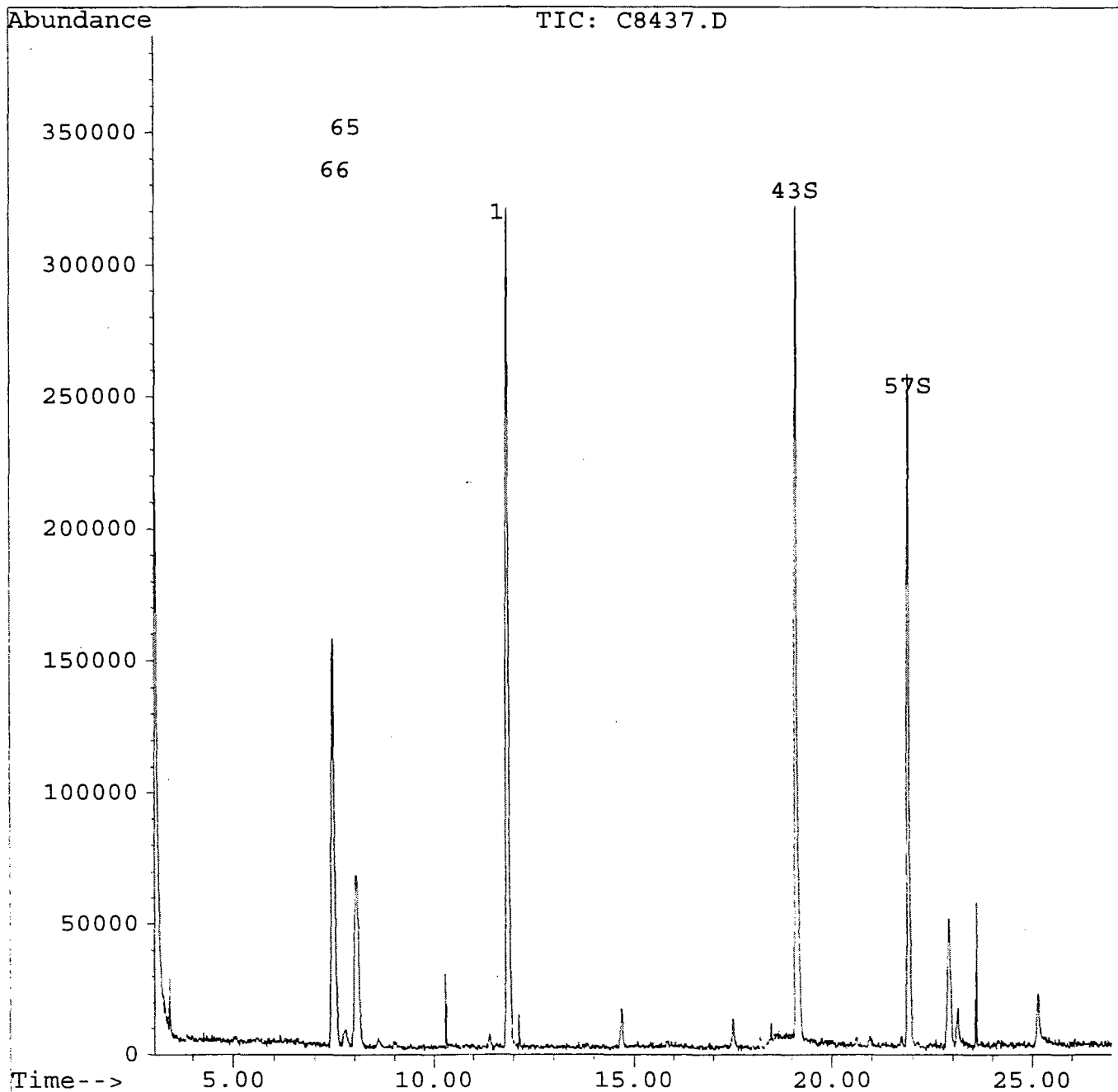
Quantitation Report

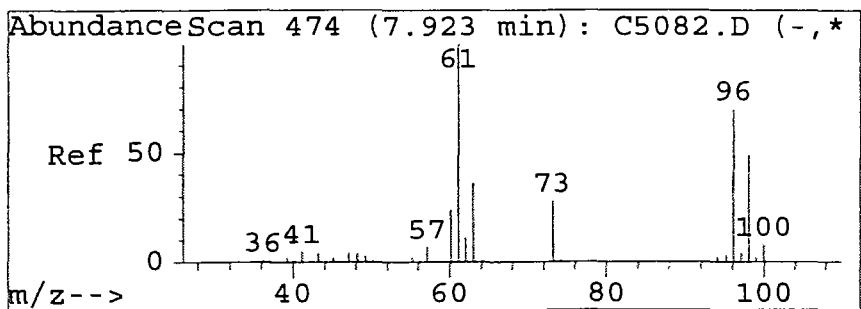
Data File : d:\hpchem\1\data\c8437.d
 Acq On : 9 Jun 95 11:42 pm
 Sample : 9524199 DILUTION
 Misc : 1250 UL 1:20
 Quant Time: Jun 11 11:46 1995

Vial: 12
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

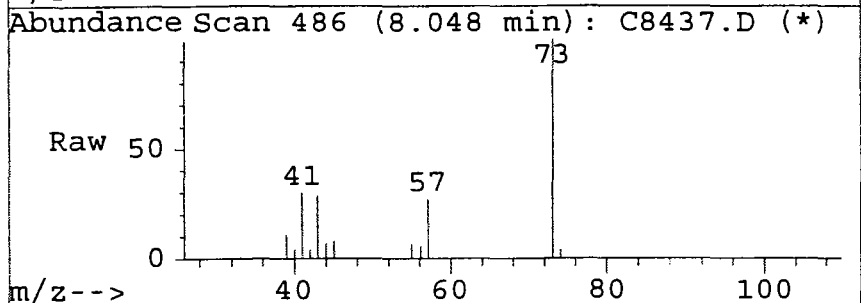
140

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration



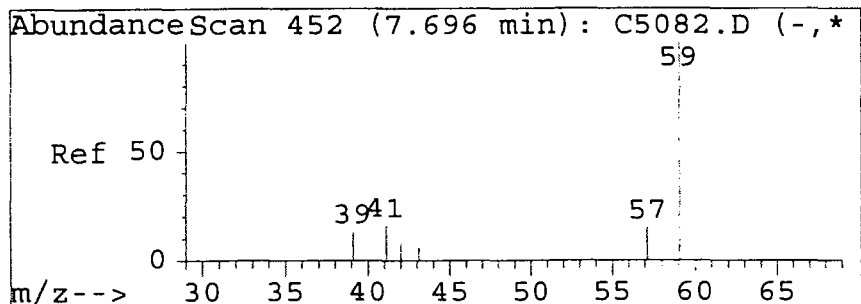
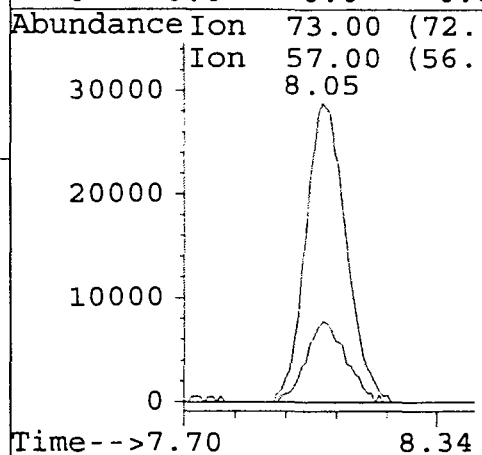
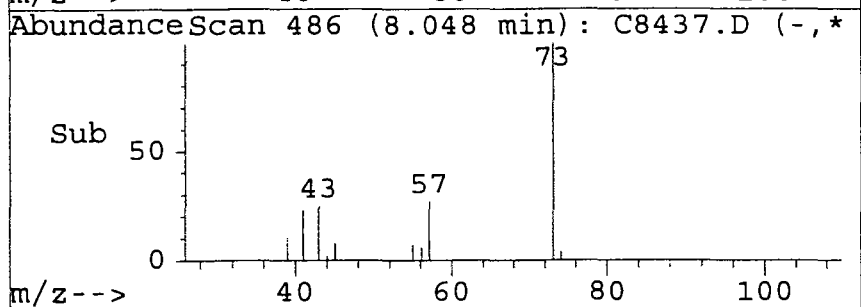


#65
Methyl-tert butyl ether
Concen: 5.62 ug/L
RT: 8.05 min Scan# 486
Delta R.T. 0.05 min
Lab File: c8437.d
Acq: 9 Jun 95 11:42 pm

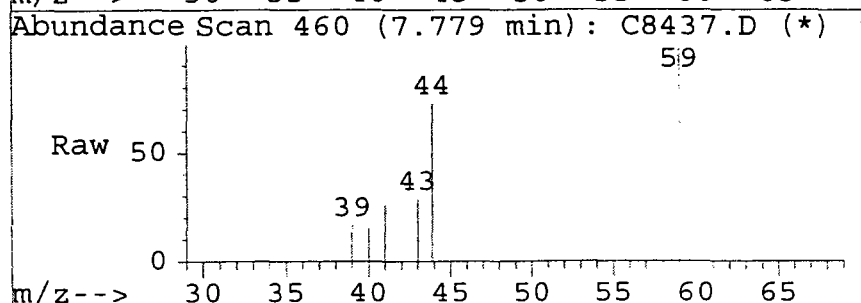


Tgt Ion: 73 Resp: 205121

Ion	Ratio	Lower	Upper
73	100		
57	26.9	3.4	43.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

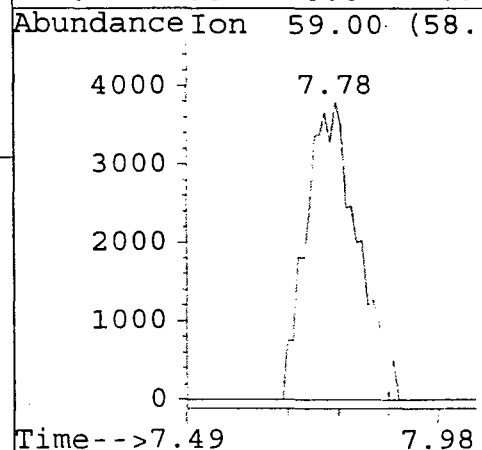
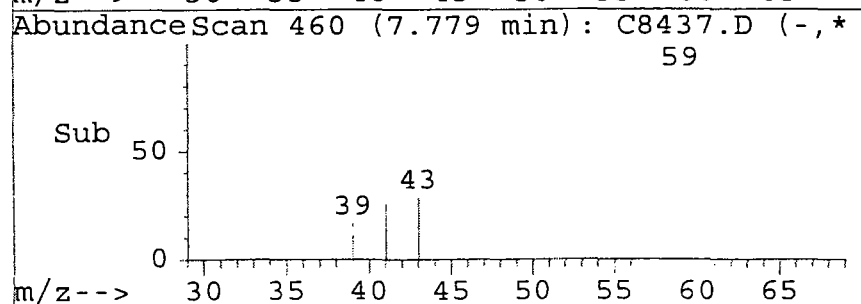


#66
tert-Butyl Alcohol
Concen: 46.72 ug/L
RT: 7.78 min Scan# 460
Delta R.T. 0.05 min
Lab File: c8437.d
Acq: 9 Jun 95 11:42 pm



Tgt Ion: 59 Resp: 26117

Ion	Ratio	Lower	Upper
59	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

142

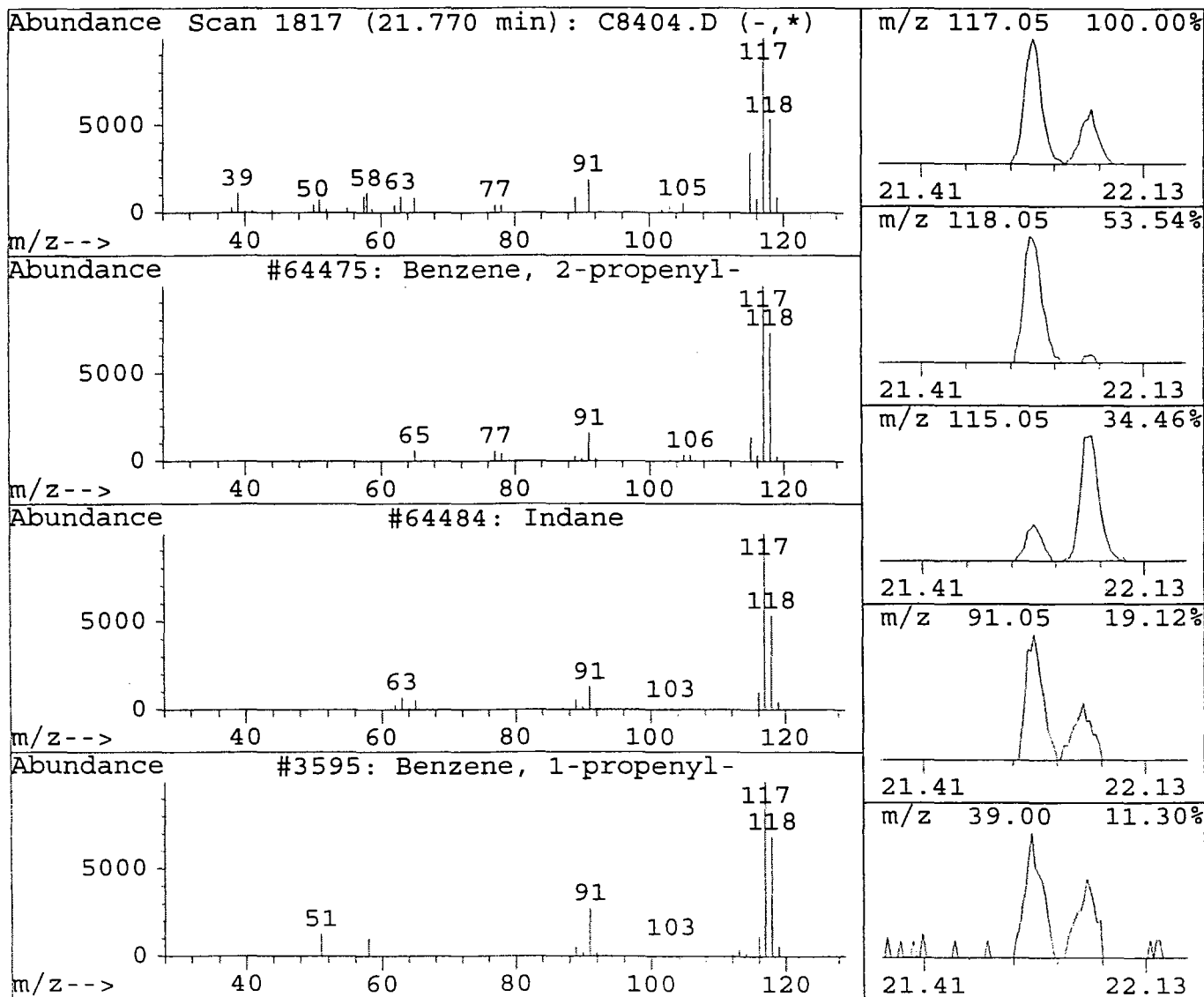
Data File : d:\hpchem\1\data\c8404.d
Acq On : 7 Jun 95 11:29 pm
Sample : 9524199
Misc : 25 ML

Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.77	0.73 ug/L	196943	Fluorobenzene	11.92

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-propenyl-	64475	000300-57-2	53
2	Indane	64484	000496-11-7	74
3	Benzene, 1-propenyl-	3595	000637-50-3	43
4	Benzene, 1-ethenyl-4-methyl-	64480	000622-97-9	46
5	Benzene, 1-ethenyl-2-methyl-	64478	000611-15-4	58



Library Search Compound Report

143

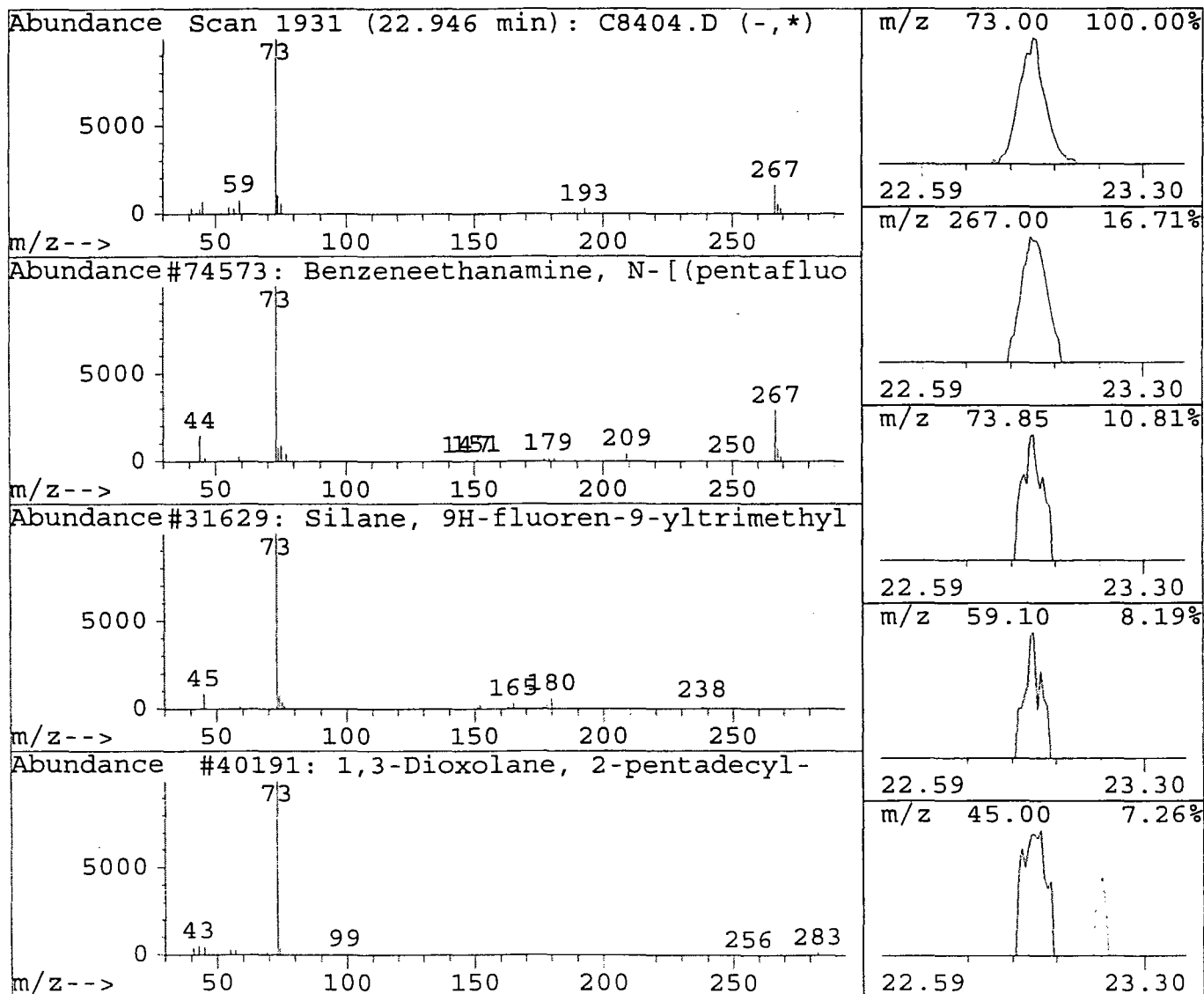
Data File : d:\hpchem\1\data\c8404.d
Acq On : 7 Jun 95 11:29 pm
Sample : 9524199
Misc : 25 ML

Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.95	0.51 ug/L	136787	Fluorobenzene	11.92

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	4
2	Silane, 9H-fluoren-9-yltrimethyl-	31629	007385-10-6	2
3	1,3-Dioxolane, 2-pentadecyl-	40191	004360-57-0	4
4	Formamide, N,N-dimethyl-	286	000068-12-2	3
5	2-Butanamine, (./-.)-	298	033966-50-6	3



1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524200 *mw2-2926926*
 Lab File ID: C8411.D
 Date Received: 05/26/95
 Date Analyzed: 06/08/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	.90	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.50	U
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.80	
1330-29-7-----	Xylene (total)	6.5	

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524200 MW2-2926926
 Lab File ID: C8411.D
 Date Received: 05/26/95
 Date Analyzed: 06/08/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	1.1	
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	1.3	
95-49-8-----	2-Chlorotoluene	.50	U
106-43-4-----	4-Chlorotoluene	.50	U
108-67-8-----	1,3,5-Trimethylbenzene	1.0	
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	8.8	
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.50	U
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	11.	
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	3.1	
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9524200V
MU2-2526526

46

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9524200V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8411.D

Level: (low/med) LOW Date Received: 5/26/95

% Moisture: not dec. NA Date Analyzed: 6/8/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

Number TICs found: 13 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 622-96-8	Benzene, 1-ethyl-4-methyl-	19.81	3	J
2. 95-36-3	1,2,4-Trimethylbenzene	21.36	4	J
3.	Unknown	21.74	11	J
4. 934-80-5	Benzene, 4-ethyl-1,2-dimethy	22.40	1	J
5. 1758-88-9	Benzene, 2-ethyl-1,4-dimethy	22.58	1	J
6.	Unknown	22.66	1	J
7. 767-58-8	Indan, 1-methyl-	22.79	3	J
8. 527-53-7	Benzene, 1,2,3,5-tetramethyl	23.32	1	J
9. 488-23-3	Benzene, 1,2,3,4-tetramethyl	23.42	1	J
10. 27133-93-3	2,3-Dihydro-1-methylindene	23.91	1	J
11. 874-35-1	1H-Indene, 2,3-dihydro-5-met	24.18	1	J
12. 824-22-6	1H-Indene, 2,3-dihydro-4-met	24.21	4	J
13.	Unknown	24.51	3	J
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

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Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML
Quant Time: Jun 9 10:20 1995

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.89	96	630956	5.00	ug/L	0.05

System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	334533	5.31	ug/L	106.30%
57) 1,2-Dichlorobenzene-d4	21.91	152	164152	5.71	ug/L	114.19%

Target Compounds						Qvalue
9) Methylene chloride	7.46	84	29756	0.86	ug/L	91
37) Ethylbenzene	17.29	91	131540	0.80	ug/L	96
38) Xylene (para & meta)	17.50	106	383199	6.49	ug/L	95
42) Isopropylbenzene	18.86	105	185826	1.11	ug/L	94
47) n-Propylbenzene	19.60	91	284940	1.30	ug/L	100
50) 1,3,5-Trimethylbenzene	19.92	105	143608	1.03	ug/L	96
52) 1,2,4-Trimethylbenzene	20.59	105	1114401	8.75	ug/L	96
63) Naphthalene	25.36	128	323843	11.07	ug/L	100
65) Methyl-tert butyl ether	8.05	73	114138	3.10	ug/L	71

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

c8411.d VOA524.M

Fri Jun 09 14:34:07 1995

VOA

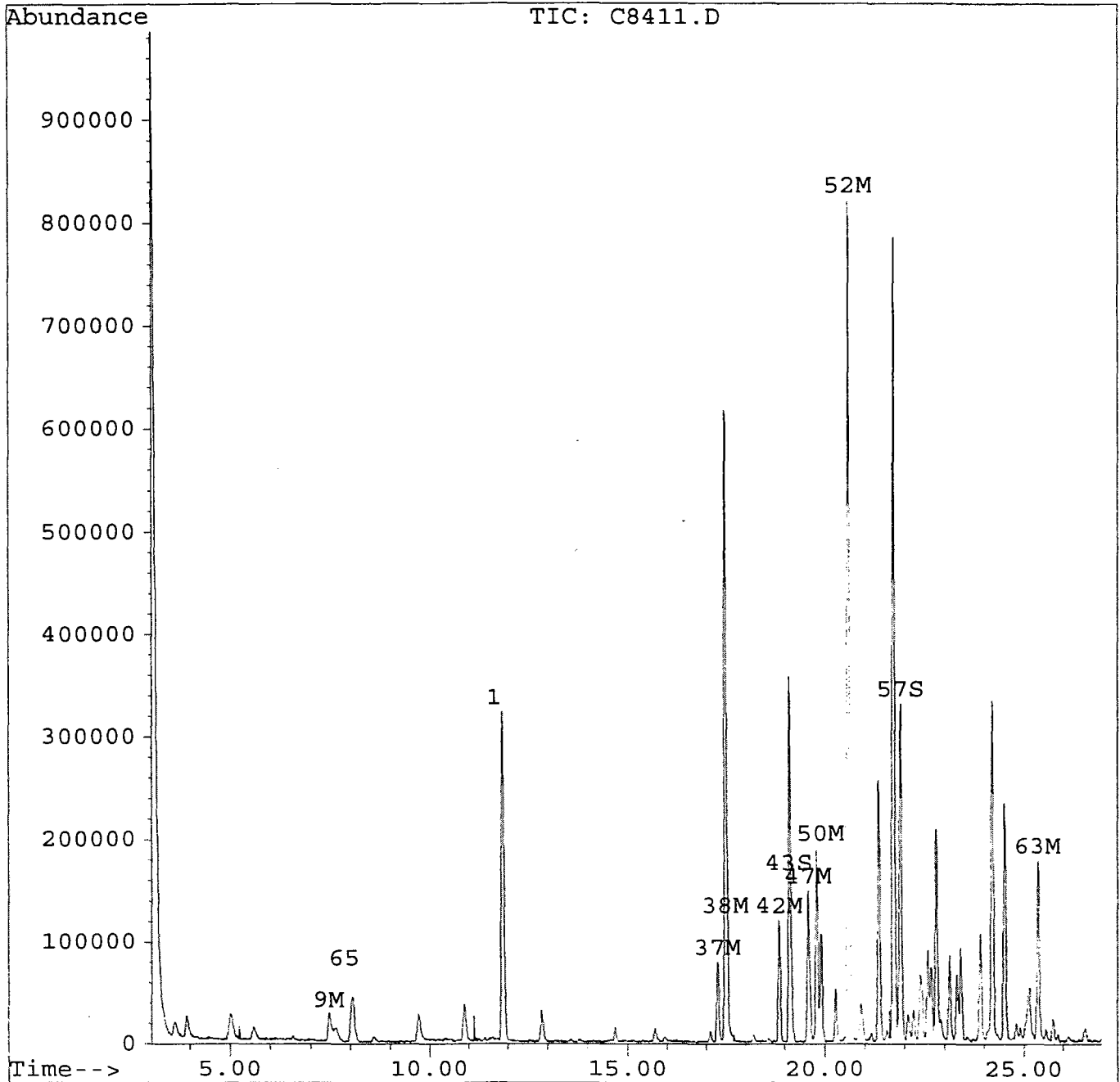
Page 1

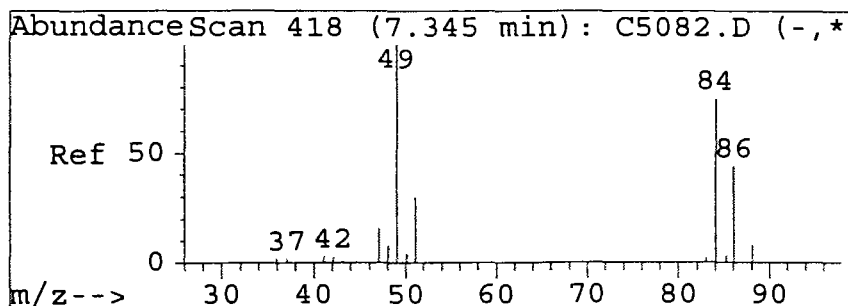
Quantitation Report

Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML
Quant Time: Jun 9 10:20 1995

Vial: 5 **148**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

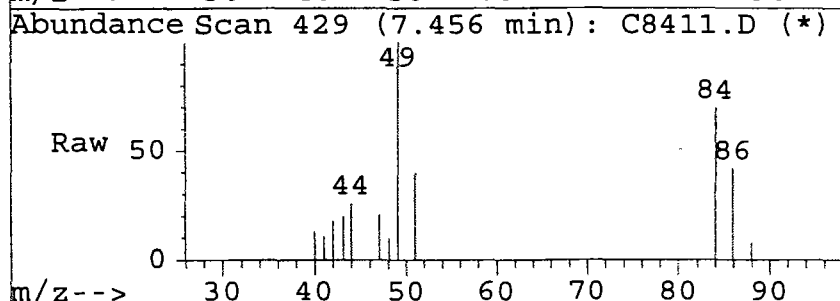
Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



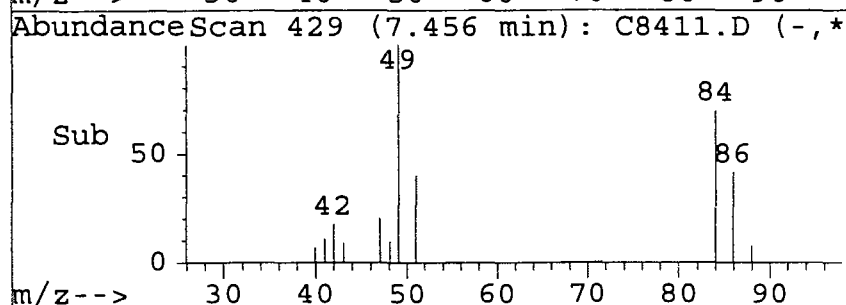
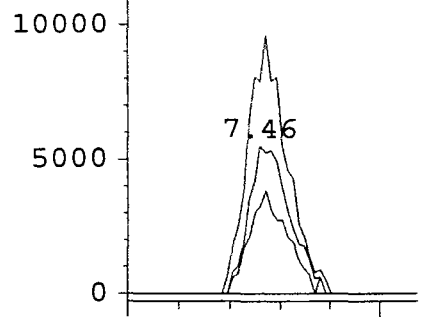


#9
Methylene chloride
Concen: 0.86 ug/L
RT: 7.46 min Scan# 429
Delta R.T. 0.05 min
Lab File: c8411.d
Acq: 8 Jun 95 6:00 pm

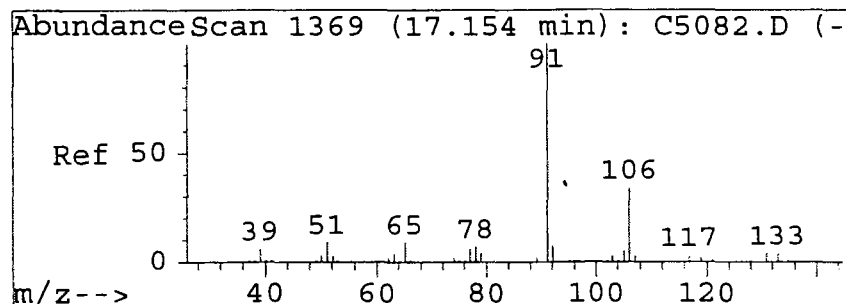
Tgt Ion	84	Resp	29756
Ion	Ratio	Lower	Upper
84	100		
86	59.5	43.1	83.1
49	143.0	136.3	176.3
0	0.0	0.0	0.0



Abundance	Ion	84.00	(83.
	Ion	86.00	(85.
	Ion	49.00	(48.

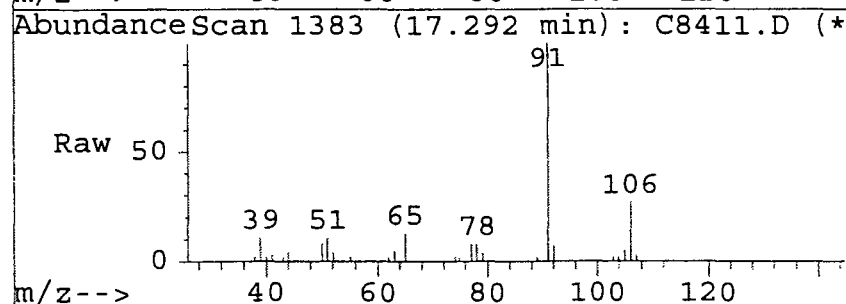


Time-->7.21 7.68

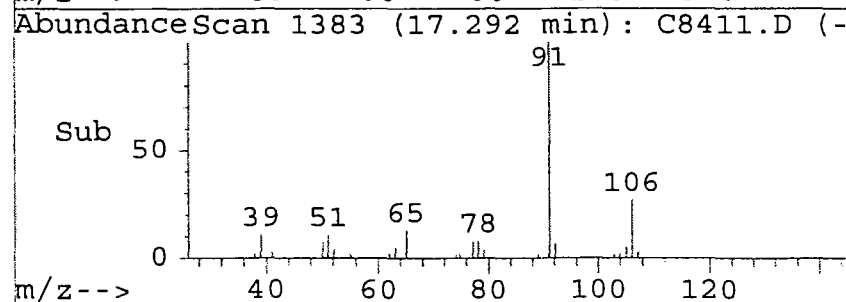
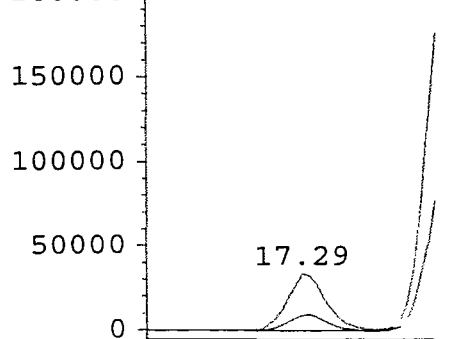


#37
Ethylbenzene
Concen: 0.80 ug/L
RT: 17.29 min Scan# 1383
Delta R.T. 0.03 min
Lab File: c8411.d
Acq: 8 Jun 95 6:00 pm

Tgt Ion	91	Resp	131540
Ion	Ratio	Lower	Upper
91	100		
106	27.4	9.5	49.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

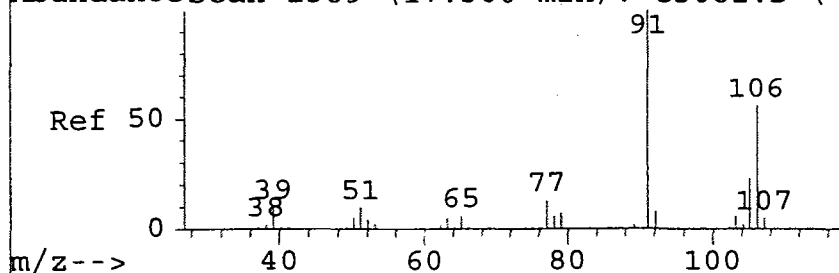


Abundance	Ion	91.00	(90.
	Ion	106.00	(105

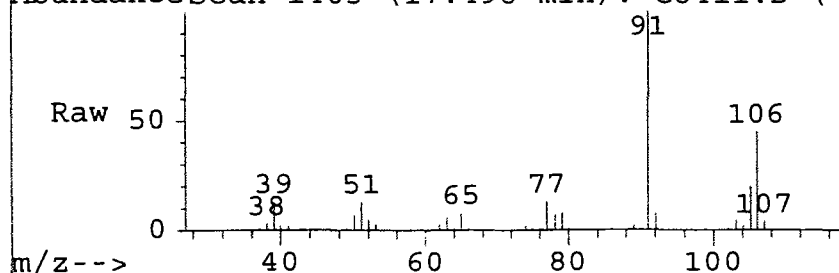


Time-->17.07 17.42

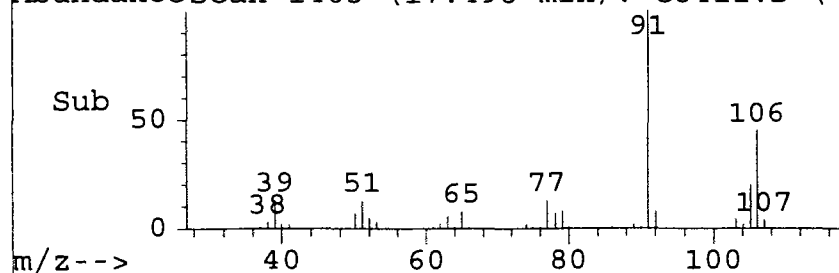
AbundanceScan 1389 (17.360 min): C5082.D (-



AbundanceScan 1403 (17.498 min): C8411.D (*)



AbundanceScan 1403 (17.498 min): C8411.D (-



#38

Xylene (para & meta)

Concen: 6.49 ug/L

RT: 17.50 min Scan# 1403

Delta R.T. 0.03 min

Lab File: c8411.d

Acq: 8 Jun 95 6:00 pm

Tgt Ion:106 Resp: 383199

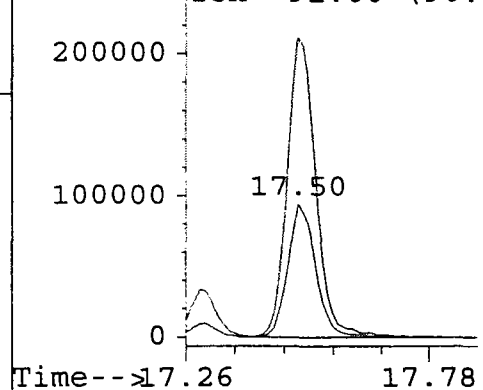
Ion Ratio Lower Upper

106 100

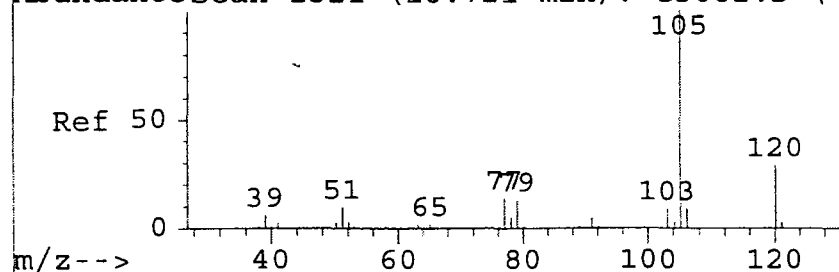
91 223.6 195.1 235.1

0 0.0 0.0 0.0

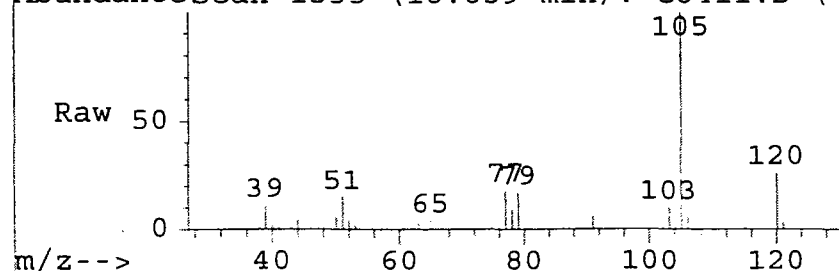
0 0.0 0.0 0.0

Abundance Ion 106.00 (105
Ion 91.00 (90.

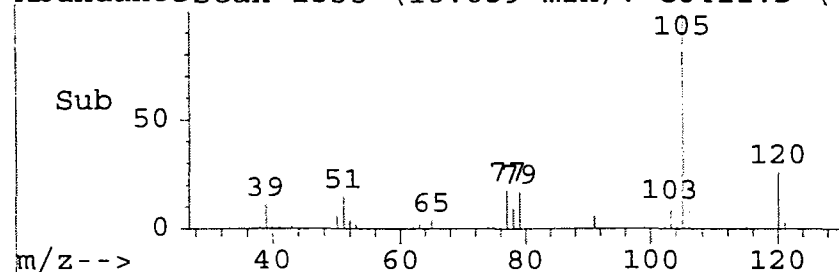
AbundanceScan 1521 (18.721 min): C5082.D (-



AbundanceScan 1535 (18.859 min): C8411.D (*)



AbundanceScan 1535 (18.859 min): C8411.D (-



#42

Isopropylbenzene

Concen: 1.11 ug/L

RT: 18.86 min Scan# 1535

Delta R.T. 0.03 min

Lab File: c8411.d

Acq: 8 Jun 95 6:00 pm

Tgt Ion:105 Resp: 185826

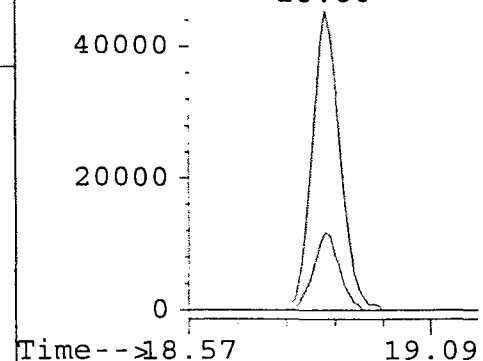
Ion Ratio Lower Upper

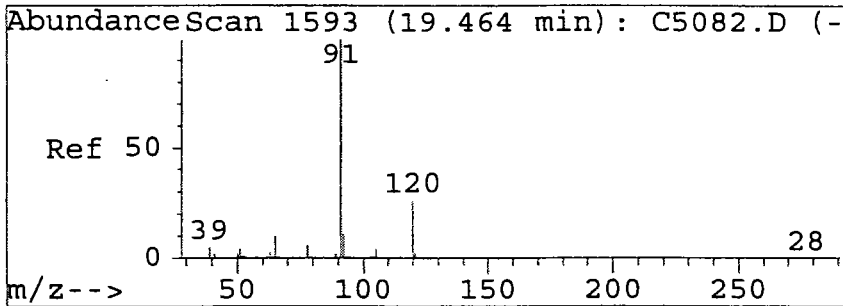
105 100

120 26.0 9.2 49.2

0 0.0 0.0 0.0

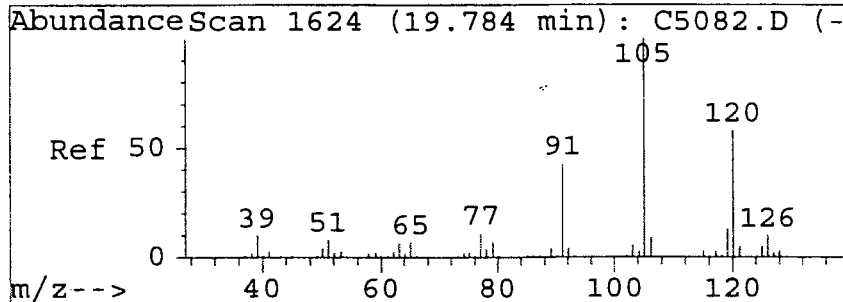
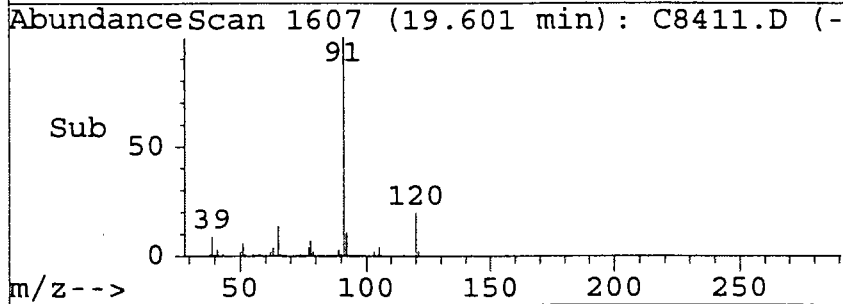
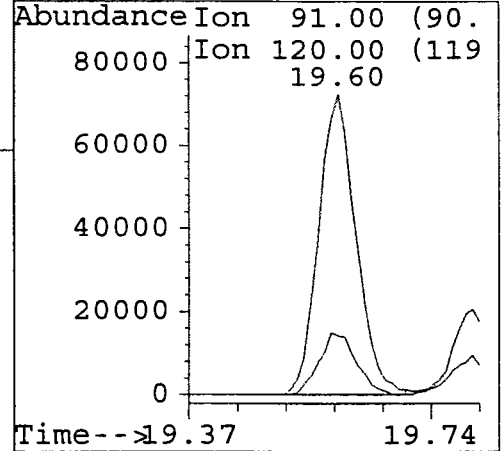
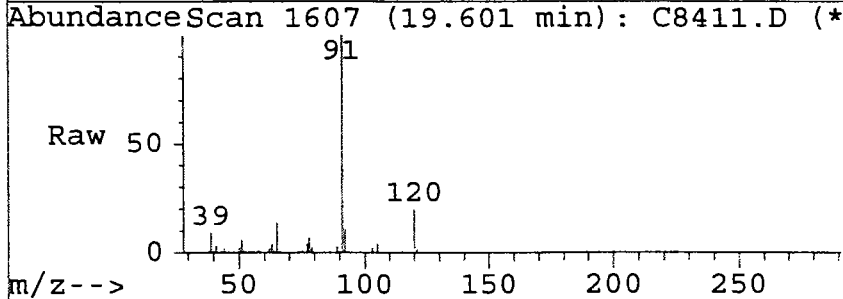
0 0.0 0.0 0.0

Abundance Ion 105.00 (104
Ion 120.00 (119
18.86



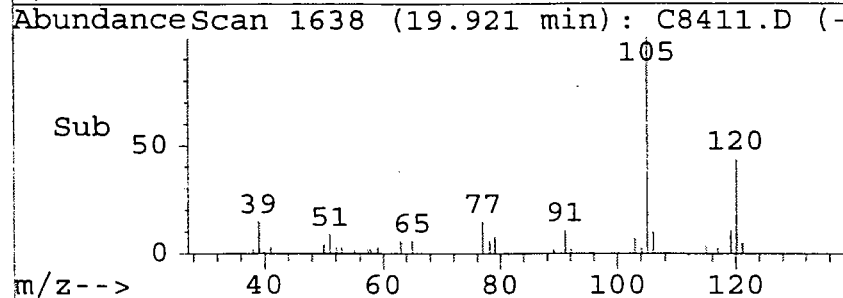
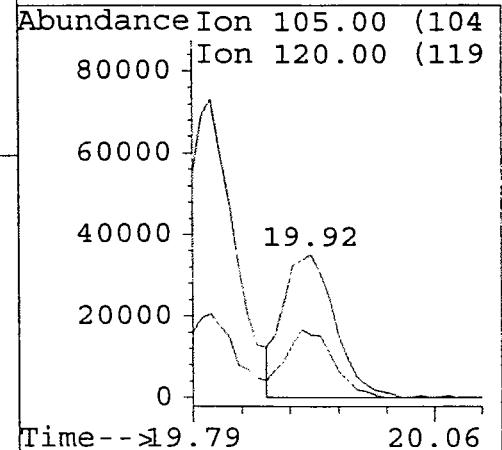
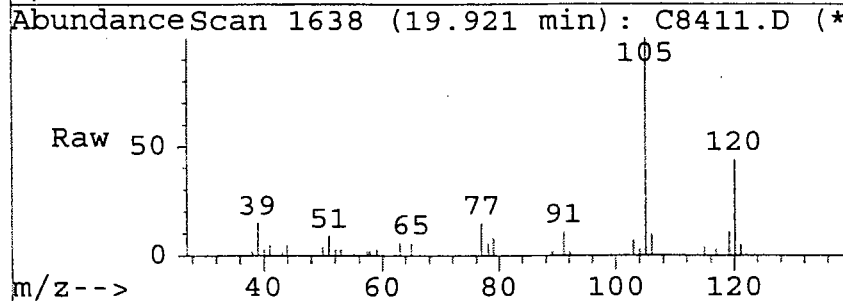
#47
n-Propylbenzene
Concen: 1.30 ug/L
RT: 19.60 min Scan# 1607
Delta R.T. 0.03 min
Lab File: c8411.d
Acq: 8 Jun 95 6:00 pm

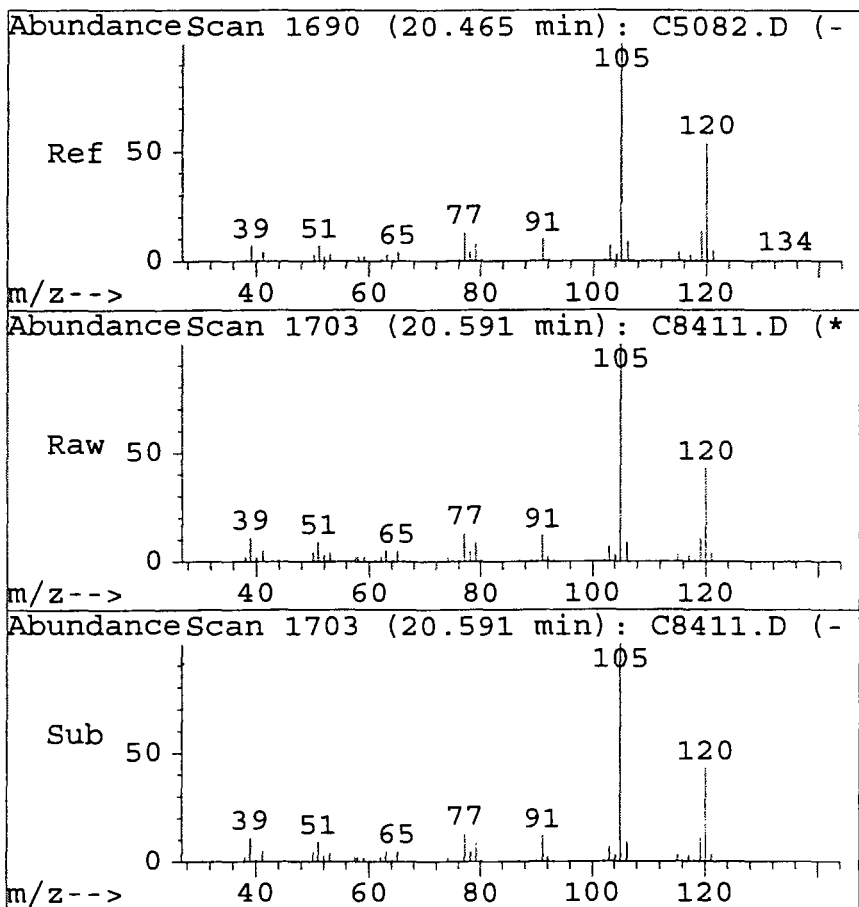
Tgt	Ion:91	Resp:	284940
Ion	Ratio	Lower	Upper
91	100		
120	19.5	0.0	39.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#50
1,3,5-Trimethylbenzene
Concen: 1.03 ug/L
RT: 19.92 min Scan# 1638
Delta R.T. 0.03 min
Lab File: c8411.d
Acq: 8 Jun 95 6:00 pm

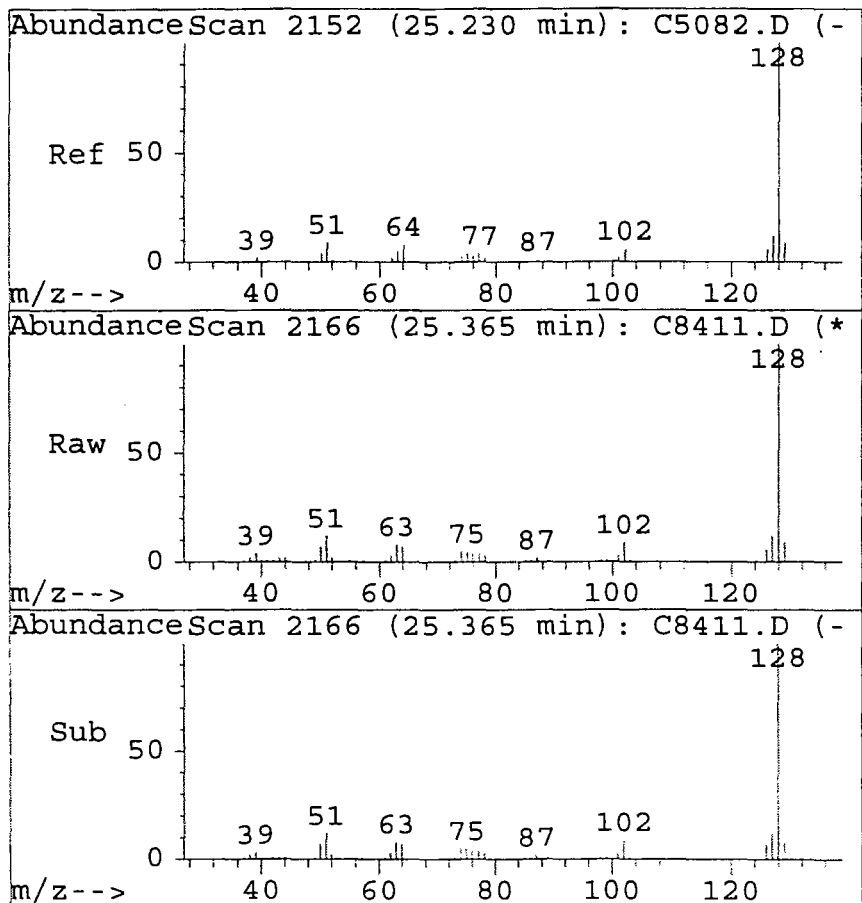
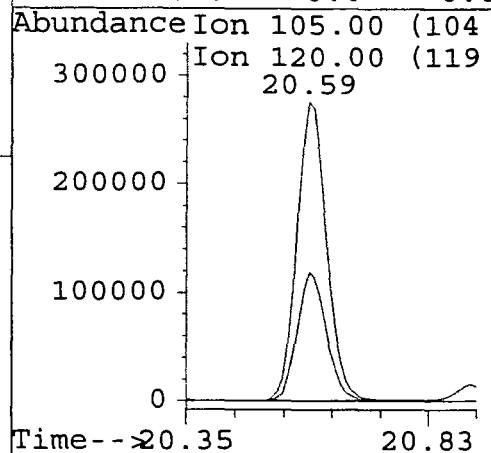
Tgt	Ion:105	Resp:	143608
Ion	Ratio	Lower	Upper
105	100		
120	43.6	26.3	66.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0





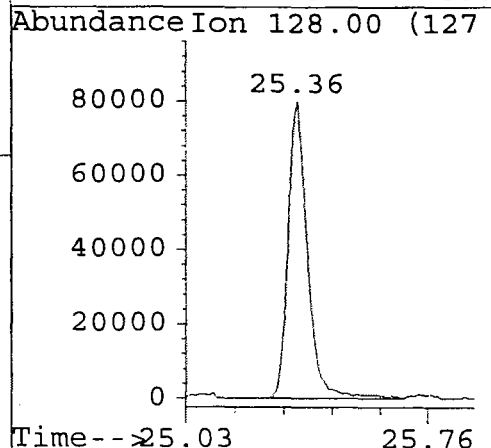
#52
1,2,4-Trimethylbenzene **152**
Concen: 8.75 ug/L
RT: 20.59 min Scan# 1703
Delta R.T. 0.03 min
Lab File: c8411.d
Acq: 8 Jun 95 6:00 pm

Tgt Ion:105 Resp: 1114401
Ion Ratio Lower Upper
105 100
120 43.0 20.6 60.6
0 0.0 0.0 0.0
0 0.0 0.0 0.0

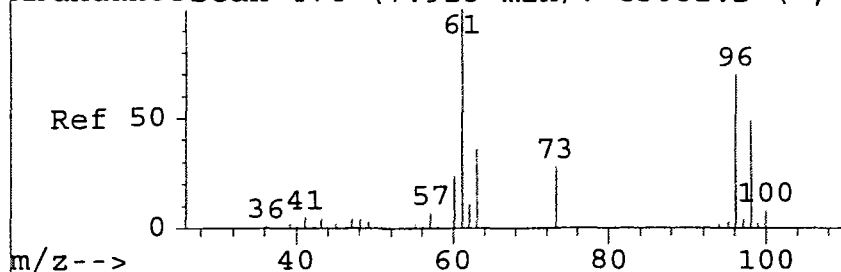


#63
Naphthalene
Concen: 11.07 ug/L
RT: 25.36 min Scan# 2166
Delta R.T. 0.03 min
Lab File: c8411.d
Acq: 8 Jun 95 6:00 pm

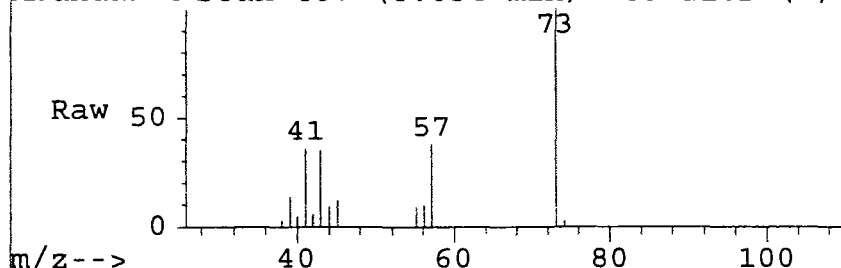
Tgt Ion:128 Resp: 323843
Ion Ratio Lower Upper
128 100
0 0.0 0.0 0.0
0 0.0 0.0 0.0
0 0.0 0.0 0.0



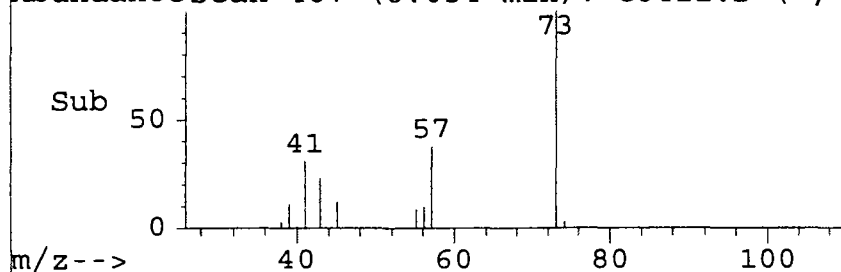
Abundance Scan 474 (7.923 min): C5082.D (-, *



Abundance Scan 487 (8.054 min): C8411.D (*)



Abundance Scan 487 (8.054 min): C8411.D (-, *



#65

Methyl-tert butyl ether

Concen: 3.10 ug/L

RT: 8.05 min Scan# 487

Delta R.T. 0.06 min

Lab File: c8411.d

Acq: 8 Jun 95 6:00 pm

Tgt Ion: 73 Resp: 114138

Ion Ratio Lower Upper

73 100

57 37.7 3.4 43.4

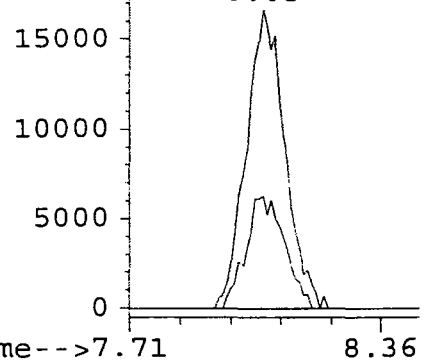
0 0.0 0.0 0.0

0 0.0 0.0 0.0

Abundance Ion 73.00 (72.2)

Ion 57.00 (56.2)

8.05



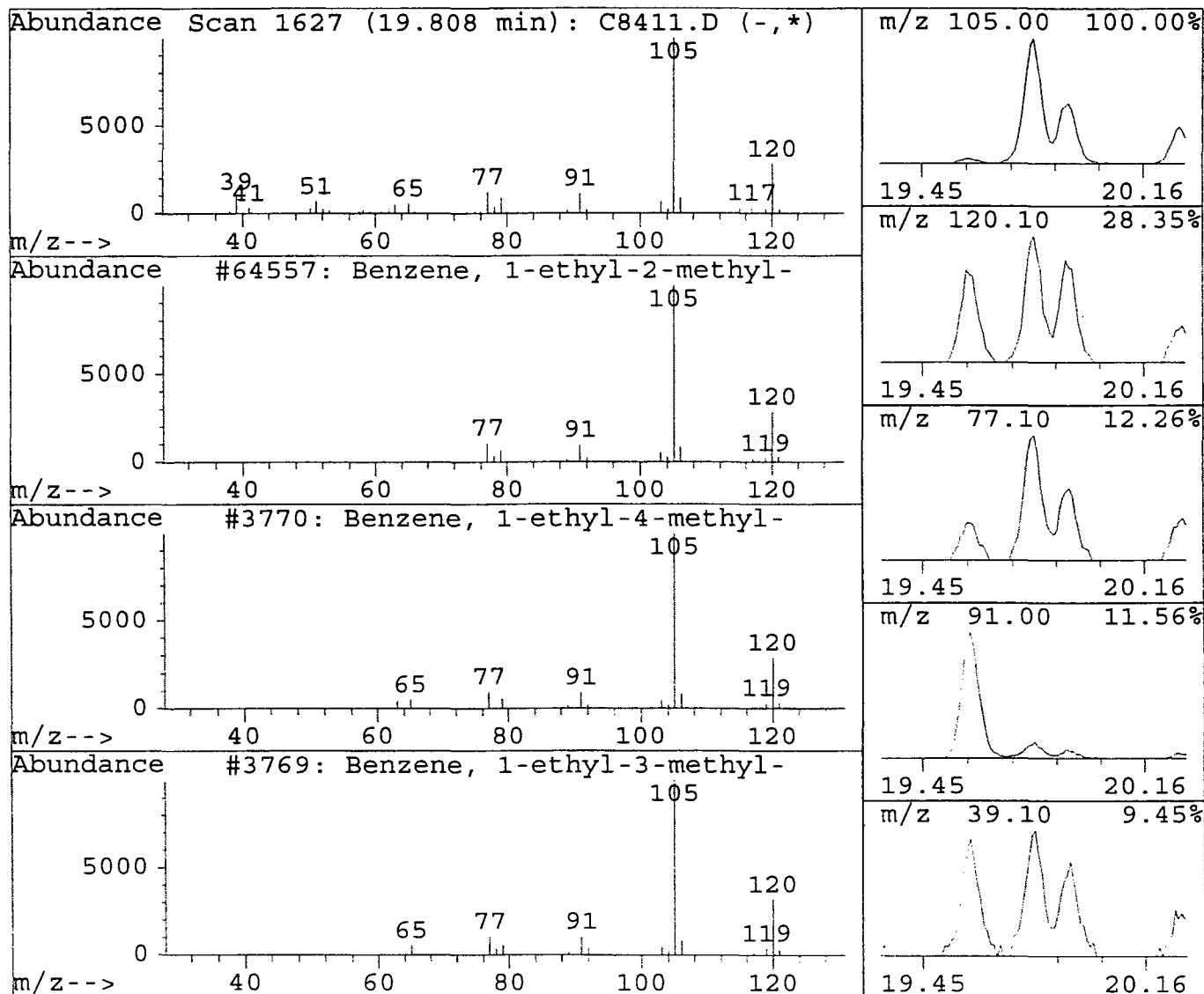
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.81	2.52 ug/L	731135	Fluorobenzene	11.89

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	95
3	Benzene, 1-ethyl-3-methyl-	3769	000620-14-4	91
4	Benzene, (1-methylethyl)-	64552	000098-82-8	90
5	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	81



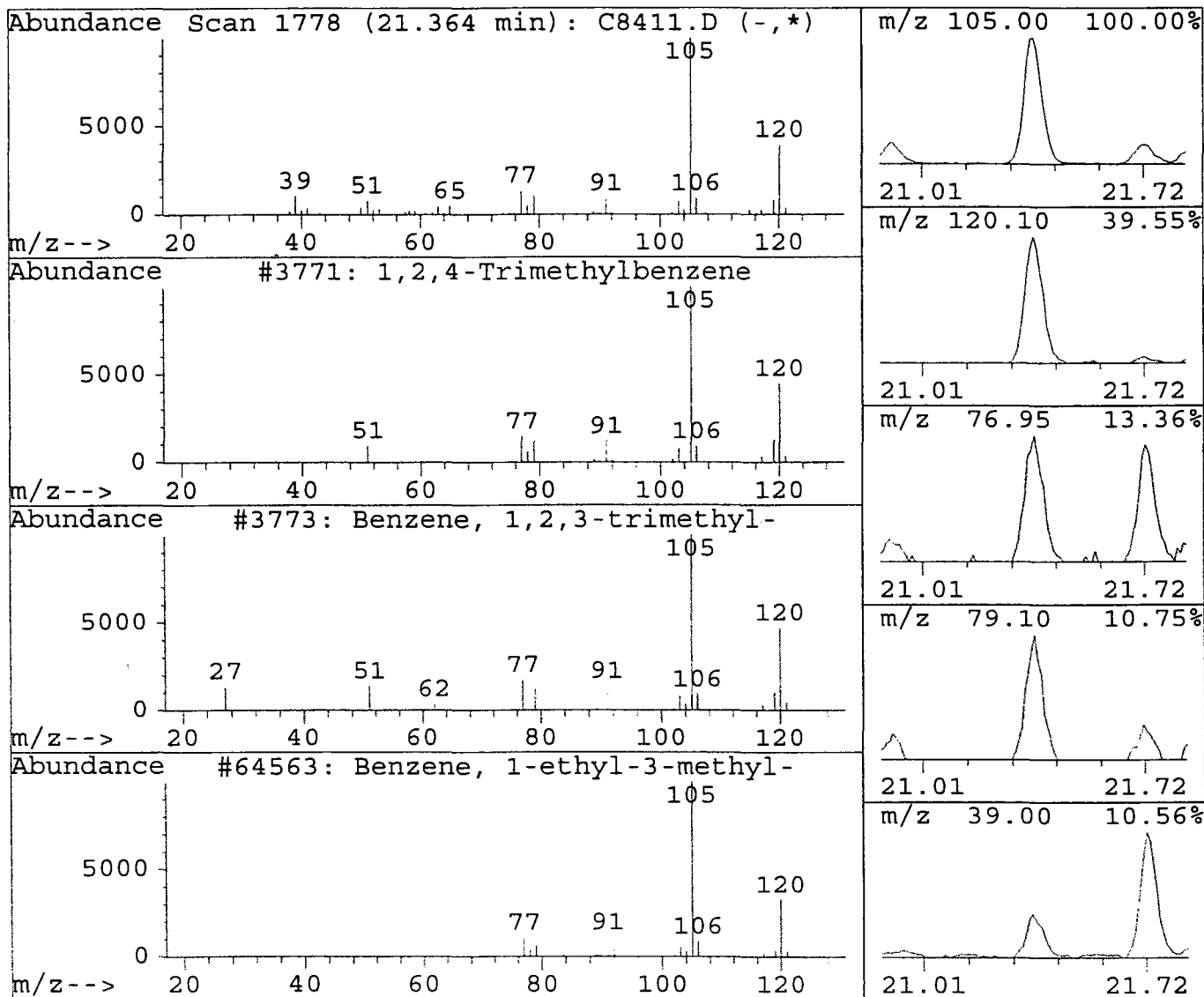
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.36	3.57 ug/L	1036030	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2,4-Trimethylbenzene	3771	000095-36-3	94
2	Benzene, 1,2,3-trimethyl-	3773	000526-73-8	87
3	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	91
4	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	91
5	Benzene, 1-ethyl-4-methyl-	64566	000622-96-8	90



Library Search Compound Report

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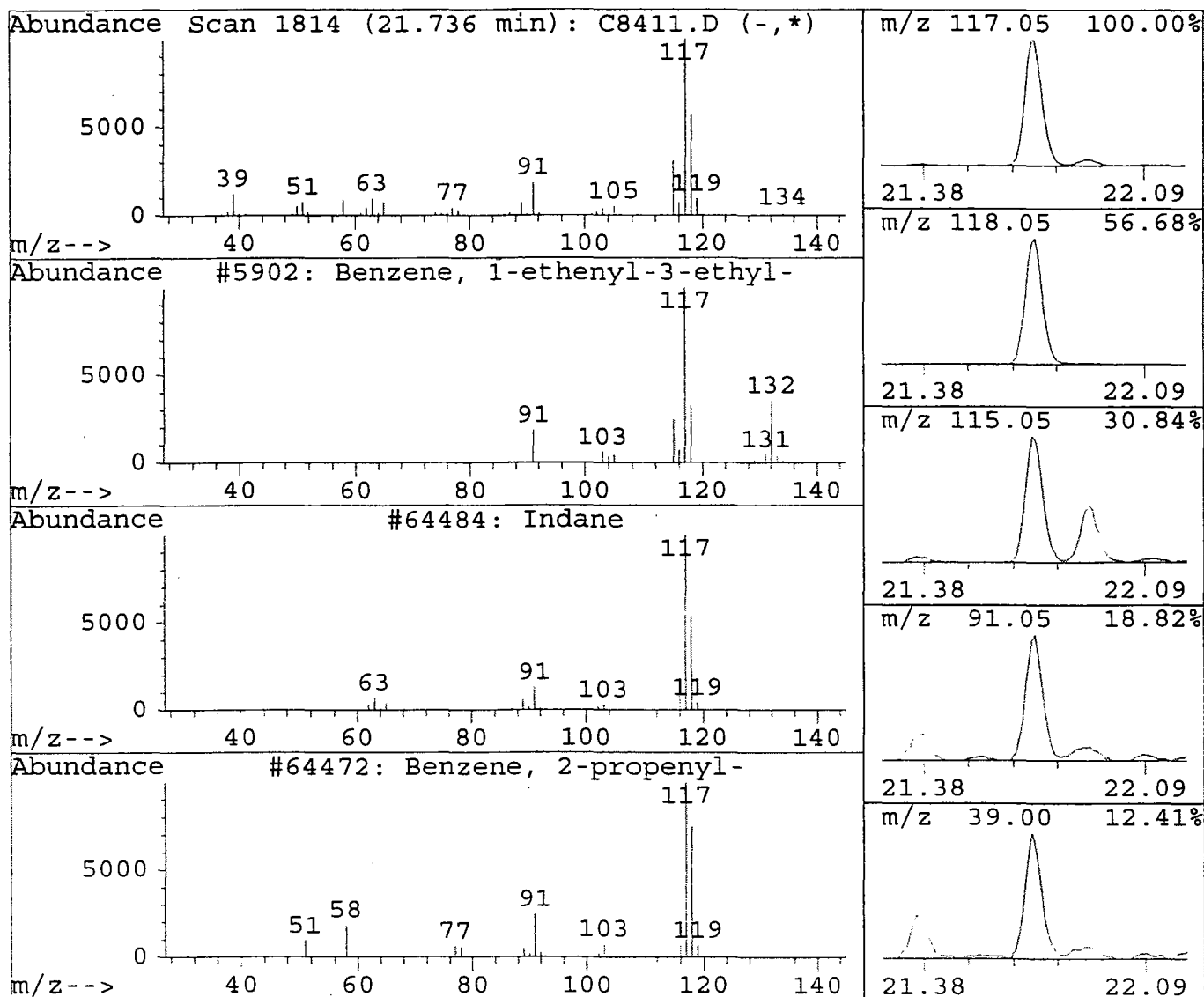
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.74	10.68 ug/L	3101034	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethenyl-3-ethyl-	5902	007525-62-4	42
2	Indane	64484	000496-11-7	87
3	Benzene, 2-propenyl-	64472	000300-57-2	64
4	Benzene, 1-propenyl-	64476	000637-50-3	43
5	Benzene, 1-ethenyl-2-methyl-	64478	000611-15-4	76



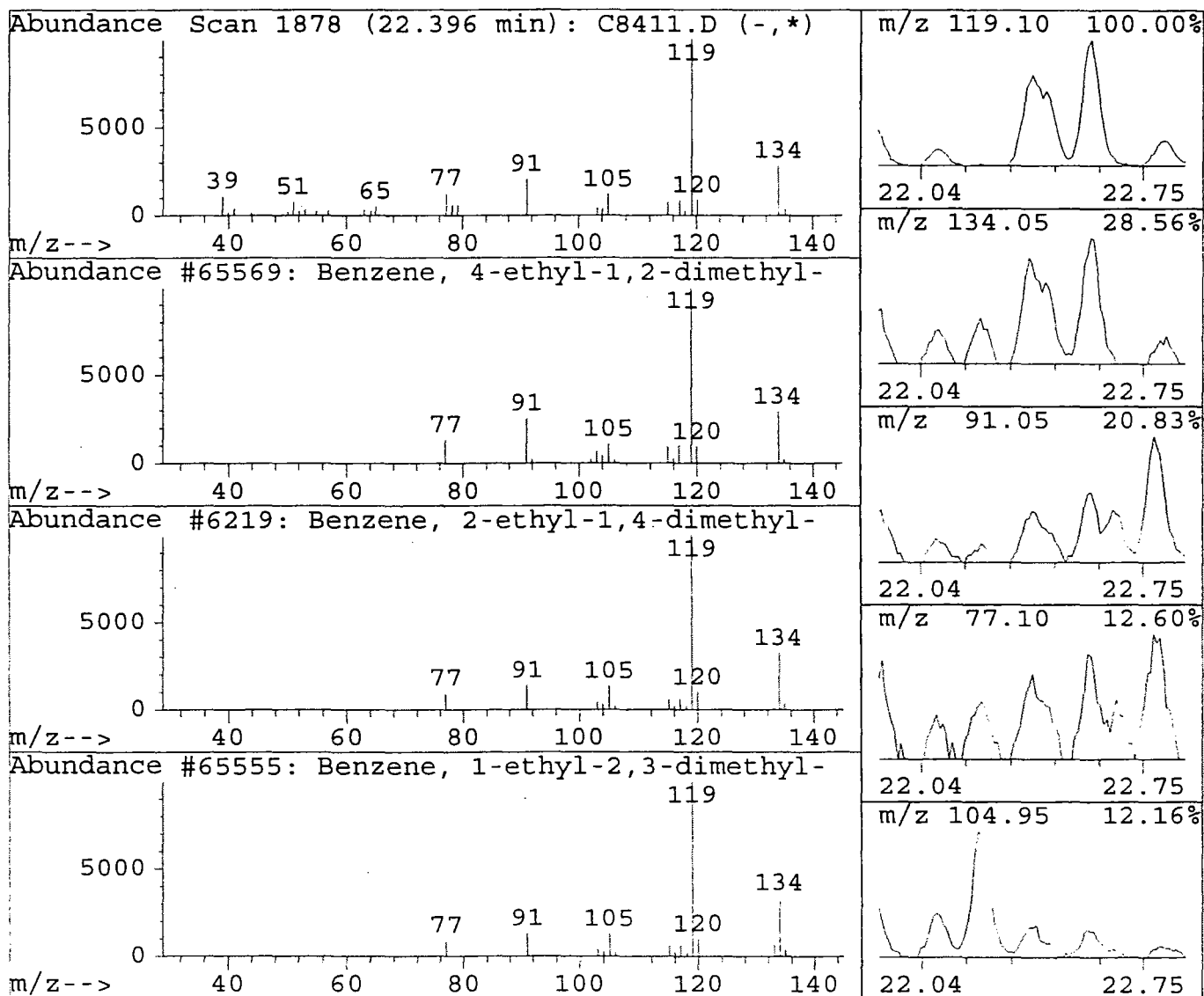
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.40	0.88 ug/L	254654	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	65569	000934-80-5	91
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, 2-ethyl-1,3-dimethyl-	65533	002870-04-4	91
5	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	91



Library Search Compound Report

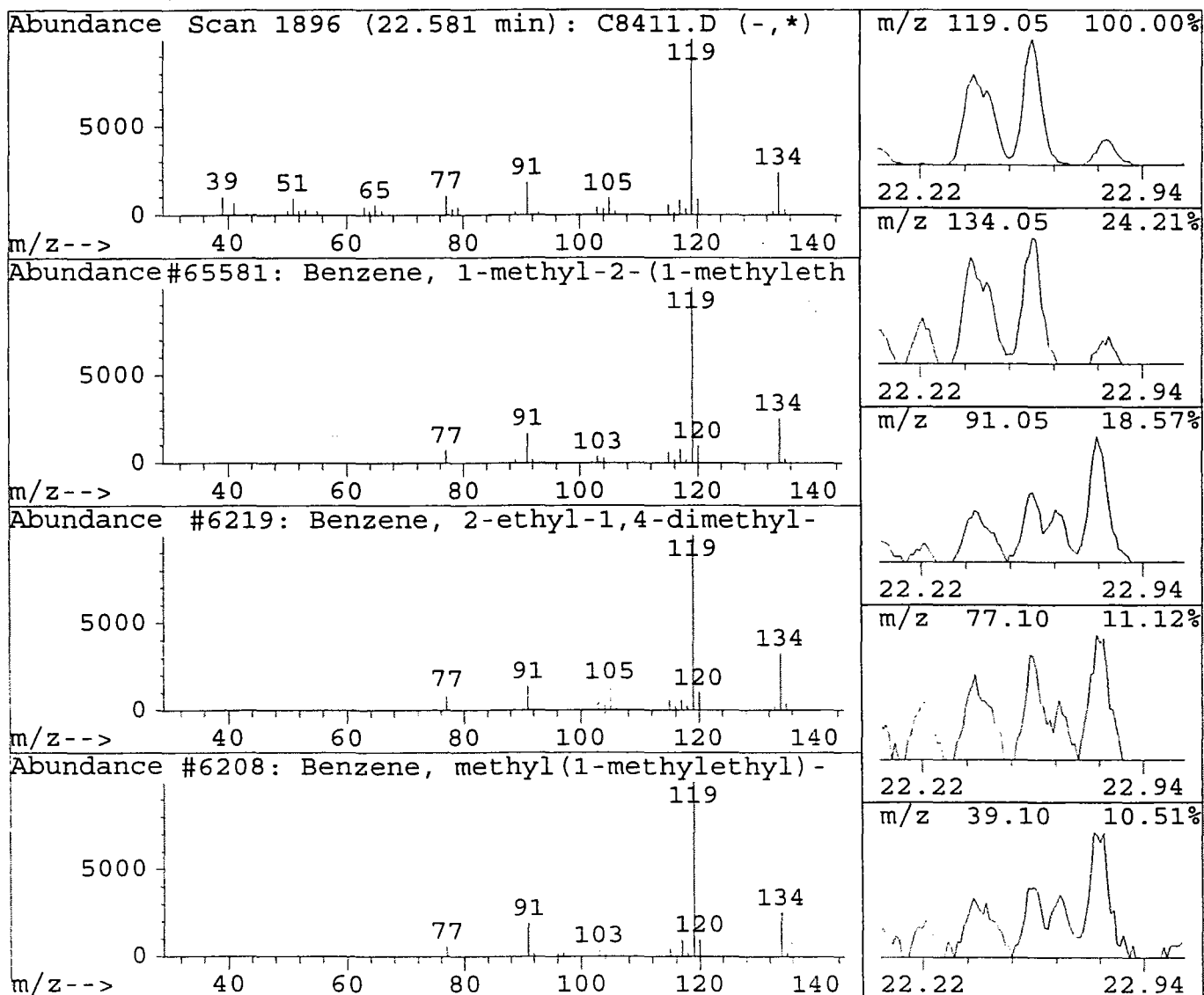
158

Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
22.58	0.89 ug/L	259781	Fluorobenzene	11.89	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)		65581	000527-84-4	93
2	Benzene, 2-ethyl-1,4-dimethyl-		6219	001758-88-9	94
3	Benzene, methyl(1-methylethyl) -		6208	025155-15-1	90
4	Benzene, 1-methyl-3-(1-methylethyl)		6225	000535-77-3	90
5	Benzene, 1-methyl-4-(1-methylethyl)		6201	000099-87-6	90



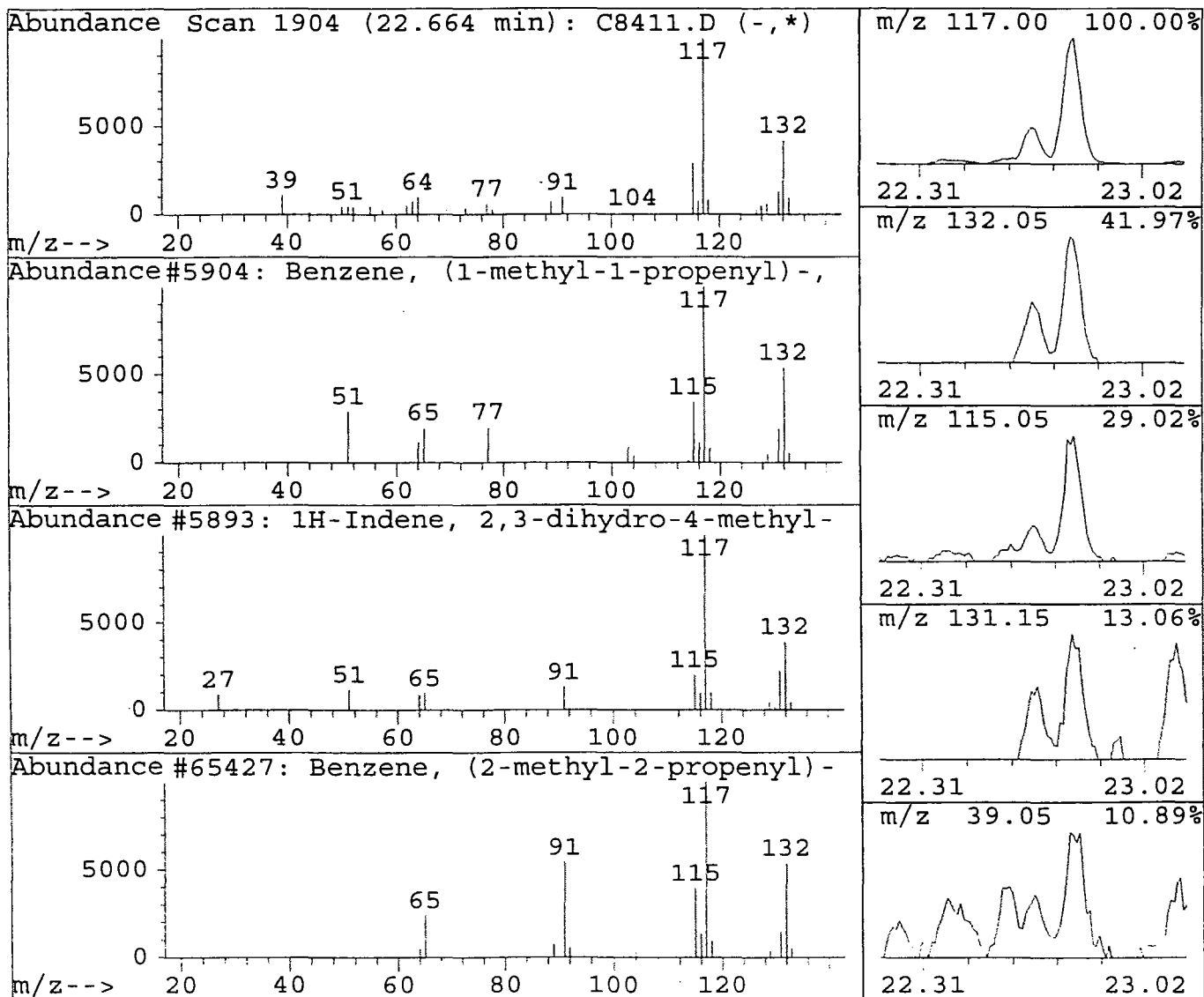
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.66	0.53 ug/L	152516	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (1-methyl-1-propenyl)-, (Z	5904	000767-99-7	58
2	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	72
3	Benzene, (2-methyl-2-propenyl)-	65427	003290-53-7	50
4	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	50
5	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	72



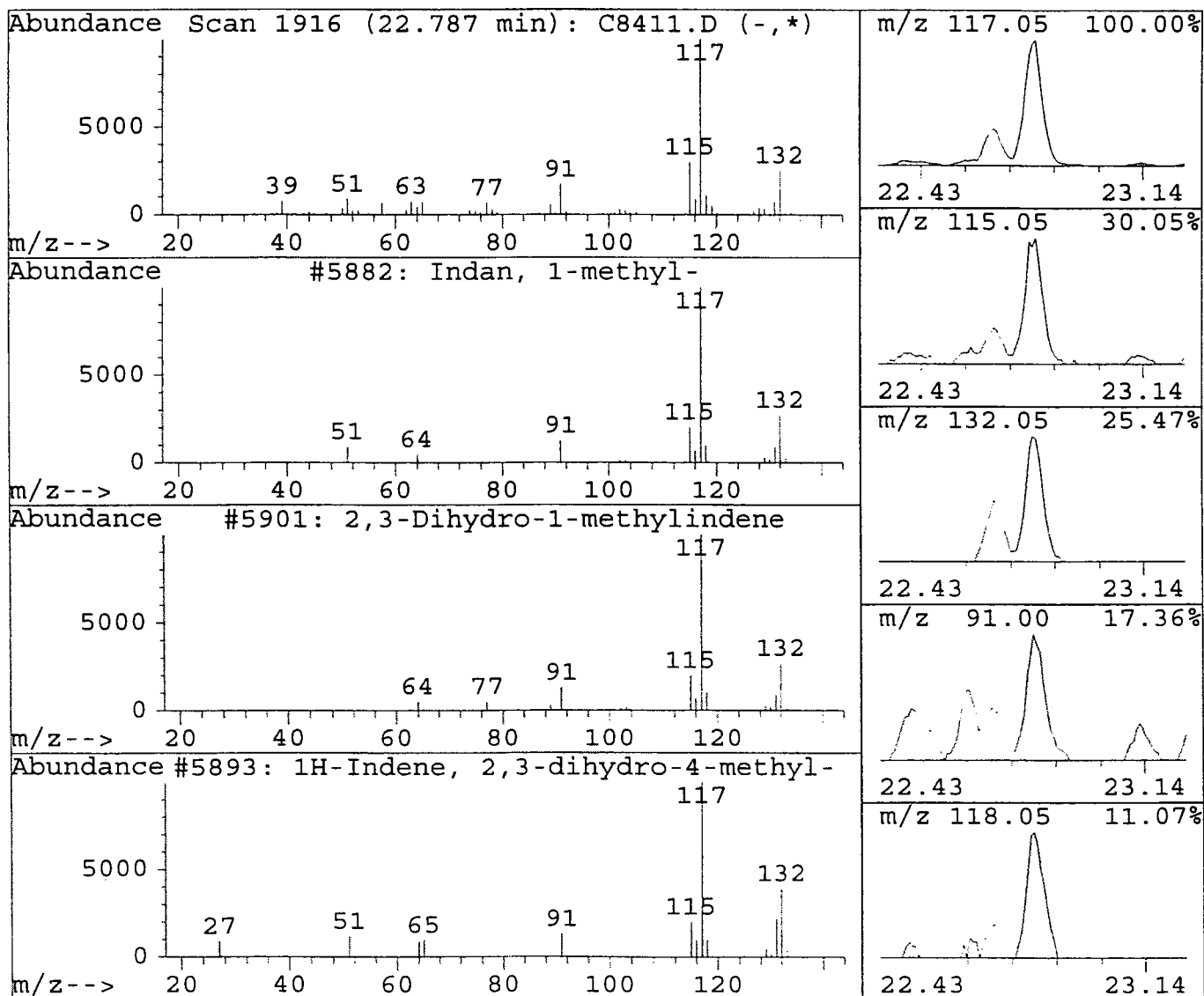
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.79	2.74 ug/L	794011	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indan, 1-methyl-	5882	000767-58-8	90
2	2,3-Dihydro-1-methylindene	5901	027133-93-3	87
3	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	46
4	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	80
5	(E)-1-Phenyl-1-butene	5878	001005-64-7	49



Library Search Compound Report

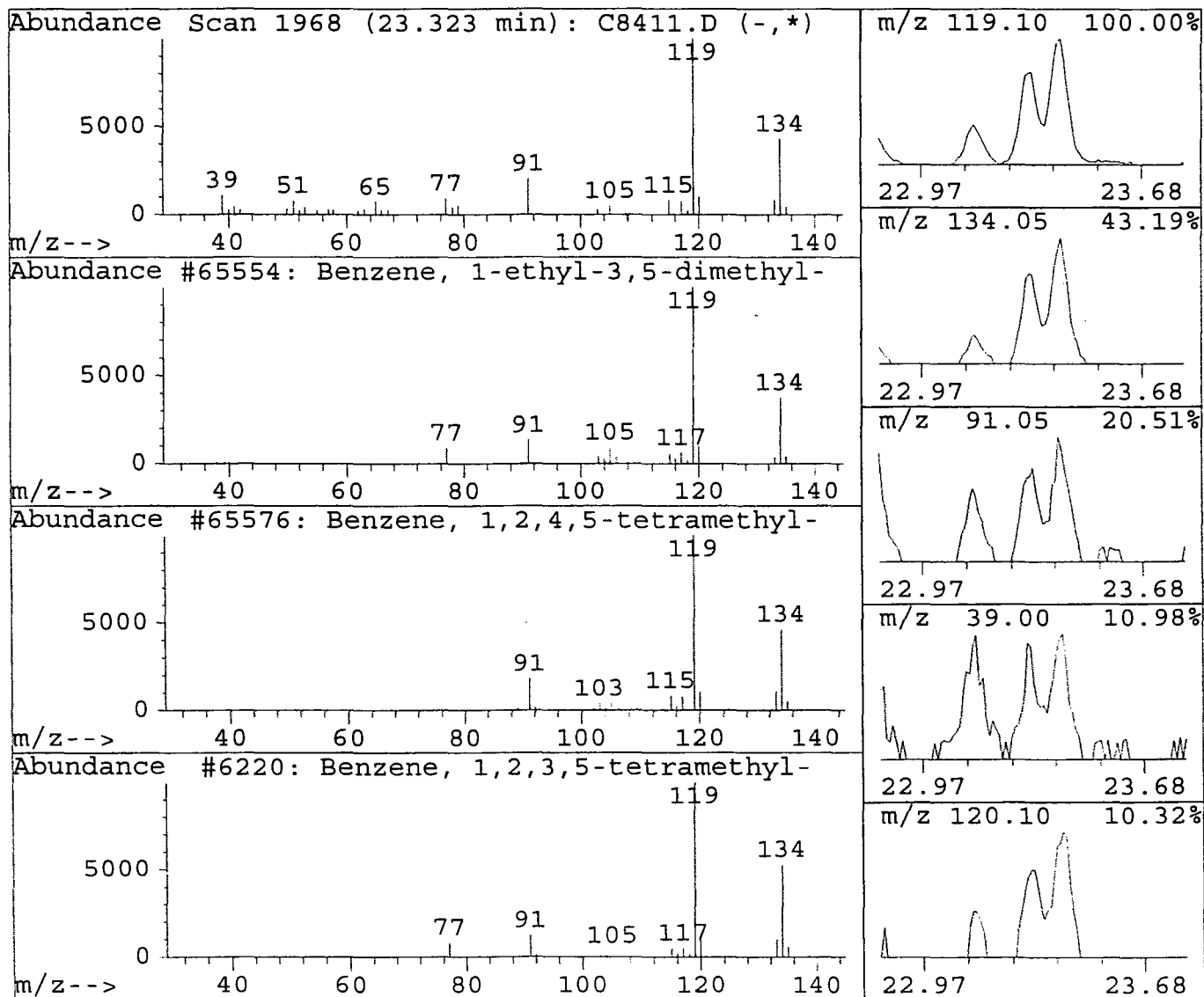
161

Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
23.32	0.73 ug/L	212636	Fluorobenzene	11.89	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-ethyl-3,5-dimethyl-		65554	000934-74-7	90
2	Benzene, 1,2,4,5-tetramethyl-		65576	000095-93-2	90
3	Benzene, 1,2,3,5-tetramethyl-		6220	000527-53-7	91
4	Benzene, 1,2,3,4-tetramethyl-		6202	000488-23-3	91
5	Benzene, 1-ethyl-2,3-dimethyl-		65555	000933-98-2	91



Library Search Compound Report

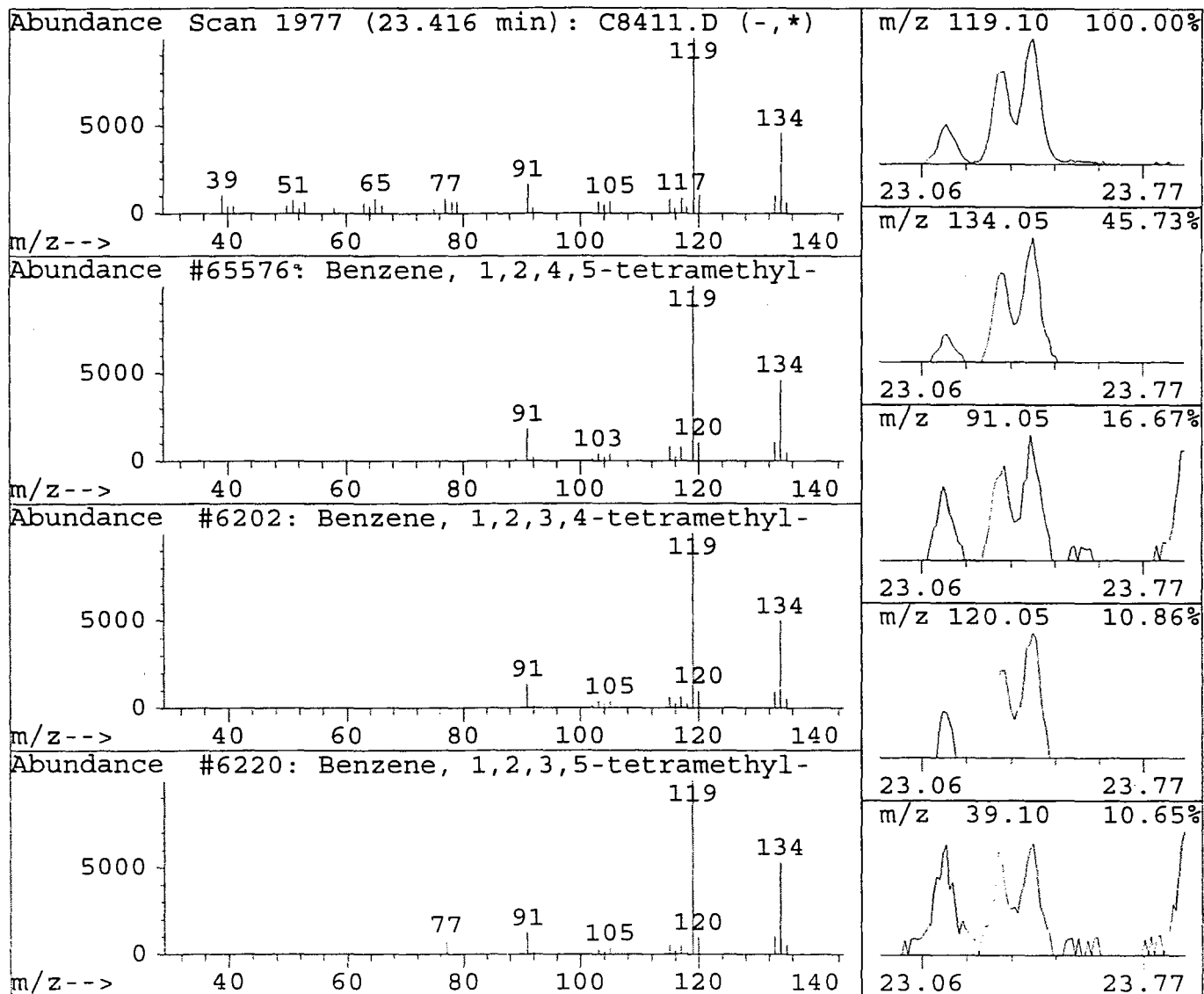
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

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Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
23.42	1.19 ug/L	345117	Fluorobenzene	11.89	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-		65576	000095-93-2	94
2	Benzene, 1,2,3,4-tetramethyl-		6202	000488-23-3	95
3	Benzene, 1,2,3,5-tetramethyl-		6220	000527-53-7	91
4	Benzene, 1-ethyl-3,5-dimethyl-		65554	000934-74-7	91
5	Benzene, 2-ethyl-1,4-dimethyl-		65570	001758-88-9	91



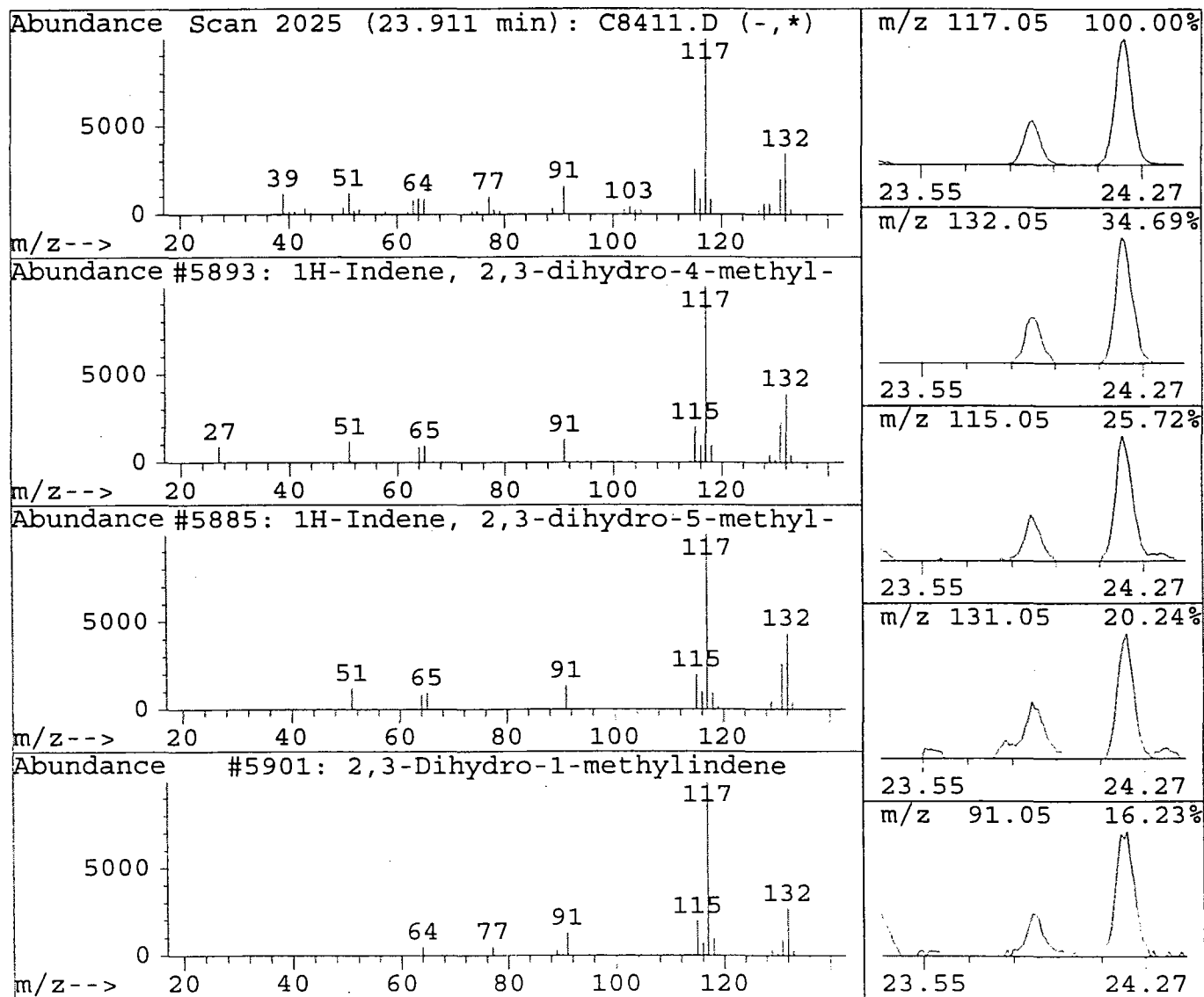
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.91	1.43 ug/L	414786	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	87
2	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	87
3	2,3-Dihydro-1-methylindene	5901	027133-93-3	87
4	Indan, 1-methyl-	5882	000767-58-8	81
5	Benzene, (1-methyl-1-propenyl)-, (Z)	5904	000767-99-7	47



Library Search Compound Report

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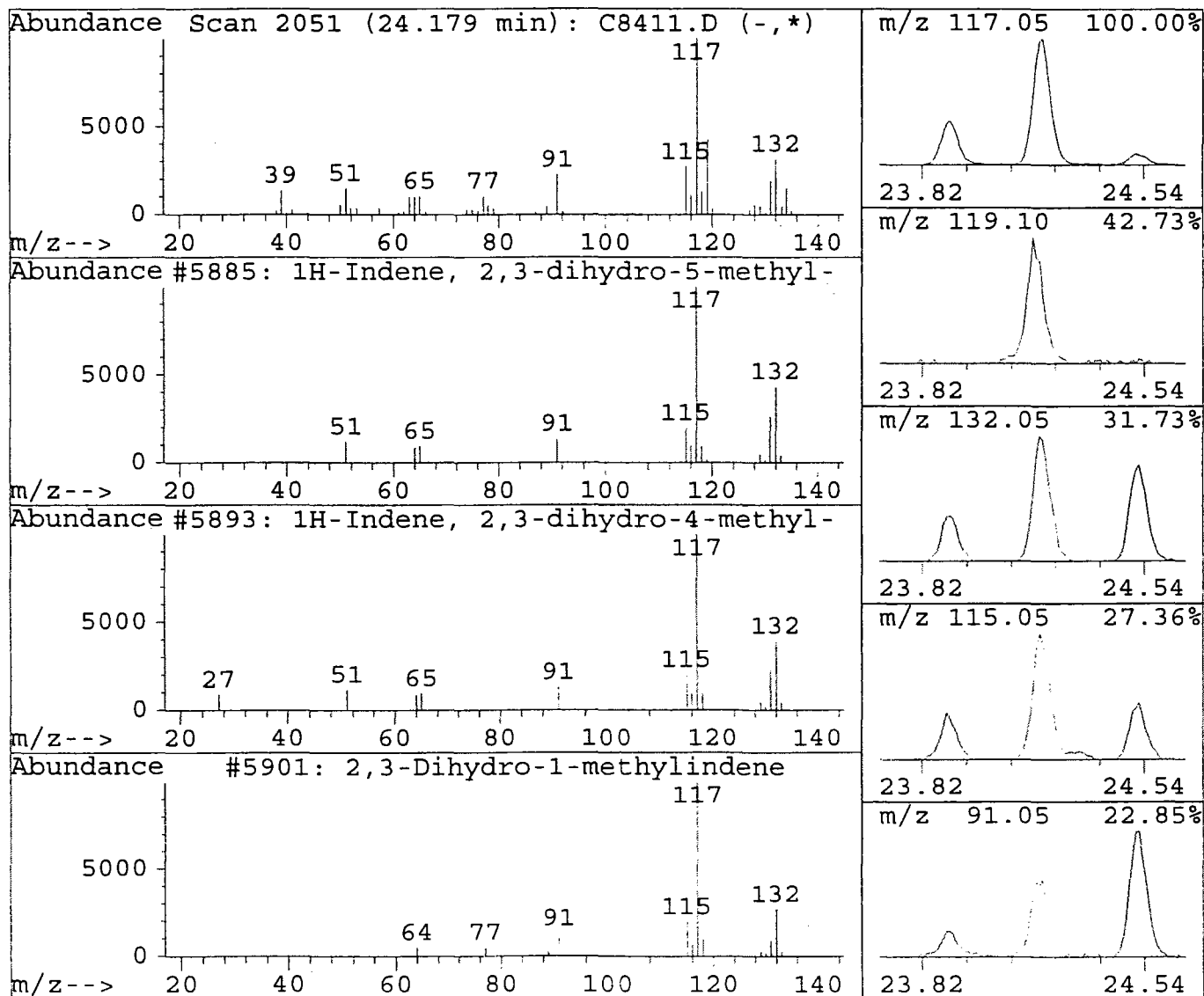
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.18	0.89 ug/L	259290	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	76
2	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	70
3	2,3-Dihydro-1-methylindene	5901	027133-93-3	70
4	Indan, 1-methyl-	5882	000767-58-8	62
5	Azulene, 1,2,3,3a-tetrahydro-	5886	033877-87-1	32



Library Search Compound Report

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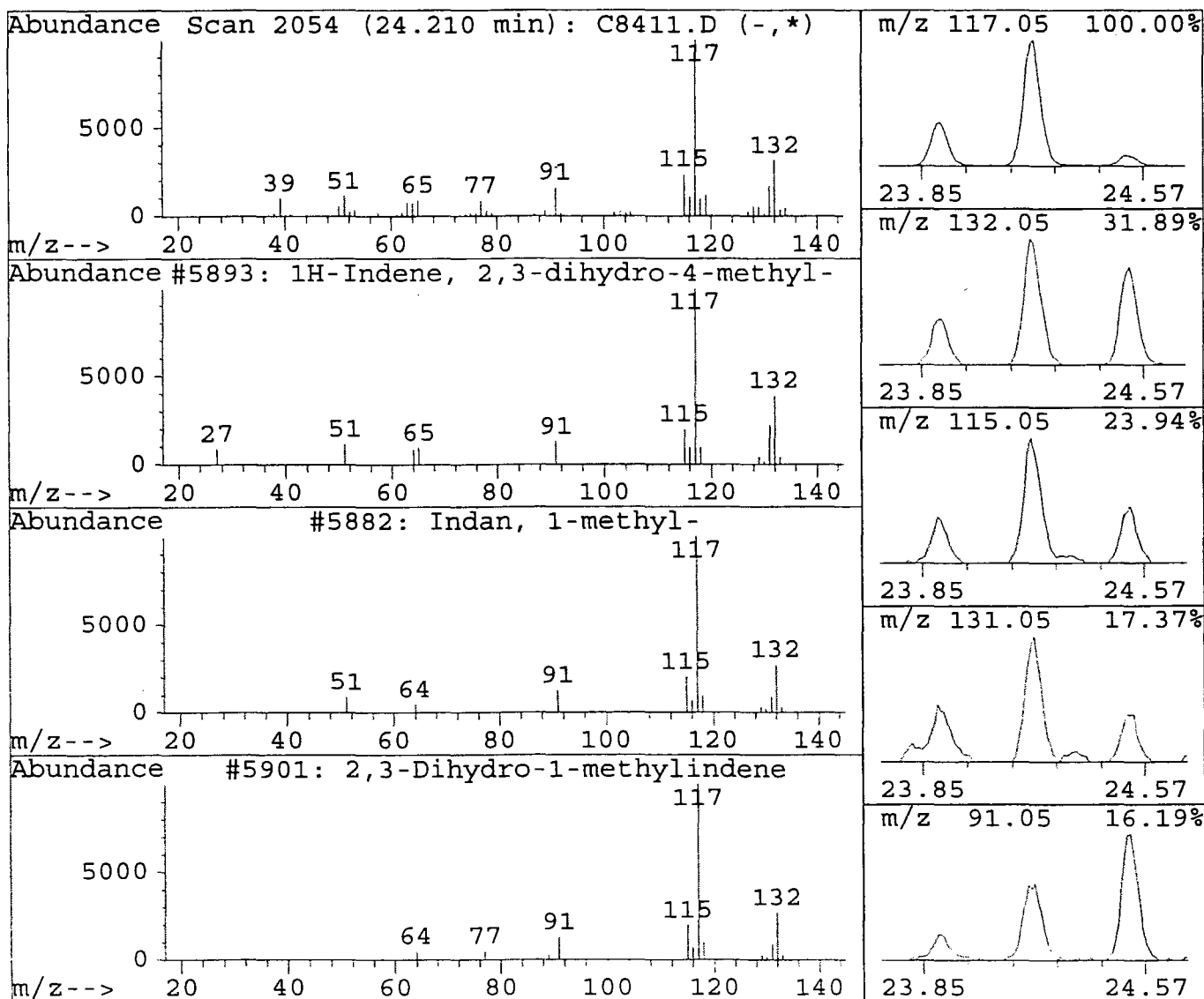
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.21	3.62 ug/L	1052174	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	87
2	Indan, 1-methyl-	5882	000767-58-8	94
3	2,3-Dihydro-1-methylindene	5901	027133-93-3	93
4	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	60
5	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	43



Library Search Compound Report

166

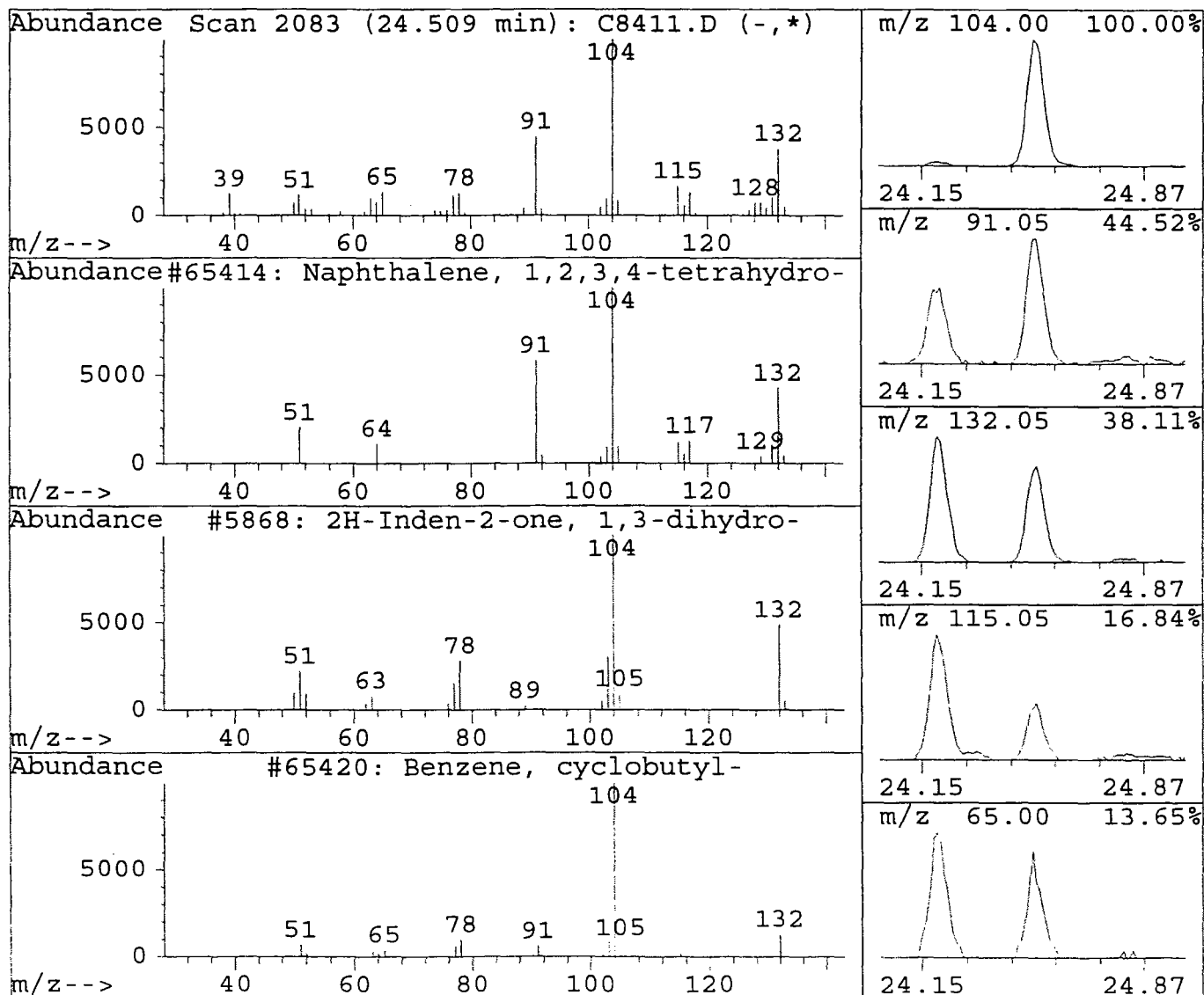
Data File : d:\hpchem\1\data\c8411.d
Acq On : 8 Jun 95 6:00 pm
Sample : 9524200
Misc : 25 ML

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.51	3.03 ug/L	881030	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	65414	000119-64-2	90
2	2H-Inden-2-one, 1,3-dihydro-	5868	000615-13-4	25
3	Benzene, cyclobutyl-	65420	004392-30-7	37
4	Benzene, 1,1'-(1,2-cyclobutanediyl)	25027	020071-09-4	32
5	Formic acid, 2-phenylethyl ester	66751	000104-62-1	32



1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 5 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524201 mw3-2926947
 Lab File ID: C8420.D
 Date Received: 05/26/95
 Date Analyzed: 06/08/95
 Dilution Factor: 1:5
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	2.5	U
74-87-3-----	Chloromethane	2.5	U
74-83-9-----	Bromomethane	2.5	U
75-01-4-----	Vinyl Chloride	2.5	U
75-00-3-----	Chloroethane	2.5	U
75-69-4-----	Trichlorofluoromethane	2.5	U
75-09-2-----	Methylene Chloride	21	B
156-60-65----	trans-1,2-Dichloroethene	2.5	U
75-35-4-----	1,1-Dichloroethene	2.5	U
75-34-3-----	1,1-Dichloroethane	2.5	U
594-20-7-----	2,2-Dichloropropane	2.5	U
74-97-1-----	Bromochloromethane	2.5	U
156-59-2-----	cis-1,2-Dichloroethene	2.5	U
67-66-3-----	Chloroform	2.5	U
563-58-6-----	1,1-Dichloropropene	2.5	U
107-06-2-----	1,2-Dichloroethane	2.5	U
71-55-6-----	1,1,1-Trichloroethane	2.5	U
74-95-3-----	Dibromomethane	2.5	U
56-23-1-----	Carbon Tetrachloride	2.5	U
75-27-4-----	Bromodichloromethane	2.5	U
78-87-1-----	1,2-Dichloropropane	2.5	U
10061-01-1----	cis-1,3-Dichloropropene	2.5	U
142-28-9-----	1,3-Dichloropropane	2.5	U
79-01-6-----	Trichloroethene	2.5	U
124-48-1-----	Dibromochloromethane	2.5	U
79-00-1-----	1,1,2-Trichloroethane	2.5	U
71-43-2-----	Benzene	94	
10061-02-6----	trans-1,3-Dichloropropene	2.5	U
75-25-2-----	Bromoform	2.5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	2.5	U
127-18-4-----	Tetrachloroethene	2.5	U
79-34-1-----	1,1,2,2-Tetrachloroethane	2.5	U
108-88-3-----	Toluene	3.8	
106-93-4-----	1,2-Dibromoethane	2.5	U
108-90-7-----	Chlorobenzene	2.5	U
100-41-4-----	Ethylbenzene	6.3	
1330-29-7-----	Xylene (total)	190	

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 5 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524201mw3-2926947
 Lab File ID: C8420.D
 Date Received: 05/26/95
 Date Analyzed: 06/08/95
 Dilution Factor: 1:5
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	2.5	U
98-82-8-----	Isopropylbenzene	17	
108-86-1-----	Bromobenzene	2.5	U
96-18-4-----	1,2,3-Trichloropropane	2.5	U
103-65-1-----	n-Propylbenzene	13	
95-49-8-----	2-Chlorotoluene	2.5	U
106-43-4-----	4-Chlorotoluene	2.5	U
108-67-8-----	1,3,5-Trimethylbenzene	12	
98-06-6-----	tert-Butylbenzene	2.5	U
95-63-6-----	1,2,4-Trimethylbenzene	8.6	
135-98-8-----	sec-Butylbenzene	2.5	U
541-73-1-----	1,3-Dichlorobenzene	2.5	U
106-46-7-----	1,4-Dichlorobenzene	2.5	U
99-87-6-----	4-Isopropyltoluene	2.5	U
95-50-1-----	1,2-Dichlorobenzene	2.5	U
104-51-8-----	n-Butylbenzene	2.5	U
96-12-8-----	1,2-Dibromo-3-chloropropane	2.5	U
120-82-1-----	1,2,4-Trichlorobenzene	2.5	U
87-68-3-----	Hexachlorobutadiene	2.5	U
91-20-3-----	Naphthalene	9.4	
87-61-6-----	1,2,3-Trichlorobenzene	2.5	U
1634-04-4----	Methyl-tertiary butyl ether	400	D
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. **169**

9524201D
mw3-2926947

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9524201V

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C8420.D

Level: (low/med) LOW Date Received: 5/26/95

% Moisture: not dec. NA Date Analyzed: 6/8/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 5.0

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

Concentration Units: _____

Number TICs found: 14 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 78-78-4	Butane, 2-methyl-	5.03	25	J
2. 109-66-0	Pentane	5.59	4	J
3.	Unknown Hydrocarbon	5.61	3	J
4. 96-37-7	Cyclopentane, methyl-	9.72	23	J
5.	Unknown Hydrocarbon	9.74	9	J
6. 110-82-7	Cyclohexane	10.89	11	J
7.	Unknown Hydrocarbon	10.90	3	J
8.	Unknown Hydrocarbon	13.81	3	J
9. 611-14-3	Benzene, 1-ethyl-2-methyl-	19.76	4	J
10. 620-14-4	Benzene, 1-ethyl-3-methyl-	20.29	3	J
11. 95-36-3	1,2,4-Trimethylbenzene	21.37	17	J
12.	Unknown Hydrocarbon	21.74	41	J
13. 767-58-8	Indan, 1-methyl-	22.79	5	J
14. 27133-93-3	2,3-Dihydro-1-methylindene	24.20	3	J
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c8420.d
 Acq On : 8 Jun 95 11:23 pm
 Sample : 9524201
 Misc : 5 ML 1:5
 Quant Time: Jun 9 10:59 1995

Vial: 15
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

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Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.89	96	546027	5.00	ug/L	0.05
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	285214	5.24	ug/L	104.72%
57) 1,2-Dichlorobenzene-d4	21.91	152	135377	5.44	ug/L	108.82%
Target Compounds						Qvalue
9) Methylene chloride	7.48	84	128184	4.29	ug/L	98
21) Benzene	11.41	78	1784250	18.77	ug/L	100
28) Toluene	14.69	92	50984	0.75	ug/L	89
37) Ethylbenzene	17.29	91	179511	1.26	ug/L	96
38) Xylene (para & meta)	17.50	106	1918819	37.57	ug/L	92
39) Xylene (Ortho)	18.20	106	33064	0.73	ug/L #	80
42) Isopropylbenzene	18.86	105	485046	3.34	ug/L	92
47) n-Propylbenzene	19.60	91	466674	2.47	ug/L m	99
50) 1,3,5-Trimethylbenzene	19.91	105	281148	2.34	ug/L	99
52) 1,2,4-Trimethylbenzene	20.60	105	191115	1.73	ug/L	99
63) Naphthalene	25.37	128	47969	1.89	ug/L	100
65) Methyl-tert butyl ether	8.06	73	2793360	87.56	ug/L	90

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

c8420.d VOA524.M

Fri Jun 09 14:55:53 1995

VOA

Page 1

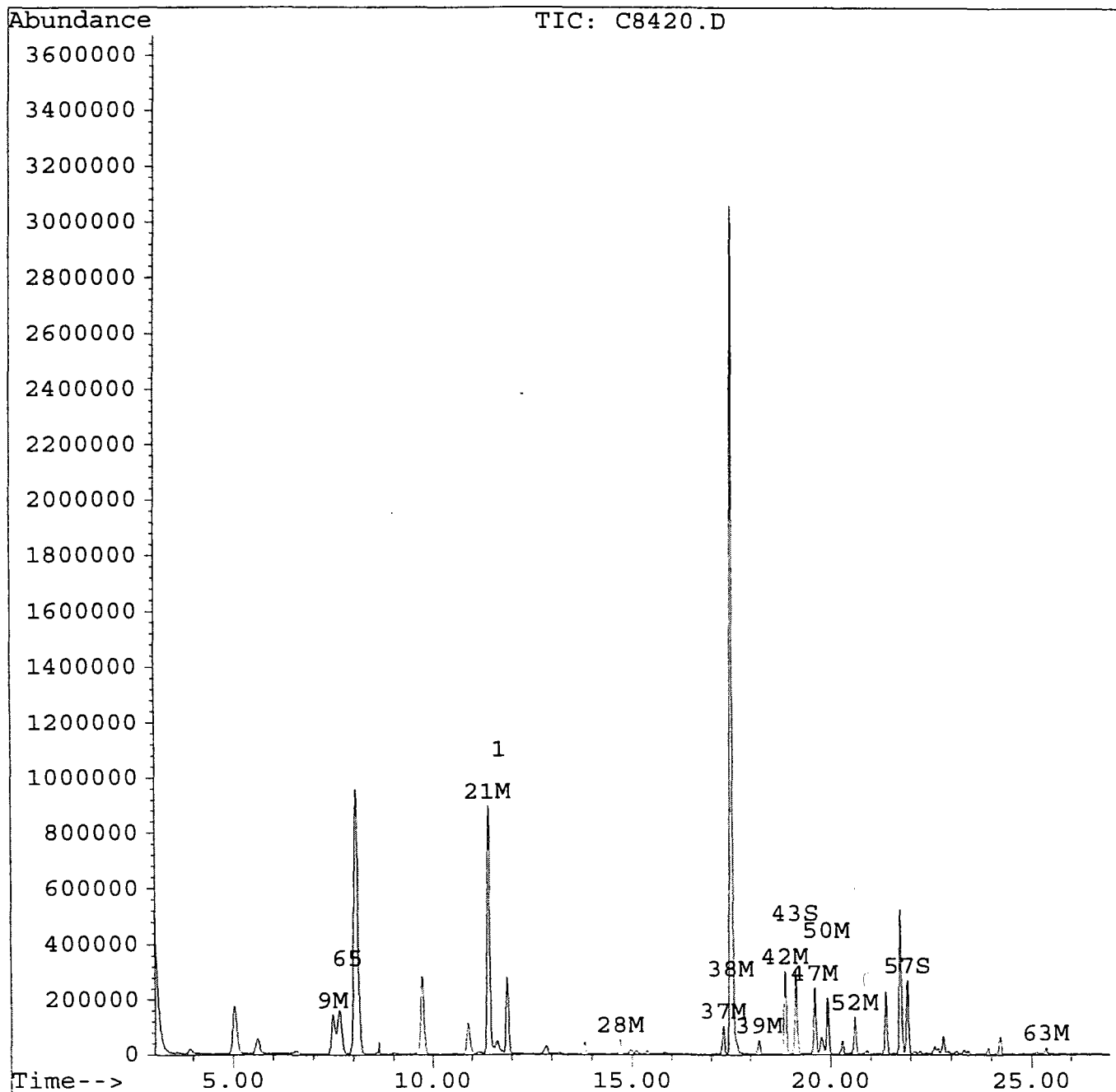
Quantitation Report

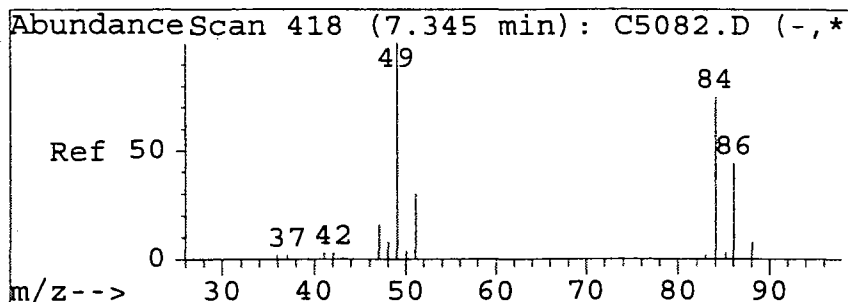
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Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5
Quant Time: Jun 9 10:59 1995

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

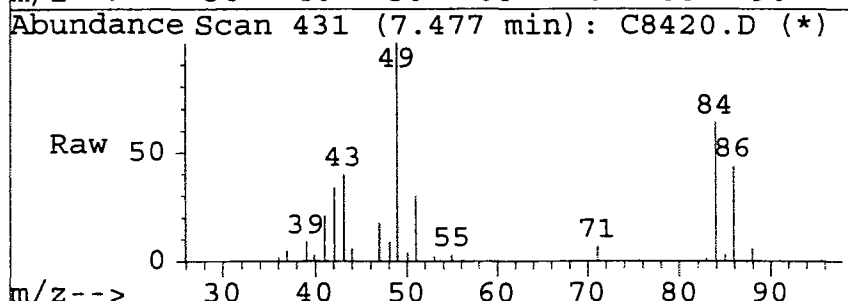
Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



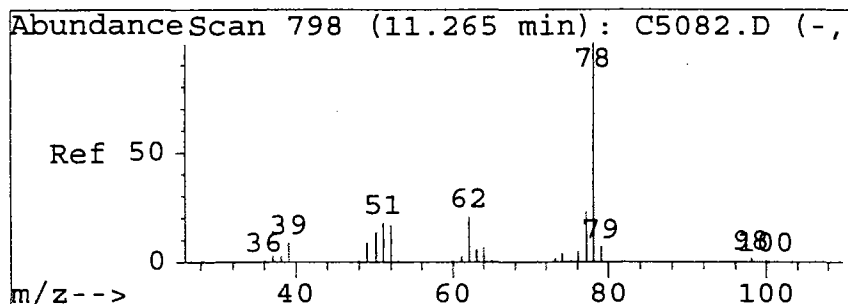
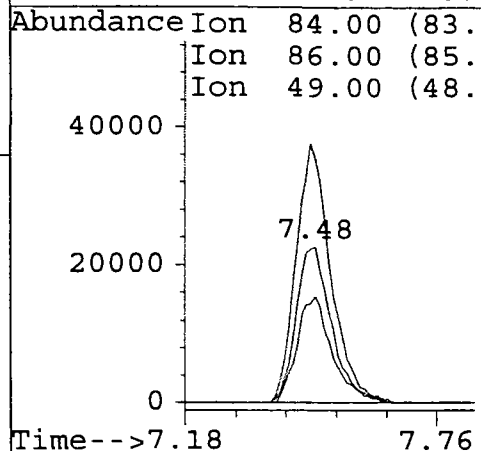
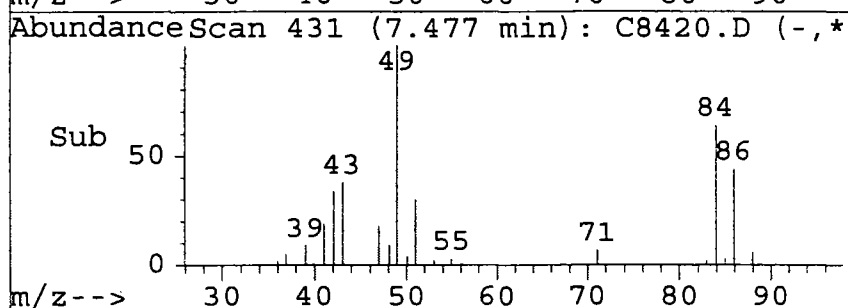


#9
Methylene chloride
Concen: 4.29 ug/L
RT: 7.48 min Scan# 431
Delta R.T. 0.07 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm

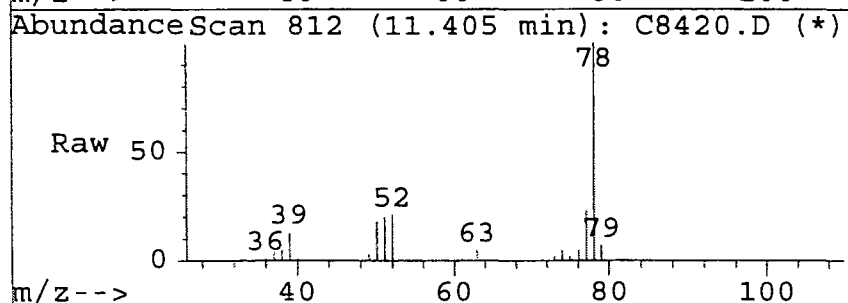
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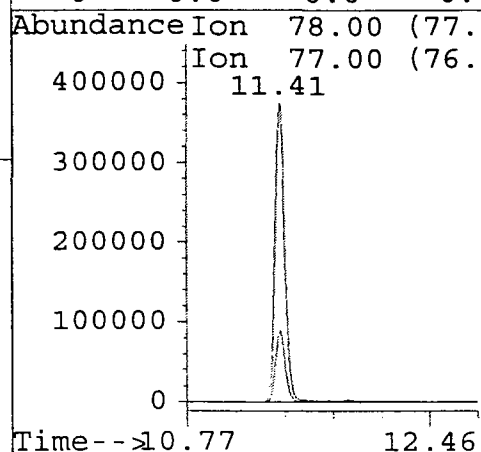
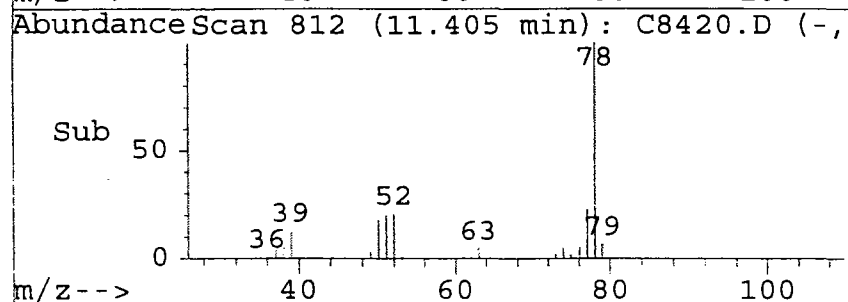
Tgt Ion:84 Resp: 128184
Ion Ratio Lower Upper
84 100
86 68.2 43.1 83.1
49 156.5 136.3 176.3
0 0.0 0.0 0.0

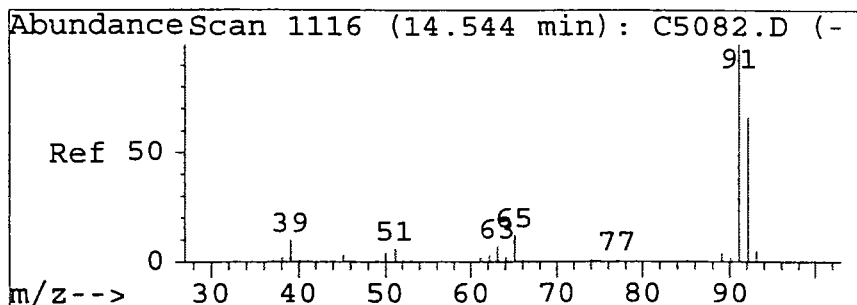


#21
Benzene
Concen: 18.77 ug/L
RT: 11.41 min Scan# 812
Delta R.T. 0.05 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm



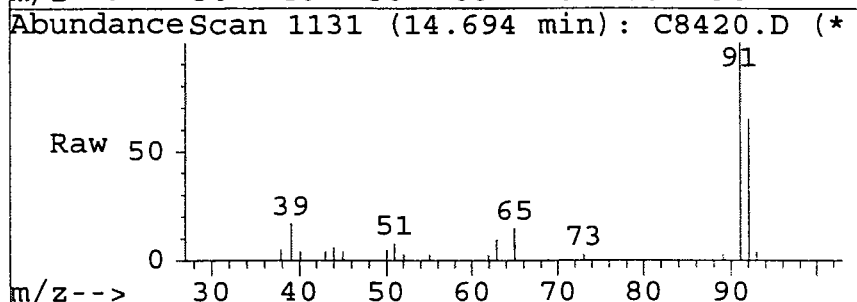
Tgt Ion:78 Resp: 1784250
Ion Ratio Lower Upper
78 100
77 23.5 3.4 43.4
0 0.0 0.0 0.0
0 0.0 0.0 0.0



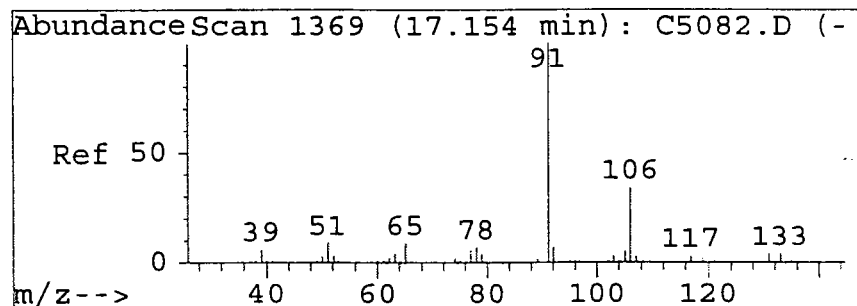
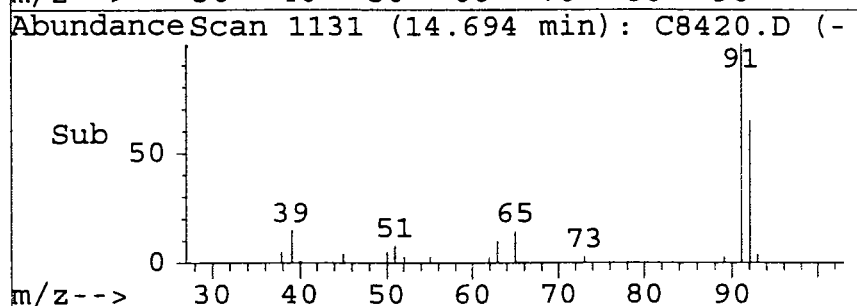
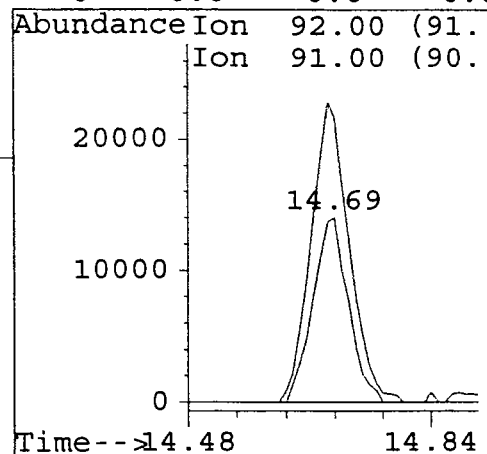


#28
Toluene
Concen: 0.75 ug/L
RT: 14.69 min Scan# 1131
Delta R.T. 0.05 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm

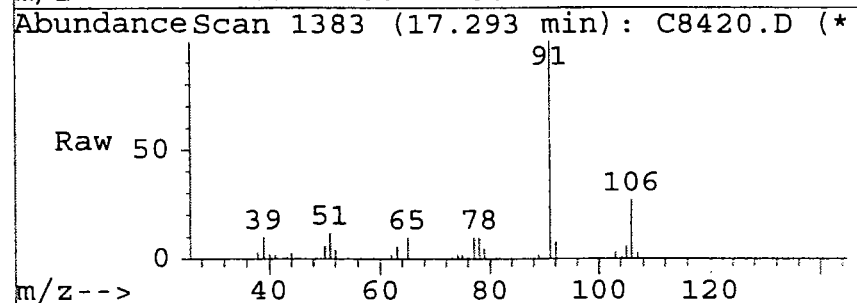
173



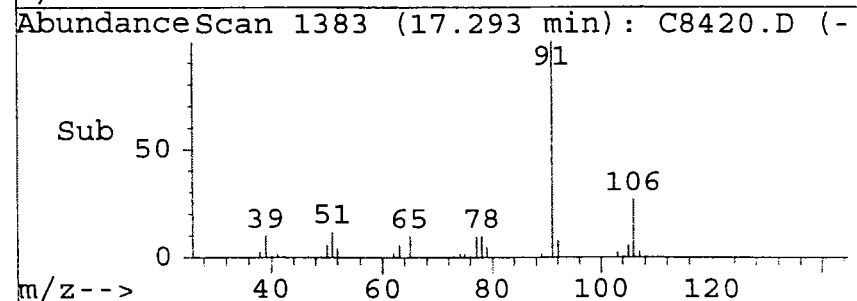
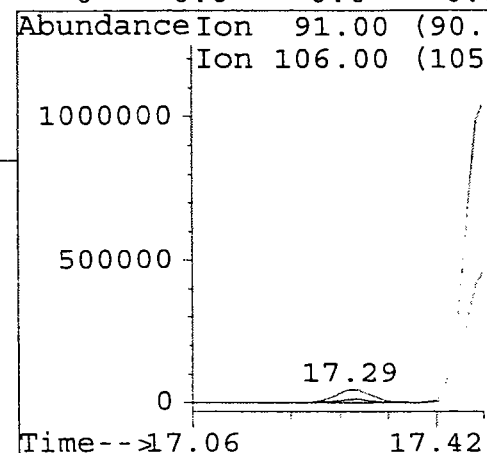
Tgt Ion	Ratio	Lower	Upper
92	100		
91	154.7	149.4	189.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

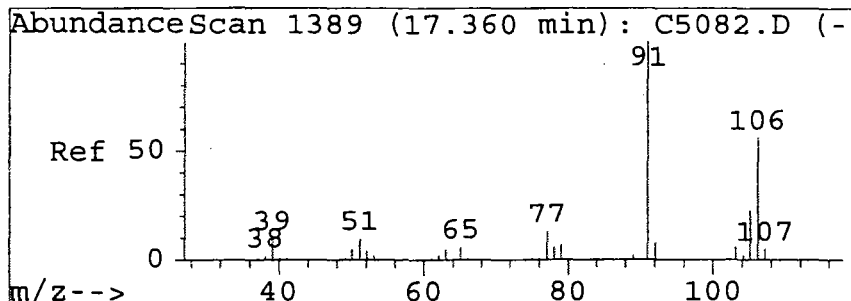


#37
Ethylbenzene
Concen: 1.26 ug/L
RT: 17.29 min Scan# 1383
Delta R.T. 0.03 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm



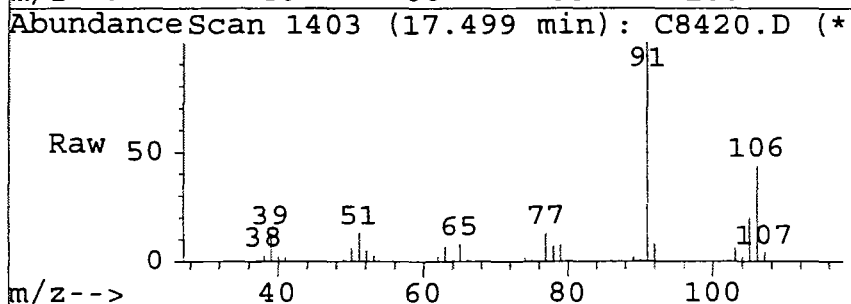
Tgt Ion	Ratio	Lower	Upper
91	100		
106	27.3	9.5	49.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0



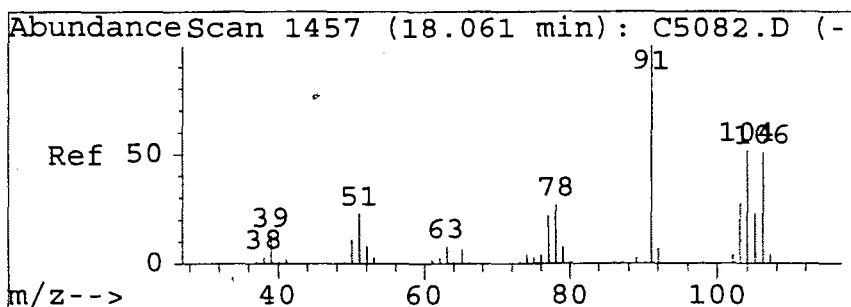
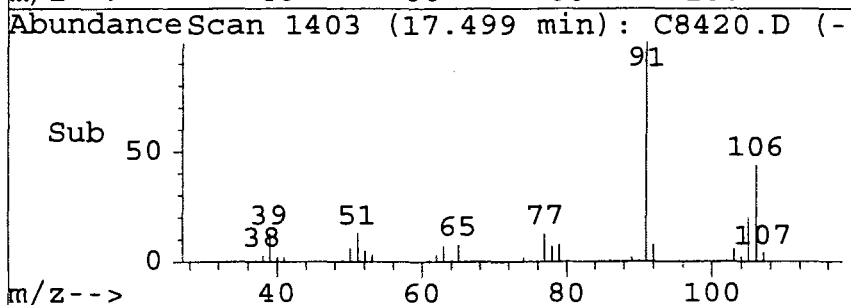
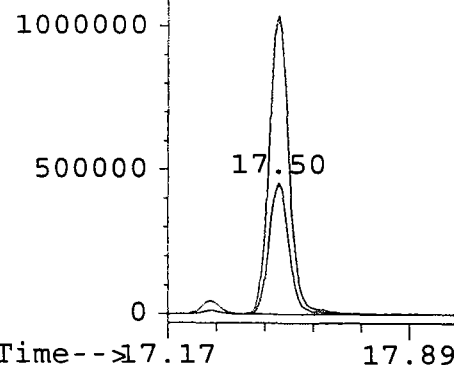


#38
Xylene (para & meta) **174**
Concen: 37.57 ug/L
RT: 17.50 min Scan# 1403
Delta R.T. 0.03 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm

Tgt Ion:106 Resp: 1918819
Ion Ratio Lower Upper
106 100
91 227.0 195.1 235.1
0 0.0 0.0 0.0
0 0.0 0.0 0.0

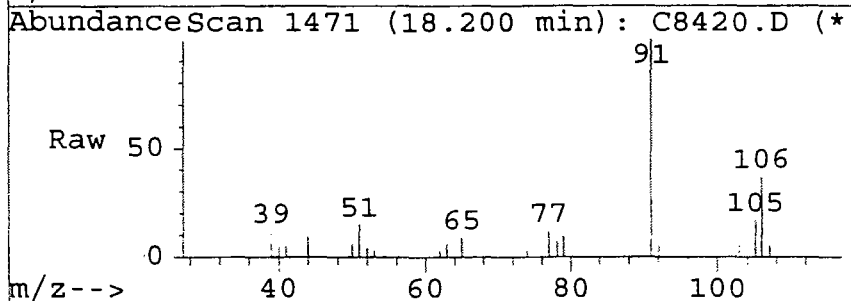


AbundanceIon 106.00 (105
Ion 91.00 (90.

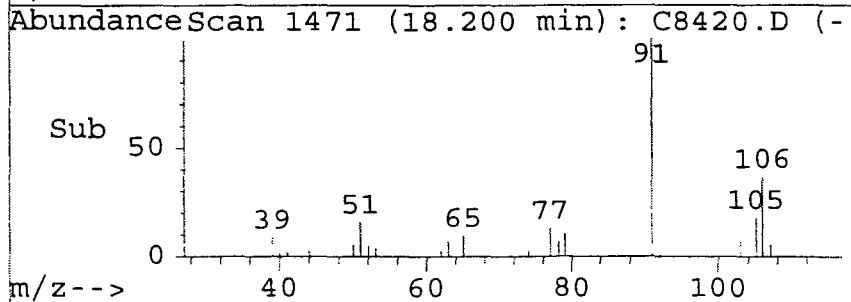
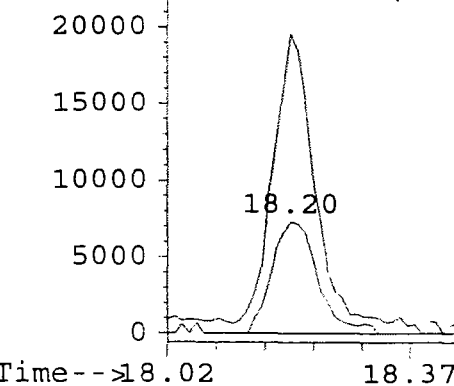


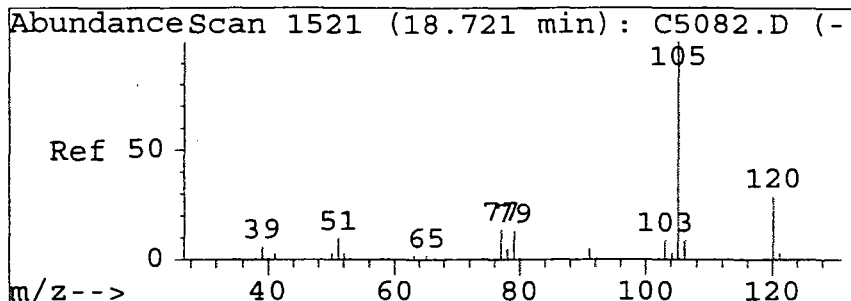
#39
Xylene (Ortho)
Concen: 0.73 ug/L
RT: 18.20 min Scan# 1471
Delta R.T. 0.03 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm

Tgt Ion:106 Resp: 33064
Ion Ratio Lower Upper
106 100
91 257.3 204.2 244.2#
0 0.0 0.0 0.0
0 0.0 0.0 0.0



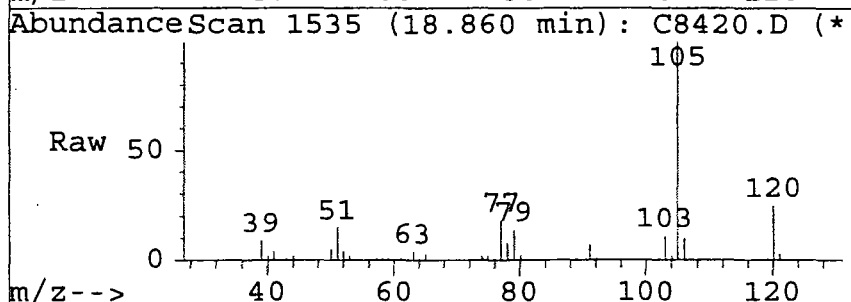
AbundanceIon 106.00 (105
Ion 91.00 (90.



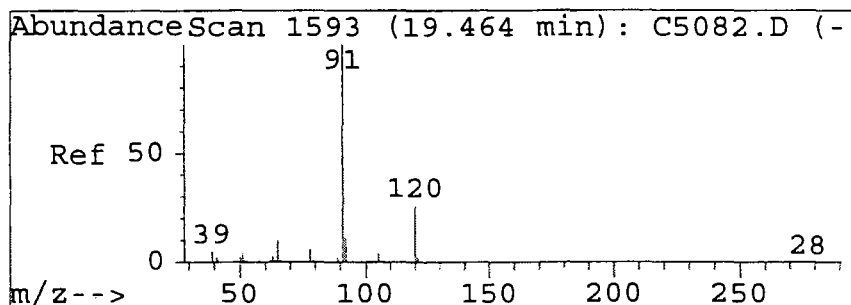
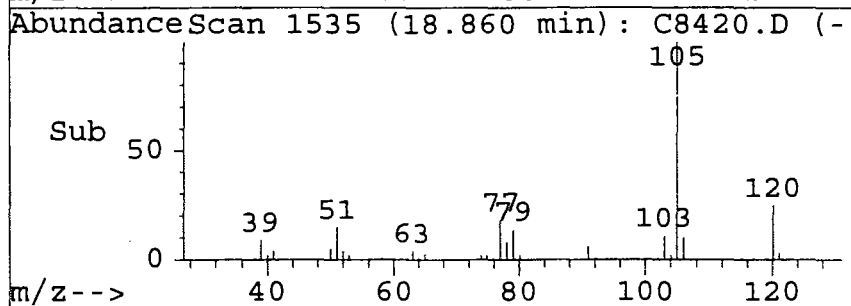
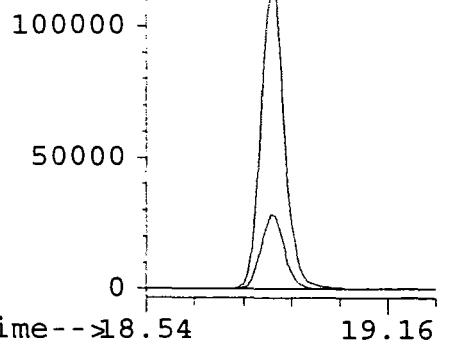


#42
Isopropylbenzene **175**
Concen: 3.34 ug/L
RT: 18.86 min Scan# 1535
Delta R.T. 0.03 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm

Tgt Ion:	105	Resp:	485046
Ion	Ratio	Lower	Upper
105	100		
120	25.1	9.2	49.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

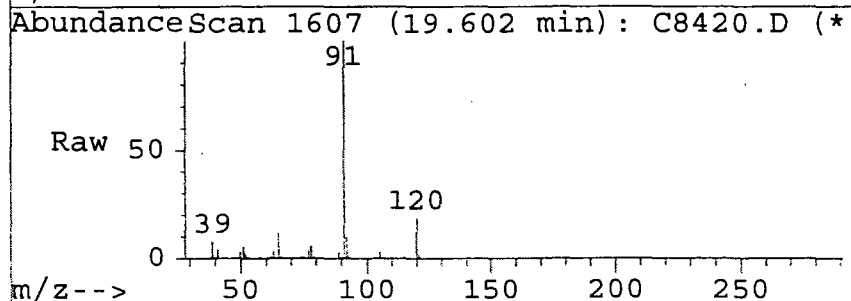


Abundance Ion 105.00 (104
Ion 120.00 (119
18.86

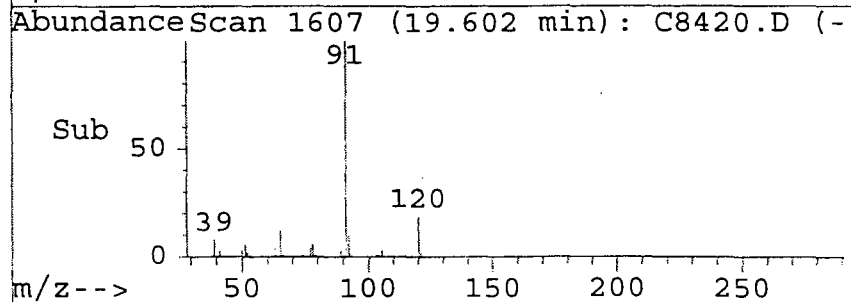
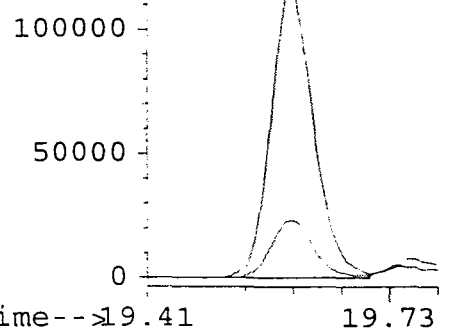


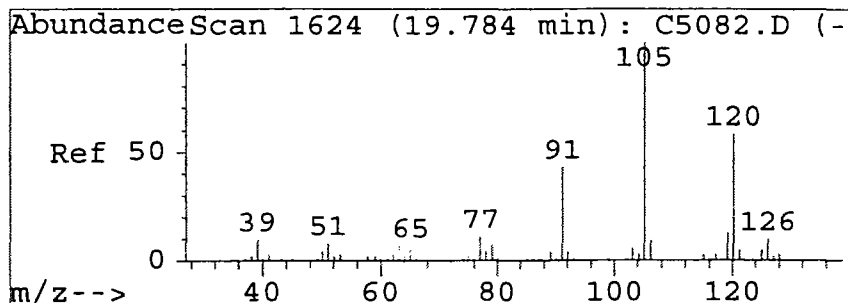
#47
n-Propylbenzene
Concen: 2.47 ug/L m
RT: 19.60 min Scan# 1607
Delta R.T. 0.03 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm

Tgt Ion:	91	Resp:	466674
Ion	Ratio	Lower	Upper
91	100		
120	25.6	0.0	39.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0



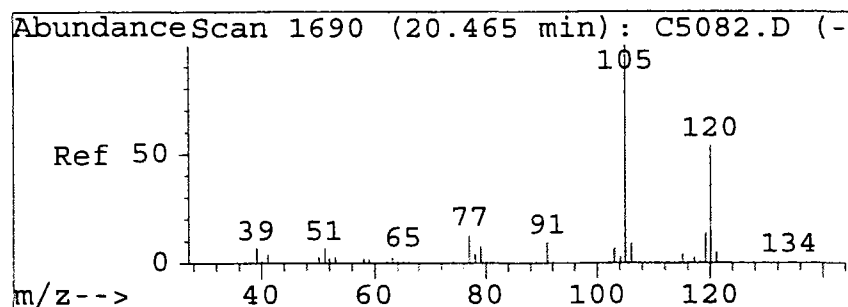
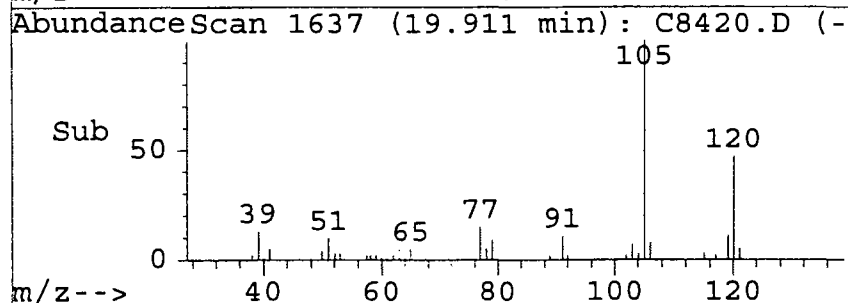
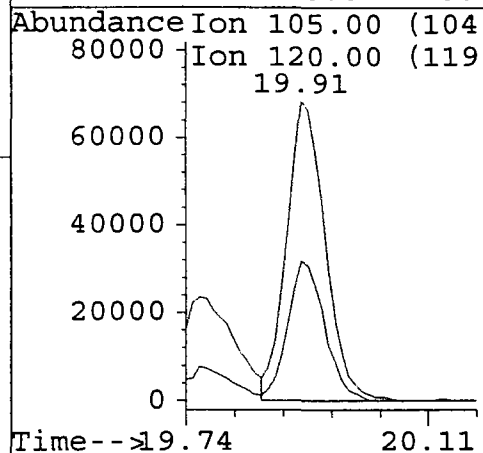
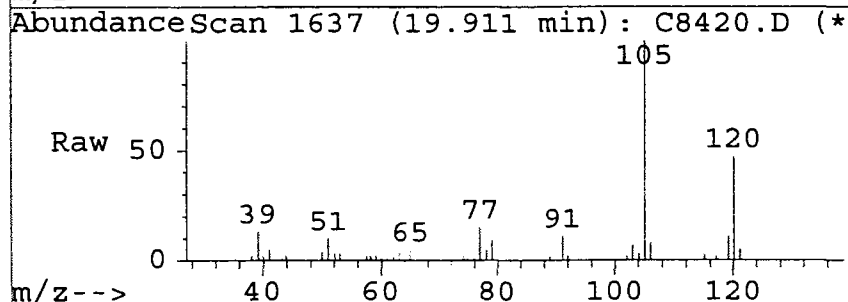
Abundance Ion 91.00 (90.
Ion 120.00 (119
19.60





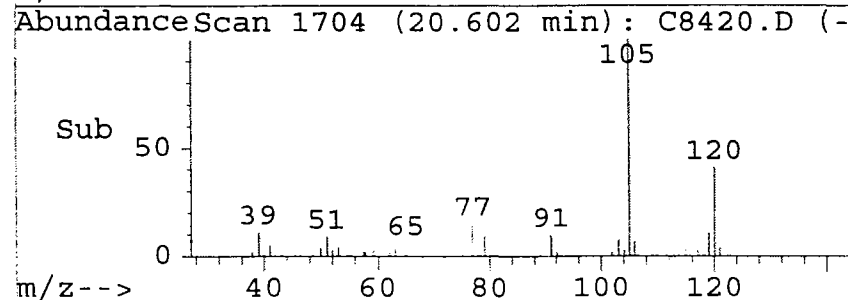
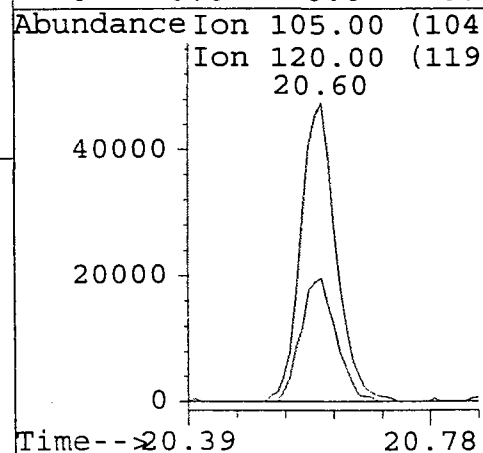
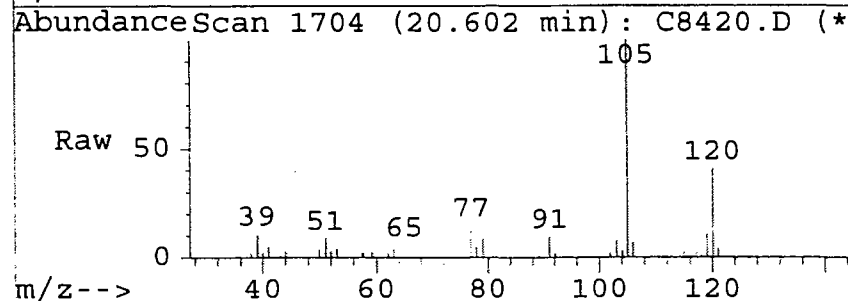
#50
1,3,5-Trimethylbenzene **176**
Concen: 2.34 ug/L
RT: 19.91 min Scan# 1637
Delta R.T. 0.02 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm

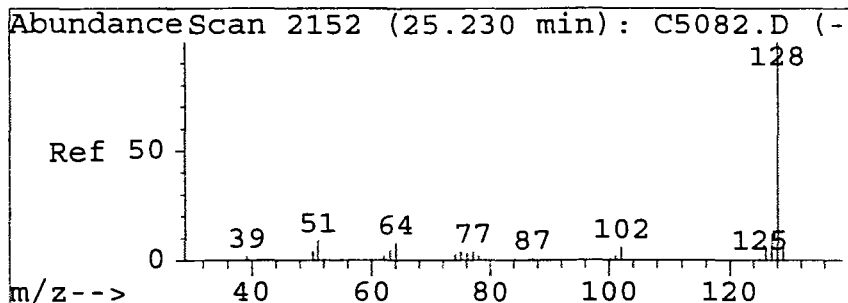
Tgt Ion	Ratio	Lower	Upper
105	100		
120	46.8	26.3	66.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#52
1,2,4-Trimethylbenzene
Concen: 1.73 ug/L
RT: 20.60 min Scan# 1704
Delta R.T. 0.04 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm

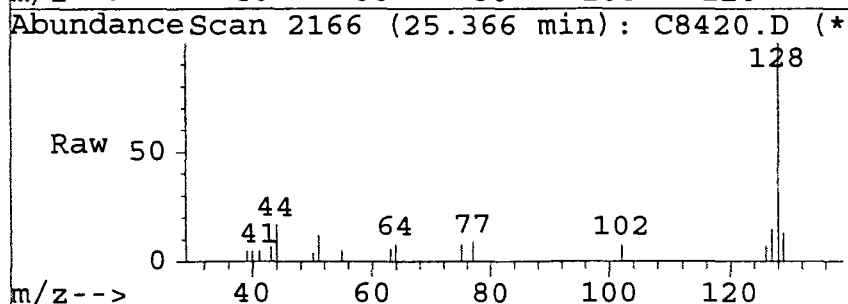
Tgt Ion	Ratio	Lower	Upper
105	100		
120	41.4	20.6	60.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0



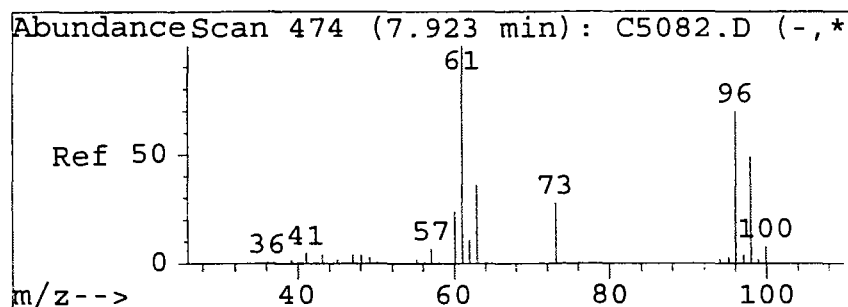
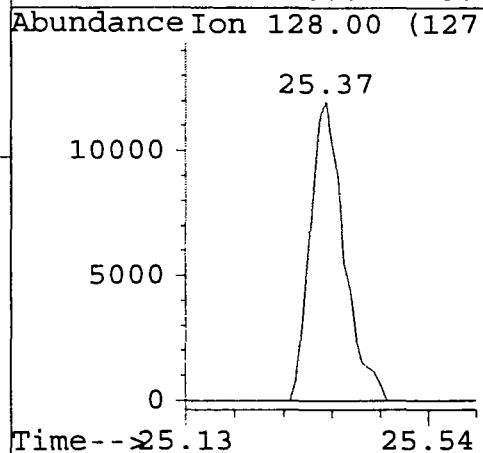
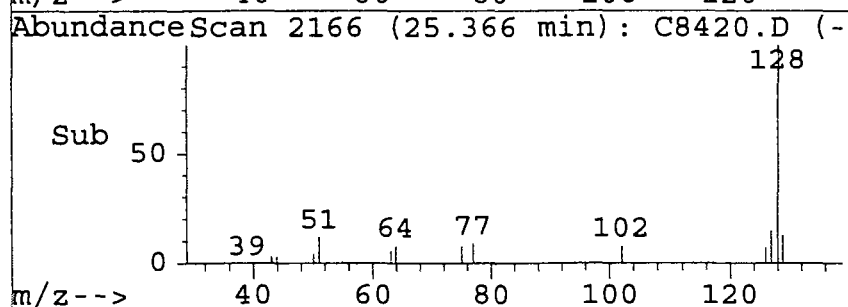


#63
Naphthalene
Concen: 1.89 ug/L
RT: 25.37 min Scan# 2166
Delta R.T. 0.03 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm

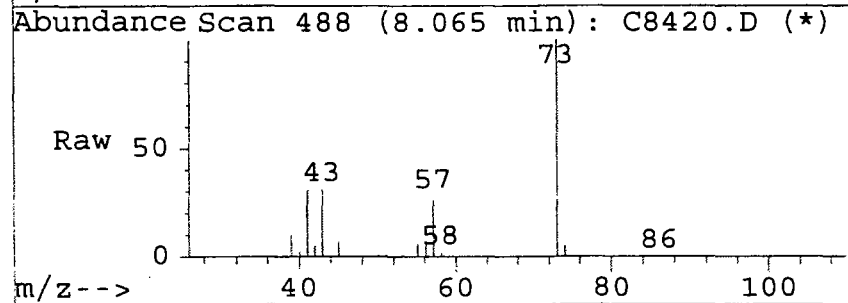
177



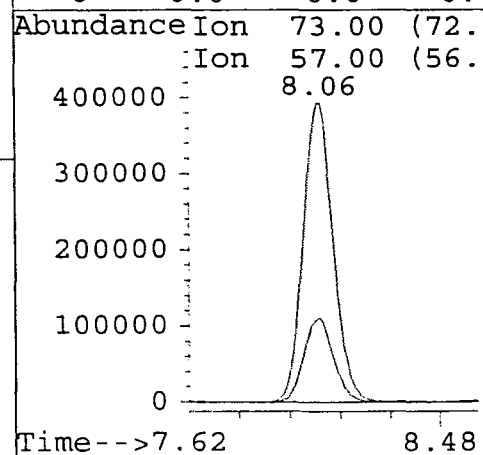
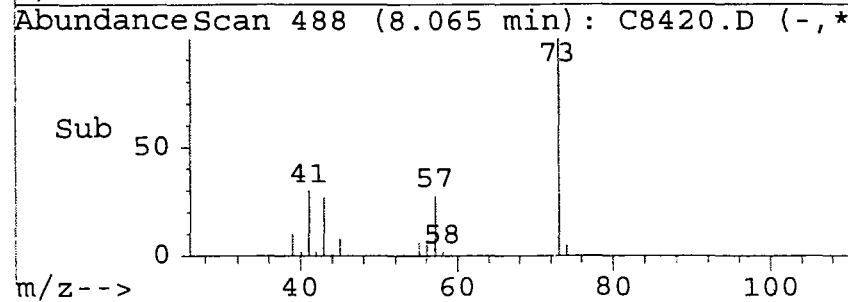
Tgt Ion:128 Resp: 47969
Ion Ratio Lower Upper
128 100
0 0.0 0.0 0.0
0 0.0 0.0 0.0
0 0.0 0.0 0.0



#65
Methyl-tert butyl ether
Concen: 87.56 ug/L
RT: 8.06 min Scan# 488
Delta R.T. 0.07 min
Lab File: c8420.d
Acq: 8 Jun 95 11:23 pm



Tgt Ion:73 Resp: 2793360
Ion Ratio Lower Upper
73 100
57 28.2 3.4 43.4
0 0.0 0.0 0.0
0 0.0 0.0 0.0



Quantitation Report

178

Data File : d:\hpchem\1\data\c8438.d
Acq On : 10 Jun 95 12:16 am
Sample : 9524201 DILUTION
Misc : 1250 UL 1:20
Quant Time: Jun 11 11:51 1995

Vial: 13
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.88	96	704537	5.00	ug/L	0.04
System Monitoring Compounds					%Recovery	
43) 4-Bromofluorobenzene	19.13	95	332581	4.73	ug/L	94.64%
57) 1,2-Dichlorobenzene-d4	21.91	152	153670	4.79	ug/L	95.73%
Target Compounds					Qvalue	
65) Methyl-tert butyl ether	8.06	73	817207	19.85	ug/L	84

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

c8438.d VOA524.M

Sun Jun 11 12:41:57 1995

VOA

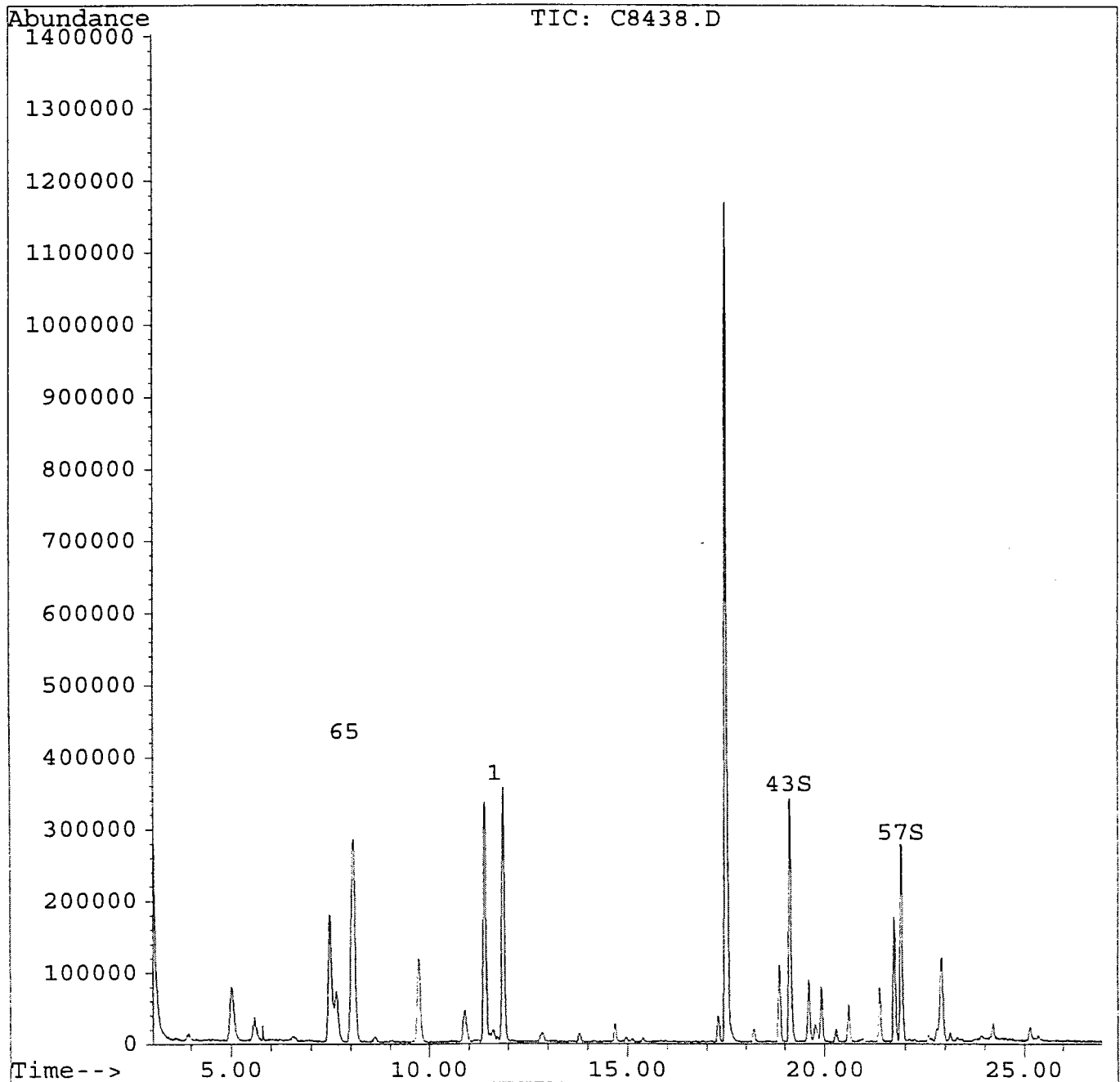
Page 1

Quantitation Report

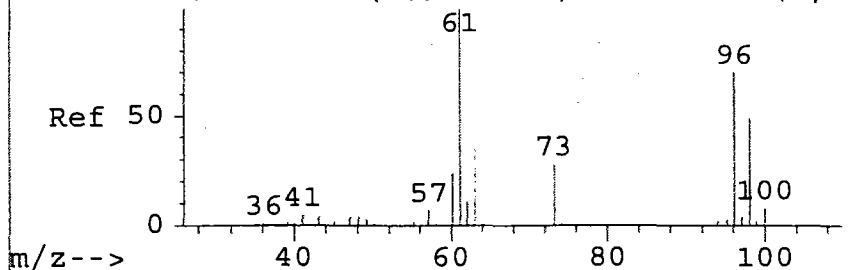
Data File : d:\hpchem\1\data\c8438.d
Acq On : 10 Jun 95 12:16 am
Sample : 9524201 DILUTION
Misc : 1250 UL 1:20
Quant Time: Jun 11 11:51 1995

Vial: 13 **179**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

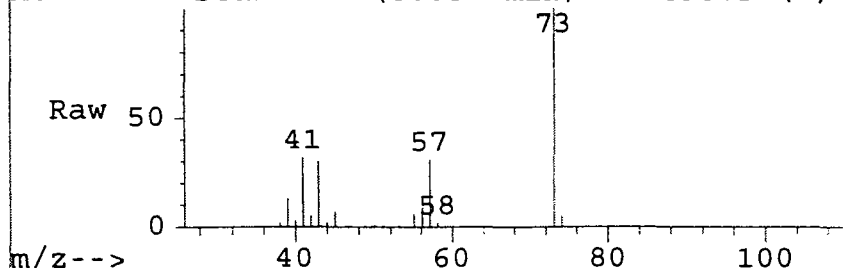
Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



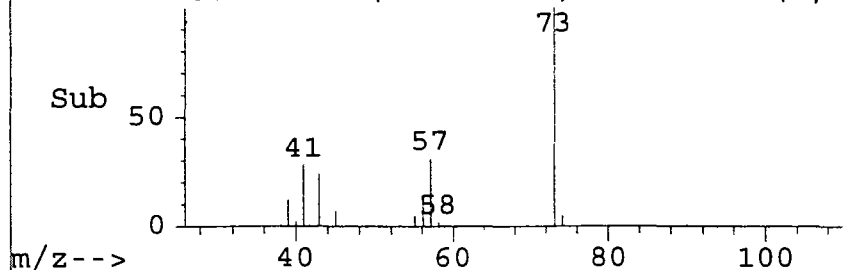
Abundance Scan 474 (7.923 min): C5082.D (-,*



Abundance Scan 487 (8.057 min): C8438.D (*)



Abundance Scan 487 (8.057 min): C8438.D (-,*



#65

Methyl-tert butyl ether

Concen: 19.85 ug/L

RT: 8.06 min Scan# 487

Delta R.T. 0.06 min

Lab File: c8438.d

Acq: 10 Jun 95 12:16 am

Tgt Ion: 73 Resp: 817207

Ion Ratio Lower Upper

73 100

57 31.2 3.4 43.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

Abundance Ion 73.00 (72.

Ion 57.00 (56.

8.06

100000

50000

0

Time-->7.63

8.43

180

Library Search Compound Report

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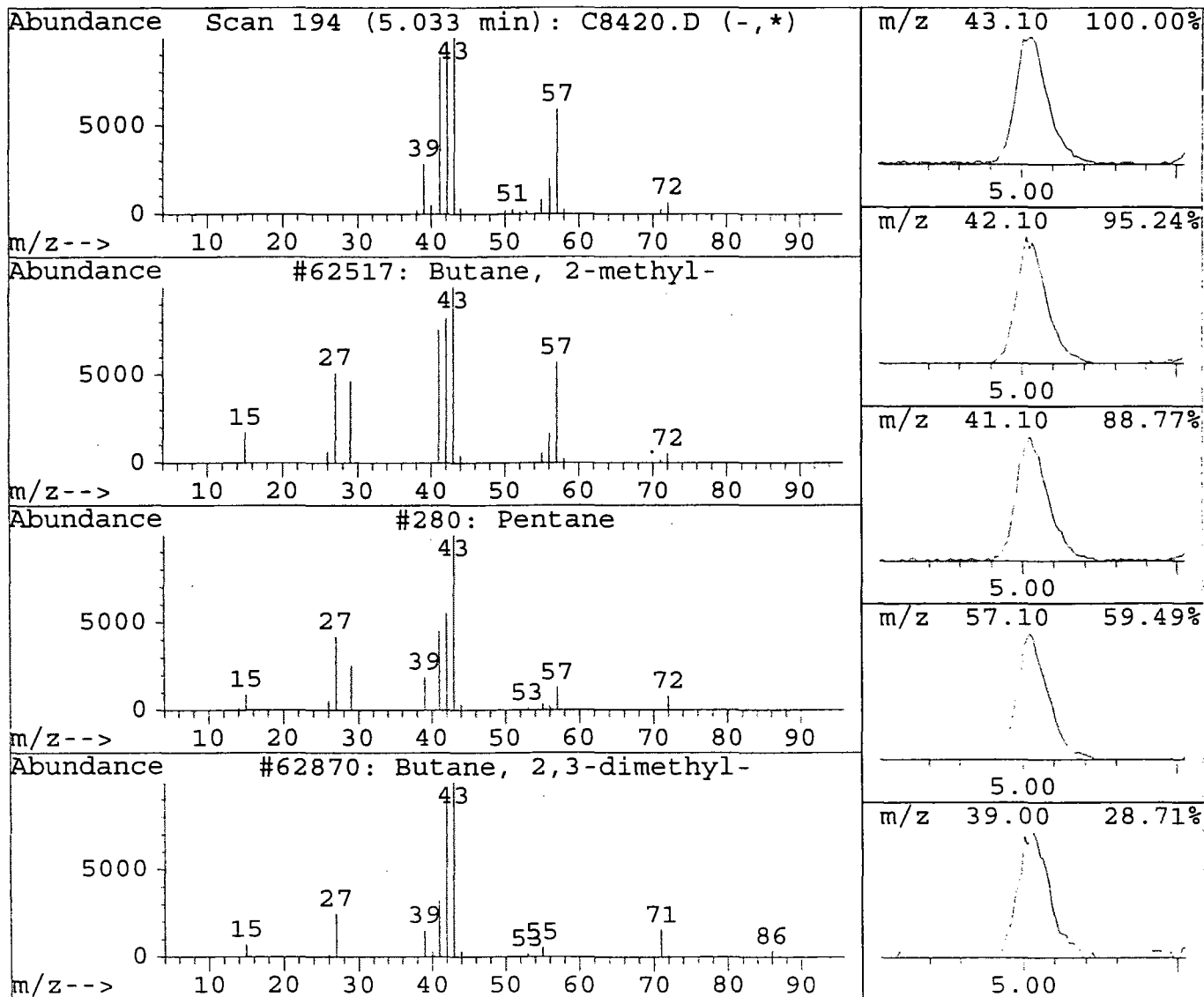
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
5.03	4.99 ug/L	1260094	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane, 2-methyl-	62517	000078-78-4	90
2	Pentane	280	000109-66-0	5
3	Butane, 2,3-dimethyl-	62870	000079-29-8	9
4	Oxirane, trimethyl-	728	005076-19-7	9
5	3-Buten-1-ol	264	000627-27-0	9



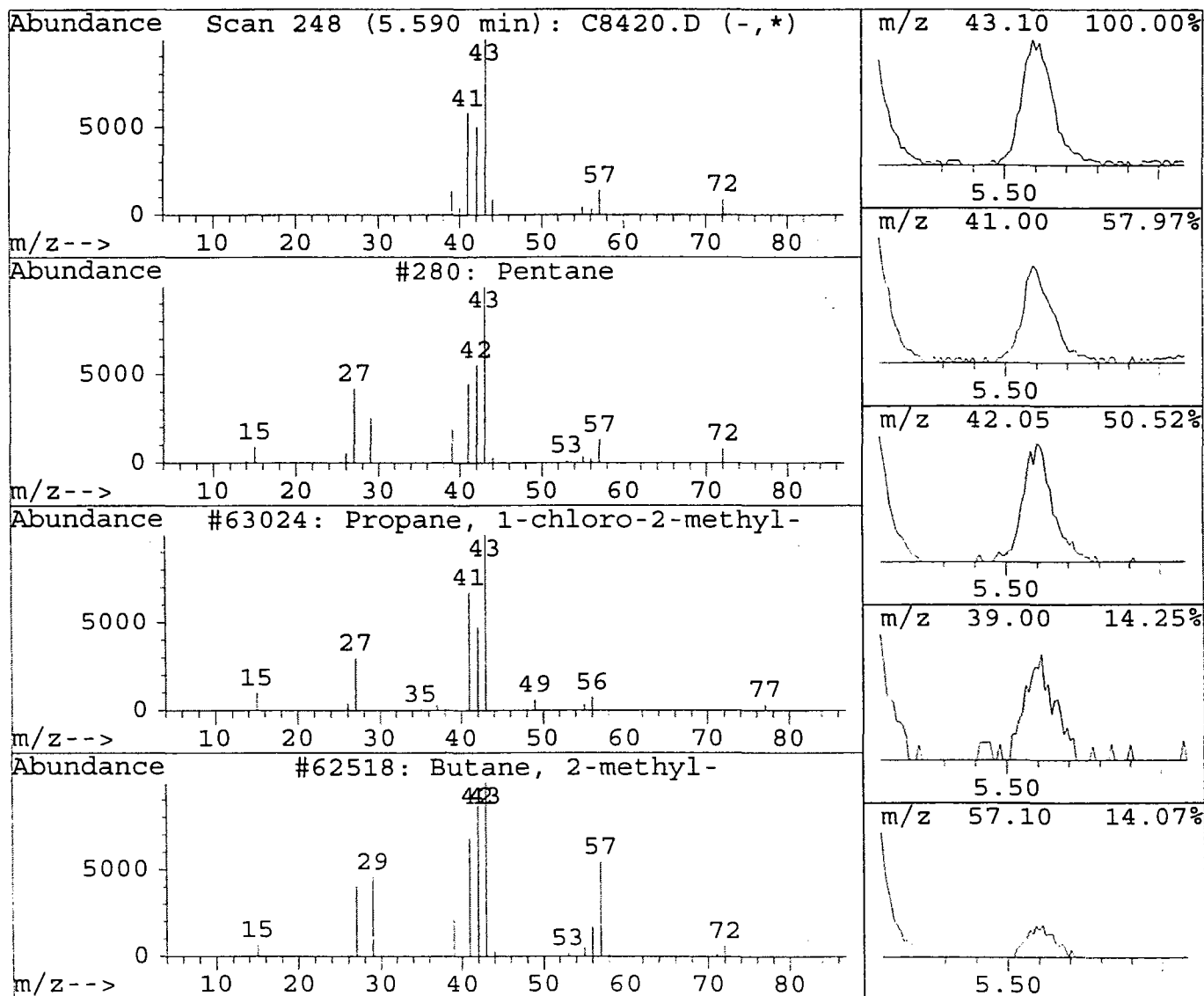
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
5.59	0.82 ug/L	205891	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	280	000109-66-0	83
2	Propane, 1-chloro-2-methyl-	63024	000513-36-0	4
3	Butane, 2-methyl-	62518	000078-78-4	4
4	Azetidine, 1-methyl-	246	004923-79-9	4
5	Ethylenimine	62262	000151-56-4	4



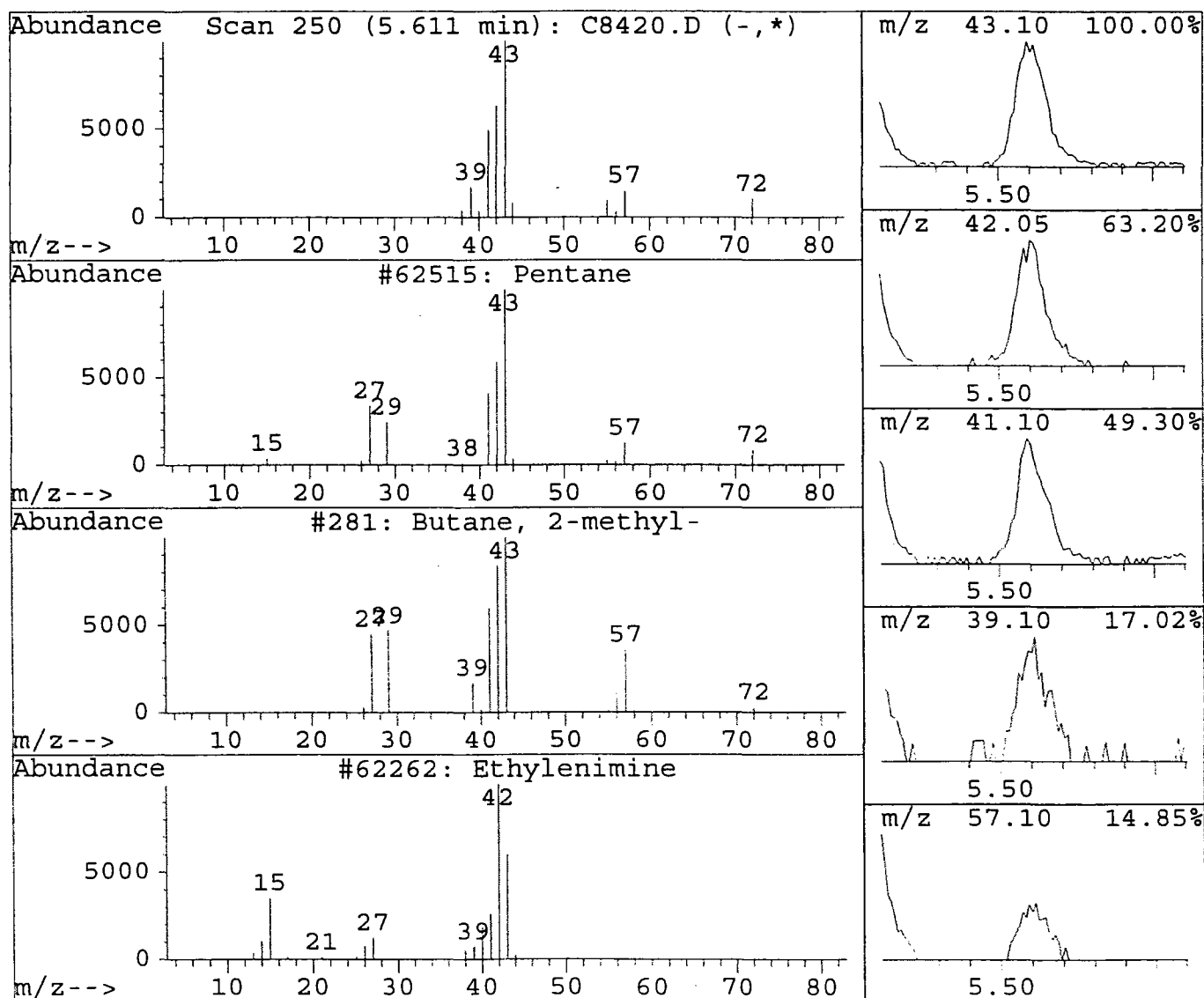
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
5.61	0.55 ug/L	138366	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	62515	000109-66-0	83
2	Butane, 2-methyl-	281	000078-78-4	4
3	Ethylenimine	62262	000151-56-4	5
4	Propanal, 2-methyl-	62514	000078-84-2	4
5	Butanal, 2-ethyl-	63381	000097-96-1	4



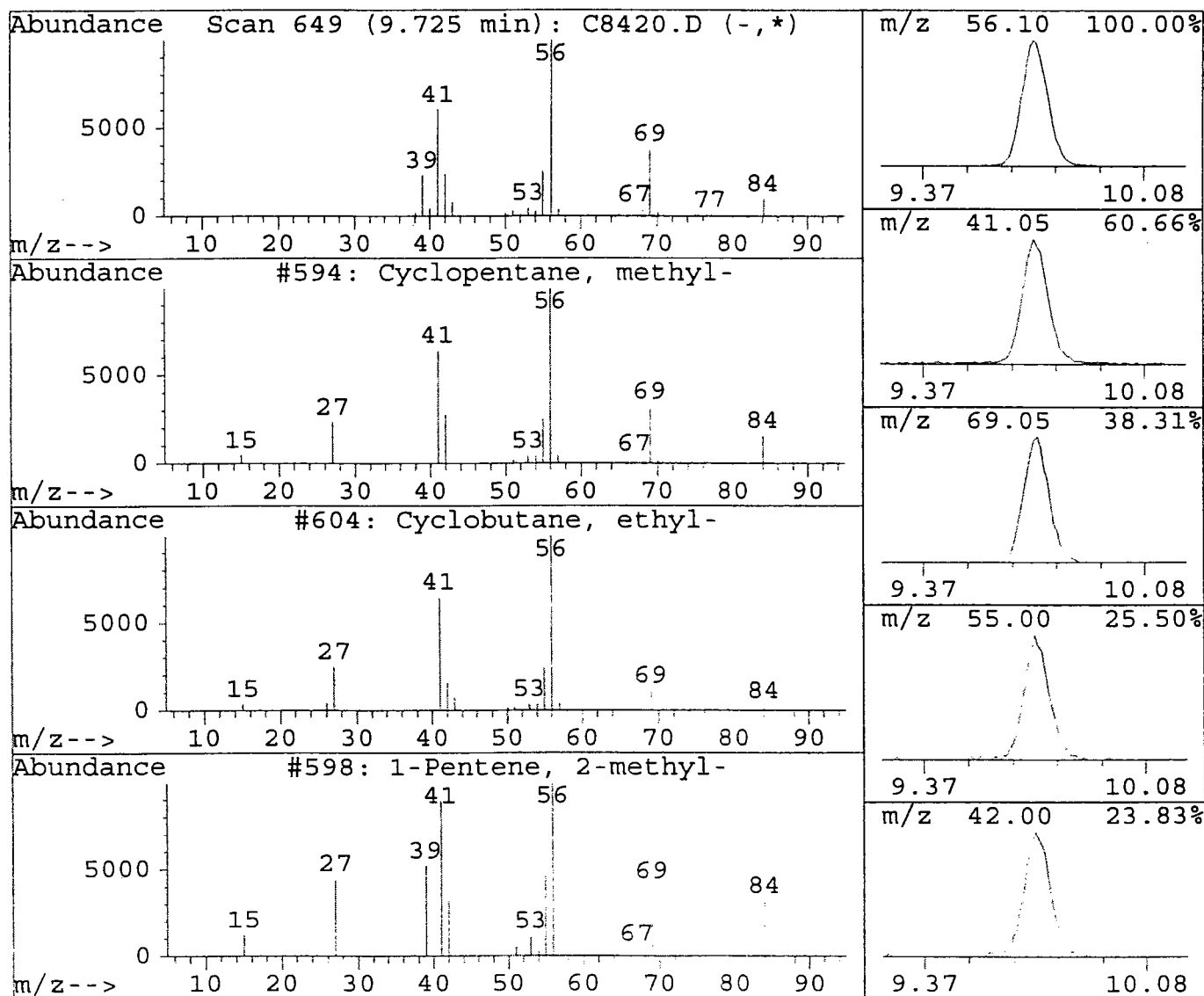
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
9.72	4.64 ug/L	1171024	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	594	000096-37-7	50
2	Cyclobutane, ethyl-	604	004806-61-5	64
3	1-Pentene, 2-methyl-	598	000763-29-1	25
4	Cyclopropane, (1-methylethyl)-	592	003638-35-5	39
5	Cyclopropane, propyl-	593	002415-72-7	28



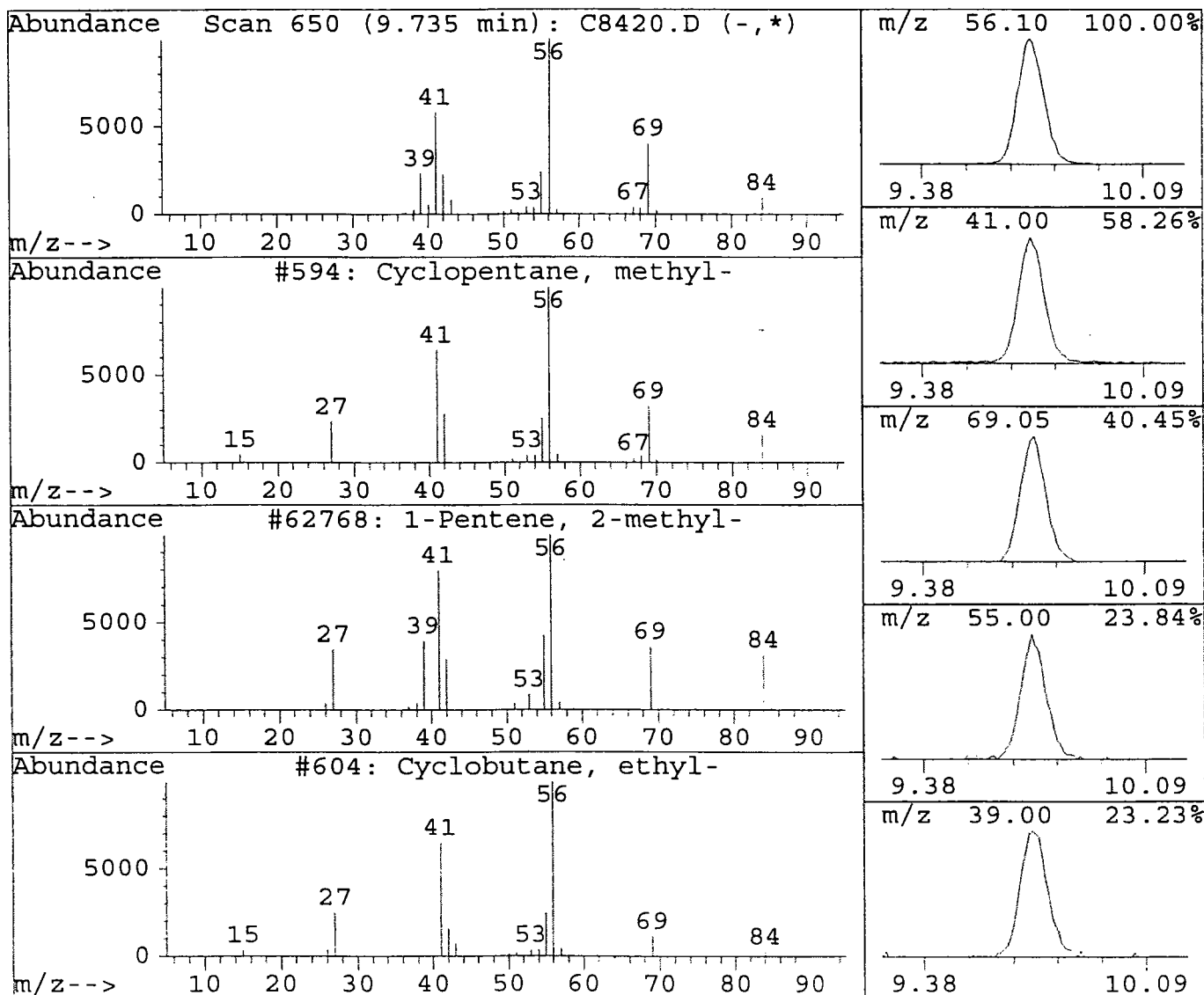
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
9.73	1.81 ug/L	457513	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	594	000096-37-7	50
2	1-Pentene, 2-methyl-	62768	000763-29-1	32
3	Cyclobutane, ethyl-	604	004806-61-5	50
4	Cyclopentane, 1,1-dimethyl-	1333	001638-26-2	39
5	1-Hexene	62755	000592-41-6	25



Library Search Compound Report

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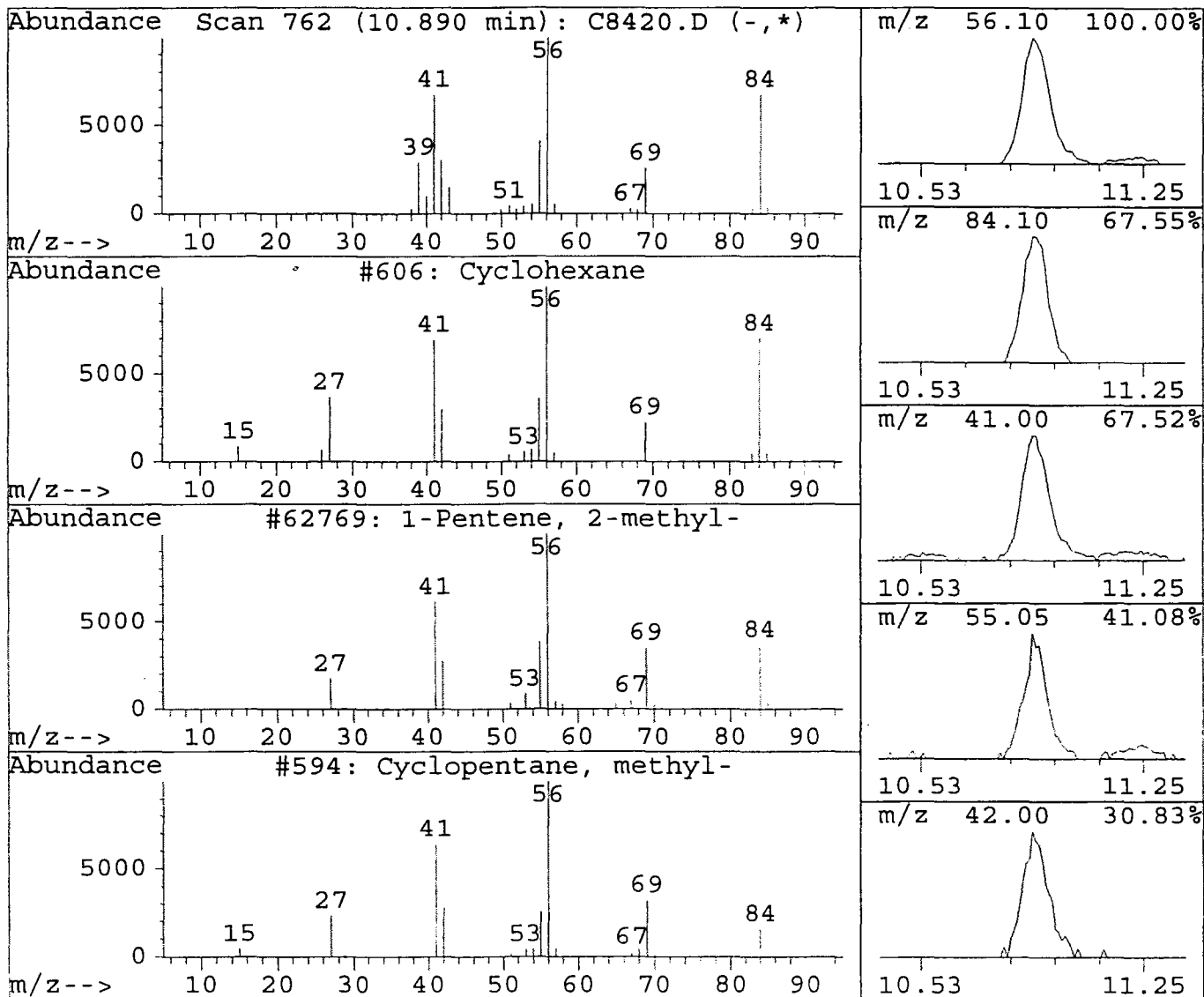
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
10.89	2.18 ug/L	551753	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexane	606	000110-82-7	91
2	1-Pentene, 2-methyl-	62769	000763-29-1	45
3	Cyclopentane, methyl-	594	000096-37-7	59
4	1-Hexene	62754	000592-41-6	47
5	1-Hexanol	63565	000111-27-3	36



Library Search Compound Report

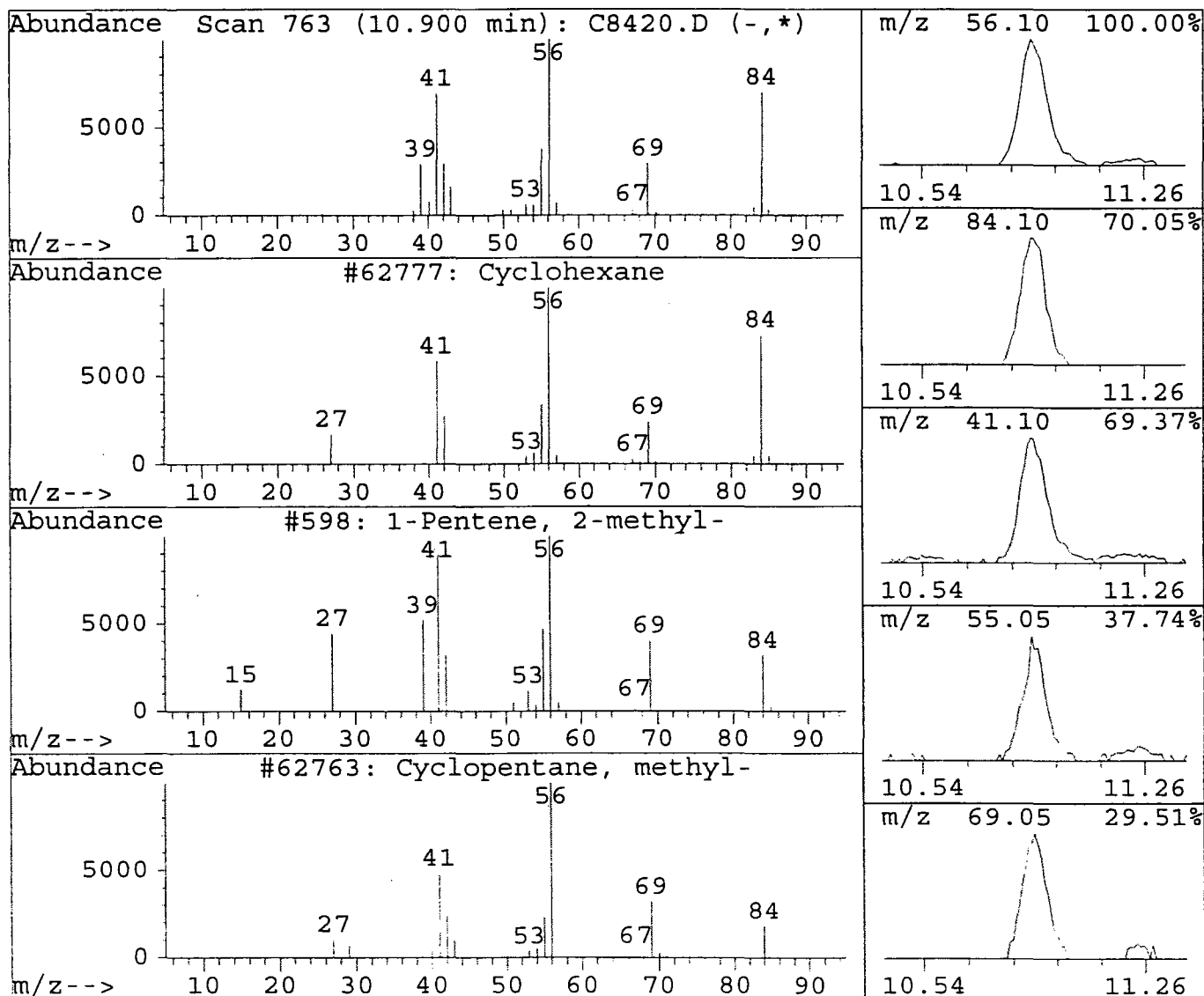
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15 **187**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
10.90	0.62 ug/L	157109	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexane	62777	000110-82-7	91
2	1-Pentene, 2-methyl-	598	000763-29-1	17
3	Cyclopentane, methyl-	62763	000096-37-7	45
4	1-Hexene	62754	000592-41-6	23
5	1-Hexanol	63563	000111-27-3	42



Library Search Compound Report

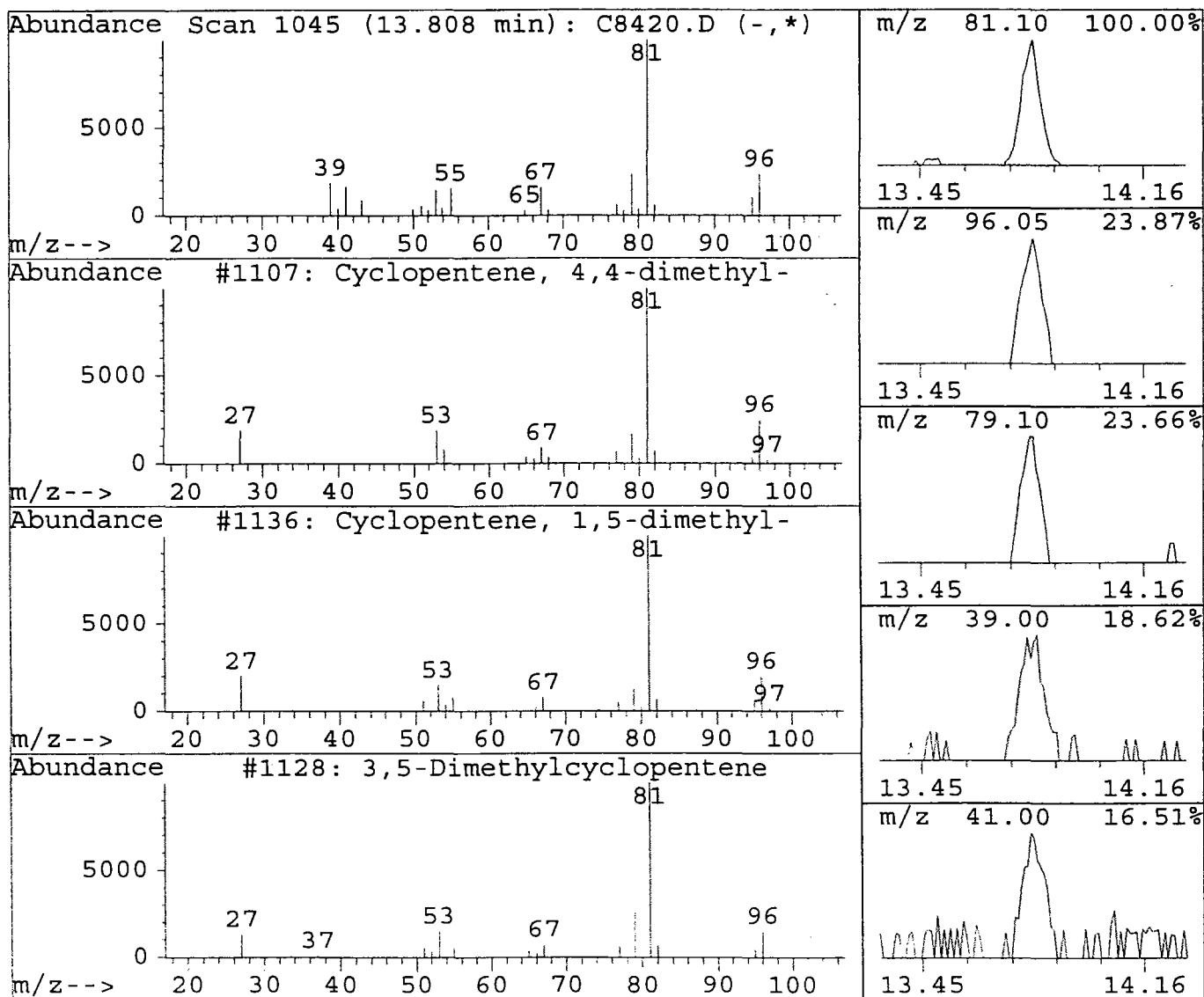
188

Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
13.81	0.70 ug/L	175697	Fluorobenzene	11.89	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Cyclopentene, 4,4-dimethyl-		1107	019037-72-0	39
2	Cyclopentene, 1,5-dimethyl-		1136	016491-15-9	87
3	3,5-Dimethylcyclopentene		1128	007459-71-4	64
4	Cyclopentane, 1-methyl-2-methylene-		1103	041158-41-2	38
5	2,4-Hexadiene, 3-methyl-		1130	028823-42-9	38



Library Search Compound Report

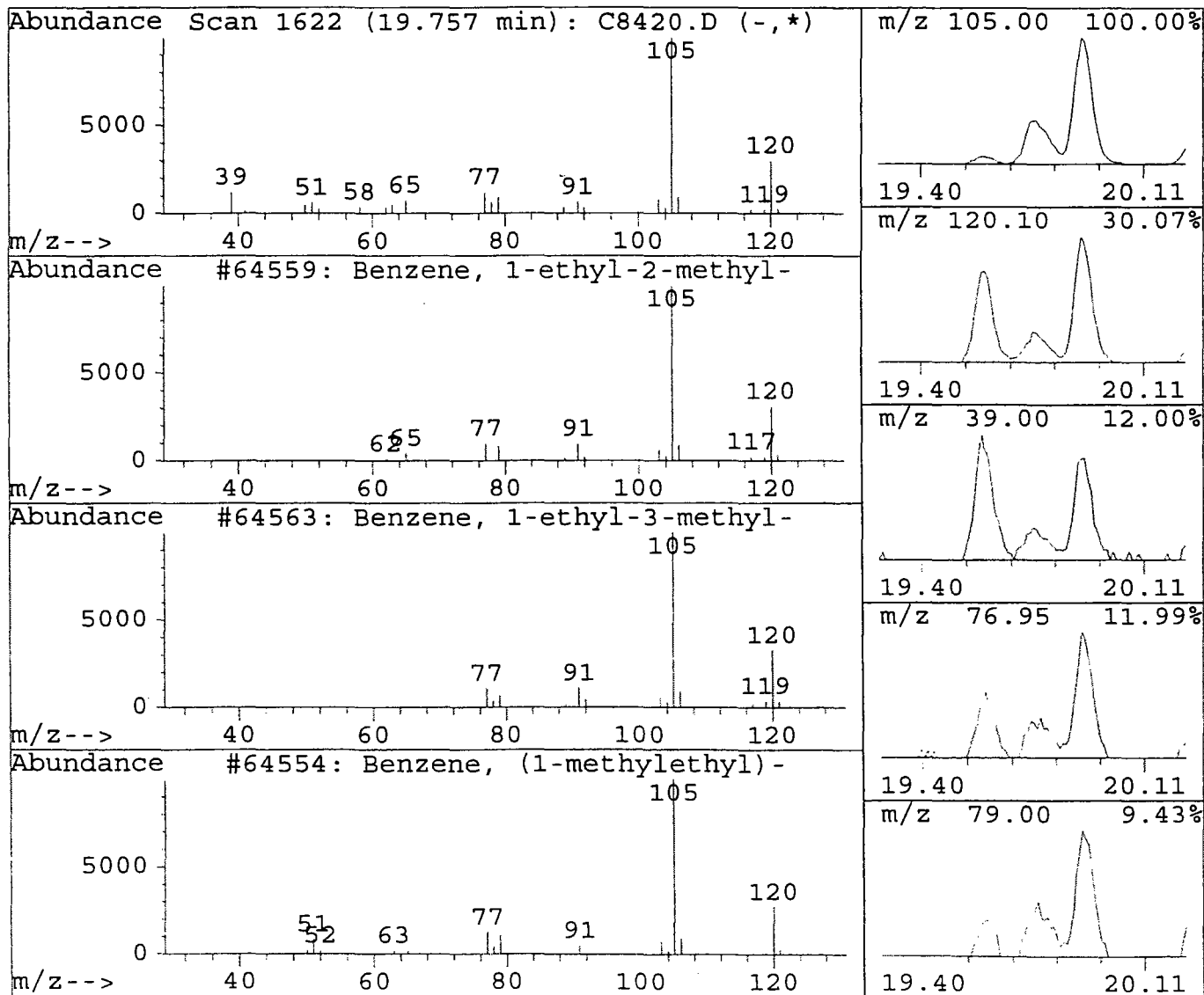
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15 **189**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.76	0.87 ug/L	220487	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	91
2	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	80
3	Benzene, (1-methylethyl)-	64554	000098-82-8	81
4	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	90
5	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	64



Library Search Compound Report

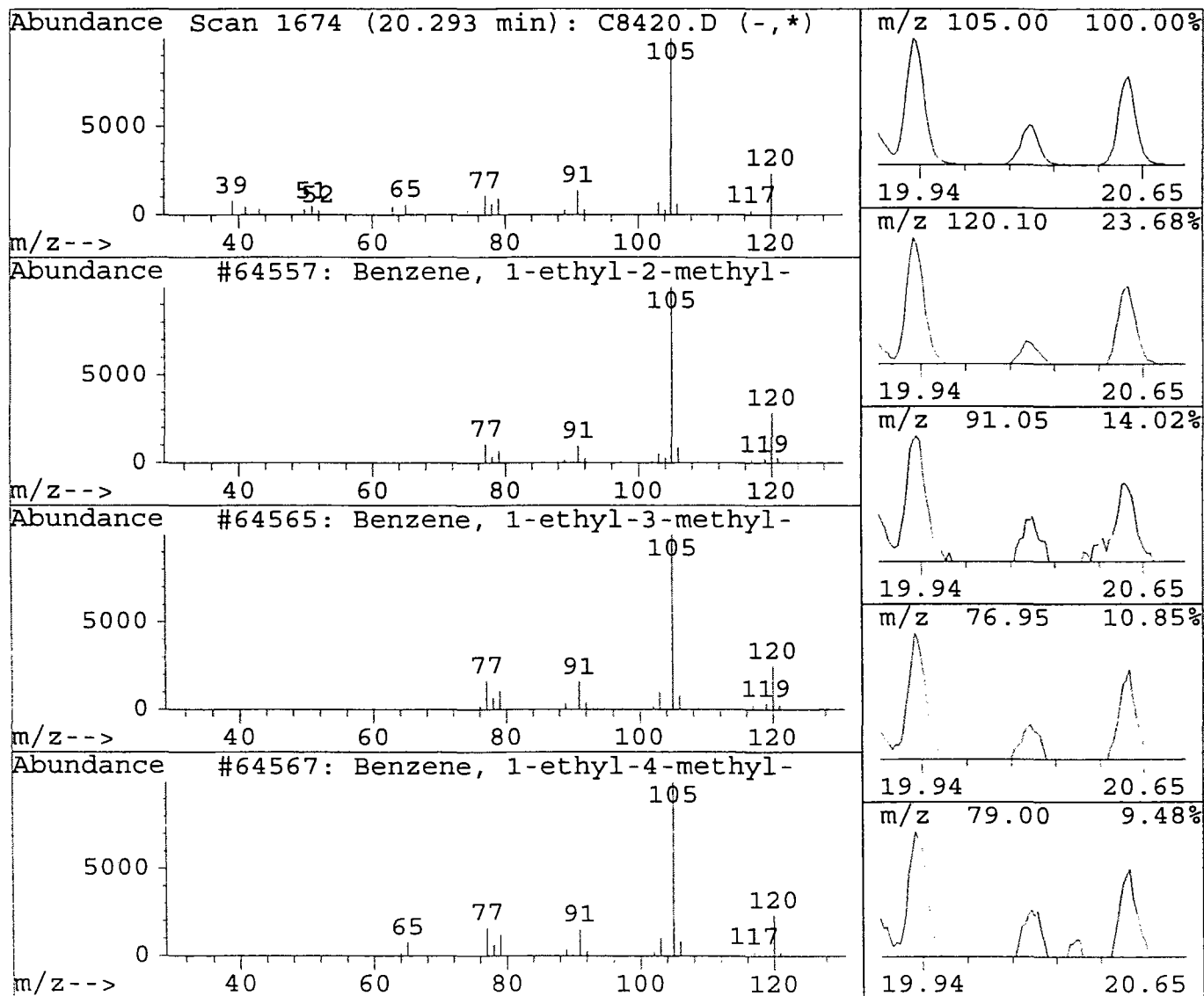
190

Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
20.29	0.66 ug/L	165779	Fluorobenzene	11.89	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-		64557	000611-14-3	91
2	Benzene, 1-ethyl-3-methyl-		64565	000620-14-4	83
3	Benzene, 1-ethyl-4-methyl-		64567	000622-96-8	59
4	Benzene, (1-methylethyl)-		64553	000098-82-8	80
5	Benzene, 1,2,3-trimethyl-		64575	000526-73-8	50



Library Search Compound Report

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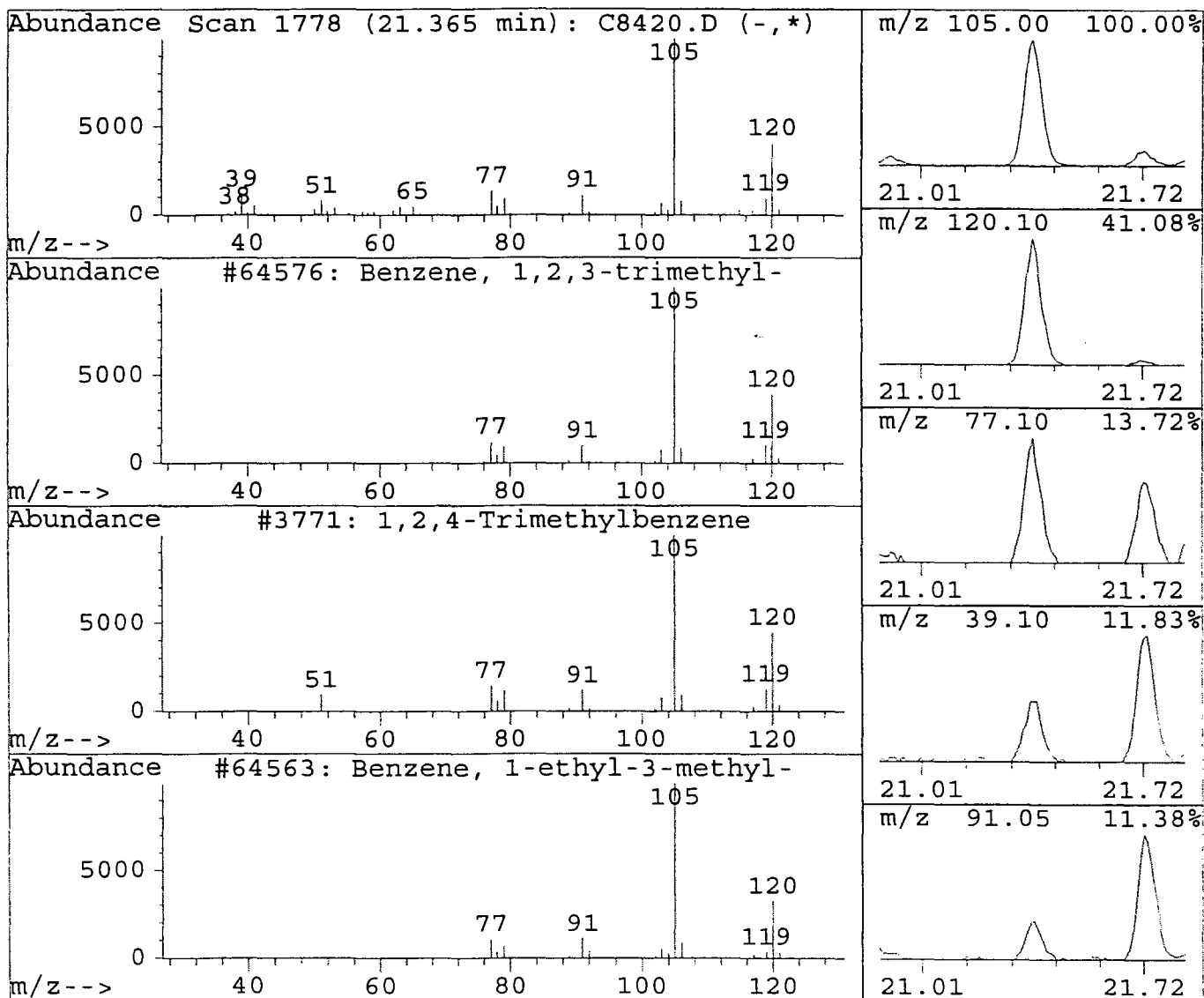
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.37	3.41 ug/L	860901	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	95
2	1,2,4-Trimethylbenzene	3771	000095-36-3	97
3	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	90
4	Benzene, 1-ethyl-4-methyl-	64566	000622-96-8	90
5	Benzene, 1,3,5-trimethyl-	64571	000108-67-8	91



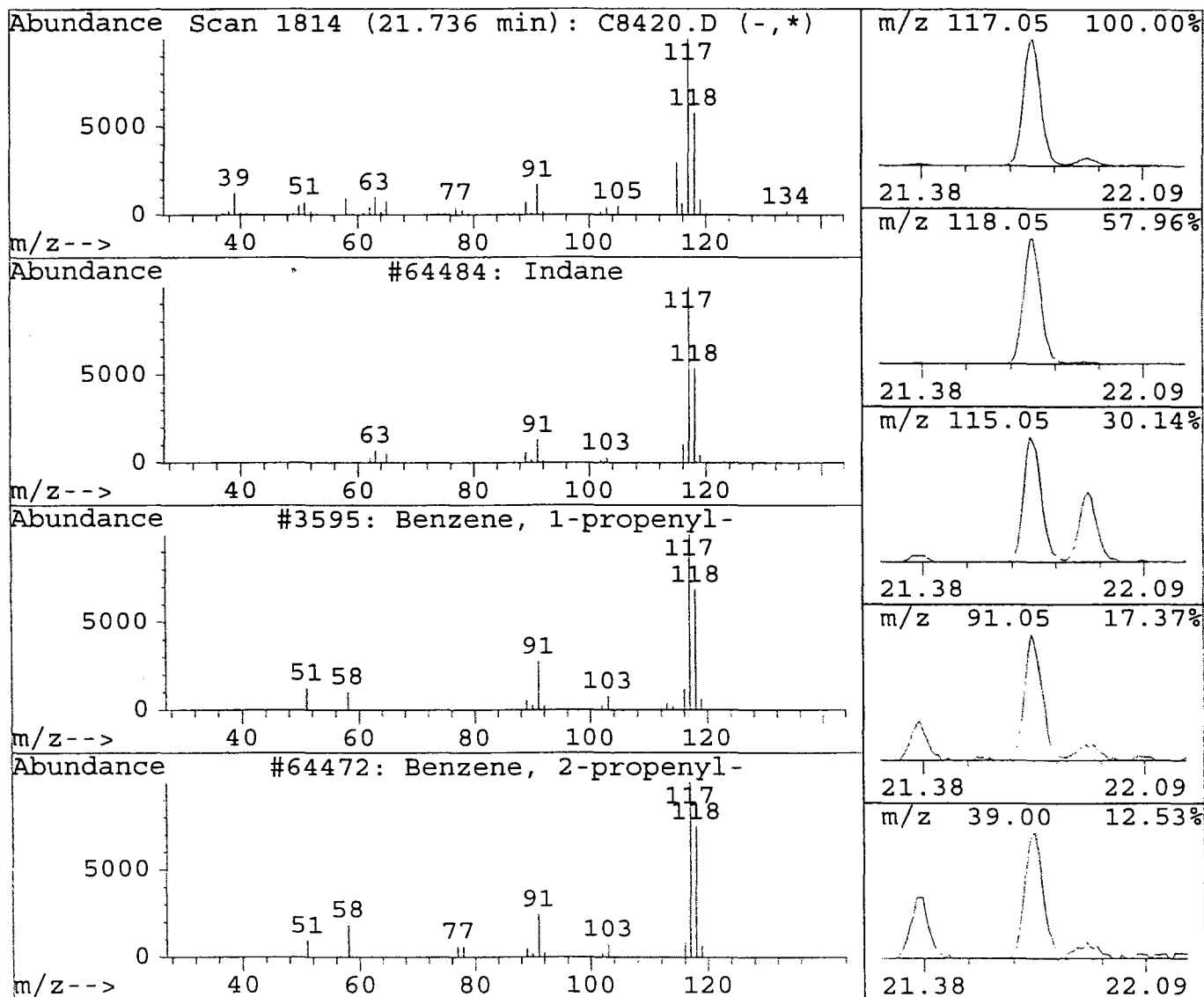
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.74	8.25 ug/L	2082195	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indane	64484	000496-11-7	87
2	Benzene, 1-propenyl-	3595	000637-50-3	25
3	Benzene, 2-propenyl-	64472	000300-57-2	35
4	Benzene, 1-ethenyl-2-methyl-	3596	000611-15-4	22
5	Benzene, 1-ethenyl-3-methyl-	3600	000100-80-1	22



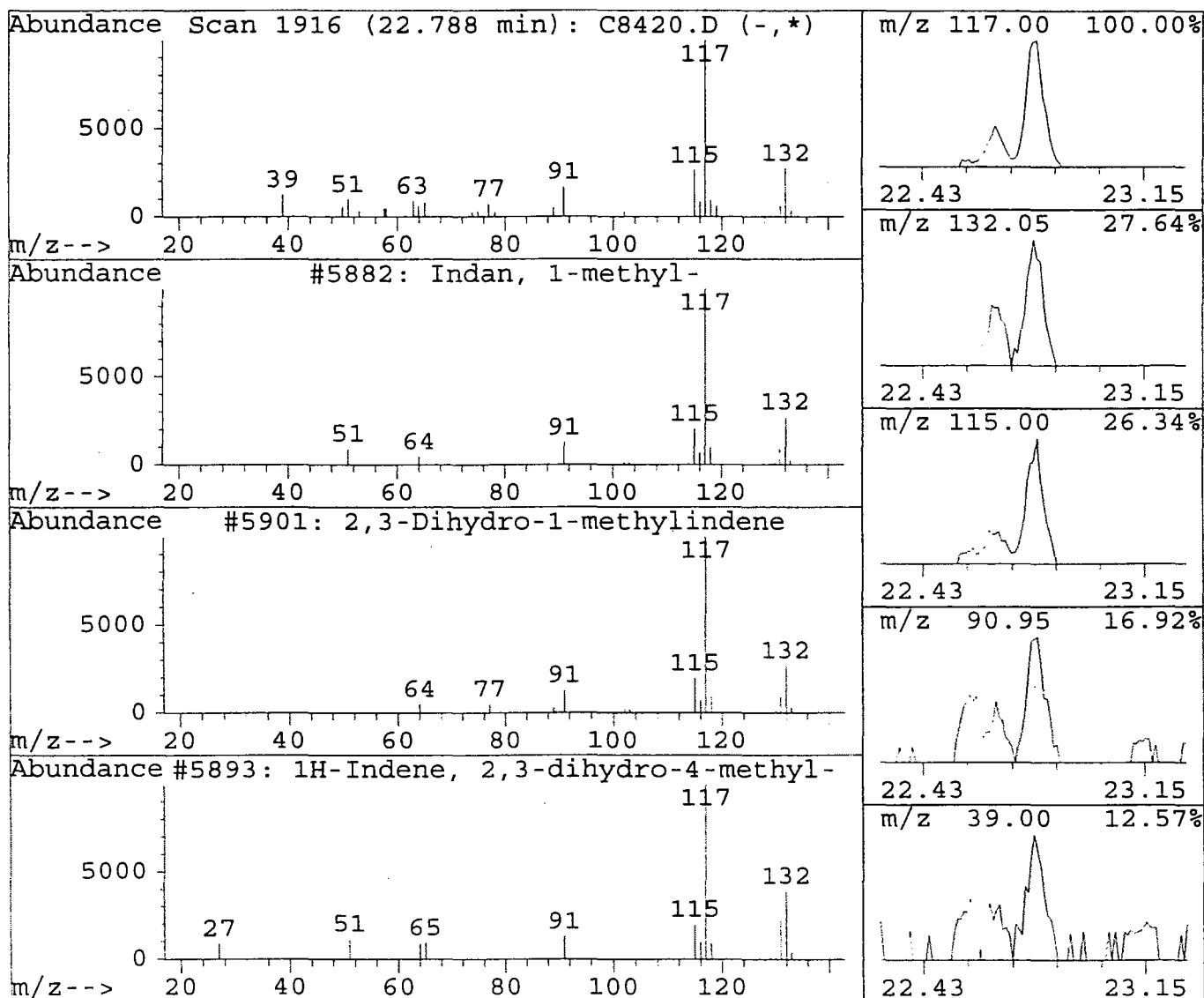
Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.79	0.92 ug/L	232106	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indan, 1-methyl-	5882	000767-58-8	90
2	2,3-Dihydro-1-methylindene	5901	027133-93-3	90
3	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	83
4	Benzene, 1-ethenyl-3-ethyl-	5902	007525-62-4	86
5	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	49



Library Search Compound Report

Data File : d:\hpchem\1\data\c8420.d
Acq On : 8 Jun 95 11:23 pm
Sample : 9524201
Misc : 5 ML 1:5

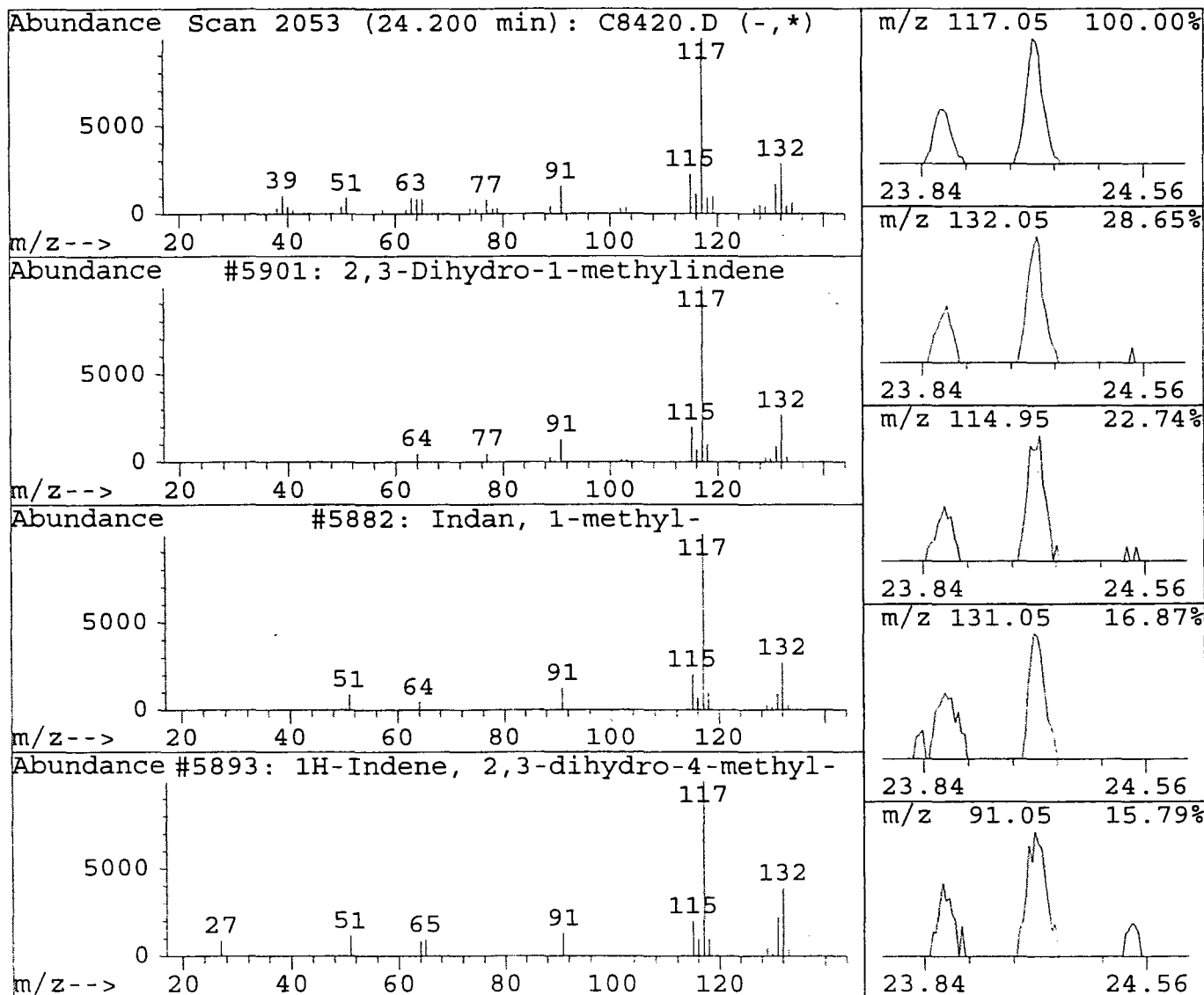
Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

194

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.20	0.51 ug/L	128602	Fluorobenzene	11.89

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,3-Dihydro-1-methylindene	5901	027133-93-3	95
2	Indan, 1-methyl-	5882	000767-58-8	93
3	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	87
4	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	60
5	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	45



1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524202 *muw-2926948*
 Lab File ID: C8412.D
 Date Received: 05/26/95
 Date Analyzed: 06/08/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	1.0	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.50	U
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524202 MW4-2926948
 Lab File ID: C8412.D
 Date Received: 05/26/95
 Date Analyzed: 06/08/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	.50	U
106-43-4-----	4-Chlorotoluene	.50	U
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.50	U
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9524202V
MW4-2926448

197

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9524202V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8412.D

Level: (low/med) LOW Date Received: 5/26/95

% Moisture: not dec. NA Date Analyzed: 6/8/95

GC Column: DB-624 X 75M 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/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
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30.				

Quantitation Report

Data File : d:\hpchem\1\data\c8412.d
 Acq On : 8 Jun 95 6:38 pm
 Sample : 9524202
 Misc : 25 ML
 Quant Time: Jun 9 10:24 1995

Vial: 6 **198**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.89	96	627705	5.00	ug/L	0.05
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	329972	5.27	ug/L	105.39%
57) 1,2-Dichlorobenzene-d4	21.91	152	164347	5.75	ug/L	114.92%
Target Compounds						Qvalue
9) Methylene chloride	7.47	84	32881	0.96	ug/L	93

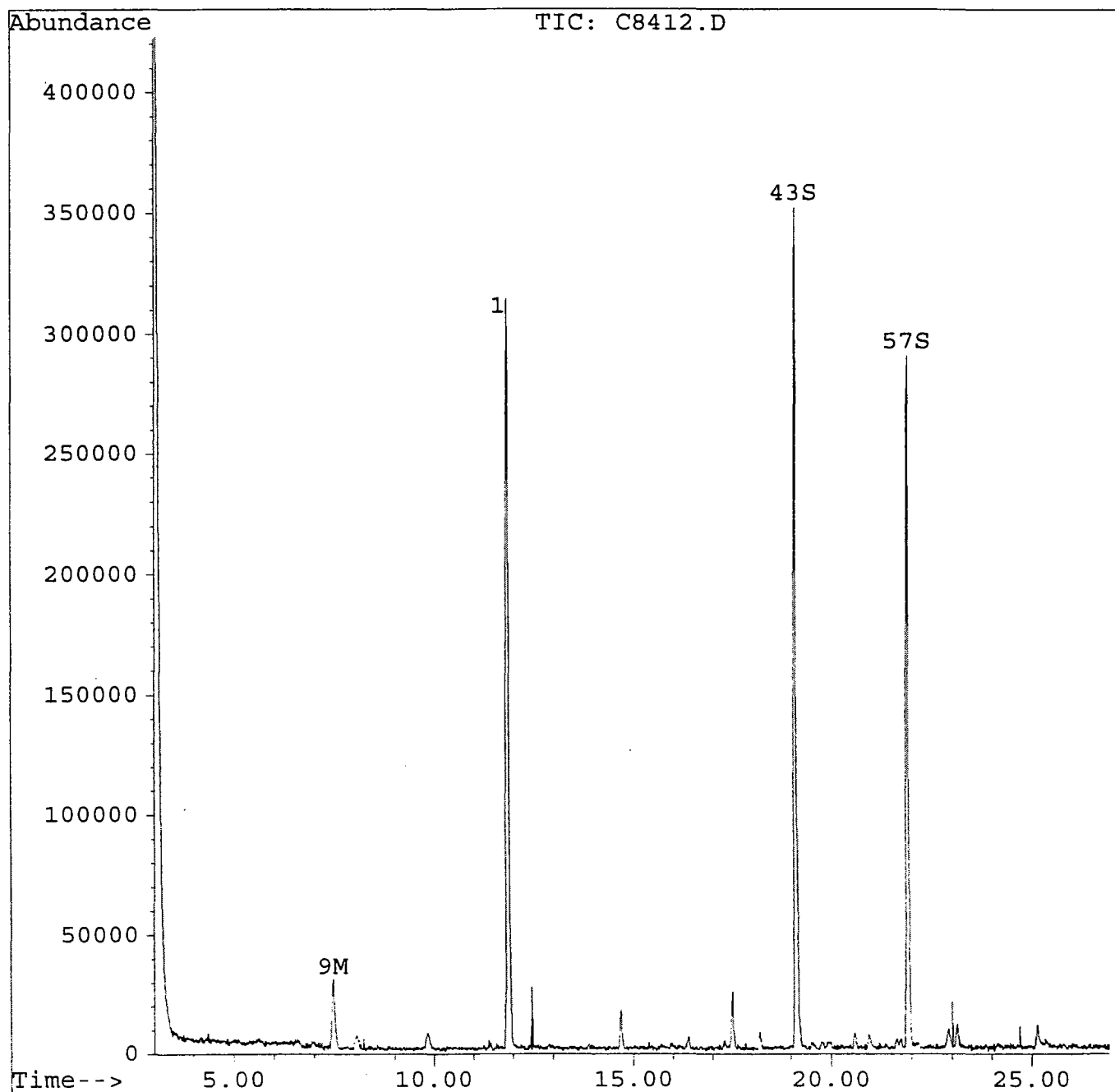
(#) = qualifier out of range (m) = manual integration

Quantitation Report

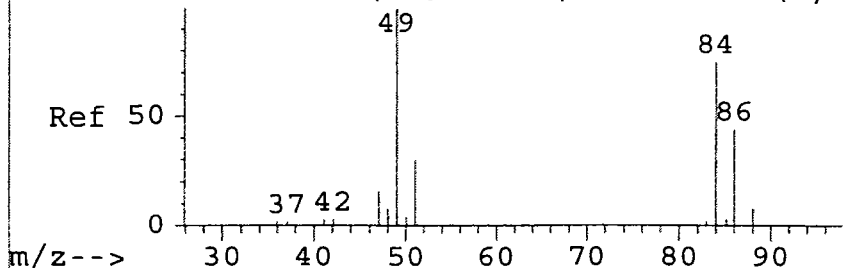
Data File : d:\hpchem\1\data\c8412.d
 Acq On : 8 Jun 95 6:38 pm
 Sample : 9524202
 Misc : 25 ML
 Quant Time: Jun 9 10:24 1995

Vial: 6 **199**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

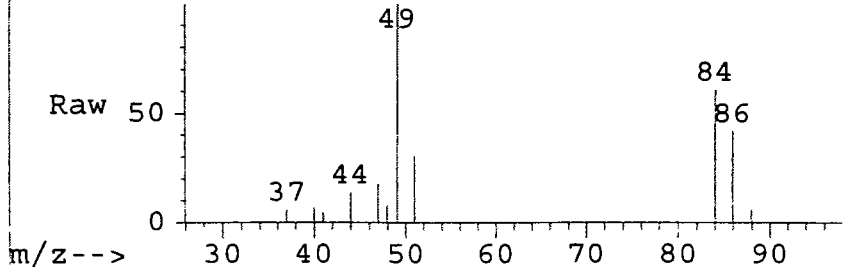
Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration



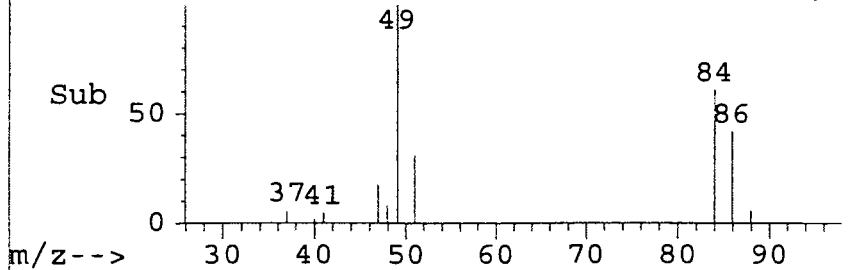
Abundance Scan 418 (7.345 min): C5082.D (-, *



Abundance Scan 430 (7.467 min): C8412.D (*)



Abundance Scan 430 (7.467 min): C8412.D (-, *



#9

Methylene chloride

200

Concen: 0.96 ug/L

RT: 7.47 min Scan# 430

Delta R.T. 0.06 min

Lab File: c8412.d

Acq: 8 Jun 95 6:38 pm

Tgt Ion: 84 Resp: 32881

Ion Ratio Lower Upper

84 100

86 69.6 43.1 83.1

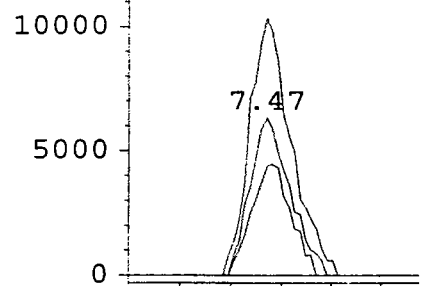
49 164.2 136.3 176.3

0 0.0 0.0 0.0

Abundance Ion 84.00 (83.

Ion 86.00 (85.

Ion 49.00 (48.



Time--> 7.21 7.68

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: 9524203 mw5-293/783
 Lab File ID: C8416.D
 Date Received: 05/26/95
 Date Analyzed: 06/08/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	1.2	B
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.50	U
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9524203 *MUS-2931783*
Lab File ID: C8416.D
Date Received: 05/26/95
Date Analyzed: 06/08/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methyl-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9524203V

mws-2931783

203

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9524203V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8416.D

Level: (low/med) LOW Date Received: 5/26/95

% Moisture: not dec. NA Date Analyzed: 6/8/95

GC Column: DB-624 X 75M 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.	NONE FOUND			
2.				
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

9524204V
Duplicate

209

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9524204V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8413.D

Level: (low/med) LOW Date Received: 5/26/95

% Moisture: not dec. NA Date Analyzed: 6/8/95

GC Column: DB-624 X 75M 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.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
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WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

214

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	1PPB STD	105	111			
02	VLK01	90	94			
03	9524200V	106	114			
04	9524202V	105	115			
05	9524204V	104	112			
06	9524205V	104	110			
07	9524206V	110	111			
08	9524203V	105	109			
09	9523965D	102	106			
10	9523960D	109	117			
11	9523962D	103	109			
12	9524201V	105	109			
13	9523963D	103	108			
14						
15						
16						
17						
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19						
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22						
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27						
28						
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30						

SMC1 (BFB) = 4-Bromofluorobenzene
 SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS
 (80-120)
 (80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

215

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	1PPB STD	104	107			
02	VLK01	105	110			
03	9525251V	105	110			
04	9525252V	101	106			
05	9525292V	99	104			
06	9524667V	101	105			
07	9525689V	101	106			
08	9524836V	98	101			
09	9525275V	98	102			
10	9524199D	103	103			
11	9524201D	95	96			
12	9524292MS	100	103			
13	9524292MSD	98	100			
14	10PPBQCS	102	104			
15						
16						
17						
18						
19						
20						
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22						
23						
24						
25						
26						
27						
28						
29						
30						

SMC1 (BFB) = 4-Bromofluorobenzene
 SMC2 (DCB) = 1,2-Dichlorobenzene-d4

QC LIMITS
 (80-120)
 (80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

216

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: C8395.D Lab Sample ID: M. BLANK

Date Analyzed: 6/7/95 Time Analyzed: 1809

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1PPB STD	1PPB STD	C8394.D	1732
02	9523969V	9523969V	C8396.D	1845
03	9523970V	9523970V	C8397.D	1921
04	9523959V	9523959V	C8398.D	1957
05	9523967V	9523967V	C8399.D	2033
06	9523968V	9523968V	C8400.D	2108
07	9524197V	9524197V	C8401.D	2144
08	9524198V	9524198V	C8402.D	2219
09	9524196V	9524196V	C8403.D	2254
10	9524199V	9524199V	C8404.D	2329
11	9524199MS	24199MS	C8405.D	0004
12	9524199MSD	24199MSD	C8406.D	0039
13				
14				
15				
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COMMENTS:

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK
Lab File ID: C8395.D
Date Received: NA
Date Analyzed: 06/07/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>ug/L</u>	COMMENT
---------	----------	-----------------------------	---------

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	2.2	U
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.50	U
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	U

? = Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK
 Lab File ID: C8395.D
 Date Received: NA
 Date Analyzed: 06/07/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	.50	U
106-43-4-----	4-Chlorotoluene	.50	U
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.50	U
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

219

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8395.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 6/7/95

GC Column: DB-624 X 75M 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/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
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30.				

Quantitation Report

220

Data File : d:\hpchem\1\data\c8395.d
Acq On : 7 Jun 95 6:09 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 8 12:48 1995

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.91	96	534236	5.00	ug/L	0.08
						%Recovery
System Monitoring Compounds						
43) 4-Bromofluorobenzene	19.16	95	309994	5.82	ug/L	116.34%
57) 1,2-Dichlorobenzene-d4	21.95	152	137529	5.65	ug/L	112.99%
						Qvalue
Target Compounds						
9) Methylene chloride	7.50	84	65634	2.24	ug/L	93

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

c8395.d VOA524.M

Fri Jun 09 14:01:30 1995

VOA

Page 1

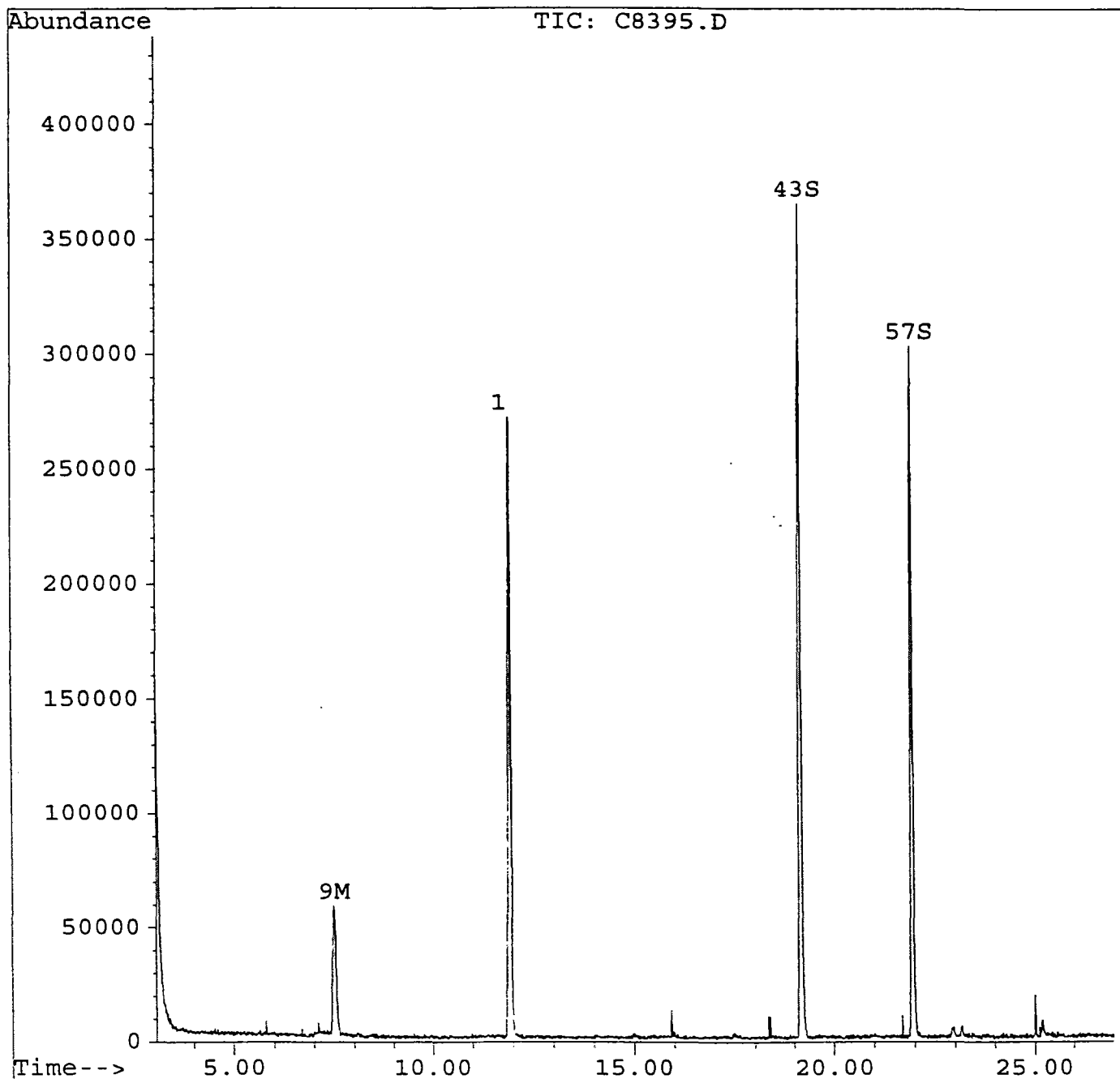
Quantitation Report

221

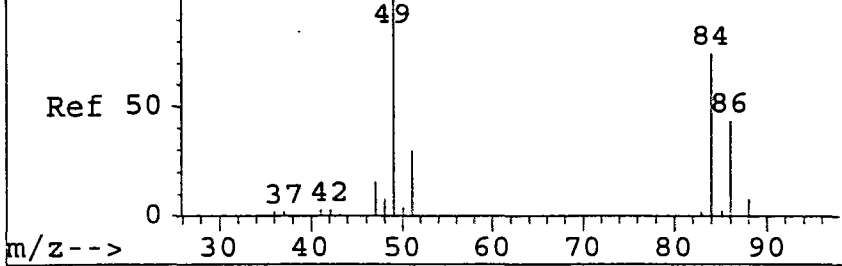
Data File : d:\hpchem\1\data\c8395.d
Acq On : 7 Jun 95 6:09 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 8 12:48 1995

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

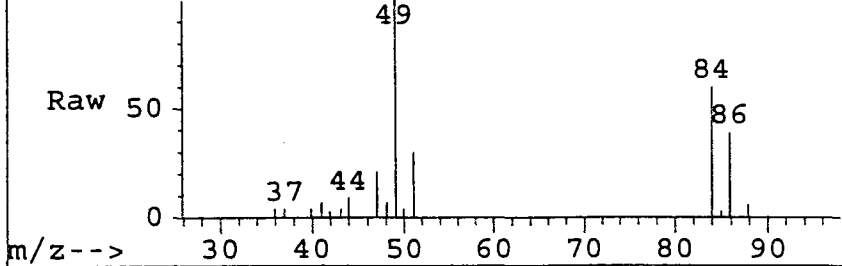


Abundance Scan 418 (7.345 min): C5082.D (-, *



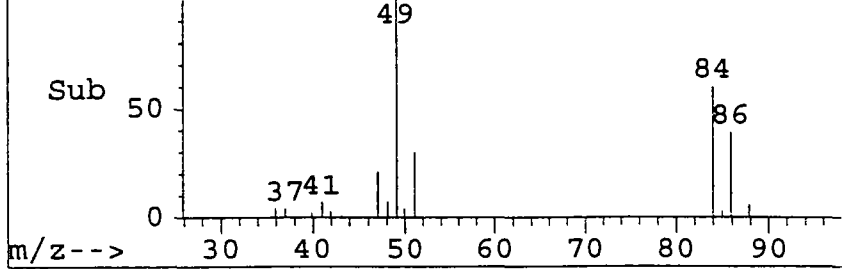
#9
Methylene chloride
Concen: 2.24 ug/L
RT: 7.50 min Scan# 433
Delta R.T. 0.10 min
Lab File: c8395.d
Acq: 7 Jun 95 6:09 pm

Abundance Scan 433 (7.501 min): C8395.D (*)

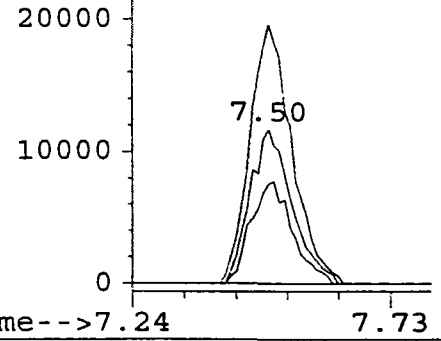


Tgt Ion:	84	Resp:	65634
Ion	Ratio	Lower	Upper
84	100		
86	65.0	43.1	83.1
49	167.3	136.3	176.3
0	0.0	0.0	0.0

Abundance Scan 433 (7.501 min): C8395.D (-, *



Abundance Ion	84.00	(83.
Ion	86.00	(85.
Ion	49.00	(48.



Library Search Compound Report

223

Data File : d:\hpchem\1\data\c8395.d
Acq On : 7 Jun 95 6:09 pm
Sample : METHOD BLANK
Misc : 25 ML

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Library : NBS75K.L

No Library Search Compounds Detected

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 224

VBLK01

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: C8410.D Lab Sample ID: M. BLANK

Date Analyzed: 6/8/95 Time Analyzed: 1722

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1PPB STD	1PPB STD	C8409.D	1644
02	9524200V	9524200V	C8411.D	1800
03	9524202V	9524202V	C8412.D	1838
04	9524204V	9524204V	C8413.D	1915
05	9524205V	9524205V	C8414.D	1951
06	9524206V	9524206V	C8415.D	2027
07	9524203V	9524203V	C8416.D	2103
08	9523965D	9523965D	C8417.D	2138
09	9523960D	9523960D	C8418.D	2213
10	9523962D	9523962D	C8419.D	2248
11	9524201V	9524201D	C8420.D	2323
12	9523963D	9523963D	C8421.D	2358
13				
14				
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28				
29				
30				

COMMENTS:

1A

VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK
 Lab File ID: C8410.D
 Date Received: NA
 Date Analyzed: 06/08/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	1.4	
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U

= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK
 Lab File ID: C8410.D
 Date Received: NA
 Date Analyzed: 06/08/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	.50	U
106-43-4-----	4-Chlorotoluene	.50	U
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.50	U
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

227

VBK01

Lab Name: EMSL ANALYTICAL Contract: _____
Project No. _____ Site: _____ Location: _____ Group: _____
Matrix: (soil/water) WATER Lab Sample ID: M. BLANK
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8410.D
Level: (low/med) LOW Date Received: NA
% Moisture: not dec. NA Date Analyzed: 6/8/95
GC Column: DB-624 X 75M 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/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
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Quantitation Report

228

Data File : d:\hpchem\1\data\c8410.d
Acq On : 8 Jun 95 5:22 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 9 10:17 1995

Vial: 4
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.88	96	703042	5.00	ug/L	0.04
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	313920	4.48	ug/L	89.52%
57) 1,2-Dichlorobenzene-d4	21.91	152	150379	4.69	ug/L	93.88%
Target Compounds						Qvalue
9) Methylene chloride	7.46	84	53131	1.38	ug/L	97

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

c8410.d VOA524.M

Fri Jun 09 14:32:49 1995

VOA

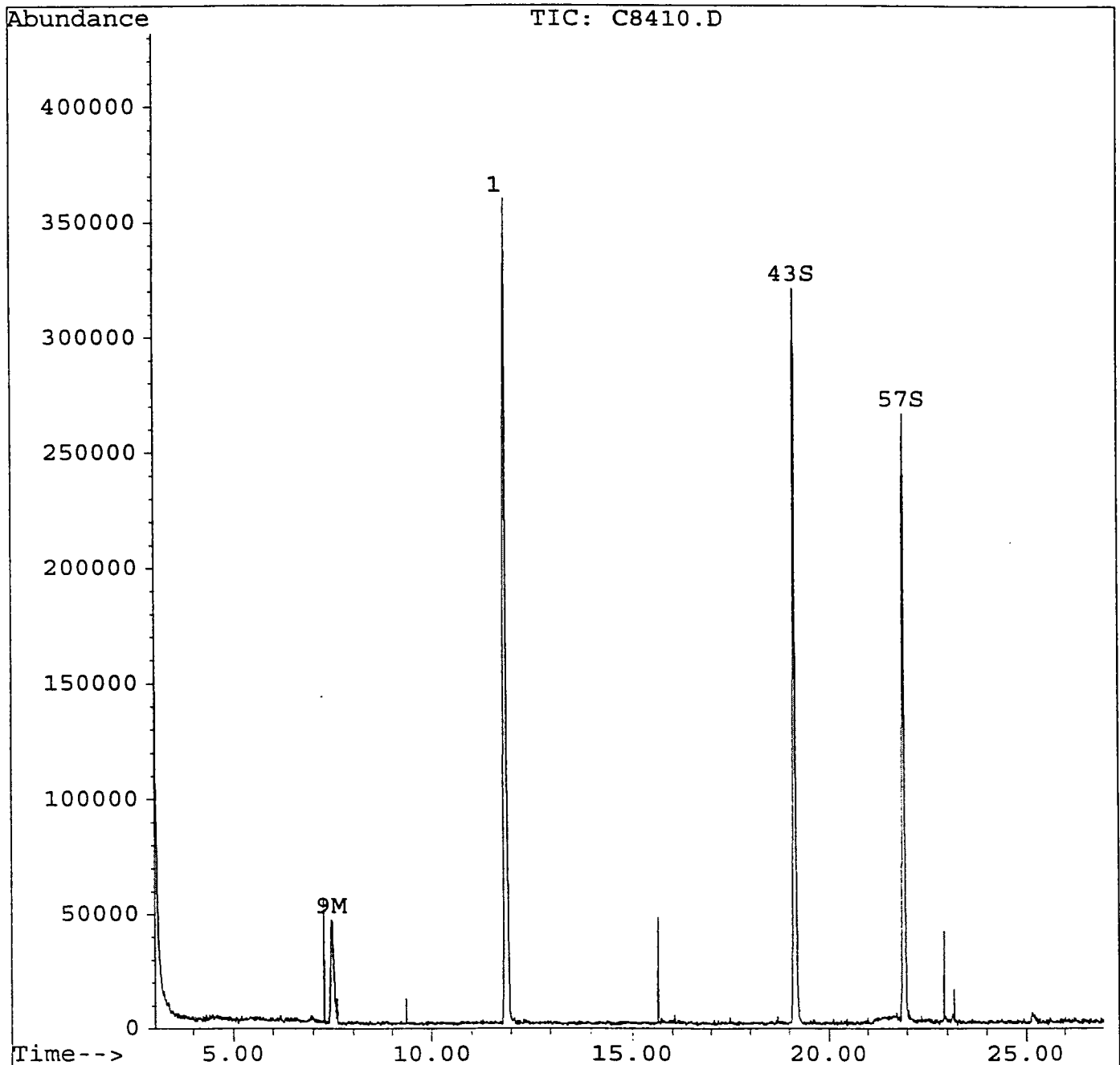
Page 1

Quantitation Report

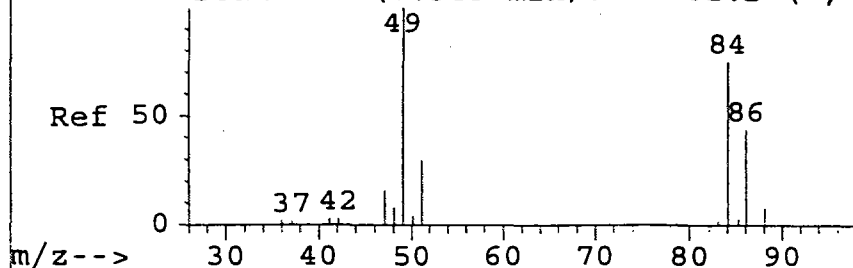
Data File : d:\hpchem\1\data\c8410.d
 Acq On : 8 Jun 95 5:22 pm
 Sample : METHOD BLANK
 Misc : 25 ML
 Quant Time: Jun 9 10:17 1995

Vial: 4 **229**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

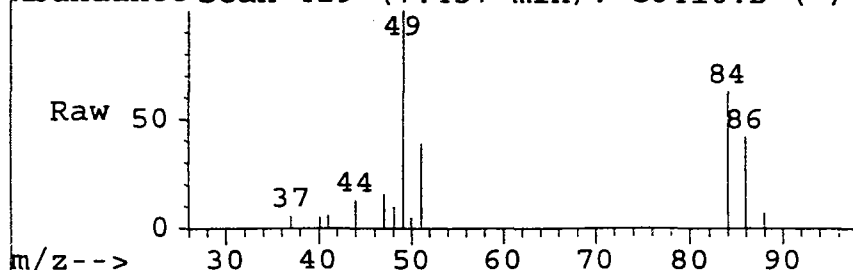
Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration



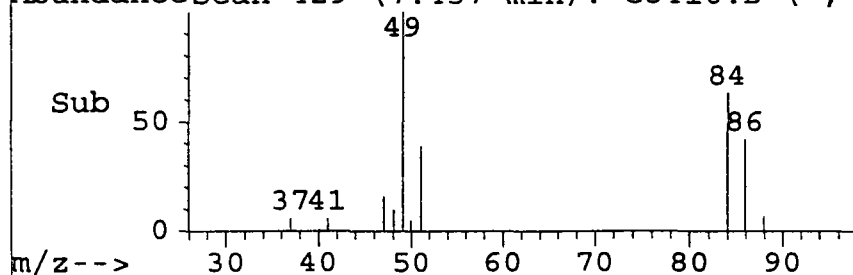
AbundanceScan 418 (7.345 min): C5082.D (-, *



AbundanceScan 429 (7.457 min): C8410.D (*)



AbundanceScan 429 (7.457 min): C8410.D (-, *



#9

Methylene chloride

Concen: 1.38 ug/L

RT: 7.46 min Scan# 429

Delta R.T. 0.05 min

Lab File: c8410.d

Acq: 8 Jun 95 5:22 pm

Tgt Ion:84 Resp: 53131

Ion Ratio Lower Upper

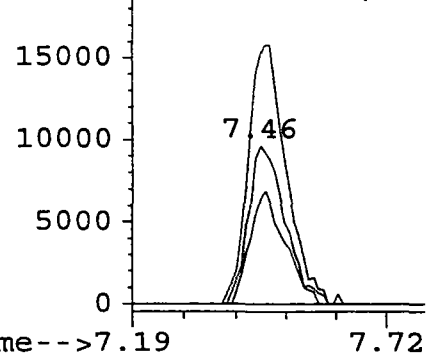
84 100

86 67.1 43.1 83.1

49 158.8 136.3 176.3

0 0.0 0.0 0.0

Abundance	Ion	84.00 (83.
20000	Ion	86.00 (85.
	Ion	49.00 (48.



4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 231

VBLK01

Lab Name: EMSL ANALYTICAL Contract: _____
Project No.: _____ Site: _____ Location: _____ Group: _____
Lab File ID: C8429.D Lab Sample ID: M. BLANK
Date Analyzed: 6/9/95 Time Analyzed: 1906
GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N
Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1PPB STD	1PPB STD	C8428.D	1831
02	9525251V	9525251V	C8430.D	1941
03	9525252V	9525252V	C8431.D	2015
04	9525292V	9525292V	C8432.D	2050
05	9524667V	9524667V	C8433.D	2125
06	9525689V	9525689V	C8434.D	2159
07	9524836V	9524836V	C8435.D	2233
08	9525275V	9525275V	C8436.D	2308
09	9524199D	9524199D	C8437.D	2342
10	9524201D	9524201D	C8438.D	0016
11	9524292MS	24292MS	C8439.D	0050
12	9524292MSD	24292MSD	C8440.D	0124
13	10PPBQCS	10PPBQCS	C8441.D	0158
14				
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30				

COMMENTS:

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: <u>EMSL ANALYTICAL</u>	Lab Sample ID: <u>METHOD BLANK</u>
Matrix (soil/water): <u>WATER</u>	Lab File ID: <u>C8429.D</u>
Sample wt/vol: <u>25 mL</u>	Date Received: <u>NA</u>
Level (low/med): <u>LOW</u>	Date Analyzed: <u>06/09/95</u>
% Moisture: not dec.: <u>NA</u>	Dilution Factor: <u>1</u>
GC Column: <u>DB-624 x 75m</u> ID: <u>0.53mm</u>	Soil Aliquot Volume: <u>NA</u>
Soil Extract Volume: <u>NA</u>	

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

75-71-8-----	Dichlorodifluoromethane	.50	U
74-87-3-----	Chloromethane	.50	U
74-83-9-----	Bromomethane	.50	U
75-01-4-----	Vinyl Chloride	.50	U
75-00-3-----	Chloroethane	.50	U
75-69-4-----	Trichlorofluoromethane	.50	U
75-09-2-----	Methylene Chloride	1.0	
156-60-65----	trans-1,2-Dichloroethene	.50	U
75-35-4-----	1,1-Dichloroethene	.50	U
75-34-3-----	1,1-Dichloroethane	.50	U
594-20-7-----	2,2-Dichloropropane	.50	U
74-97-1-----	Bromochloromethane	.50	U
156-59-2-----	cis-1,2-Dichloroethene	.50	U
67-66-3-----	Chloroform	.50	U
563-58-6-----	1,1-Dichloropropene	.50	U
107-06-2-----	1,2-Dichloroethane	.50	U
71-55-6-----	1,1,1-Trichloroethane	.50	U
74-95-3-----	Dibromomethane	.50	U
56-23-1-----	Carbon Tetrachloride	.50	U
75-27-4-----	Bromodichloromethane	.50	U
78-87-1-----	1,2-Dichloropropane	.50	U
10061-01-1----	cis-1,3-Dichloropropene	.50	U
142-28-9-----	1,3-Dichloropropane	.50	U
79-01-6-----	Trichloroethene	.50	U
124-48-1-----	Dibromochloromethane	.50	U
79-00-1-----	1,1,2-Trichloroethane	.50	U
71-43-2-----	Benzene	.50	U
10061-02-6----	trans-1,3-Dichloropropene	.50	U
75-25-2-----	Bromoform	.50	U
630-20-6-----	1,1,1,2-Tetrachloroethane	.50	U
127-18-4-----	Tetrachloroethene	.50	U
79-34-1-----	1,1,2,2-Tetrachloroethane	.50	U
108-88-3-----	Toluene	.50	U
106-93-4-----	1,2-Dibromoethane	.50	U
108-90-7-----	Chlorobenzene	.50	U
100-41-4-----	Ethylbenzene	.50	U
1330-29-7-----	Xylene (total)	.50	U

U= Not Detected

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
 Matrix (soil/water): WATER
 Sample wt/vol: 25 mL
 Level (low/med): LOW
 % Moisture: not dec.: NA
 GC Column: DB-624 x 75m ID: 0.53mm
 Soil Extract Volume: NA

Lab Sample ID: METHOD BLANK
 Lab File ID: C8429.D
 Date Received: NA
 Date Analyzed: 06/09/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L COMMENT

100-42-1-----	Styrene	.50	U
98-82-8-----	Isopropylbenzene	.50	U
108-86-1-----	Bromobenzene	.50	U
96-18-4-----	1,2,3-Trichloropropane	.50	U
103-65-1-----	n-Propylbenzene	.50	U
95-49-8-----	2-Chlorotoluene	.50	U
106-43-4-----	4-Chlorotoluene	.50	U
108-67-8-----	1,3,5-Trimethylbenzene	.50	U
98-06-6-----	tert-Butylbenzene	.50	U
95-63-6-----	1,2,4-Trimethylbenzene	.50	U
135-98-8-----	sec-Butylbenzene	.50	U
541-73-1-----	1,3-Dichlorobenzene	.50	U
106-46-7-----	1,4-Dichlorobenzene	.50	U
99-87-6-----	4-Isopropyltoluene	.50	U
95-50-1-----	1,2-Dichlorobenzene	.50	U
104-51-8-----	n-Butylbenzene	.50	U
96-12-8-----	1,2-Dibromo-3-chloropropane	.50	U
120-82-1-----	1,2,4-Trichlorobenzene	.50	U
87-68-3-----	Hexachlorobutadiene	.50	U
91-20-3-----	Naphthalene	.50	U
87-61-6-----	1,2,3-Trichlorobenzene	.50	U

COMMENT

U= Not Detected

Quantitation Report

234

Data File : d:\hpchem\1\data\c8429.d
 Acq On : 9 Jun 95 7:06 pm
 Sample : METHOD BLANK
 Misc : 25 ML
 Quant Time: Jun 11 11:32 1995

Vial: 4
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.87	96	677180	5.00	ug/L	0.03
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.12	95	354787	5.25	ug/L	105.04%
57) 1,2-Dichlorobenzene-d4	21.90	152	169172	5.48	ug/L	109.65%
Target Compounds						Qvalue
9) Methylene chloride	7.44	84	36006	0.97	ug/L	96

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

c8429.d VOA524.M

Sun Jun 11 12:33:33 1995

VOA

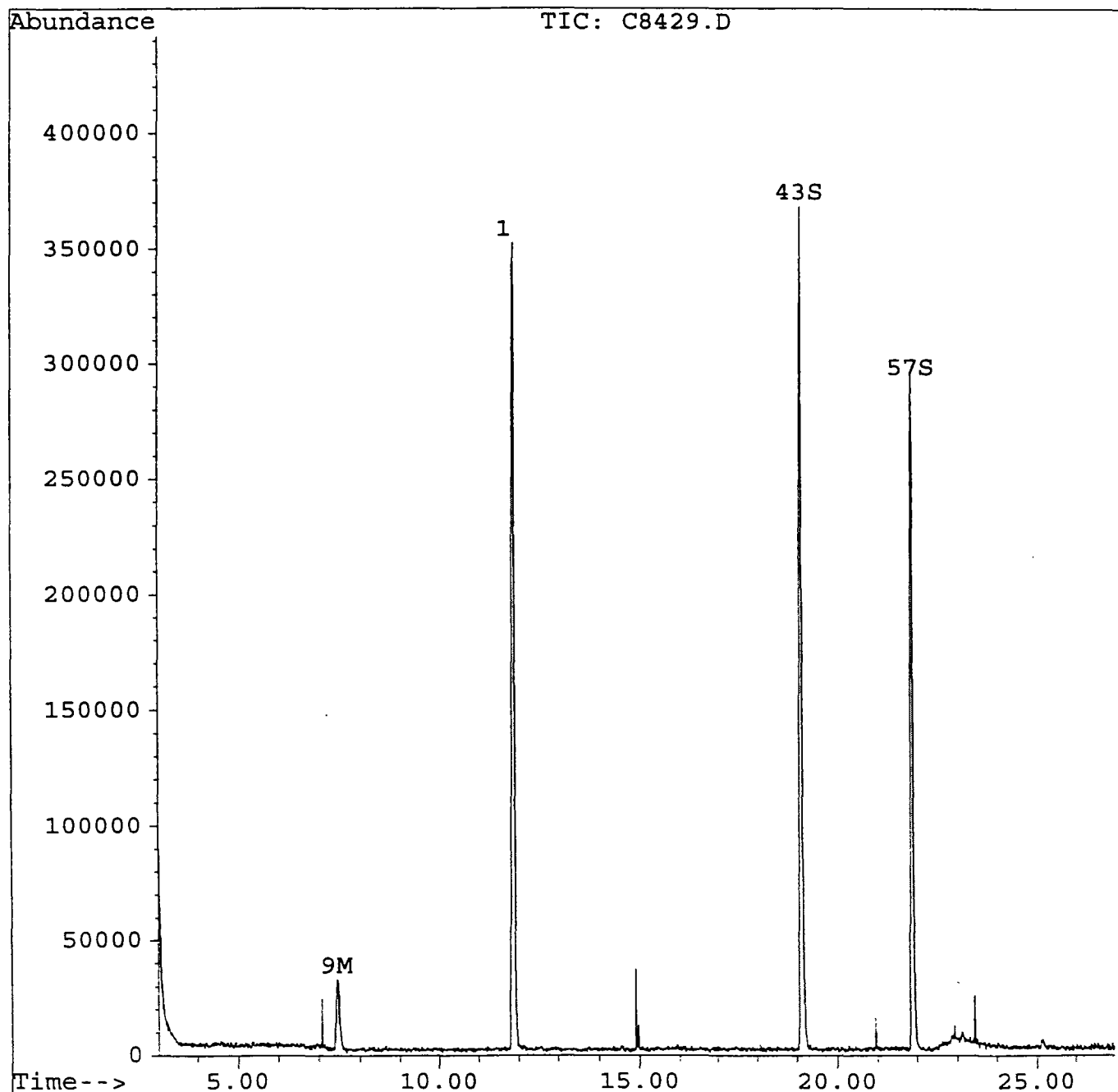
Page 1

Quantitation Report

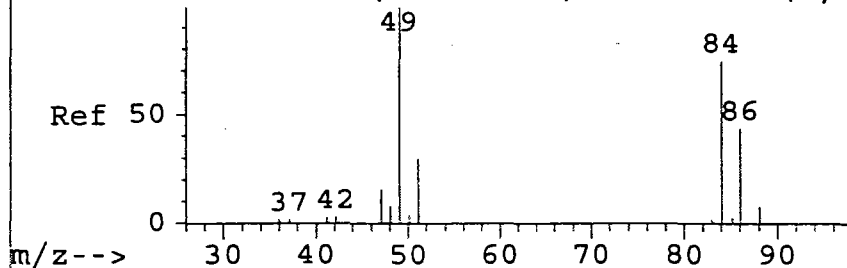
Data File : d:\hpchem\1\data\c8429.d
Acq On : 9 Jun 95 7:06 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Jun 11 11:32 1995

Vial: 4 235
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

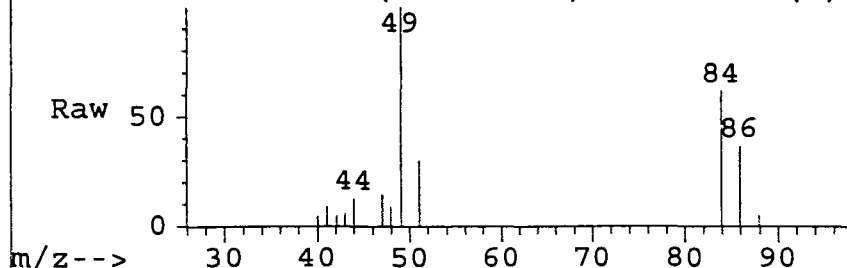
Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



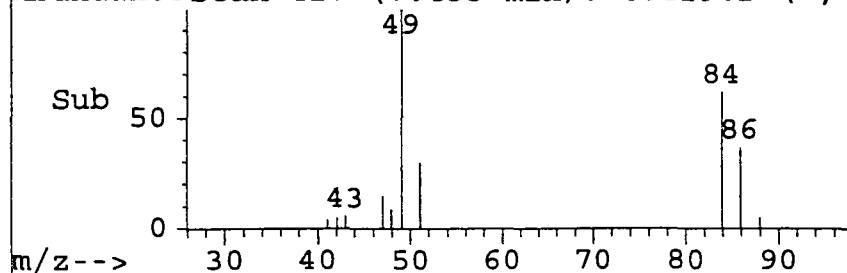
Abundance Scan 418 (7.345 min): C5082.D (-, *



Abundance Scan 427 (7.435 min): C8429.D (*)



Abundance Scan 427 (7.435 min): C8429.D (-, *



#9

Methylene chloride

Concen: 0.97 ug/L

RT: 7.44 min Scan# 427

Delta R.T. 0.03 min

Lab File: c8429.d

Acq: 9 Jun 95 7:06 pm

Tgt Ion: 84 Resp: 36006

Ion Ratio Lower Upper

84 100

86 59.2 43.1 83.1

49 161.5 136.3 176.3

0 0.0 0.0 0.0

Abundance	Ion	84.00	(83.
15000	Ion	86.00	(85.
	Ion	49.00	(48.

10000

5000

7.44

0

Time--> 7.20

7.68

Spike Recovery and RPD Summary Report - WATER

237

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Initial Calibration

Non-Spiked Sample: C8404.D

Spike
Sample

Spike
Duplicate Sample

File ID : C8405.D

C8406.D

Sample : 9524199 MS

9524199 MSD

Acq Time: 8 Jun 95 12:04 am

8 Jun 95 12:39 am

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD % Rec
Dichlorodifluorometh	0.0	10	9	9	92	93	1	25 80-120
Chloromethane	0.0	10	10	10	99	99	1	25 80-120
Vinyl chloride	0.0	10	10	10	101	99	2	25 80-120
Bromomethane	0.0	10	11	11	109	108	1	25 80-120
Chloroethane	0.0	10	11	11	112	112	0	25 80-120
Trichlorofluorometha	0.0	10	10	10	105	104	1	25 80-120
1,1-Dichloroethene	0.0	10	10	10	104	104	0	25 80-120
Methylene chloride	1.5	10	9	10	79#	80	2	25 80-120
trans-1,2-Dichloroet	0.0	10	11	10	106	103	3	25 80-120
1,1-Dichloroethane	0.0	10	11	11	110	110	0	25 80-120
2,2-Dichloropropane	0.0	10	9	9	89	86	3	25 80-120
cis-1,2-Dichloroethe	0.0	10	11	11	112	110	2	25 80-120
Bromochloromethane	0.0	10	12	12	122#	118	3	25 80-120
Chloroform	0.0	10	11	11	112	112	0	25 80-120
1,1,1-Trichloroethan	0.0	10	11	11	107	107	1	25 80-120
Carbon tetrachloride	0.0	10	10	10	104	102	2	25 80-120
1,1-Dichloropropene	0.0	10	11	10	106	104	2	25 80-120
Benzene	0.0	10	11	11	110	107	2	25 80-120
1,2-Dichloroethane	0.0	10	13	13	129#	127#	2	25 80-120
Trichloroethene	0.0	10	11	10	105	104	1	25 80-120
1,2-Dichloropropane	0.0	10	12	12	119	118	1	25 80-120
Dibromomethane	0.0	10	13	13	128#	131#	2	25 80-120
Bromodichloromethane	0.0	10	12	12	118	116	2	25 80-120
cis-1,3-Dichloroprop	0.0	10	12	11	117	112	4	25 80-120
Toluene	0.0	10	12	11	109	106	3	25 80-120
trans-1,3-Dichloropr	0.0	10	12	12	123#	119	3	25 80-120
1,1,2-Trichloroethan	0.0	10	13	13	129#	129#	1	25 80-120
Tetrachloroethene	0.0	10	10	10	105	105	0	25 80-120
1,3-Dichloropropane	0.0	10	13	13	128#	130#	1	25 80-120
Dibromochloromethane	0.0	10	12	12	122#	120	2	25 80-120
1,2-Dibromomethane	0.0	10	13	13	130#	130#	0	25 80-120
Chlorobenzene	0.0	10	11	11	112	112	0	25 80-120
1,1,1,2-Tetrachloroe	0.0	10	12	11	116	113	3	25 80-120
Ethylbenzene	0.0	10	11	11	110	107	3	25 80-120
Xylene (para & meta)	0.5	20	22	22	107	105	2	25 80-120
Xylene (Ortho)	0.0	10	11	11	111	109	2	25 80-120
ylene	0.0	10	11	11	111	110	1	25 80-120
Formoform	0.0	10	13	13	125#	127#	1	25 80-120
Isopropylbenzene	0.0	10	11	11	107	106	1	25 80-120
Bromobenzene	0.0	10	12	12	122#	121#	1	25 80-120
1,1,2,2-Tetrachloroe	0.0	10	16	16	157#	156#	1	25 80-120
1,2,3-Trichloropropa	0.0	10	12	13	120#	126#	5	25 80-120
n-Propylbenzene	0.0	10	11	11	110	107	2	25 80-120

2-Chlorotoluene	0.0	10	12	12	120#	118	2	25	80-120
4-Chlorotoluene	0.0	10	11	11	115	113	1	25	80-120
1,3,5-Trimethylbenze	0.0	10	11	11	105	106	1	25	80-120
tert-Butylbenzene	0.0	10	11	11	111	111	0	25	80-120
1,2,4-Trimethylbenze	0.0	10	11	11	112	113	1	25	80-120
sec-Butylbenzene	0.0	10	11	11	107	107	0	25	80-120
3-Dichlorobenzene	0.0	10	12	12	117	115	1	25	80-120
Isopropyltoluene	0.0	10	11	11	109	107	1	25	80-120
1,4-Dichlorobenzene	0.0	10	12	12	119	118	1	25	80-120
1,2-Dichlorobenzene	0.0	10	11	12	115	125#	9	25	80-120
n-Butylbenzene	0.0	10	11	11	110	112	2	25	80-120
1,2-Dibromo-3-chloro	0.0	10	14	13	140#	134#	4	25	80-120
1,2,4-Trichlorobenze	0.0	10	13	13	127#	129#	2	25	80-120
Hexachlorobutadiene	0.0	10	11	11	107	111	4	25	80-120
Naphthalene	0.0	10	15	15	146#	152#	4	25	80-120
1,2,3-Trichlorobenze	0.0	10	12	14	124#	139#	11	25	80-120

238

VOA524.M

Wed Jun 21 11:47:27 1995

VOA

Quantitation Report

Data File : d:\hpchem\1\data\c8405.d
 Acq On : 8 Jun 95 12:04 am
 Sample : 9524199 MS
 Misc : 25 ML
 Quant Time: Jun 8 13:25 1995

Vial: 14 239
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.92	96	554159	5.00	ug/L	0.09
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.16	95	326366	5.90	ug/L	118.08%
57) 1,2-Dichlorobenzene-d4	21.96	152	139018	5.51	ug/L	110.11%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.35	85	409563	9.32	ug/L	99
3) Chloromethane	3.73	50	257194	9.95	ug/L	99
4) Vinyl chloride	3.94	62	294939	10.12	ug/L	96
5) Bromomethane	4.59	94	214832	10.90	ug/L	94
6) Chloroethane	4.84	64	191887	11.24	ug/L	98
7) Trichlorofluoromethane	5.43	101	682702	10.48	ug/L	99
8) 1,1-Dichloroethene	6.52	96	298108	10.42	ug/L	88
9) Methylene chloride	7.50	84	284169	9.37	ug/L	99
10) trans-1,2-Dichloroethene	8.06	96	319551	10.58	ug/L	96
12) 1,1-Dichloroethane	8.85	63	663991	10.99	ug/L	96
13) 2,2-Dichloropropane	9.91	77	524279	8.85	ug/L	96
14) cis-1,2-Dichloroethene	9.92	96	318200	11.17	ug/L	99
16) Bromochloromethane	10.33	128	121498	12.17	ug/L	96
17) Chloroform	10.48	83	637477	11.24	ug/L	96
18) 1,1,1-Trichloroethane	10.82	97	674378	10.74	ug/L	96
19) Carbon tetrachloride	11.12	117	604830	10.38	ug/L	100
20) 1,1-Dichloropropene	11.10	75	583915	10.65	ug/L	99
21) Benzene	11.45	78	1087900	11.27	ug/L	98
22) 1,2-Dichloroethane	11.45	62	304981	12.88	ug/L	97
23) Trichloroethene	12.55	95	449492	10.51	ug/L	97
24) 1,2-Dichloropropane	12.91	63	375274	11.88	ug/L	100
25) Dibromomethane	13.11	93	164208	12.83	ug/L m	100
26) Bromodichloromethane	13.39	83	521465	11.88	ug/L	97
27) cis-1,3-Dichloropropene	14.13	75	443557	11.69	ug/L	98
28) Toluene	14.72	92	799979	11.67	ug/L	93
29) trans-1,3-Dichloropropene	15.06	75	322265	12.30	ug/L	95
30) 1,1,2-Trichloroethane	15.38	83	158191	12.93	ug/L	99
31) Tetrachloroethene	15.69	166	450598	10.49	ug/L	98
32) 1,3-Dichloropropane	15.67	76	310231	12.79	ug/L	94
33) Dibromochloromethane	16.07	129	291454	12.24	ug/L	94
34) 1,2-Dibromomethane	16.26	107	218757	12.95	ug/L	93
35) Chlorobenzene	17.14	112	797754	11.17	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.28	131	330223	11.65	ug/L	96
37) Ethylbenzene	17.34	91	1605933	11.13	ug/L	99
38) Xylene (para & meta)	17.54	106	1140105	22.00	ug/L	99
39) Xylene (Ortho)	18.24	106	517482	11.29	ug/L	89
40) Styrene	18.25	104	786840	11.07	ug/L	99

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

Quantitation Report

Data File : d:\hpchem\1\data\c8405.d
Acq On : 8 Jun 95 12:04 am
Sample : 9524199 MS
Misc : 25 ML
Quant Time: Jun 8 13:25 1995

Vial: 14 **240**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.57	173	146515	12.54	ug/L	88
42) Isopropylbenzene	18.89	105	1589348	10.78	ug/L	90
44) Bromobenzene	19.44	156	324873	12.22	ug/L	94
45) 1,1,2,2-Tetrachloroethane	19.38	83	205323	15.71	ug/L	93
46) 1,2,3-Trichloropropane	19.46	75	190883	12.03	ug/L	90
47) n-Propylbenzene	19.64	91	2107229	10.99	ug/L	99
48) 2-Chlorotoluene	19.79	91	1283098	12.05	ug/L	99
49) 4-Chlorotoluene	19.99	91	1451904	11.49	ug/L m	88
50) 1,3,5-Trimethylbenzene	19.96	105	1286996	10.54	ug/L	98
51) tert-Butylbenzene	20.54	119	1404243	11.09	ug/L	97
52) 1,2,4-Trimethylbenzene	20.64	105	1274215	11.39	ug/L	98
53) sec-Butylbenzene	20.95	105	2021112	10.77	ug/L	100
54) 1,3-Dichlorobenzene	21.15	146	635427	11.72	ug/L	94
55) 4-Isopropyltoluene	21.21	119	1537701	10.97	ug/L	97
56) 1,4-Dichlorobenzene	21.31	146	638620	11.88	ug/L	93
58) 1,2-Dichlorobenzene	21.99	146	462724	11.46	ug/L m	0
59) n-Butylbenzene	21.96	91	1654056	11.01	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.38	75	46397	13.98	ug/L	90
61) 1,2,4-Trichlorobenzene	24.96	180	375766	12.65	ug/L	95
62) Hexachlorobutadiene	25.30	225	382184	10.67	ug/L	98
63) Naphthalene	25.40	128	375885	14.62	ug/L	100
64) 1,2,3-Trichlorobenzene	25.88	180	257709	12.45	ug/L m	95
65) Methyl-tert butyl ether	8.09	73	4589734	141.76	ug/L m	0
66) tert-Butyl Alcohol	7.81	59	609527	1228.49	ug/L	100

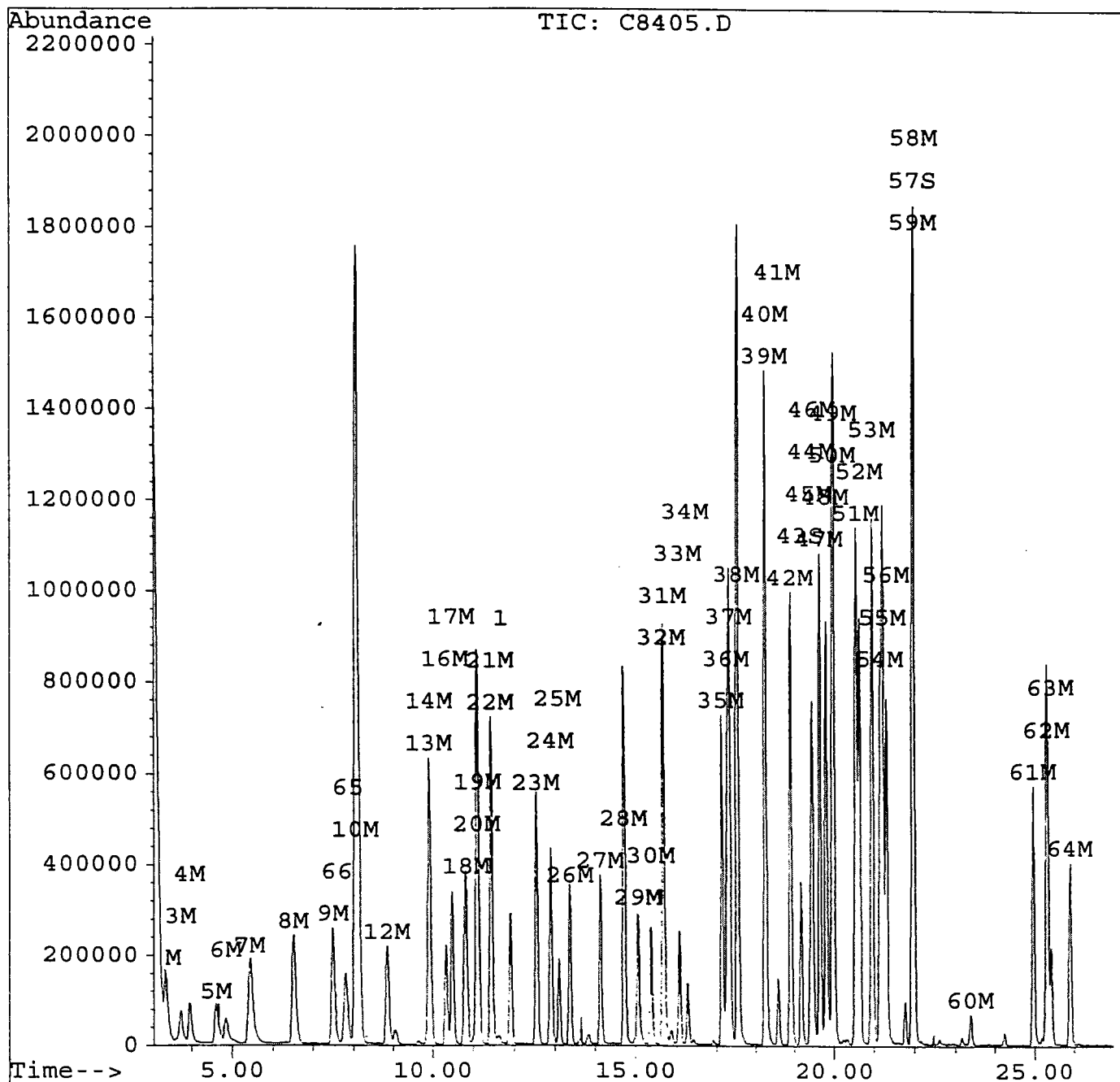
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8405.d
 Acq On : 8 Jun 95 12:04 am
 Sample : 9524199 MS
 Misc : 25 ML
 Quant Time: Jun 8 13:25 1995

Vial: 14 **241**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration



Quantitation Report

242

Data File : d:\hpchem\1\data\c8406.d
 Acq On : 8 Jun 95 12:39 am
 Sample : 9524199 MSD
 Misc : 25 ML
 Quant Time: Jun 8 13:26 1995

Vial: 15
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.92	96	548354	5.00	ug/L	0.08

System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.17	95	321009	5.87 ug/L	117.37%
57) 1,2-Dichlorobenzene-d4	21.95	152	136594	5.47 ug/L	109.33%

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.35	85	409268	9.42 ug/L	96
3) Chloromethane	3.73	50	253060	9.89 ug/L	98
4) Vinyl chloride	3.95	62	286756	9.94 ug/L	99
5) Bromomethane	4.60	94	210466	10.79 ug/L	96
6) Chloroethane	4.83	64	189503	11.21 ug/L	100
7) Trichlorofluoromethane	5.45	101	668148	10.37 ug/L	97
8) 1,1-Dichloroethene	6.51	96	295300	10.43 ug/L	96
9) Methylene chloride	7.50	84	286411	9.54 ug/L	97
10) trans-1,2-Dichloroethene	8.07	96	306891	10.26 ug/L	93
12) 1,1-Dichloroethane	8.85	63	658026	11.00 ug/L	93
13) 2,2-Dichloropropane	9.92	77	501146	8.55 ug/L	99
14) cis-1,2-Dichloroethene	9.92	96	309988	11.00 ug/L	98
16) Bromochloromethane	10.33	128	117005	11.85 ug/L	97
17) Chloroform	10.49	83	630359	11.23 ug/L	98
18) 1,1,1-Trichloroethane	10.82	97	662615	10.67 ug/L	98
19) Carbon tetrachloride	11.12	117	587316	10.18 ug/L	96
20) 1,1-Dichloropropene	11.11	75	566308	10.44 ug/L	98
21) Benzene	11.45	78	1053750	11.04 ug/L	96
22) 1,2-Dichloroethane	11.45	62	296979	12.67 ug/L	99
23) Trichloroethene	12.56	95	440344	10.40 ug/L	98
24) 1,2-Dichloropropane	12.91	63	368530	11.79 ug/L	100
25) Dibromomethane	13.12	93	165845	13.10 ug/L	99
26) Bromodichloromethane	13.39	83	503627	11.60 ug/L	98
27) cis-1,3-Dichloropropene	14.14	75	420615	11.21 ug/L	98
28) Toluene	14.73	92	769696	11.34 ug/L	99
29) trans-1,3-Dichloropropene	15.07	75	309514	11.94 ug/L	96
30) 1,1,2-Trichloroethane	15.38	83	155628	12.85 ug/L	93
31) Tetrachloroethene	15.68	166	445322	10.47 ug/L	98
32) 1,3-Dichloropropane	15.66	76	310840	12.95 ug/L	94
33) Dibromochloromethane	16.08	129	282590	11.99 ug/L	96
34) 1,2-Dibromomethane	16.27	107	217221	13.00 ug/L	95
35) Chlorobenzene	17.15	112	791344	11.20 ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.27	131	316294	11.28 ug/L	97
37) Ethylbenzene	17.33	91	1548028	10.84 ug/L	98
38) Xylene (para & meta)	17.54	106	1103000	21.51 ug/L	92
39) Xylene (Ortho)	18.24	106	504363	11.12 ug/L	95
40) Styrene	18.26	104	770728	10.96 ug/L	99

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

Quantitation Report

243

Data File : d:\hpchem\1\data\c8406.d
Acq On : 8 Jun 95 12:39 am
Sample : 9524199 MSD
Misc : 25 ML
Quant Time: Jun 8 13:26 1995

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.58	173	146445	12.66	ug/L	90
42) Isopropylbenzene	18.90	105	1557092	10.67	ug/L	90
44) Bromobenzene	19.45	156	317211	12.06	ug/L	93
45) 1,1,2,2-Tetrachloroethane	19.40	83	201613	15.59	ug/L	99
46) 1,2,3-Trichloropropane	19.48	75	198580	12.65	ug/L #	55
47) n-Propylbenzene	19.64	91	2038050	10.74	ug/L	99
48) 2-Chlorotoluene	19.80	91	1242322	11.80	ug/L	96
49) 4-Chlorotoluene	19.98	91	1420536	11.36	ug/L m	86
50) 1,3,5-Trimethylbenzene	19.96	105	1285608	10.64	ug/L	100
51) tert-Butylbenzene	20.55	119	1387375	11.08	ug/L	97
52) 1,2,4-Trimethylbenzene	20.64	105	1268326	11.46	ug/L	98
53) sec-Butylbenzene	20.95	105	1991087	10.72	ug/L	99
54) 1,3-Dichlorobenzene	21.15	146	619515	11.55	ug/L	97
55) 4-Isopropyltoluene	21.21	119	1504932	10.85	ug/L	98
56) 1,4-Dichlorobenzene	21.31	146	625656	11.76	ug/L	92
58) 1,2-Dichlorobenzene	21.99	146	498660	12.48	ug/L	99
59) n-Butylbenzene	21.96	91	1671417	11.25	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.40	75	43899	13.37	ug/L	83
61) 1,2,4-Trichlorobenzene	24.96	180	378446	12.88	ug/L	99
62) Hexachlorobutadiene	25.29	225	392730	11.08	ug/L	97
63) Naphthalene	25.41	128	386522	15.20	ug/L	100
64) 1,2,3-Trichlorobenzene	25.88	180	284267	13.87	ug/L	96
65) Methyl-tert butyl ether	8.10	73	4296795	134.12	ug/L m	0
66) tert-Butyl Alcohol	7.82	59	601123	1224.38	ug/L	100

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

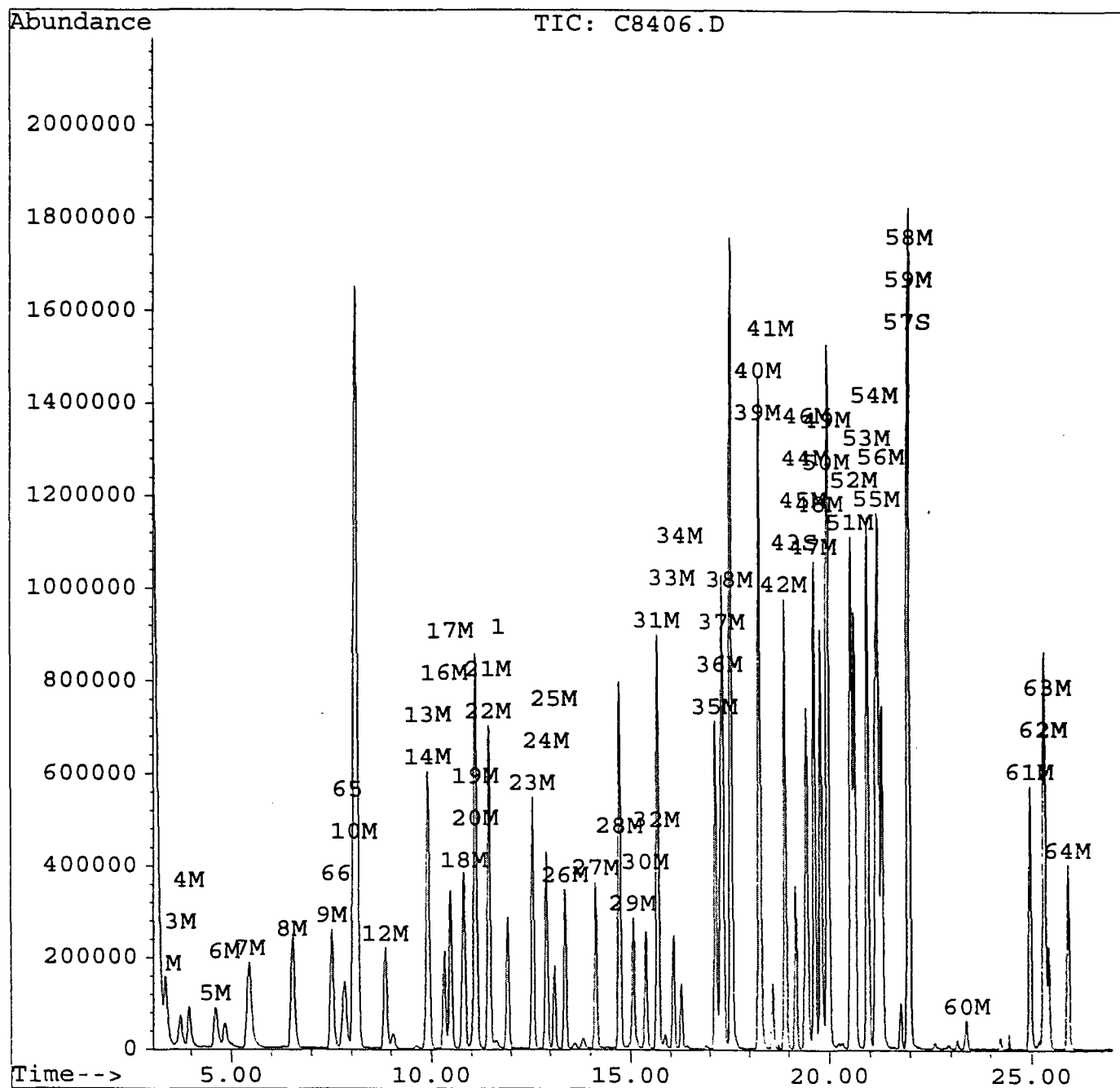
Quantitation Report

244

Data File : d:\hpchem\1\data\c8406.d
Acq On : 8 Jun 95 12:39 am
Sample : 9524199 MSD
Misc : 25 ML
Quant Time: Jun 8 13:26 1995

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration



Spike Recovery and RPD Summary Report - WATER

245

Method : C:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Initial Calibration

Non-Spiked Sample: C8432.D

Spike
Sample

Spike
Duplicate Sample

File ID : C8439.D	C8440.D
Sample : 9524292 MS	9524292 MSD
Acq Time: 10 Jun 95 12:50 am	10 Jun 95 1:24 am

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD % Rec
Dichlorodifluorometh	0.0	10	11	10	108	104	4	25 80-120
Chloromethane	0.0	10	11	11	109	104	4	25 80-120
Vinyl chloride	0.0	10	11	11	109	107	2	25 80-120
Bromomethane	0.0	10	11	11	112	111	1	25 80-120
Chloroethane	0.0	10	12	11	119	113	5	25 80-120
Trichlorofluorometha	0.0	10	11	10	106	105	1	25 80-120
1,1-Dichloroethene	0.0	10	11	10	108	103	5	25 80-120
Methylene chloride	1.7	10	9	8	74#	67#	9	25 80-120
trans-1,2-Dichloroet	0.0	10	11	10	106	104	2	25 80-120
1,1-Dichloroethane	0.0	10	11	11	110	106	4	25 80-120
2,2-Dichloropropane	0.0	10	9	9	91	88	4	25 80-120
cis-1,2-Dichloroethe	0.0	10	11	10	105	102	3	25 80-120
Bromochloromethane	0.6	10	10	10	102	98	5	25 80-120
Chloroform	17.9	10	28	28	104	103	1	25 80-120
1,1,1-Trichloroethan	0.0	10	10	10	105	103	1	25 80-120
Carbon tetrachloride	0.0	10	10	10	100	100	0	25 80-120
1,1-Dichloropropene	0.0	10	11	10	106	105	1	25 80-120
Benzene	0.0	10	11	10	107	104	3	25 80-120
1,2-Dichloroethane	0.0	10	10	10	102	98	4	25 80-120
Trichloroethene	0.0	10	10	10	103	102	2	25 80-120
1,2-Dichloropropane	0.0	10	11	10	107	105	2	25 80-120
Dibromomethane	0.0	10	10	10	102	98	4	25 80-120
Bromodichloromethane	0.0	10	11	11	104	101	3	25 80-120
cis-1,3-Dichloroprop	0.0	10	10	10	101	97	5	25 80-120
Toluene	0.0	10	11	10	105	102	3	25 80-120
trans-1,3-Dichloropr	0.0	10	10	10	99	95	4	25 80-120
1,1,2-Trichloroethan	0.0	10	10	10	103	101	2	25 80-120
Tetrachloroethene	0.0	10	10	10	103	101	2	25 80-120
1,3-Dichloropropane	0.0	10	10	10	104	100	4	25 80-120
Dibromochloromethane	0.0	10	10	10	98	96	1	25 80-120
1,2-Dibromomethane	0.0	10	10	10	102	99	2	25 80-120
Chlorobenzene	0.0	10	10	10	103	100	3	25 80-120
1,1,1,2-Tetrachloroe	0.0	10	10	10	101	95	6	25 80-120
Ethylbenzene	0.0	10	10	10	104	102	1	25 80-120
ylene (para & meta)	0.0	20	20	20	101	99	2	25 80-120
ylene (Ortho)	0.0	10	10	10	101	99	2	25 80-120
Styrene	0.0	10	9	10	91	96	6	25 80-120
Bromoform	0.0	10	9	9	94	91	3	25 80-120
Isopropylbenzene	0.0	10	10	10	102	101	2	25 80-120
Bromobenzene	0.0	10	10	10	101	100	2	25 80-120
1,1,2,2-Tetrachloroe	0.0	10	11	11	108	108	0	25 80-120
1,2,3-Trichloropropa	0.0	10	10	10	102	99	3	25 80-120

2-Chlorotoluene	0.0	10	11	11	108	107	1	25	80-120
4-Chlorotoluene	0.0	10	10	10	103	100	2	25	80-120
1,3,5-Trimethylbenze	0.0	10	9	10	94	98	4	25	80-120
tert-Butylbenzene	0.0	10	10	10	105	103	1	25	80-120
1,4-Trimethylbenze	0.0	10	10	10	96	100	4	25	80-120
sec-Butylbenzene	0.0	10	10	10	102	100	2	25	80-120
1,3-Dichlorobenzene	0.0	10	10	10	100	98	3	25	80-120
4-Isopropyltoluene	0.0	10	10	10	101	100	1	25	80-120
1,4-Dichlorobenzene	0.0	10	10	10	101	100	2	25	80-120
1,2-Dichlorobenzene	0.0	10	10	10	102	100	2	25	80-120
n-Butylbenzene	0.0	10	11	10	106	103	3	25	80-120
1,2-Dibromo-3-chloro	0.0	10	10	9	99	94	6	25	80-120
1,2,4-Trichlorobenze	0.0	10	10	10	102	102	0	25	80-120
Hexachlorobutadiene	0.0	10	10	10	98	97	0	25	80-120
Naphthalene	0.0	10	10	10	101	102	1	25	80-120
1,2,3-Trichlorobenze	0.0	10	10	10	103	104	1	25	80-120

VOA524.M

Tue Jun 13 14:41:18 1995

VOA

Quantitation Report

Data File : d:\hpcchem\1\data\c8439.d
Acq On : 10 Jun 95 12:50 am
Sample : 9524292 MS
Misc : 25 ML
Quant Time: Jun 11 11:52 1995

Vial: 15 **247**
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.88	96	694521	5.00	ug/L	0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.12	95	346421	5.00	ug/L	100.00%
57) 1,2-Dichlorobenzene-d4	21.91	152	163769	5.17	ug/L	103.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.32	85	593892	10.79	ug/L	98
3) Chloromethane	3.70	50	363415	11.21	ug/L	96
4) Vinyl chloride	3.92	62	399686	10.94	ug/L	99
5) Bromomethane	4.58	94	276973	11.22	ug/L	98
6) Chloroethane	4.82	64	254855	11.91	ug/L	97
7) Trichlorofluoromethane	5.40	101	863324	10.58	ug/L	98
8) 1,1-Dichloroethene	6.50	96	386957	10.79	ug/L	94
9) Methylene chloride	7.48	84	346057	9.10	ug/L	95
10) trans-1,2-Dichloroethene	8.03	96	399801	10.56	ug/L	98
12) 1,1-Dichloroethane	8.82	63	832166	10.99	ug/L	97
13) 2,2-Dichloropropane	9.88	77	678725	9.14	ug/L	95
14) cis-1,2-Dichloroethene	9.88	96	375412	10.52	ug/L	90
16) Bromochloromethane	10.29	128	128193	10.25	ug/L	99
17) Chloroform	10.45	83	2010410	28.29	ug/L	99
18) 1,1,1-Trichloroethane	10.78	97	822869	10.46	ug/L	98
19) Carbon tetrachloride	11.08	117	741926	10.16	ug/L	99
20) 1,1-Dichloropropene	11.06	75	726936	10.58	ug/L	98
21) Benzene	11.40	78	1294851	10.71	ug/L	100
22) 1,2-Dichloroethane	11.40	62	304214	10.25	ug/L	98
23) Trichloroethene	12.52	95	553134	10.32	ug/L	97
24) 1,2-Dichloropropane	12.87	63	424249	10.72	ug/L	100
25) Dibromomethane	13.08	93	163070	10.17	ug/L	94
26) Bromodichloromethane	13.34	83	609166	11.08	ug/L	97
27) cis-1,3-Dichloropropene	14.10	75	481162	10.12	ug/L	98
28) Toluene	14.68	92	909005	10.58	ug/L	100
29) trans-1,3-Dichloropropene	15.02	75	324002	9.87	ug/L	96
30) 1,1,2-Trichloroethane	15.33	83	157337	10.26	ug/L	97
31) Tetrachloroethene	15.64	166	561583	10.43	ug/L	96
32) 1,3-Dichloropropane	15.62	76	314802	10.36	ug/L	97
33) Dibromochloromethane	16.02	129	296407	9.93	ug/L	100
34) 1,2-Dibromomethane	16.23	107	215215	10.17	ug/L	96
35) Chlorobenzene	17.10	112	923229	10.32	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.24	131	357234	10.05	ug/L	99
37) Ethylbenzene	17.29	91	1878989	10.39	ug/L	97
38) Xylene (para & meta)	17.50	106	1307006	20.12	ug/L	97
39) Xylene (Ortho)	18.20	106	580235	10.10	ug/L	98
40) Styrene	18.21	104	806154	9.05	ug/L	96

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

Quantitation Report

248

Data File : d:\hpchem\1\data\c8439.d
Acq On : 10 Jun 95 12:50 am
Sample : 9524292 MS
Misc : 25 ML
Quant Time: Jun 11 11:52 1995

Vial: 15
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.54	173	137925	9.42	ug/L	90
42) Isopropylbenzene	18.86	105	1891664	10.24	ug/L	91
44) Bromobenzene	19.40	156	337092	10.12	ug/L #	91
45) 1,1,2,2-Tetrachloroethane	19.35	83	177178	10.82	ug/L	93
46) 1,2,3-Trichloropropane	19.43	75	202426	10.18	ug/L	98
47) n-Propylbenzene	19.59	91	2496054	10.38	ug/L	100
48) 2-Chlorotoluene	19.76	91	1445432	10.84	ug/L	98
49) 4-Chlorotoluene	19.94	91	1626504	10.27	ug/L m	87
50) 1,3,5-Trimethylbenzene	19.91	105	1440120	9.41	ug/L	98
51) tert-Butylbenzene	20.51	119	1659268	10.46	ug/L	99
52) 1,2,4-Trimethylbenzene	20.59	105	1351226	9.64	ug/L	97
53) sec-Butylbenzene	20.91	105	2402975	10.22	ug/L	99
54) 1,3-Dichlorobenzene	21.11	146	681721	10.03	ug/L	99
55) 4-Isopropyltoluene	21.17	119	1767014	10.06	ug/L	98
56) 1,4-Dichlorobenzene	21.26	146	683550	10.14	ug/L	92
58) 1,2-Dichlorobenzene	21.94	146	518113	10.24	ug/L	99
59) n-Butylbenzene	21.92	91	1987016	10.56	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.35	75	41345	9.94	ug/L #	81
61) 1,2,4-Trichlorobenzene	24.91	180	379103	10.18	ug/L	97
62) Hexachlorobutadiene	25.25	225	438889	9.78	ug/L	98
63) Naphthalene	25.37	128	326156	10.12	ug/L	100
64) 1,2,3-Trichlorobenzene	25.84	180	267534	10.31	ug/L	99
65) Methyl-tert butyl ether	8.05	73	426976	10.52	ug/L	97
66) tert-Butyl Alcohol	7.79	59	12442	20.01	ug/L	100

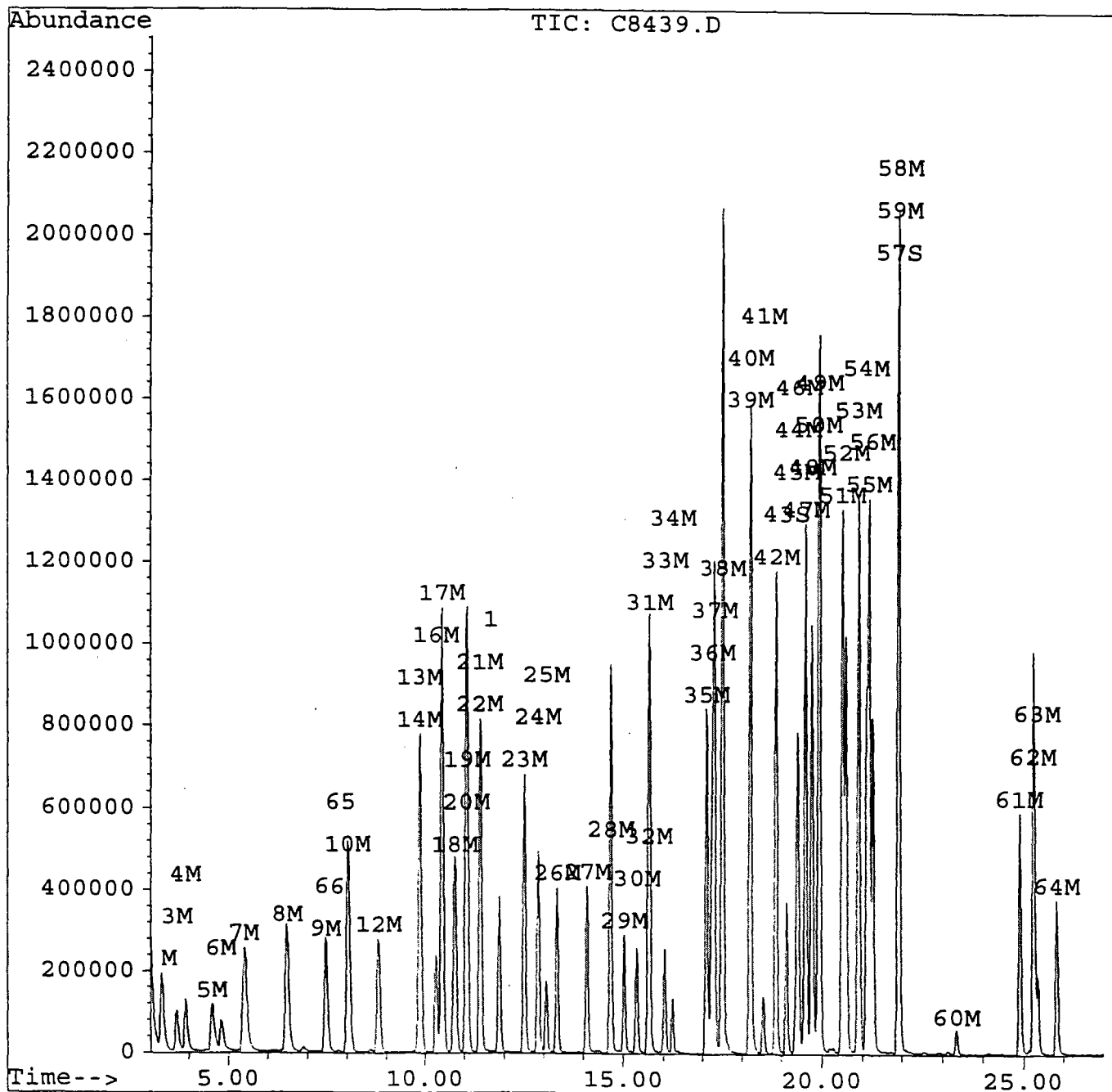
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8439.d
 Acq On : 10 Jun 95 12:50 am
 Sample : 9524292 MS
 Misc : 25 ML
 Quant Time: Jun 11 11:52 1995

Vial: 15 **249**
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration



Quantitation Report

250

Data File : d:\hpcchem\1\data\c8440.d
 Acq On : 10 Jun 95 1:24 am
 Sample : 9524292 MSD
 Misc : 25 ML
 Quant Time: Jun 11 11:55 1995

Vial: 16
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.88	96	716703	5.00	ug/L	0.04
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.13	95	350348	4.90	ug/L	98.01%
57) 1,2-Dichlorobenzene-d4	21.90	152	163946	5.02	ug/L	100.40%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.32	85	591396	10.41	ug/L	99
3) Chloromethane	3.70	50	360319	10.77	ug/L	93
4) Vinyl chloride	3.93	62	402297	10.67	ug/L	98
5) Bromomethane	4.59	94	283158	11.11	ug/L	100
6) Chloroethane	4.81	64	249244	11.28	ug/L	99
7) Trichlorofluoromethane	5.41	101	881043	10.46	ug/L	99
8) 1,1-Dichloroethene	6.49	96	380639	10.29	ug/L	# 87
9) Methylene chloride	7.47	84	332824	8.48	ug/L	99
10) trans-1,2-Dichloroethene	8.03	96	404707	10.36	ug/L	98
12) 1,1-Dichloroethane	8.82	63	826774	10.58	ug/L	97
13) 2,2-Dichloropropane	9.88	77	672563	8.78	ug/L	99
14) cis-1,2-Dichloroethene	9.88	96	374445	10.17	ug/L	98
16) Bromochloromethane	10.29	128	126170	9.78	ug/L	98
17) Chloroform	10.45	83	2065581	28.16	ug/L	99
18) 1,1,1-Trichloroethane	10.78	97	838051	10.32	ug/L	98
19) Carbon tetrachloride	11.08	117	768410	10.19	ug/L	96
20) 1,1-Dichloropropene	11.07	75	741409	10.46	ug/L	97
21) Benzene	11.41	78	1298171	10.40	ug/L	98
22) 1,2-Dichloroethane	11.42	62	300504	9.81	ug/L	97
23) Trichloroethene	12.52	95	562195	10.16	ug/L	95
24) 1,2-Dichloropropane	12.87	63	427188	10.46	ug/L	99
25) Dibromomethane	13.08	93	161749	9.77	ug/L	96
26) Bromodichloromethane	13.34	83	611366	10.77	ug/L	96
27) cis-1,3-Dichloropropene	14.10	75	473608	9.65	ug/L	99
28) Toluene	14.68	92	906966	10.23	ug/L	98
29) trans-1,3-Dichloropropene	15.02	75	322618	9.52	ug/L	99
30) 1,1,2-Trichloroethane	15.34	83	159756	10.10	ug/L	88
31) Tetrachloroethene	15.64	166	568728	10.24	ug/L	99
32) 1,3-Dichloropropane	15.62	76	313072	9.98	ug/L	99
33) Dibromochloromethane	16.04	129	301538	9.79	ug/L	95
34) 1,2-Dibromomethane	16.23	107	216911	9.93	ug/L	97
35) Chlorobenzene	17.10	112	927402	10.04	ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.24	131	348814	9.51	ug/L	96
37) Ethylbenzene	17.29	91	1911593	10.24	ug/L	97
38) Xylene (para & meta)	17.50	106	1327463	19.80	ug/L	93
39) Xylene (Ortho)	18.20	106	587302	9.90	ug/L	98
40) Styrene	18.22	104	884037	9.62	ug/L	99

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

Quantitation Report

Data File : d:\hpcchem\1\data\c8440.d
Acq On : 10 Jun 95 1:24 am
Sample : 9524292 MSD
Misc : 25 ML
Quant Time: Jun 11 11:55 1995

Vial: 16
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

251

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue May 30 13:15:19 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.54	173	137754	9.11	ug/L	84
42) Isopropylbenzene	18.86	105	1920459	10.07	ug/L m	0
44) Bromobenzene	19.41	156	342518	9.96	ug/L #	89
45) 1,1,2,2-Tetrachloroethane	19.36	83	183012	10.83	ug/L	95
46) 1,2,3-Trichloropropane	19.42	75	203346	9.91	ug/L #	50
47) n-Propylbenzene	19.60	91	2537852	10.23	ug/L	100
48) 2-Chlorotoluene	19.76	91	1474285	10.71	ug/L	98
49) 4-Chlorotoluene	19.94	91	1638914	10.03	ug/L	85
50) 1,3,5-Trimethylbenzene	19.91	105	1540369	9.76	ug/L	97
51) tert-Butylbenzene	20.51	119	1688268	10.31	ug/L	99
52) 1,2,4-Trimethylbenzene	20.59	105	1447436	10.01	ug/L	96
53) sec-Butylbenzene	20.91	105	2438076	10.05	ug/L	99
54) 1,3-Dichlorobenzene	21.11	146	685900	9.78	ug/L	97
55) 4-Isopropyltoluene	21.17	119	1811097	9.99	ug/L	97
56) 1,4-Dichlorobenzene	21.26	146	693250	9.97	ug/L	92
58) 1,2-Dichlorobenzene	21.94	146	524747	10.05	ug/L	96
59) n-Butylbenzene	21.92	91	1997962	10.29	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.36	75	40349	9.40	ug/L	85
61) 1,2,4-Trichlorobenzene	24.91	180	391292	10.19	ug/L	96
62) Hexachlorobutadiene	25.26	225	451533	9.75	ug/L	99
63) Naphthalene	25.37	128	339973	10.23	ug/L	100
64) 1,2,3-Trichlorobenzene	25.84	180	279525	10.44	ug/L	96
65) Methyl-tert butyl ether	8.06	73	424339	10.13	ug/L	97
66) tert-Butyl Alcohol	7.76	59	11627	18.12	ug/L	100

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

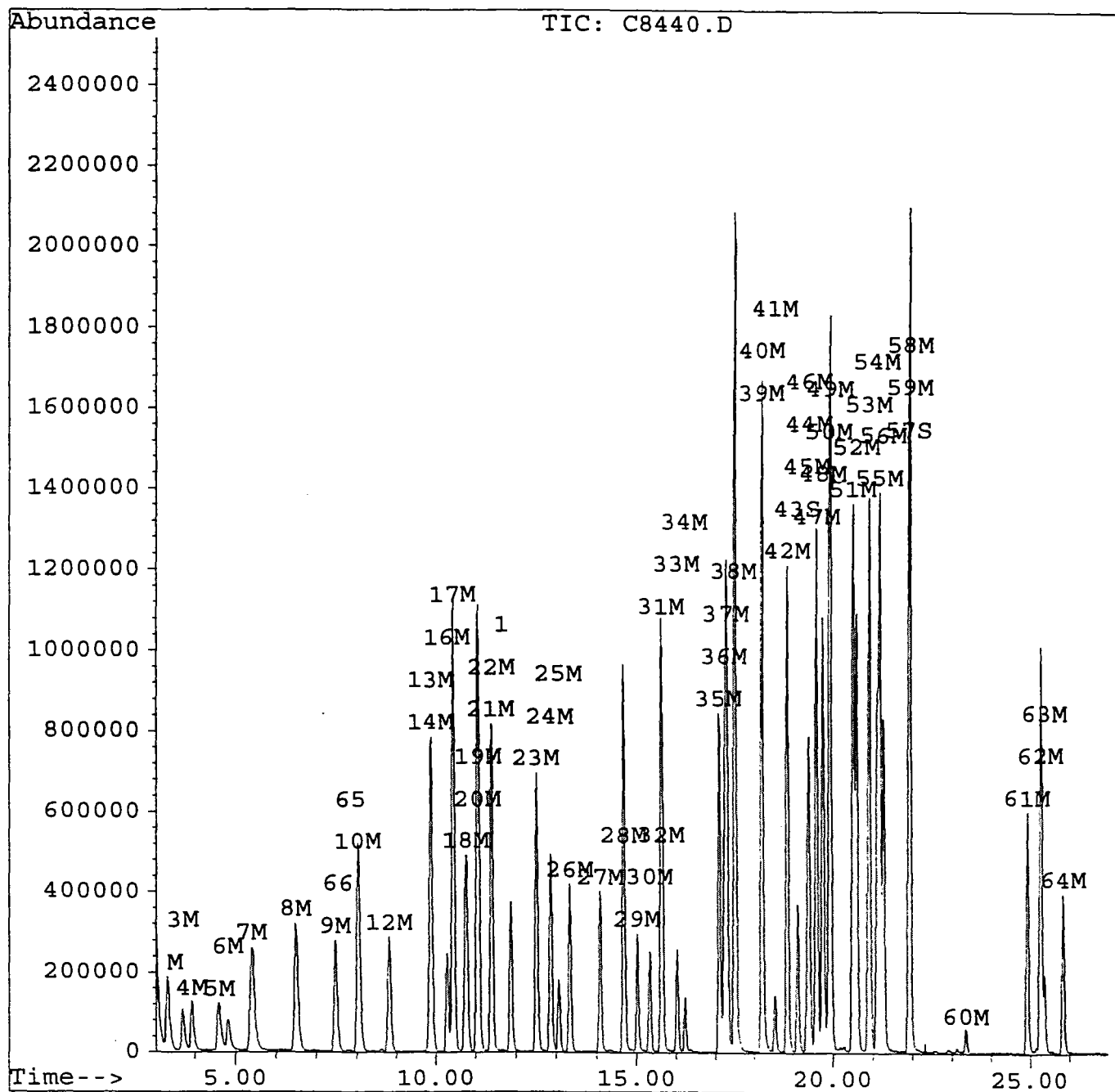
Quantitation Report

Data File : d:\hpchem\1\data\c8440.d
 Acq On : 10 Jun 95 1:24 am
 Sample : 9524292 MSD
 Misc : 25 ML
 Quant Time: Jun 11 11:55 1995

Vial: 16
 Operator: SRK
 Inst : 5972 - In
 Multiplr: 1.00

252

Method : c:\HPCHEM\1\METHODS\VOA524.M
 Title : 524.2 Purgable Organics
 Last Update : Tue May 30 13:15:19 1995
 Response via : Multiple Level Calibration



METALS DATA PACKAGE

COVER PAGE - METALS ANALYSES DATA PACKAGE

Lab Name: EMSL ANALYTICAL, INC. Contract: _____

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

SOW No.: _____

Client Sample ID

Lab Sample ID

Bldg. 2567 MW1-2926925
Bldg. 2567 MW2-2926926
Bldg. 2567 MW3-2926947
Bldg. 2567 MW4-2926948
Bldg. 2567 MW5-2931783
Duplicate

95-24199
95-24200
95-24201
95-24202
95-24203
95-24204

Were ICP interelement corrections applied? Yes/No NOWere ICP background corrections applies? Yes/No NOIf yes - were raw data generated before application of background correction? Yes/No NOComments: ICP was not used

I certify that this 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 hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Paul V. LaraiaName: Paul V. LaraiaDate: 06-28-95Title: Laboratory Manager

EMSL

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFPM-PW-EV
Building 173
Fort Monmouth, NJ 07703

Project #: 09508472
Date Received: 05/26/95 07:00

The following results are for Lead

Lab #	Conc.	Unit	Client Designation
95 0024199	<0.0025	mg/l	Bldg.2567 MW1-2926925
95 0024200	<0.0025	mg/l	Bldg.2567 MW2-2926926
95 0024201	0.0027	mg/l	Bldg.2567 MW3-2926947
95 0024202	<0.0025	mg/l	Bldg.2567 MW4-2926948
95 0024203	0.0040	mg/l	Bldg.2567 MW5-2931783
95 0024204	<0.0025	mg/l	Duplicate

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: EMSL Analytical Contract: _____

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

Initial Calibration Source: Inorganic VenturesContinuing Calibration Source: SPEXConcentration Units: **mg/l**

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R (1)	True	Found	%R (1)	Found	%R (1)	
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	0.025	0.02643	106	0.025	0.02536	101.4			F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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

Lab Name: **EMSL ANALYTICAL** Contract: _____

Lab Code: _____ Case No.: _____ AS No.: _____ SDG No.: _____

Preparation Blank Matrix (soil/water):	Water
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Preparation Blank Concentration Units (mg/l or mg/kg): _____ **mg/l**

[illegible]

EMSL

SPIKE SAMPLE RECOVERY

Lab Name: **EMSL Analytical** Contract: _____ Lab Sample No.: **95-23482**

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

Matrix (soil/water): **Water** Level (low/med): **Low**

% Solids for Sample: _____

Concentration Units (mg/l or mg/kg dry weight): **mg/l**

	Control	Spiked		Sample		Spike			
	Limit	Sample		Result		Added			
Analyte	%R	Result (SSR)	C	(SR)	C	(SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	75-125	1.1		<0.0025		1	110		F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments: _____

DUPLICATES

Lab Name: **EMSL ANALYTICAL** Contract: _____ Lab Sample No.: **95-23482**

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

Matrix (soil/water): **Water** :Level (low/med.): **Low**

% Solids for Sample: _____ % Solids for Duplicate: _____

Concentration units (mg/l or mg/kg dry weight): mg/l

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	+/-20%	0.0023		0.0023		0.0		F
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

LABORATORY CONTROL SAMPLE

Lab Name: **EMSL Analytical** Contract: _____

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

Solid LCS Source: _____

Aqueous LCS Source: Inorganic Ventures

Analyte	Aqueous (mg/l)			Solid (mg/kg)				% R
	True	Found	% R	True	Found	C	Limits	
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	1.00	1.10	110				80-120%	
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

EMSL

New Jersey Department of Environmental Protection
Division of Water Resources
Bureau of Underground Storage Tanks
CN-029, Trenton, New Jersey 08625

LABORATORY AUTHENTICATION STATEMENT

I certify under penalty of law, where applicable, this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.



Laboratory Manager (as defined in N.J.A.C. 7:18)