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NWS EARLE
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CEIMIC
CORPORATION
"Analytical Chemistry for Environmental Management"

March 9, 1992

Ms. Jill Hartnell
Halliburton NUS Environ Corp.
999 West Valley Road
Wayne, PA 19087

Dear Ms. Hartnell:

Enclosed is a copy of the data package for the analysis of 9 soil and 3 aqueous samples which were received at CEIMIC on February 4, 1992 under the Project# 3916, SDG# E-S-10.

Should you have any questions regarding the enclosed data, please don't hesitate to call me.

Sincerely,

Miguel Muzzio
Organic Lab Director

Enclosure

10 Dean Knauss Drive, Narragansett, R.I. 02882 • (401) 782-8900 • FAX (401) 782-8905

TABLE OF CONTENTS

Pages

Project Narratives 1

Laboratory Certification..... 7

Chain-of-Custody..... 9

Organic Summary Package..... 11

Surrogate Spike Analysis Results..... 37

Blank Data..... 41

Volatiles..... 66

a. QC Summary..... 67

b. Sample Data..... 92

c. Standards Data.....278

TPH Analyses.....388

Total Metals.....391

PROJECT NARRATIVE

PROJECT NARRATIVE

The enclosed data package is in response to the Project #3916 (SDG# E-S-10). Under this SDG, there are 12 VOA analyses for 9 soil, and 3 aqueous samples which were received at CEIMIC on February 4, 1992. The analyses were performed according to EPA Method 624 with the following modifications. The surrogate analytes and Internal Standards used are according to the CLP SOW/90. The BFB tune time was 12 hours and not 24 hours. The compounds reported are the Target Compound List (TCL). A 5 levels initital calibration according to the CLP SOW/90 was used. The continuing calibrations follow the CLP SOW guidelines with some deviations.

This data package included the analysis of samples for SDG E-S-10:

CLIENT ID	ANALYSIS
E-S-10	VOA
E-S-11	VOA
E-S-13	VOA
E-S-14	VOA
E-S-15	VOA
E-S-15-D	VOA
E-S-16	VOA
E-S-17	VOA
E-S-18	VOA
E-FB-02	VOA
E-RB-02	VOA
E-TB-02	VOA

The submitted data covers the analysis of the volatile (VOA) fractions and their associated blanks and QA/QC. CEIMIC would like to highlight the following points pertaining to the analyses performed for this case:

(1) INSTRUMENTATION AND COLUMN IDENTIFICATION

The following instruments are used for the analyses:

GC/MS ANALYSIS

A. VOA

MS3: HP 5970B GC/MS using 30 m x 0.53 mm ID DB-624 megabore column
MS7: HP 5970B GC/MS using 6' x 2 mm ID SP-1000 glass packed column

(2) SAMPLE INFORMATION

Additional qualifier: "x"

An "x" qualifier is flagged by Formaster software whenever the data is manually edited.

A. VOA Fraction

The VOA reconstructed ion chromatograms are labelled as:

IS1	Bromochloromethane	IS
IS2	1,4-Difluorobenzene	IS
IS3	Chlorobenzene-d5	IS
SS1	Toluene-d8	SMC
SS2	Bromofluorobenzene	SMC
SS3	1,2-Dichloroethane-d4	SMC

IS	Internal Standard
SMC	System Monitoring Compound

The sample E-S-15-D was ran out of the 12 hour BFB tune shift but within the 24 hour EPA 624 tune shift. The Xylenes are reported as Total Xylenes. The initial calibration used ranged from 10 to 400 ppb per isomer, which for Total Xylenes adds to 1,200 ppb. Therefore the reported number for samples ES-10, E-S-14, E-S-15, E-S-15D and E-S-17 are not out of calibration as it appears.

For the Continuing Calibration Check on 2/5/92, File C9267 there are seven compounds with high %D,and 1 compound with low RRF.

For the Continuing Calibration Check on 2/6/92, File C9282 there are two compounds with high %D, and 1 compound with low RRF.

For the Continuing Calibration Check on 2/8/92, File C9300 there are four compounds with high %D, and 1 compound with low RRF.

DEVIATIONS FROM THE SOW

None other than specified above.

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 has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Miguel Muzzio
Organic Lab Director

March 9, 1992

TOTAL LEAD NARRATIVE

SDG: E-S-10
Ceimic Lab ID: 920046

The following samples were received at Ceimic on 4 February 92: E-S-10, E-S-11, E-S-13, E-S-14, E-S-15, E-S-15D, E-S-16, E-S-17, E-S-18, E-FB-02, and E-RB-02.

The above samples were analyzed for total lead and cyanide in accordance with SOW ILMO2.0.

Comments on Data Package:

QA/QC Samples:
EPA-LV ICV-4 (1290) was used for the ICV, CCV, and LCSW samples for the furnace analysis of lead. ICF LCS (0287) was used as the LCSS.

Observations:
None.

Deviation from SOW:
None.

End of case narrative.

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. Releases of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Phyllis Shiller

Phyllis Shiller
Inorganic Laboratory
Manager

3/8/92
Date

TPH NARRATIVE

Client: Halliburton NUS Environmental Corporation

Case: 3916

Total Petroleum Hydrocarbons:

The following samples, E-S-10, E-S-11, E-S-13, E-S-14, E-S-15, E-S-15D, E-S-16, E-S-17, E-S-18, E-FB-02 and E-RB-02, were analyzed for Total Petroleum Hydrocarbons (TPH) in accordance with EPA method 418.1.

No unusual observations were noted.

Henry Leibovitz
GC Laboratory
Manager

3-9-92

Date

LABORATORY CERTIFICATION

STATE OF NEW JERSEY

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Let's protect our earth

Certifies That

Ceimic Corporation
100 Dean Knauss Drive
Narragansett, RI 02882

having duly met the requirements of the

Regulations Governing Laboratory Certification
And Standards Of Performance N.J.A.C. 7:18 et. seq.

is hereby approved as a

State Certified Water Laboratory

To perform the analyses as indicated on the Annual Certified Parameter List
which must accompany this certificate to be valid

#78817
PERMANENT CERTIFICATION NUMBER

February 27, 1991
DATE

COMMISSIONER
DEPARTMENT OF ENVIRONMENTAL PROTECTION

This c rtificati n is subj ct to unannounced lab rat ry inspecti ns as sp cifi d by N.J.A.C. 7:18-2.11(d) and agreed to by th Lab rat ry Manag r n filing the applicati n

TO BE CONSPICUOUSLY DISPLAYED AT THE LABORATORY WITH THE ANNUAL CERTIFIED PARAMETER LIST.

CHAIN-OF-CUSTODY

#2

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: 3916 | SITE NAME: NWS Earle

SAMPLERS (SIGNATURE): RGPatts, J Hartness

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA+15 + Kl	TPH/lead					REMARKS
0015	2-3-92	1040		X	E-S-10	4	3	1					
0016		1150		X	E-S-11	4	3	1					
0017		1155		X	E-S-13	4	3	1					
0018		1255		X	E-S-14	4	3	1					
0019		1400		X	E-S-15	4	3	1					
0020		1400		X	E-S-15D	4	3	1					
0021		1250		X	E-S-16	4	3	1					
0022		1315		X	E-S-17	4	3	1					
0023		1335		X	E-S-18	4	3	1					
0024		1450		X	E-RB-02	4	3	1					Rinsate Blank
0025		1500		X	E-TB-02	3	3						Trip Blank
0026		1455		X	E-FB-02	4	3	1					Field Blank

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
J Hartness	2-3-92 1700				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS:	
		Chris Shelton	2/4/92 9145	Shipped via Fed Exp Airbill No. 3742089864	

NUS 440 34 0484

10

ORGANIC SUMMARY PACKAGE

2. TCL AND TIC

(1) VOA
(2) SV
(3) PEST

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-FB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-10

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1555

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. _____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-FB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-10

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1555

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. _____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-RB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-11

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1553

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. ____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-RB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-11

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1553

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. ____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-10

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-01

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9273

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 8 Date Analyzed: 02/06/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	620	J
67-64-1	Acetone	1400	U
75-15-0	Carbon Disulfide	1400	U
75-35-4	1,1-Dichloroethene	1400	U
75-34-3	1,1-Dichloroethane	1400	U
540-59-0	1,2-Dichloroethene (total)	1400	U
67-66-3	Chloroform	1400	U
107-06-2	1,2-Dichloroethane	1400	U
78-93-3	2-Butanone	1400	U
71-55-6	1,1,1-Trichloroethane	800	J
56-23-5	Carbon Tetrachloride	1400	U
75-27-4	Bromodichloromethane	1400	U
78-87-5	1,2-Dichloropropane	1400	U
10061-01-5	cis-1,3-Dichloropropene	1400	U
79-01-6	Trichloroethene	1400	U
124-48-1	Dibromochloromethane	1400	U
79-00-5	1,1,2-Trichloroethane	1400	U
71-43-2	Benzene	1400	U
10061-02-6	trans-1,3-Dichloropropene	1400	U
75-25-2	Bromoform	1400	U
108-10-1	4-Methyl-2-Pentanone	1400	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	1400	U
79-34-5	1,1,2,2-Tetrachloroethane	1400	U
108-88-3	Toluene	710	J
108-90-7	Chlorobenzene	1400	U
100-41-4	Ethylbenzene	1400	U
100-42-5	Styrene	1400	U
1330-20-7	Xylene (total)	81000	E

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-10

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-01

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9273

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 8 Date Analyzed: 02/06/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Unknown	11.49	4100	J
2. 000000	Unknown	13.80	3400	J
3. 000000	Aliphatic hydrocarbon	14.68	3300	J
4. 000000	Unknown	15.54	1100	J
5. 000000	C8H14 isomer	15.95	1200	J
6. 000000	Unknown	16.52	1200	J
7. 000000	Unknown	16.74	2200	J
8. 000000	C9H20 isomer	17.89	3100	J
9. 000000	Aliphatic hydrocarbon	18.75	4200	J
10. 000000	C10H20 isomer	19.97	1600	J
11. 000000	Aliphatic hydrocarbon	20.63	12000	J
12. 000000	C3-benzene isomer	21.14	52000	J
13. 000000	Aliphatic hydrocarbon	20.87	4300	J
14. 000000	C3-benzene isomer	21.34	39000	J
15. 000000	C3-benzene isomer	21.69	27000	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-11

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-02

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9274

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 9 Date Analyzed: 02/06/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	620	J
67-64-1	Acetone	1400	U
75-15-0	Carbon Disulfide	1400	U
75-35-4	1,1-Dichloroethene	1400	U
75-34-3	1,1-Dichloroethane	1400	U
540-59-0	1,2-Dichloroethene (total)	1400	U
67-66-3	Chloroform	1400	U
107-06-2	1,2-Dichloroethane	1400	U
78-93-3	2-Butanone	1400	U
71-55-6	1,1,1-Trichloroethane	720	J
56-23-5	Carbon Tetrachloride	1400	U
75-27-4	Bromodichloromethane	1400	U
78-87-5	1,2-Dichloropropane	1400	U
10061-01-5	cis-1,3-Dichloropropene	1400	U
79-01-6	Trichloroethene	1400	U
124-48-1	Dibromochloromethane	1400	U
79-00-5	1,1,2-Trichloroethane	1400	U
71-43-2	Benzene	1400	U
10061-02-6	trans-1,3-Dichloropropene	1400	U
75-25-2	Bromoform	1400	U
108-10-1	4-Methyl-2-Pentanone	1400	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	1400	U
79-34-5	1,1,2,2-Tetrachloroethane	1400	U
108-88-3	Toluene	590	J
108-90-7	Chlorobenzene	1400	U
100-41-4	Ethylbenzene	600	J
100-42-5	Styrene	1400	U
1330-20-7	Xylene (total)	4700	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-11

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-02

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9274

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 9 Date Analyzed: 02/06/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Aliphatic hydrocarbon	10.81	4000	J
2. 000000	Unknown	11.53	4400	J
3. 000000	C7H14 isomer	12.82	2300	J
4. 000000	Aliphatic hydrocarbon	13.25	2300	J
5. 000000	Aliphtaic hydrocarbon	13.82	2300	J
6. 000000	Aliphatic hydrocarbon	14.42	1600	J
7. 000000	Aliphatic hydrocarbon	14.68	2200	J
8. 000000	C8H18 isomer	15.58	1500	J
9. 000000	C9H20 isomer	16.75	2200	J
10. 000000	C9H20 isomer	17.88	1500	J
11. 000000	Aliphatic hydrocarbon	18.75	1200	J
12. 000000	Aliphatic hydrocarbon	20.59	2500	J
13. 000000	C3-benzene isomer	21.09	3000	J
14. 000000	C3-benzene isomer	21.31	2300	J
15. 000000	Aliphatic hydrocarbon	21.64	3600	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-13

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1566

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. 7 Date Analyzed: 02/05/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	10	J
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-13

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1566

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. 7 Date Analyzed: 02/05/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-14

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-04

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9305

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 14 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 20.0(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	7300	U
74-83-9	Bromomethane	7300	U
75-01-4	Vinyl Chloride	7300	U
75-00-3	Chloroethane	7300	U
75-09-2	Methylene Chloride	7300	U
67-64-1	Acetone	7300	U
75-15-0	Carbon Disulfide	7300	U
75-35-4	1,1-Dichloroethene	7300	U
75-34-3	1,1-Dichloroethane	7300	U
540-59-0	1,2-Dichloroethene (total)	7300	U
67-66-3	Chloroform	7300	U
107-06-2	1,2-Dichloroethane	7300	U
78-93-3	2-Butanone	7300	U
71-55-6	1,1,1-Trichloroethane	3300	J
56-23-5	Carbon Tetrachloride	7300	U
75-27-4	Bromodichloromethane	7300	U
78-87-5	1,2-Dichloropropane	7300	U
10061-01-5	cis-1,3-Dichloropropene	7300	U
79-01-6	Trichloroethene	7300	U
124-48-1	Dibromochloromethane	7300	U
79-00-5	1,1,2-Trichloroethane	7300	U
71-43-2	Benzene	7300	U
10061-02-6	trans-1,3-Dichloropropene	7300	U
75-25-2	Bromoform	7300	U
108-10-1	4-Methyl-2-Pentanone	7300	U
591-78-6	2-Hexanone	7300	U
127-18-4	Tetrachloroethene	7300	U
79-34-5	1,1,2,2-Tetrachloroethane	7300	U
108-88-3	Toluene	23000	
108-90-7	Chlorobenzene	7300	U
100-41-4	Ethylbenzene	15000	
100-42-5	Styrene	7300	U
1330-20-7	Xylene (total)	350000	E

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-14

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-04

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9305

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 14 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 20.0(uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Aliphatic hydrocarbon	10.74	34000	J
2. 000000	Unknown	11.46	44000	J
3. 000000	C7H14 isomer	12.77	13000	J
4. 000000	Aliphatic hydrocarbon	13.18	22000	J
5. 000000	Aliphatic hydrocarbon	13.79	26000	J
6. 000000	Aliphatic hydrocarbon	14.37	12000	J
7. 000000	Aliphatic hydrocarbon	14.65	15000	J
8. 000000	Unknown	15.53	9400	J
9. 000000	Unknown	16.72	14000	J
10. 000000	Aliphatic hydrocarbon	18.73	17000	J
11. 000000	Aliphatic hydrocarbon	20.59	26000	J
12. 000000	Unknown	20.83	13000	J
13. 000000	C3-benzene isomer	21.08	120000	J
14. 000000	C3-benzene isomer	21.28	60000	J
15. 000000	C3-benzene isomer	21.63	56000	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-15

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-05

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9308

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 17 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 50.0(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	3000	U
74-83-9	Bromomethane	3000	U
75-01-4	Vinyl Chloride	3000	U
75-00-3	Chloroethane	3000	U
75-09-2	Methylene Chloride	630	BJ
67-64-1	Acetone	3000	U
75-15-0	Carbon Disulfide	3000	U
75-35-4	1,1-Dichloroethene	3000	U
75-34-3	1,1-Dichloroethane	3000	U
540-59-0	1,2-Dichloroethene (total)	3000	U
67-66-3	Chloroform	3000	U
107-06-2	1,2-Dichloroethane	3000	U
78-93-3	2-Butanone	3000	U
71-55-6	1,1,1-Trichloroethane	1400	J
56-23-5	Carbon Tetrachloride	3000	U
75-27-4	Bromodichloromethane	3000	U
78-87-5	1,2-Dichloropropane	3000	U
10061-01-5	cis-1,3-Dichloropropene	3000	U
79-01-6	Trichloroethene	3000	U
124-48-1	Dibromochloromethane	3000	U
79-00-5	1,1,2-Trichloroethane	3000	U
71-43-2	Benzene	3000	U
10061-02-6	trans-1,3-Dichloropropene	3000	U
75-25-2	Bromoform	3000	U
108-10-1	4-Methyl-2-Pentanone	3000	U
591-78-6	2-Hexanone	3000	U
127-18-4	Tetrachloroethene	3000	U
79-34-5	1,1,2,2-Tetrachloroethane	3000	U
108-88-3	Toluene	3500	
108-90-7	Chlorobenzene	3000	U
100-41-4	Ethylbenzene	790	J
100-42-5	Styrene	3000	U
1330-20-7	Xylene (total)	130000	E

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-15

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-05

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9308

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 17 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 50.0(uL)

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Aliphatic hydrocarbon	16.71	4200	J
2. 000000	Aliphatic hydrocarbon	20.59	11000	J
3. 000000	Aliphatic hydrocarbon	20.82	4200	J
4. 000000	C3-benzene isomer	21.10	80000	J
5. 000000	C3-benzene isomer	21.27	43000	J
6. 000000	C3-benzene isomer	21.65	31000	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-15-D

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-06

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9286

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 12 Date Analyzed: 02/07/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 10.0(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14000	U
74-83-9	Bromomethane	14000	U
75-01-4	Vinyl Chloride	14000	U
75-00-3	Chloroethane	14000	U
75-09-2	Methylene Chloride	14000	U
67-64-1	Acetone	14000	U
75-15-0	Carbon Disulfide	14000	U
75-35-4	1,1-Dichloroethene	14000	U
75-34-3	1,1-Dichloroethane	14000	U
540-59-0	1,2-Dichloroethene (total)	14000	U
67-66-3	Chloroform	14000	U
107-06-2	1,2-Dichloroethane	14000	U
78-93-3	2-Butanone	14000	U
71-55-6	1,1,1-Trichloroethane	14000	U
56-23-5	Carbon Tetrachloride	14000	U
75-27-4	Bromodichloromethane	14000	U
78-87-5	1,2-Dichloropropane	14000	U
10061-01-5	cis-1,3-Dichloropropene	14000	U
79-01-6	Trichloroethene	14000	U
124-48-1	Dibromochloromethane	14000	U
79-00-5	1,1,2-Trichloroethane	14000	U
71-43-2	Benzene	14000	U
10061-02-6	trans-1,3-Dichloropropene	14000	U
75-25-2	Bromoform	14000	U
108-10-1	4-Methyl-2-Pentanone	14000	U
591-78-6	2-Hexanone	14000	U
127-18-4	Tetrachloroethene	14000	U
79-34-5	1,1,2,2-Tetrachloroethane	14000	U
108-88-3	Toluene	18000	
108-90-7	Chlorobenzene	14000	U
100-41-4	Ethylbenzene	4600	J
100-42-5	Styrene	14000	U
1330-20-7	Xylene (total)	510000	E

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-15-D

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-06

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9286

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 12 Date Analyzed: 02/07/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 10.0(uL)

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Aliphatic hydrocarbon	11.48	20000	J
2. 000000	Aliphatic hydrocarbon	18.74	13000	J
3. 000000	Aliphatic hydrocarbon	20.59	34000	J
4. 000000	Aliphatic hydrocarbon	20.85	16000	J
5. 000000	C3-benzene isomer	21.10	260000	J
6. 000000	C3-benzene isomer	21.30	130000	J
7. 000000	C3-benzene isomer	21.65	92000	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-16

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-07

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9303

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 10 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 200 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	690	U
74-83-9	Bromomethane	690	U
75-01-4	Vinyl Chloride	690	U
75-00-3	Chloroethane	690	U
75-09-2	Methylene Chloride	440	BJ
67-64-1	Acetone	690	U
75-15-0	Carbon Disulfide	690	U
75-35-4	1,1-Dichloroethene	690	U
75-34-3	1,1-Dichloroethane	690	U
540-59-0	1,2-Dichloroethene (total)	690	U
67-66-3	Chloroform	690	U
107-06-2	1,2-Dichloroethane	690	U
78-93-3	2-Butanone	690	U
71-55-6	1,1,1-Trichloroethane	1300	
56-23-5	Carbon Tetrachloride	170	J
75-27-4	Bromodichloromethane	690	U
78-87-5	1,2-Dichloropropane	690	U
10061-01-5	cis-1,3-Dichloropropene	690	U
79-01-6	Trichloroethene	90	J
124-48-1	Dibromochloromethane	690	U
79-00-5	1,1,2-Trichloroethane	690	U
71-43-2	Benzene	690	U
10061-02-6	trans-1,3-Dichloropropene	690	U
75-25-2	Bromoform	690	U
108-10-1	4-Methyl-2-Pentanone	690	U
591-78-6	2-Hexanone	690	U
127-18-4	Tetrachloroethene	100	J
79-34-5	1,1,2,2-Tetrachloroethane	690	U
108-88-3	Toluene	690	U
108-90-7	Chlorobenzene	690	U
100-41-4	Ethylbenzene	690	U
100-42-5	Styrene	690	U
1330-20-7	Xylene (total)	4100	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-16

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-07

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9303

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 10 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 200 (uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	C8H18 isomer	11.46	3800	J
2. 000000	Aliphatic hydrocarbon	13.18	1700	J
3. 000000	Aliphatic hydrocarbon	13.79	3300	J
4. 000000	Aliphatic hydrocarbon	16.29	970	J
5. 000000	Unknown	16.49	900	J
6. 000000	Unknown	16.72	3700	J
7. 000000	C9H20 isomer	17.86	1000	J
8. 000000	Unknown	18.35	4500	J
9. 000000	Aliphatic hydrocarbon	18.72	900	J
10. 000000	Aliphatic hydrocarbon	19.48	1600	J
11. 000000	Unknown	19.95	1700	J
12. 000000	Aliphatic hydrocarbon	20.58	9200	J
13. 000000	C3-benzene isomer	21.07	7400	J
14. 000000	C3-benzene isomer	21.28	12000	J
15. 000000	C3-benzene isomer	21.66	7300	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-17

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-08

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9306

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 16 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 25.0(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6000	U
74-83-9	Bromomethane	6000	U
75-01-4	Vinyl Chloride	6000	U
75-00-3	Chloroethane	6000	U
75-09-2	Methylene Chloride	6000	U
67-64-1	Acetone	6000	U
75-15-0	Carbon Disulfide	6000	U
75-35-4	1,1-Dichloroethene	6000	U
75-34-3	1,1-Dichloroethane	6000	U
540-59-0	1,2-Dichloroethene (total)	6000	U
67-66-3	Chloroform	6000	U
107-06-2	1,2-Dichloroethane	6000	U
78-93-3	2-Butanone	6000	U
71-55-6	1,1,1-Trichloroethane	2600	J
56-23-5	Carbon Tetrachloride	6000	U
75-27-4	Bromodichloromethane	6000	U
78-87-5	1,2-Dichloropropane	6000	U
10061-01-5	cis-1,3-Dichloropropene	6000	U
79-01-6	Trichloroethene	6000	U
124-48-1	Dibromochloromethane	6000	U
79-00-5	1,1,2-Trichloroethane	6000	U
71-43-2	Benzene	8700	
10061-02-6	trans-1,3-Dichloropropene	6000	U
75-25-2	Bromoform	6000	U
108-10-1	4-Methyl-2-Pentanone	6000	U
591-78-6	2-Hexanone	6000	U
127-18-4	Tetrachloroethene	6000	U
79-34-5	1,1,2,2-Tetrachloroethane	6000	U
108-88-3	Toluene	110000	
108-90-7	Chlorobenzene	6000	U
100-41-4	Ethylbenzene	31000	
100-42-5	Styrene	6000	U
1330-20-7	Xylene (total)	250000	E

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-17

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-08

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9306

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 16 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 25.0(uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 107835	2 Methyl pentane	6.64	30000	J
2. 000000	Unknown	7.26	17000	J
3. 000000	Unknown	9.16	20000	J
4. 000000	Aliphatic hydrocarbon	10.78	39000	J
5. 000000	Unknown	11.50	26000	J
6. 000000	Aliphatic hydrocarbon	13.20	15000	J
7. 000000	Aliphatic hydrocarbon	13.81	14000	J
8. 000000	Aliphatic hydrocarbon	14.66	15000	J
9. 000000	Aliphatic hydrocarbon	16.74	14000	J
10. 000000	C9H20 isomer	18.74	15000	J
11. 000000	Aliphatic hydrocarbon	20.60	32000	J
12. 000000	Unknown	20.86	19000	J
13. 000000	C3-benzene isomer	21.11	93000	J
14. 000000	C3-benzene isomer	21.29	57000	J
15. 000000	C3-benzene isomer	21.66	43000	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-18

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1590

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. 8 Date Analyzed: 02/08/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	1	BJ
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-18

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1590

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. 8 Date Analyzed: 02/08/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-TB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1554

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. ____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-TB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1554

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. ____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (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

3. SURROGATE SPIKE ANALYSIS RESULTS

(1) VOA
(2) SV
(3) PEST

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	E-FB-02	102	104	97	0	0
02	E-RB-02	101	103	98	0	0
03	E-TB-02	100	105	101	0	0
04	VBLK01	100	100	100	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	E-S-13	107	104	104	0	0
02	E-S-18	103	106	103	0	0
03	VBLK03	101	101	102	0	0
04	VBLK05	100	107	100	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Level:(low/med) MED

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	E-S-10	84	90	95	0	0
02	E-S-11	84	86	94	0	0
03	E-S-14	106	95	100	0	0
04	E-S-15	97	83	98	0	0
05	E-S-15-D	106	103	107	0	0
06	E-S-16	101	86	95	0	0
07	E-S-17	105	100	114	0	0
08	VBLK02	100	102	99	0	0
09	VBLK04	101	102	99	0	0
10	VBLK06	97	99	108	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

5. BLANK DATA

(1) VOA
(2) SV
(3) PEST

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1549 Lab Sample ID: V70204-B1

Date Analyzed: 02/04/92 Time Analyzed: 1113

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

Instrument ID: MS7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-FB-02	920046-10	G1555	1604
02	E-RB-02	920046-11	G1553	1439
03	E-TB-02	920046-12	G1554	1522

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: V70204-B1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1549

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: V70204-B1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1549

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (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

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1564 Lab Sample ID: V70205-B1

Date Analyzed: 02/05/92 Time Analyzed: 1301

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

Instrument ID: MS7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-S-13	920046-03	G1566	1539

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V70205-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1564

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 02/05/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V70205-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1564

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/05/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9268 Lab Sample ID: V30205-B1

Date Analyzed: 02/05/92 Time Analyzed: 2230

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: MS3

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-S-10	920046-01	C9273	0144
02	E-S-11	920046-02	C9274	0237

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30205-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9268

Level: (low/med) MED Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 02/05/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	1200	U
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30205-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9268

Level: (low/med) MED Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 02/05/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK04

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9283 Lab Sample ID: V30206-B1

Date Analyzed: 02/06/92 Time Analyzed: 1608

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: MS3

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 E-S-15-D	920046-06	C9286	0907

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30206-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9283

Level: (low/med) MED Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 02/06/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30206-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9283

Level: (low/med) MED Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 02/06/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK05

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1588 Lab Sample ID: V70208-B1

Date Analyzed: 02/08/92 Time Analyzed: 1054

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

Instrument ID: MS7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-S-18	920046-09	G1590	1302

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK05

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V70208-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1588

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/08/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	1	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK05

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V70208-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1588

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/08/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK06

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9301 Lab Sample ID: V30208-B1

Date Analyzed: 02/08/92 Time Analyzed: 1116

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: MS3

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-S-14	920046-04	C9305	1437
02	E-S-15	920046-05	C9308	1812
03	E-S-16	920046-07	C9303	1305
04	E-S-17	920046-08	C9306	1512

COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK06

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30208-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9301

Level: (low/med) MED Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK06

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30208-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9301

Level: (low/med) MED Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

6. INTERNAL STANDARD AREA DATA

(1) VOA
(2) SV

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): C9267 Date Analyzed: 02/05/92

Instrument ID: MS3 Time Analyzed: 2145

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(CBZ) AREA	#	RT	#
	12 HOUR STD	27991		9.91		134131		12.12		103340		17.67	
	UPPER LIMIT	55982		10.41		268262		12.62		206680		18.17	
	LOWER LIMIT	13996		9.41		67066		11.62		51670		17.17	
	EPA SAMPLE NO.												
01	E-S-10	35051		9.93		129614		12.14		119660		17.69	
02	E-S-11	38893		9.97		154994		12.16		134869		17.71	
03	VBLK02	28535		9.94		124454		12.17		98756		17.69	

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): C9282 Date Analyzed: 02/06/92

Instrument ID: MS3 Time Analyzed: 1439

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	31914	9.87	124539	12.10	105503	17.67
	UPPER LIMIT	63828	10.37	249078	12.60	211006	18.17
	LOWER LIMIT	15957	9.37	62270	11.60	52752	17.17
	EPA SAMPLE NO.						
01	E-S-15-D	35892	9.92	124252	12.13	109136	17.68
02	VBLK04	23984	9.91	97536	12.09	83237	17.66

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): C9300 Date Analyzed: 02/08/92

Instrument ID: MS3 Time Analyzed: 0928

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	31469	9.92	112941	12.13	96472	17.68
	UPPER LIMIT	62938	10.42	225882	12.63	192944	18.18
	LOWER LIMIT	15734	9.42	56470	11.63	48236	17.18
	EPA SAMPLE NO.						
01	E-S-14	27836	9.90	94861	12.10	91248	17.66
02	E-S-15	23950	9.87	102054	12.10	89564	17.67
03	E-S-16	22409	9.90	103270	12.11	88215	17.66
04	E-S-17	26938	9.96	93514	12.15	89254	17.68
05	VBLK06	26349	9.90	118321	12.10	96751	17.67

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): G1548 Date Analyzed: 02/04/92

Instrument ID: MS7 Time Analyzed: 0952

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	49583	9.20	202004	19.46	172321	24.39
	UPPER LIMIT	99166	9.70	404008	19.96	344642	24.89
	LOWER LIMIT	24792	8.70	101002	18.96	86160	23.89
	EPA SAMPLE NO.						
01	E-FB-02	48014	9.20	189520	19.50	162218	24.38
02	E-RB-02	47808	9.20	193343	19.50	164315	24.38
03	E-TB-02	47648	9.20	191371	19.50	164118	24.38
04	VBLK01	52920	9.22	213936	19.48	181169	24.40

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): G1563 Date Analyzed: 02/05/92

Instrument ID: MS7 Time Analyzed: 1200

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	71620	9.21	284855	19.52	244133	24.40
	UPPER LIMIT	143240	9.71	569710	20.02	488266	24.90
	LOWER LIMIT	35810	8.71	142428	19.02	122066	23.90
	EPA SAMPLE NO.						
01	E-S-13	43069	9.20	170146	19.50	142732	24.42
02	VBLK03	69195	9.24	280078	19.50	238244	24.43

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): G1587 Date Analyzed: 02/08/92

Instrument ID: MS7 Time Analyzed: 0931

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

	IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
12 HOUR STD	74162	9.20	297673	19.51	244904	24.39
UPPER LIMIT	148324	9.70	595346	20.01	489808	24.89
LOWER LIMIT	37081	8.70	148836	19.01	122452	23.89
SAMPLE NO.						
8	58543	9.20	229768	19.50	190903	24.38
5	60622	9.20	242299	19.50	207358	24.43

BCM) = Bromochloromethane
DFB) = 1,4-Difluorobenzene
CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

65

VOLATILES

VOLATILES

a. QC SUMMARY

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	E-FB-02	102	104	97	0	0
02	E-RB-02	101	103	98	0	0
03	E-TB-02	100	105	101	0	0
04	VBLK01	100	100	100	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

68

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	E-S-13	107	104	104	0	0
02	E-S-18	103	106	103	0	0
03	VBLK03	101	101	102	0	0
04	VBLK05	100	107	100	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Level: (low/med) MED

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	E-S-10	84	90	95	0	0
02	E-S-11	84	86	94	0	0
03	E-S-14	106	95	100	0	0
04	E-S-15	97	83	98	0	0
05	E-S-15-D	106	103	107	0	0
06	E-S-16	101	86	95	0	0
07	E-S-17	105	100	114	0	0
08	VBLK02	100	102	99	0	0
09	VBLK04	101	102	99	0	0
10	VBLK06	97	99	108	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

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

EPA SAMPLE NO.

VBLK01

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1549 Lab Sample ID: V70204-B1

Date Analyzed: 02/04/92 Time Analyzed: 1113

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

Instrument ID: MS7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-FB-02	920046-10	G1555	1604
02	E-RB-02	920046-11	G1553	1439
03	E-TB-02	920046-12	G1554	1522

COMMENTS:

71

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1564 Lab Sample ID: V70205-B1

Date Analyzed: 02/05/92 Time Analyzed: 1301

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

Instrument ID: MS7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-S-13	920046-03	G1566	1539

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9268 Lab Sample ID: V30205-B1

Date Analyzed: 02/05/92 Time Analyzed: 2230

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: MS3

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-S-10	920046-01	C9273	0144
02	E-S-11	920046-02	C9274	0237

COMMENTS:

73

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK04

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9283 Lab Sample ID: V30206-B1

Date Analyzed: 02/06/92 Time Analyzed: 1608

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: MS3

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-S-15-D	920046-06	C9286	0907

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK05

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1588 Lab Sample ID: V70208-B1

Date Analyzed: 02/08/92 Time Analyzed: 1054

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

Instrument ID: MS7

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-S-18	920046-09	G1590	1302

COMMENTS:

75

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK06

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9301 Lab Sample ID: V30208-B1

Date Analyzed: 02/08/92 Time Analyzed: 1116

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: MS3

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E-S-14	920046-04	C9305	1437
02	E-S-15	920046-05	C9308	1812
03	E-S-16	920046-07	C9303	1305
04	E-S-17	920046-08	C9306	1512

COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9223 BFB Injection Date: 02/01/92

Instrument ID: MS3 BFB Injection Time: 0915

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	23.9
75	30.0 - 66.0% of mass 95	54.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	92.2
175	4.0 - 9.0% of mass 174	7.2 (7.8)1
176	93.0 - 101.0% of mass 174	88.6 (96.1)1
177	5.0 - 9.0% of mass 176	5.7 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD0201	C9224	02/01/92	0944
02	VSTD020	VSTD0201	C9226	02/01/92	1105
03	VSTD100	VSTD0201	C9227	02/01/92	1141
04	VSTD200	VSTD0201	C9228	02/01/92	1222
05	VSTD010	VSTD0201	C9232	02/01/92	1817

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9263 BFB Injection Date: 02/05/92

Instrument ID: MS3 BFB Injection Time: 1534

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.8
75	30.0 - 66.0% of mass 95	44.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	99.2
175	4.0 - 9.0% of mass 174	7.6 (7.7)1
176	93.0 - 101.0% of mass 174	97.8 (98.6)1
177	5.0 - 9.0% of mass 176	6.7 (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:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD0205	C9267	02/05/92	2145
02	VBLK02	V30205-B1	C9268	02/05/92	2230
03	E-S-10	920046-01	C9273	02/06/92	0144
04	E-S-11	920046-02	C9274	02/06/92	0237

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9281 BFB Injection Date: 02/06/92

Instrument ID: MS3 BFB Injection Time: 1152

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	25.8
75	30.0 - 66.0% of mass 95	59.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	73.9
175	4.0 - 9.0% of mass 174	5.6 (7.6)1
176	93.0 - 101.0% of mass 174	73.5 (99.4)1
177	5.0 - 9.0% of mass 176	4.9 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD0206	C9282	02/06/92	1439
02	VBLK04	V30206-B1	C9283	02/06/92	1608
03	E-S-15-D	920046-06	C9286	02/07/92	0907

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: C9299 BFB Injection Date: 02/08/92

Instrument ID: MS3 BFB Injection Time: 0901

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.7
75	30.0 - 66.0% of mass 95	48.3
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	0.5 (0.5)1
174	50.0 - 120.0% of mass 95	93.1
175	4.0 - 9.0% of mass 174	7.4 (7.9)1
176	93.0 - 101.0% of mass 174	93.8 (100.7)1
177	5.0 - 9.0% of mass 176	5.7 (6.1)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD0208	C9300	02/08/92	0928
02	VBLK06	V30208-B1	C9301	02/08/92	1116
03	E-S-16	920046-07	C9303	02/08/92	1305
04	E-S-14	920046-04	C9305	02/08/92	1437
05	E-S-17	920046-08	C9306	02/08/92	1512
06	E-S-15	920046-05	C9308	02/08/92	1812

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1381 BFB Injection Date: 01/04/92

Instrument ID: MS7 BFB Injection Time: 1047

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	26.7
75	30.0 - 66.0% of mass 95	65.6
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	88.4
175	4.0 - 9.0% of mass 174	7.1 (8.0)1
176	93.0 - 101.0% of mass 174	85.6 (96.8)1
177	5.0 - 9.0% of mass 176	6.5 (7.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD0104	G1382	01/04/92	1125
02	VSTD020	VSTD0104	G1383	01/04/92	1205
03	VSTD010	VSTD0104	G1384	01/04/92	1246
04	VSTD100	VSTD0104	G1385	01/04/92	1328
05	VSTD200	VSTD0104	G1386	01/04/92	1422

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1405 BFB Injection Date: 01/11/92

Instrument ID: MS7 BFB Injection Time: 1043

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.3
75	30.0 - 66.0% of mass 95	58.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	91.9
175	4.0 - 9.0% of mass 174	6.4 (7.0)1
176	93.0 - 101.0% of mass 174	91.9 (100.0)1
177	5.0 - 9.0% of mass 176	7.2 (7.8)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD0111	G1406	01/11/92	1121
02	VSTD020	VSTD0111	G1408	01/11/92	1242
03	VSTD200	VSTD0111	G1410	01/11/92	1403
04	VSTD100	VSTD0111	G1412	01/11/92	1553
05	VSTD010	VSTD0111	G1413	01/11/92	1642

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1547 BFB Injection Date: 02/04/92

Instrument ID: MS7 BFB Injection Time: 0911

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) 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	58.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	93.7
175	4.0 - 9.0% of mass 174	7.0 (7.5)1
176	93.0 - 101.0% of mass 174	90.9 (97.0)1
177	5.0 - 9.0% of mass 176	5.7 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD0204	G1548	02/04/92	0952
02	VBLK01	V70204-B1	G1549	02/04/92	1113
03	E-RB-02	920046-11	G1553	02/04/92	1439
04	E-TB-02	920046-12	G1554	02/04/92	1522
05	E-FB-02	920046-10	G1555	02/04/92	1604

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1562 BFB Injection Date: 02/05/92

Instrument ID: MS7 BFB Injection Time: 1100

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.6
75	30.0 - 66.0% of mass 95	57.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	93.5
175	4.0 - 9.0% of mass 174	7.2 (7.7)1
176	93.0 - 101.0% of mass 174	89.9 (96.1)1
177	5.0 - 9.0% of mass 176	5.8 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD0205	G1563	02/05/92	1200
02	VBLK03	V70205-B1	G1564	02/05/92	1301
03	E-S-13	920046-03	G1566	02/05/92	1539

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID: G1586 BFB Injection Date: 02/08/92

Instrument ID: MS7 BFB Injection Time: 0900

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.2
75	30.0 - 66.0% of mass 95	57.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	95.1
175	4.0 - 9.0% of mass 174	7.0 (7.4)1
176	93.0 - 101.0% of mass 174	93.1 (97.9)1
177	5.0 - 9.0% of mass 176	6.8 (7.3)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD0208	G1587	02/08/92	0931
02	VBLK05	V70208-B1	G1588	02/08/92	1054
03	E-S-18	920046-09	G1590	02/08/92	1302

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): C9267 Date Analyzed: 02/05/92

Instrument ID: MS3 Time Analyzed: 2145

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	27991	9.91	134131	12.12	103340	17.67
	UPPER LIMIT	55982	10.41	268262	12.62	206680	18.17
	LOWER LIMIT	13996	9.41	67066	11.62	51670	17.17
	EPA SAMPLE NO.						
01	E-S-10	35051	9.93	129614	12.14	119660	17.69
02	E-S-11	38893	9.97	154994	12.16	134869	17.71
03	VBLK02	28535	9.94	124454	12.17	98756	17.69

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): C9282 Date Analyzed: 02/06/92

Instrument ID: MS3 Time Analyzed: 1439

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	31914	9.87	124539	12.10	105503	17.67
	UPPER LIMIT	63828	10.37	249078	12.60	211006	18.17
	LOWER LIMIT	15957	9.37	62270	11.60	52752	17.17
	EPA SAMPLE NO.						
01	E-S-15-D	35892	9.92	124252	12.13	109136	17.68
02	VBLK04	23984	9.91	97536	12.09	83237	17.66

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

87

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): C9300 Date Analyzed: 02/08/92

Instrument ID: MS3 Time Analyzed: 0928

GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	31469	9.92	112941	12.13	96472	17.68
	UPPER LIMIT	62938	10.42	225882	12.63	192944	18.18
	LOWER LIMIT	15734	9.42	56470	11.63	48236	17.18
	EPA SAMPLE NO.						
01	E-S-14	27836	9.90	94861	12.10	91248	17.66
02	E-S-15	23950	9.87	102054	12.10	89564	17.67
03	E-S-16	22409	9.90	103270	12.11	88215	17.66
04	E-S-17	26938	9.96	93514	12.15	89254	17.68
05	VBLK06	26349	9.90	118321	12.10	96751	17.67

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

88

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): G1548 Date Analyzed: 02/04/92

Instrument ID: MS7 Time Analyzed: 0952

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	49583	9.20	202004	19.46	172321	24.39
	UPPER LIMIT	99166	9.70	404008	19.96	344642	24.89
	LOWER LIMIT	24792	8.70	101002	18.96	86160	23.89
	EPA SAMPLE NO.						
01	E-FB-02	48014	9.20	189520	19.50	162218	24.38
02	E-RB-02	47808	9.20	193343	19.50	164315	24.38
03	E-TB-02	47648	9.20	191371	19.50	164118	24.38
04	VBLK01	52920	9.22	213936	19.48	181169	24.40

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): G1563 Date Analyzed: 02/05/92

Instrument ID: MS7 Time Analyzed: 1200

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	71620	9.21	284855	19.52	244133	24.40
	UPPER LIMIT	143240	9.71	569710	20.02	488266	24.90
	LOWER LIMIT	35810	8.71	142428	19.02	122066	23.90
	EPA SAMPLE NO.						
01	E-S-13	43069	9.20	170146	19.50	142732	24.42
02	VBLK03	69195	9.24	280078	19.50	238244	24.43

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

90

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Lab File ID (Standard): G1587 Date Analyzed: 02/08/92

Instrument ID: MS7 Time Analyzed: 0931

GC Column: SP-1000 ID: 2.00(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	74162	9.20	297673	19.51	244904	24.39
	UPPER LIMIT	148324	9.70	595346	20.01	489808	24.89
	LOWER LIMIT	37081	8.70	148836	19.01	122452	23.89
	EPA SAMPLE NO.						
01	E-S-18	58543	9.20	229768	19.50	190903	24.38
02	VBLK05	60622	9.20	242299	19.50	207358	24.43

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

VOLATILES

b. SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-FB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-10

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1555

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. ____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-FB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-10

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1555

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. _____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

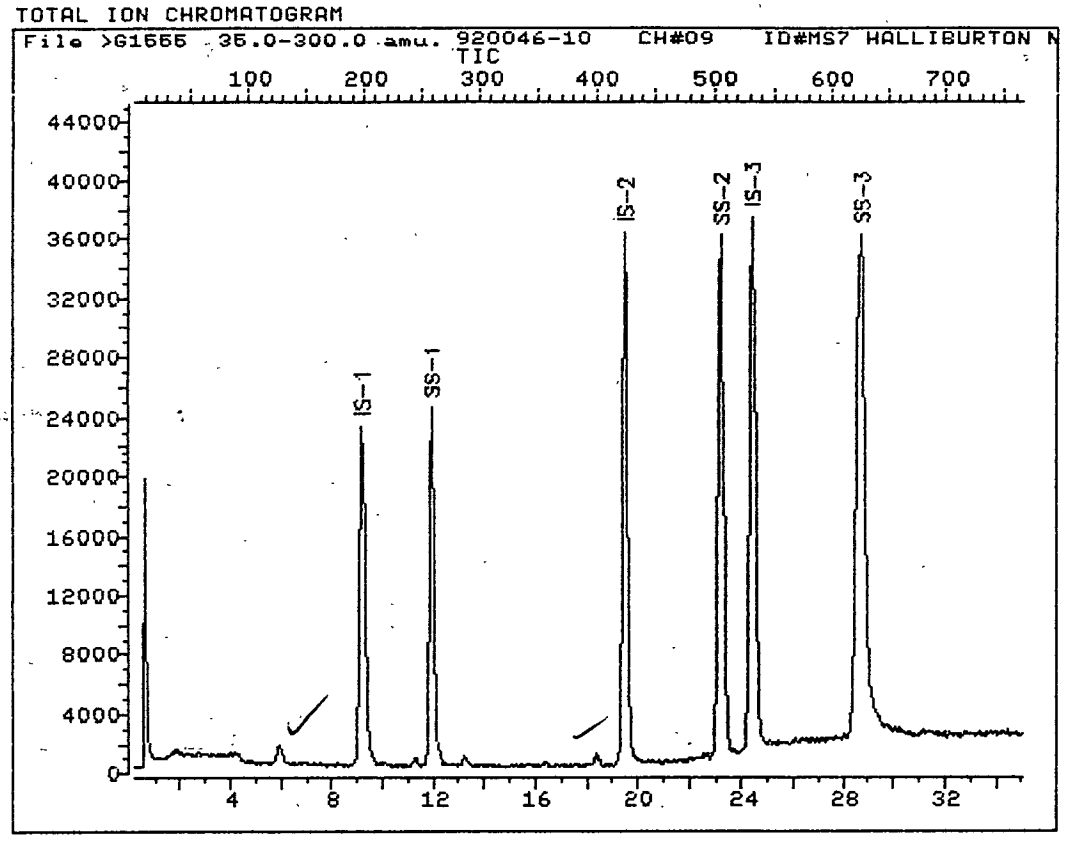
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >G1555::D7 Quant Output File: ^G1555::QT
Name: 920046-10 CH#09 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-FB-02 LOW WATER 5.0ML+QC 1-33LH

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920204 09:52

Operator ID: VOA7
Quant Time : 920204 16:41
Injected at: 920204 16:04

proj # 3196

CH

CB

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920204 16:41
Output File: ^G1555::QT Injected at: 920204 16:04
Data File: >G1555::D7 Dilution Factor: 1.00000
Name: 920046-10 CH#09 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-FB-02 LOW WATER 5.0ML+QC 1-33LH

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920204 09:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	48014	~~50.00~~	~~UG/L~~	77
6)	C030 Methylene Chloride	5.92	84.0	5046	4.04	UG/L	82
12)	C060 Chloroform	11.29	83.0	2685	~~.722~~	UG/L	99
13)	CS15 1,2-Dichloroethane-d4	11.93	65.0	139632	48.46	UG/L 97%	85
16)	*CI10 1,4-Difluorobenzene	19.50	114.0	189520	50.00	UG/L	90
28)	*CI20 Chlorobenzene-d5	24.38	117.0	162218	50.00	UG/L	94
34)	CS05 Toluene d-8	23.19	98.0	180953	50.76	UG/L 102%	98
39)	CS10 Bromofluorobenzene	28.71	95.0	140799	52.20	UG/L 104%	89

* Compound is ISTD

proj # 3186

VH

96

CB

:RU,FI,>G1555
:RU,EC,,,0:32

reg	type	# pts	scan#	range: amu\r.t.	base	file	ion range
X	GC	699	1	.17- 32.00	37536.0	>G1555	35.00- 300.00

:RU,MSH

MS data file header from : >G1555::D7

Sample: 920046-10 CH#09 Operator: VOA7 REG. GRP. 2/04/92 16:04
Misc : ID#MS7 HALLIBURTON NUS E-FB-02 LOW WATER 5.0ML+QC 1-33LH
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7B Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	3.0	24.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

:RU,INT,,5,,-1

>G1555 920046-10 CH#09 ID#MS7 HALLIBURTON NUS E-FB-02 LOW WA

35.0| 300.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 7 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR75 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	.58	5	10	21	19324	134437	113176	13.35	3.557
2	9.20	187	199	213	22903	370888	334327	39.44	10.507
3	11.93	251	259	274	24082	353613	320202*	37.77	10.063
4	19.50	415	425	439	35934	535925	501903	59.21	15.774
5	23.19	497	506	520	35308	576606	514791	60.73	16.179
6	24.38	525	532	545	35948	636717	549775	64.86	17.278
7	28.71	615	627	655	33954	1113629	847672	100.00	26.641

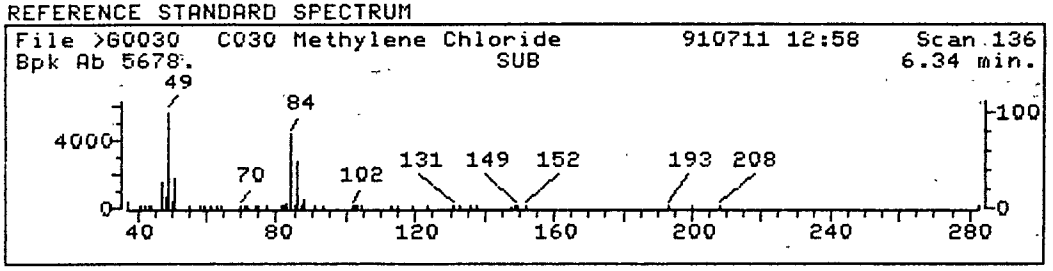
Sum of corrected areas: 3181846.

:RU,AL,,1,1

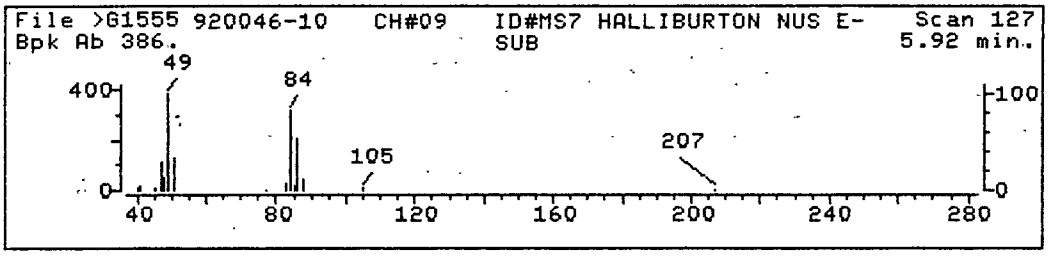
(0) TIC
LH

proj #3196
LH

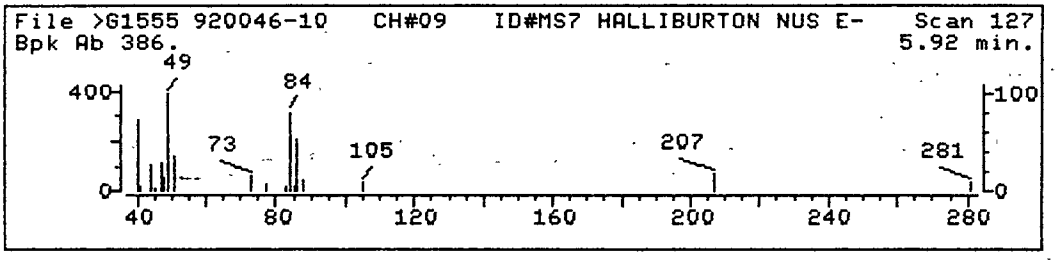
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >G1555::D7 Quant Output File: ^G1555::QT
Name: 920046-10 CH#09 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-FB-02 LOW WATER 5.0ML+QC 1-33LH
Quant Time: 920204 16:41 Quant ID File: V7ID::SC
Injected at: 920204 16:04 Last Calibration: 910703 01:53
Last Qcal Time: 920204 09:52

Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 127
Retention Time: 5.92 min.
Quant Ion : 84.0
Area : 5046
Concentration : 4.04 UG/L
q-value : 82

proj # 3196
CH

CB

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-RB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-11

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1553

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. _____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-RB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-11

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1553

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. _____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

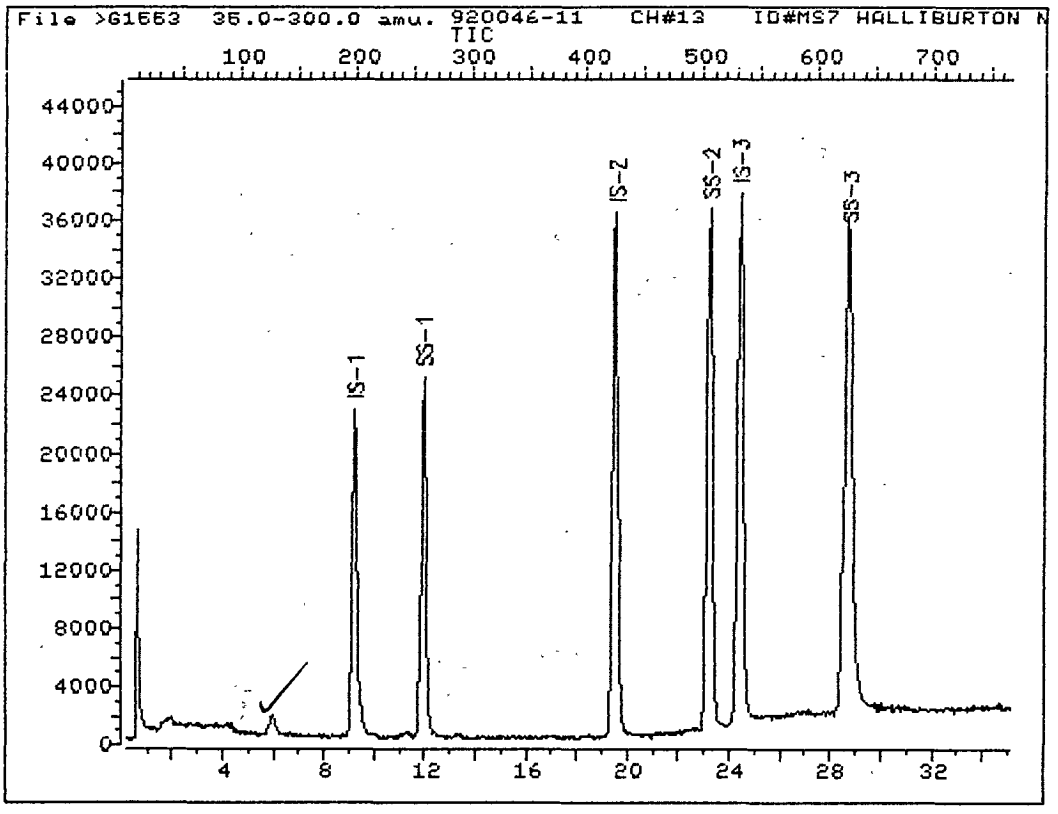
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >G1553::D7 Quant Output File: ^G1553::QT
Name: 920046-11 CH#13 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-RB-02 LOW WATER 5.0ML+QC 1

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920204 09:52

Operator ID: VOA7
Quant Time : 920204 15:15
Injected at: 920204 14:39

proj# 3196 4H

CB

QUANT REPORT

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920204 15:15
Output File: ^G1553::QT Injected at: 920204 14:39
Data File: >G1553::D7 Dilution Factor: 1.00000
Name: 920046-11 CH#13 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-RB-02 LOW WATER 5.0ML+QC 1

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920204 09:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	47808	50.00	UG/L	81
6)	C030 Methylene Chloride	5.91	84.0	5259	4.23	UG/L	76
12)	C060 Chloroform	11.29	83.0	2447	~~.668~~	~~UG/L~~	91
13)	CS15 1,2-Dichloroethane-d4	11.93	65.0	140665	49.02	UG/L 98%	84
16)	*CI10 1,4-Difluorobenzene	19.50	114.0	193343	50.00	UG/L	89
28)	*CI20 Chlorobenzene-d5	24.38	117.0	164315	50.00	UG/L	98
34)	CS05 Toluene d-8	23.19	98.0	182172	50.45	UG/L 101%	99
39)	CS10 Bromofluorobenzene	28.71	95.0	140668	51.49	UG/L 103%	90

* Compound is ISTD

proj# 5196

4

102

CB

:RU,FI,>G1553
:RU,EC,,,0:32

reg	type	# pts	scan#	range: amu\r.t.	base	file	ion range
X	GC	699	1	.17- 32.00	37947.0	>G1553	35.00- 300.00

:RU,MSH

MS data file header from : >G1553::D7

Sample: 920046-11 CH#13 Operator: VOA7 REG. GRP. 2/04/92 14:39
Misc : ID#MS7 HALLIBURTON NUS E-RB-02 LOW WATER 5.0ML+QC 1
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7B Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	3.0	24.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

:RU,INT,,5,,-1

>G1553 920046-11 CH#13 ID#MS7 HALLIBURTON NUS E-RB-02 LOW WA

35.0| 300.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 7 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR75 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	.58	6	10	21	14380	123384	104643	13.37	3.329
2	9.20	188	199	215	22517	375240	334688	42.76	10.648
3	11.93	250	259	274	24699	362724	327795	41.88	10.428
4	19.50	418	425	436	35950	530934	502757	64.23	15.994
5	23.19	499	506	521	35810	583561	522142	66.70	16.611
6	24.38	524	532	546	36501	655599	568515	72.63	18.086
7	28.67	615	626	648	33548	990240	782783	100.00	24.903

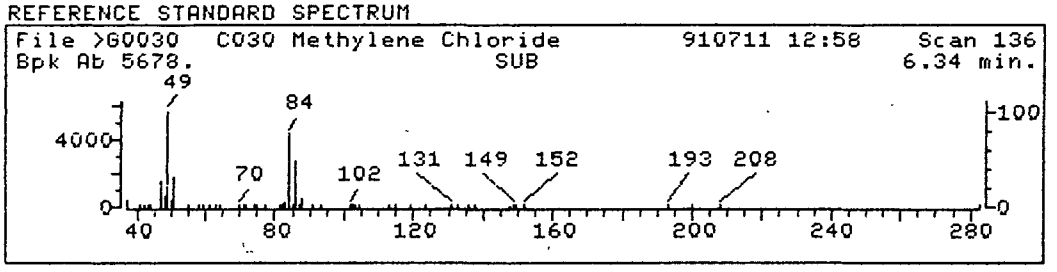
Sum of corrected areas: 3143323.

:RU,AL,,1,1

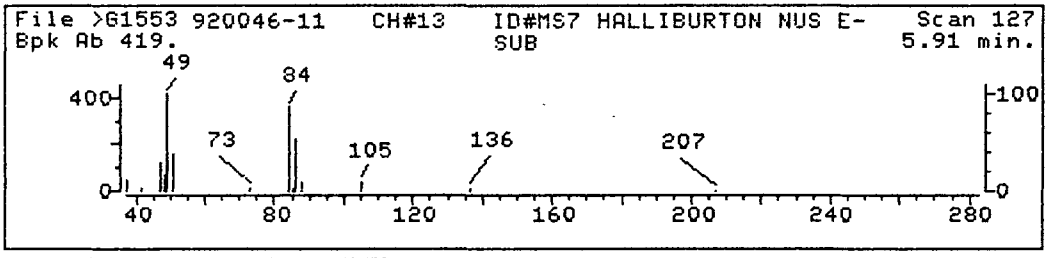
(0) TIC UH

proj # 3196
UH

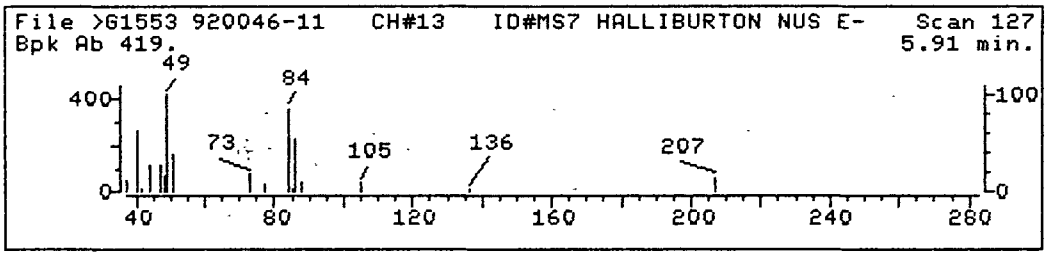
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >G1553::D7 Quant Output File: ^G1553::QT
Name: 920046-11 CH#13 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-RB-02 LOW WATER 5.0ML+QC 1
Quant Time: 920204 15:15 Quant ID File: V7ID::SC
Injected at: 920204 14:39 Last Calibration: 910703 01:53
Last Qcal Time: 920204 09:52

Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 127
Retention Time: 5.91 min.
Quant Ion : 84.0
Area : 5259
Concentration : 4.23 UG/L
q-value : 76

proj # 3196

CB

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-10

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-01

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9273

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 8 Date Analyzed: 02/06/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	620	J
67-64-1	Acetone	1400	U
75-15-0	Carbon Disulfide	1400	U
75-35-4	1,1-Dichloroethene	1400	U
75-34-3	1,1-Dichloroethane	1400	U
540-59-0	1,2-Dichloroethene (total)	1400	U
67-66-3	Chloroform	1400	U
107-06-2	1,2-Dichloroethane	1400	U
78-93-3	2-Butanone	1400	U
71-55-6	1,1,1-Trichloroethane	800	J
56-23-5	Carbon Tetrachloride	1400	U
75-27-4	Bromodichloromethane	1400	U
78-87-5	1,2-Dichloropropane	1400	U
10061-01-5	cis-1,3-Dichloropropene	1400	U
79-01-6	Trichloroethene	1400	U
124-48-1	Dibromochloromethane	1400	U
79-00-5	1,1,2-Trichloroethane	1400	U
71-43-2	Benzene	1400	U
10061-02-6	trans-1,3-Dichloropropene	1400	U
75-25-2	Bromoform	1400	U
108-10-1	4-Methyl-2-Pentanone	1400	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	1400	U
79-34-5	1,1,2,2-Tetrachloroethane	1400	U
108-88-3	Toluene	710	J
108-90-7	Chlorobenzene	1400	U
100-41-4	Ethylbenzene	1400	U
100-42-5	Styrene	1400	U
1330-20-7	Xylene (total)	81000	~~E~~ MM

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-10

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-01

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9273

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 8 Date Analyzed: 02/06/92

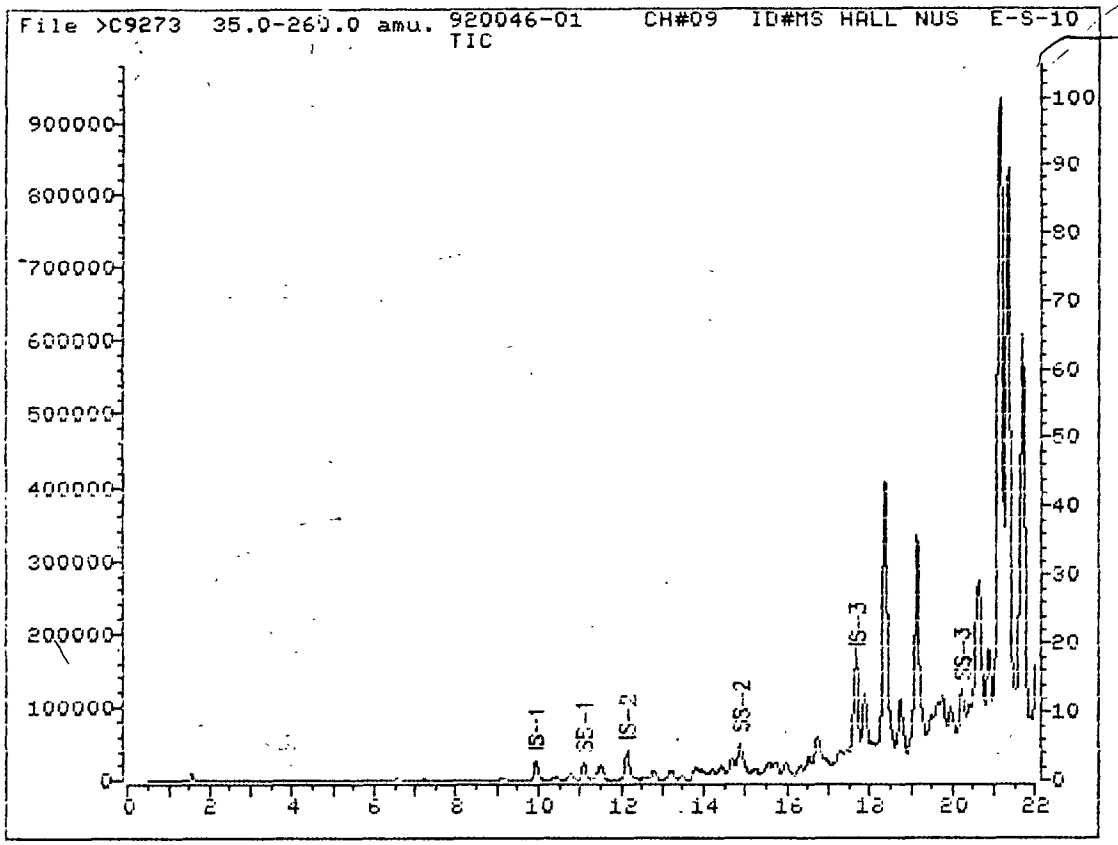
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Unknown	11.49	4100	J
2. 000000	Unknown	13.80	3400	J
3. 000000	Aliphatic hydrocarbon	14.68	3300	J
4. 000000	Unknown	15.54	1100	J
5. 000000	C8H14 isomer	15.95	1200	J
6. 000000	Unknown	16.52	1200	J
7. 000000	Unknown	16.74	2200	J
8. 000000	C9H20 isomer	17.89	3100	J
9. 000000	Aliphatic hydrocarbon	18.75	4200	J
10. 000000	C10H20 isomer	19.97	1600	J
11. 000000	Aliphatic hydrocarbon	20.63	12000	J
12. 000000	C3-benzene isomer	21.14	52000	J
13. 000000	Aliphatic hydrocarbon	20.87	4300	J
14. 000000	C3-benzene isomer	21.34	39000	J
15. 000000	C3-benzene isomer	21.69	27000	J



MS data file header from : >C9273::D5

Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

proj #3196

LH

CB

QUANT REPORT

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920206 02:15
Output File: ^C9273::QT Injected at: 920206 01:44
Data File: >C9273::D5 Dilution Factor: 1.00000
Name: 920046-01 CH#09 Instrument ID: MS3
Misc: ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+1S LH

ID File: V31D::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920205 21:45

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*C101 Bromochloromethane	9.93	128.0	35051	50.00	UG/L	83
6)	C030 Methylene Chloride	6.53	84.0	4356	4.57	UG/L	82
13)	CS15 1,2-Dichloroethane-d4	11.10	65.0	52032	47.44	UG/L 95%	94
16)	*CI10 1,4-Difluorobenzene	12.14	114.0	129614	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.42	97.0	11354	5.92	UG/L	83
18)	C120 Carbon Tetrachloride	10.40	117.0	1498	~~.758~~	~~UG/L~~	75
25)	C165 Benzene	11.12	78.0	1098	~~.645~~	~~UG/L~~	100
28)	*C120 Chlorobenzene-d5	17.69	117.0	119660	50.00	UG/L	99
33)	C230 Toluene	14.99	91.0	14721	5.22	UG/L	98
34)	CS05 Toluene d-8	14.88	98.0	105499	41.79	UG/L 84%	93
35)	C235 Chlorobenzene Ratio off	~~17.67~~	~~112.0~~	~~3965~~	~~1.45~~	~~UG/L~~	78
38)	C250 Total Xylenes	18.36	106.0	731974M	596.55	UG/L	99
39)	CS10 Bromofluorobenzene	20.22	95.0	86523	45.20	UG/L 90%	90

* Compound is ISTD

$$DF = \frac{(5)(10)}{(0.1)(4)(0.92)} = 136$$

proj #3196

UA

108

CB

Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

>C9273 920046-01 CH#09 ID#MS HALL NUS E-S-10 MED SOIL 4G/1

35.0| 260.0 TIC
Upslope: .2000 Area Reject: 2.00 % Max Peaks: 23 Bunch: 1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

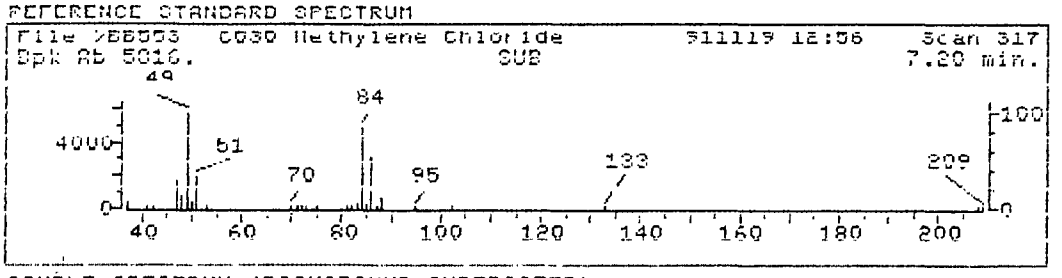
Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	9.93	478	485	497	25912	206777	1st 200117	2.74	.685
2	11.10	536	545	552	23757	193716	173871*	2.38	.595
3	11.49	552	565	580	19502	243603	211393	2.90	.724
4	12.14	584	598	614	41737	371108	2nd 348410	4.78	1.193
5	13.80	674	683	688	18272	188924	176267	2.42	.603
6	14.68	721	728	732	21034	286859	165204	2.26	.566
7	14.88	733	738	749	42825	517271	358782	4.92	1.228
8	15.54	763	772	777	15996	291964	160147	2.20	.548
9	15.95	788	793	805	17292	286537	166760	2.29	.571
10	16.52	816	822	827	20163	328383	163704	2.24	.560
11	16.74	827	833	841	34599	677966	297727*	4.08	1.019
12	17.67	874	881	887	135533	1602689	3rd 950214	13.03	3.253
13	17.89	887	892	899	69259	1131289	443637*	6.08	1.519
14	18.36	909	916	930	363297	3899098	2774306	38.03	9.497
15	18.75	930	936	945	75916	1242878	593502	8.14	2.032
16	19.14	945	956	968	297823	3525067	2528932	34.67	8.657
17	19.97	994	998	1005	34736	1068687	226815	3.11	.776
18	20.22	1006	1011	1016	53781	1184047	375664	5.15	1.286
19	20.63	1024	1032	1039	180475	3370834	1713504	23.49	5.866
20	20.87	1039	1044	1049	93415	1659783	614101	8.42	2.102
21	21.14	1049	1058	1063	848592	8754311	7294607	100.00	24.971
22	21.34	1063	1068	1077	749297	6921922	5475226	75.06	18.743
23	21.69	1079	1086	1095	519805	5410662	3799122	52.08	13.005

Sum of corrected areas: 29212020.

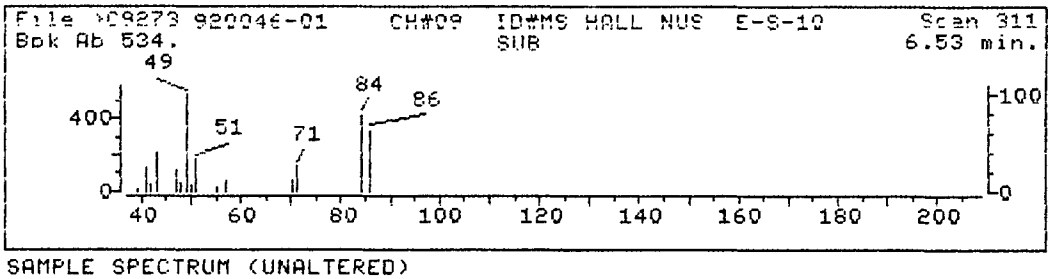
15 TIC

proj #3196

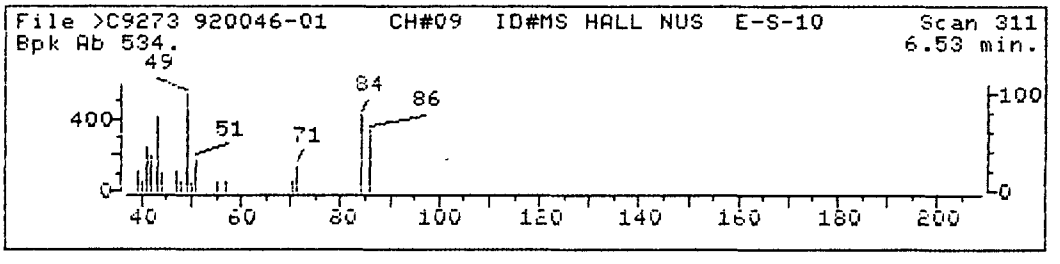
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



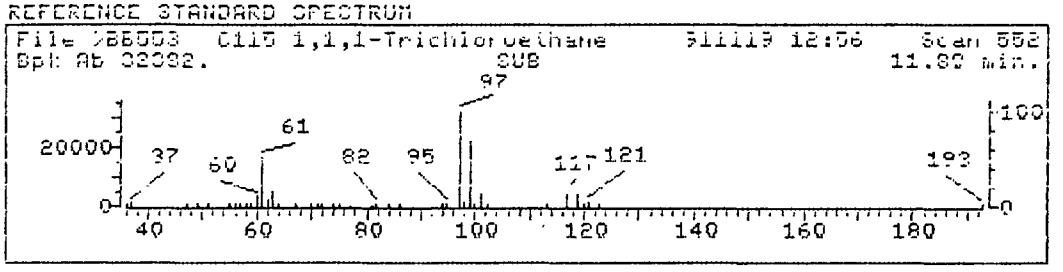
Data File: >C9273::D5 Quant Output File: ^C9273::QT
Name: 920046-01 CH#09 Instrument ID: MS3
Misc: 10#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+1S LH
Quant Time: 920206 02:15 Quant ID File: V31D::SC
Injected at: 920206 01:44 Last Calibration: 910429 11:21
Last Qcal Time: 920205 21:45

Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 311
Retention Time: 6.53 min.
Quant Ion : 84.0
Area : 4356
Concentration : 4.57 UG/L
q-value : 82

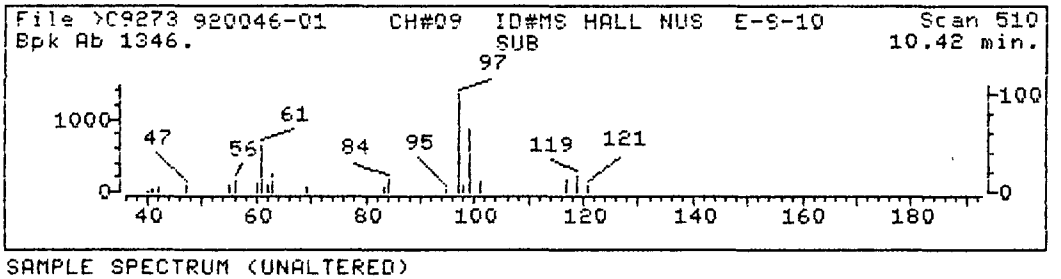
proj # 3196
LH

CB

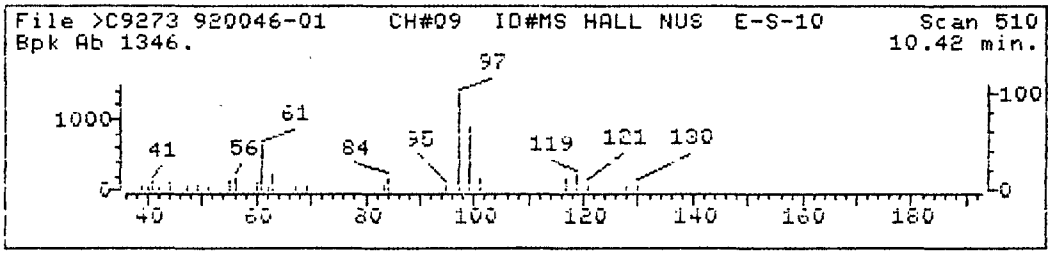
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



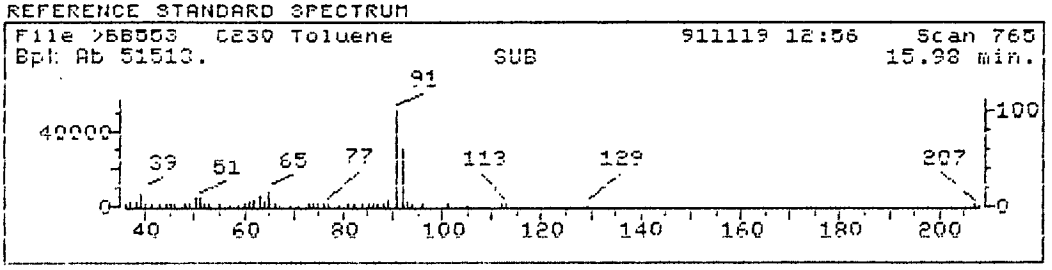
Data File: >C9273::D5 Quant Output File: ^C9273::QT
Name: 920046-01 CH#09 Instrument ID: MS3
Misc: ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS 1.0
Quant Time: 920206 02:15 Quant ID File: V3ID::SC
Injected at: 920206 01:44 Last Calibration: 910429 11:21
Last Qcal Time: 920205 21:45

Compound No : 17
Compound Name : C115 1,1,1-Trichloroethane
Scan Number : 510
Retention Time: 10.42 min.
Quant Ion : 97.0
Area : 11354
Concentration : 5.92 UG/L
q-value : 83

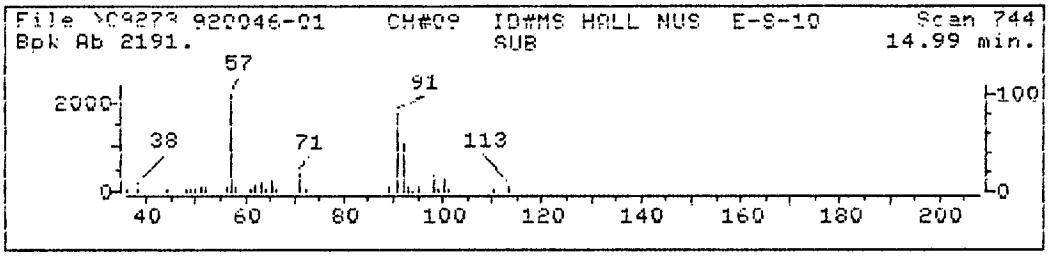
p 20 #3186

CB

REFERENCE STANDARD SPECTRUM



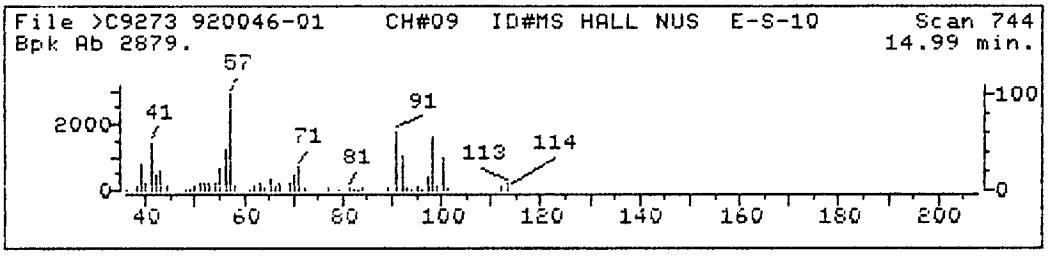
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



m/z 57 from background

C4/2

SAMPLE SPECTRUM (UNALTERED)



Data File: >C9273::D5
Name: 920046-01 CH#09
Misc: ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Quant Time: 920206 02:15
Injected at: 920206 01:44
Last Qcal Time: 920205 21:45

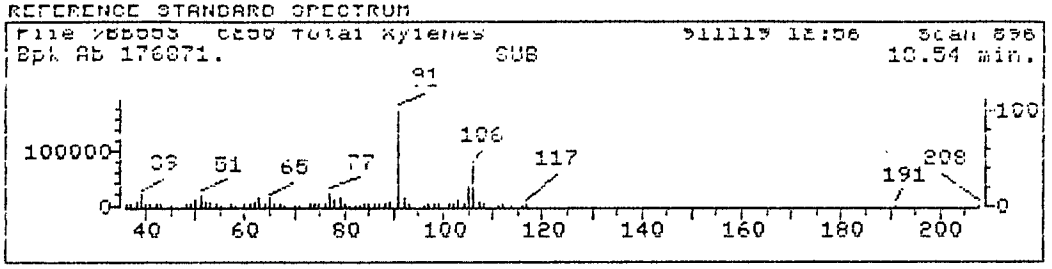
Quant Output File: ^C9273::QT
Instrument ID: MS3
Quant ID File: V3ID::SC
Last Calibration: 910429 11:21

Compound No : 33
Compound Name : C230 Toluene
Scan Number : 744
Retention Time: 14.99 min.
Quant Ion : 91.0
Area : 14721
Concentration : 5.22 UG/L
q-value : 98

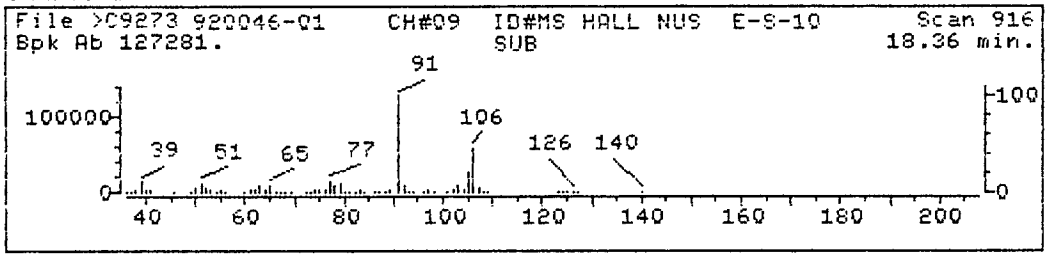
proj #3196

CB

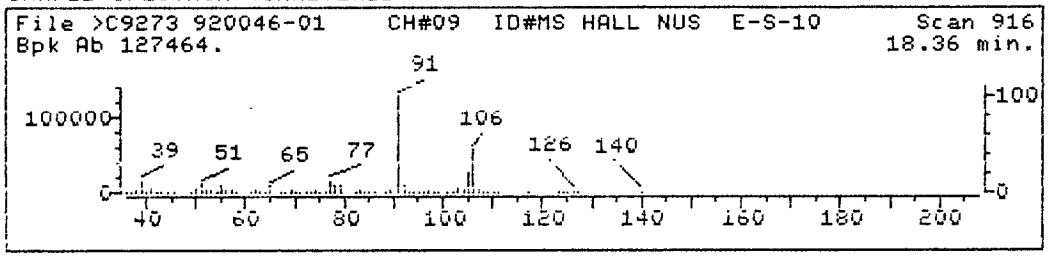
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9273::D5 Quant Output File: ^C9273::QT
Name: 920046-01 CH#09 Instrument ID: MS5
Misc: ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Quant Time: 920206 02:15 Quant ID File: V3ID::SC
Injected at: 920206 01:44 Last Calibration: 910429 11:21
Last Qcal Time: 920205 21:45

Compound No : 38
Compound Name : C250 Total Xylenes
Scan Number : 916
Retention Time: 18.36 min.
Quant Ion : 106.0
Area : 731974M
Concentration : 596.33 UG/L
q-value : 99

p20 #3196

CB

MS data file header from : >C9273::D5

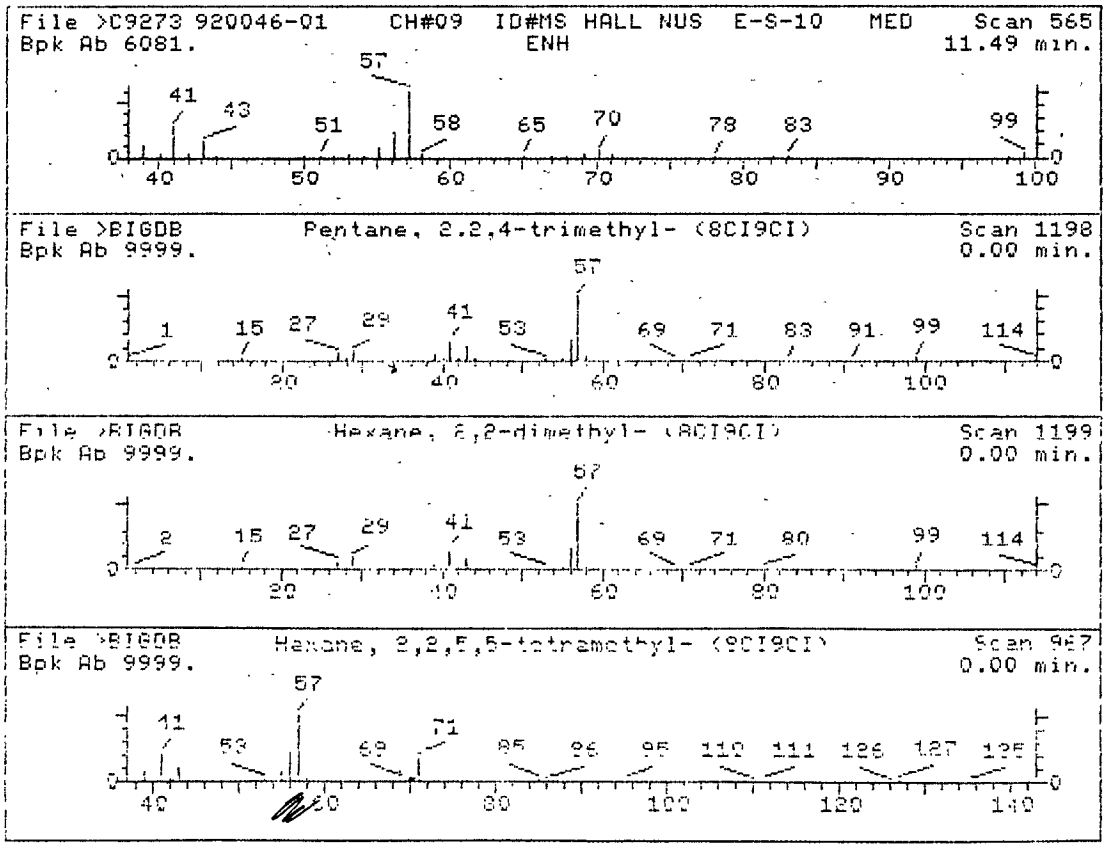
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Pentane, 2,2,4-trimethyl- (8CI9CI) 114 C8H18
2. Hexane, 2,2-dimethyl- (8CI9CI) 114 C8H18
3. Hexane, 2,2,5,5-tetramethyl- (8CI9CI) 142 C10H22
4. Methane, isocyanato- (9CI) 57 C2H3NO
5. 1-Pentene, 4,4-dimethyl- (8CI9CI) 98 C7H14

Sample file: >C9273 Spectrum #: 565
Search speed: 2 Tilting option: S No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60	540841	1198	"BIGDB	33	41	0	0	100	14	30	17
2.	60	590738	1199	"BIGDB	28	44	0	0	100	15	30	14
3.	60	1071814	967	"BIGDB	44	35	2	0	86	14	30	14
4.	52*	624839	948	"BIGDB	27	37	2	0	97	20	20	14
5.	35*	762629	1183	"BIGDB	42	34	2	0	86	37	14	22



$Con = \frac{211393}{\cancel{200117}\ 348410} \times \frac{50}{1}$

$= \frac{\cancel{53 \times 140}\ \cancel{30 \times 140}}{30.3}$

$= \cancel{7400}\ \cancel{4200}$ ppb

unknown

pg 3 #3,96

114/44

X

MS data file header from : >C9273::D5

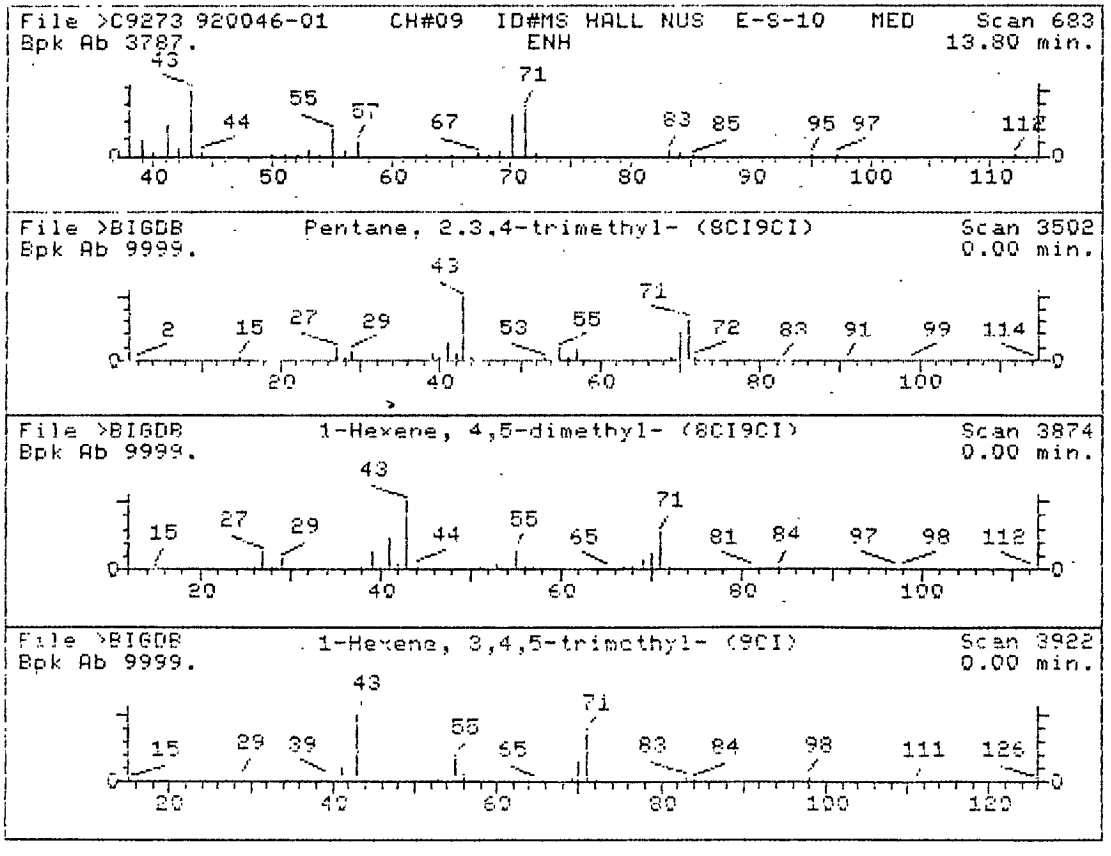
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Pentane, 2,3,4-trimethyl- (8CI9CI) 114 C8H18
2. 1-Hexene, 4,5-dimethyl- (8CI9CI) 112 C8H16
3. 1-Hexene, 3,4,5-trimethyl- (9CI) 126 C9H18
4. 2-Furanmethanol, tetrahydro-, acetate (9CI) 144 C7H12O3
5. Pentane, 3-ethyl- (8CI9CI) 100 C7H16

Sample file: >C9273 Spectrum #: 683
Search speed: 2 Tilting option: S No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	79*	565753	3502	"BIGDB	34	46	0	0	100	7	48	33
2.	70*	16106595	3874	"BIGDB	55	32	1	0	100	16	32	50
3.	60	56728100	3922	"BIGDB	46	39	2	0	100	14	30	15
4.	35	637649	3905	"BIGDB	37	46	2	0	86	26	14	12
5.	26	617787	3504	"BIGDB	41	42	2	0	135	41	8	14



$$Conc = \frac{176267}{348410} \times \frac{50}{1}$$
$$= 25 \times 140$$
$$= 3500 \text{ ppb}$$

unknown

proj #3186

MS data file header from : >C9273::D5

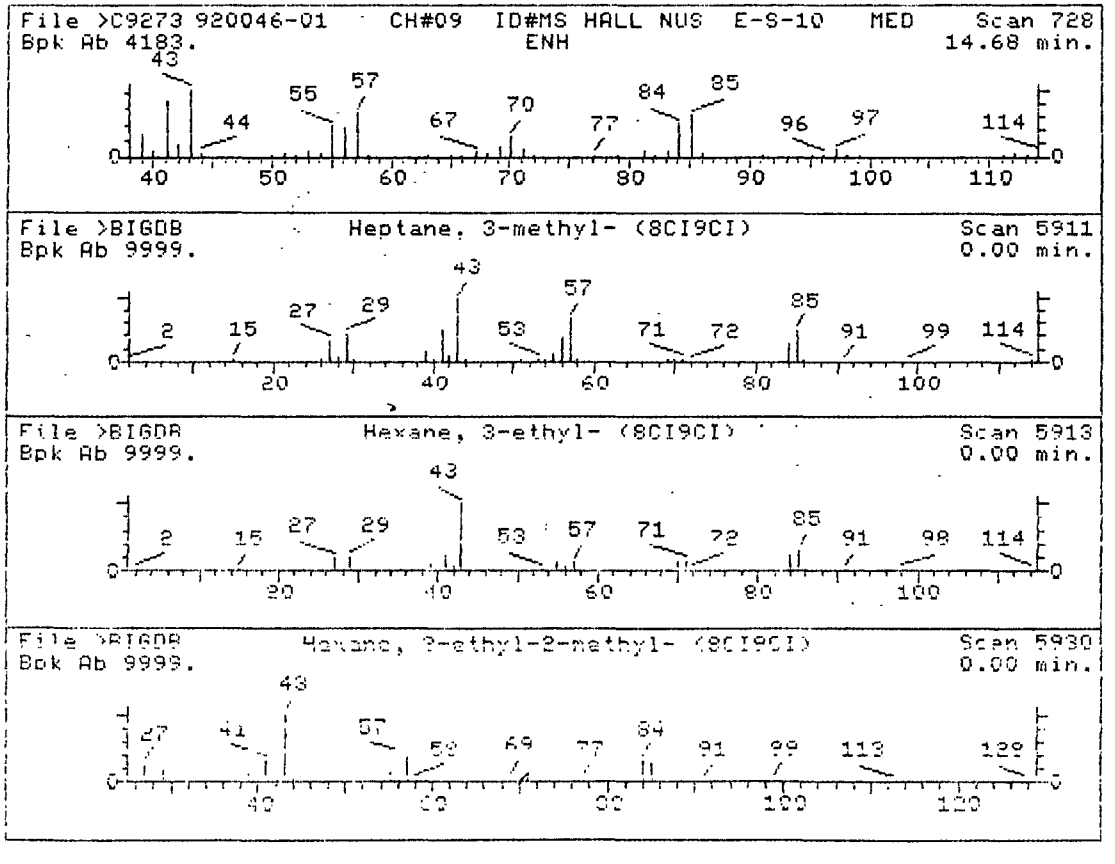
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3-methyl- (8CI9CI) 114 C8H18
2. Hexane, 3-ethyl- (8CI9CI) 114 C8H18
3. Hexane, 3-ethyl-2-methyl- (8CI9CI) 128 C9H20
4. 7-Oxabicyclo[4.1.0]heptane, 3-methyl- (9CI) 112 C7H12O
5. 2-Undecene, 6-methyl-, (Z)- (9CI) 168 C12H24

Sample file: >C9273 Spectrum #: 728
Search speed: 2 Tilting option: S No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	44*	589811	5911	"BIGDB	34	57	0	0	97	39	17	33
2.	40*	619998	5913	"BIGDB	43	47	2	0	217	35	16	23
3.	30	16789461	5930	"BIGDB	53	34	2	0	155	41	8	18
4.	27*	36099511	8280	"BIGDB	52	64	3	0	81	43	8	15
5.	15	74630436	1092	"BIGDB	41	49	2	0	39	56	3	12



$$Conc = \frac{165204}{348410} \times \frac{50}{1}$$

$= 24$ ~~x 140~~

$=$ ~~3300 ppb~~

aliphatic hydrocarbon

~~unknown~~

~~unknown~~

proj # 3196

LH

116

MS data file header from : >C9273::D5

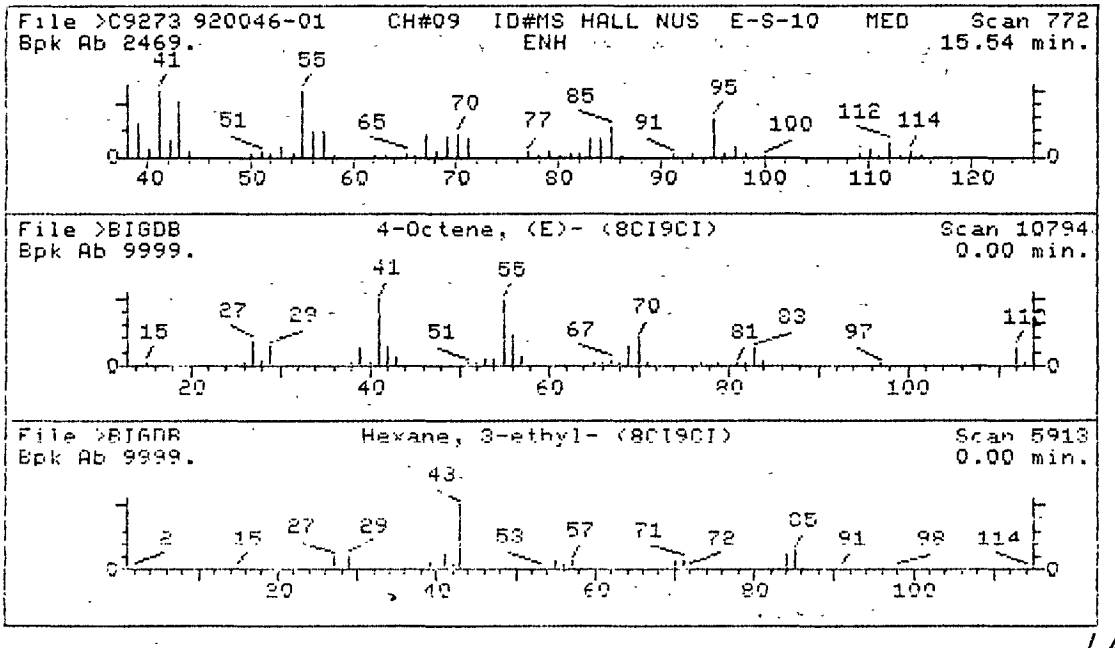
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. 4-Octene, (E)- (8CI9CI) 112 C8H16
2. Hexane, 3-ethyl- (8CI9CI) 114 C8H18

Sample file: >C9273 Spectrum #: 772
Search speed: 2 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	14850238	10794	"BIGDB	66	36	0	0	84	65	8	78
2.	15*	619998	5913	"BIGDB	25	65	1	0	117	59	3	14



unknown

$$\text{conc} = \frac{160147}{\cancel{348440}\ 950214} \times \frac{50}{1}$$

$= 8 \times \cancel{140}$

$= \cancel{3200}\ \cancel{1100}$ ppb

proj #3186

117

MS data file header from : >C9273::D5

Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. 1,4-Pentadiene, 2,3,4-trimethyl- (9CI) 110 C8H14
2. Cyclopropane, tetramethylmethylene- (9CI) 110 C8H14
3. 1,4-Pentadiene, 2,3,3-trimethyl- (8CI9CI) 110 C8H14
4. 1,4-Hexadiene, 2,3-dimethyl- (8CI9CI) 110 C8H14
5. 2(1H)-Pyridinone (9CI) 95 C5H5NO

Sample file: >C9273 Spectrum #: 793
Search speed: 2 Tilting option: S No. of ion ranges searched: 43

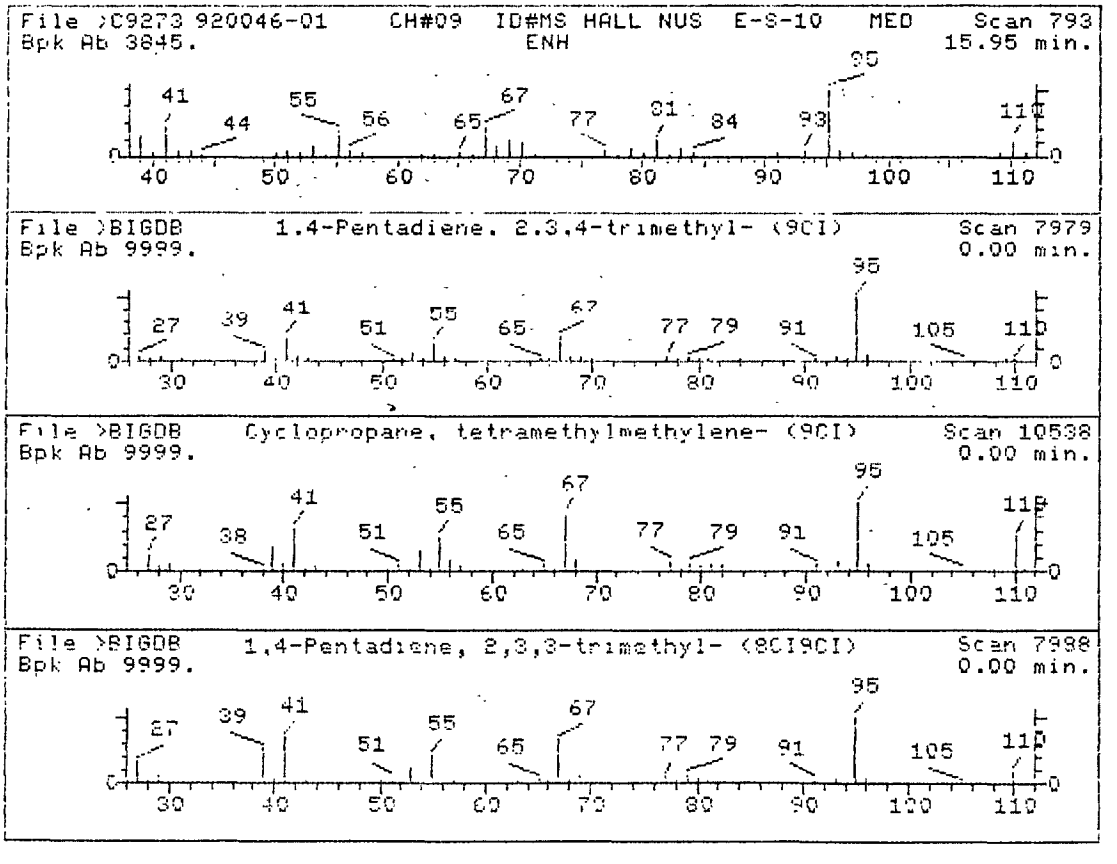
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	68*	72014905	7979	"BIGDB	49	35	0	2	94	25	30	57
2.	58*	54376395	10538	"BIGDB	52	43	0	0	43	41	18	63
3.	51*	756025	7988	"BIGDB	68	41	2	-3	92	26	24	31
4.	44*	18669528	7991	"BIGDB	46	60	0	0	54	48	13	54
5.	35*	142085	7971	"BIGDB	36	55	2	0	74	33	12	18

C8H14 isomer

$$\text{conc} = \frac{166760}{\cancel{348470}\ 950214} \times \frac{50}{1}$$

$= \cancel{24}\ 9 \times 140$

$= \cancel{3400}\ \cancel{1300}$ ppb



proj #3196

LH

MS data file header from : >C9273::D5

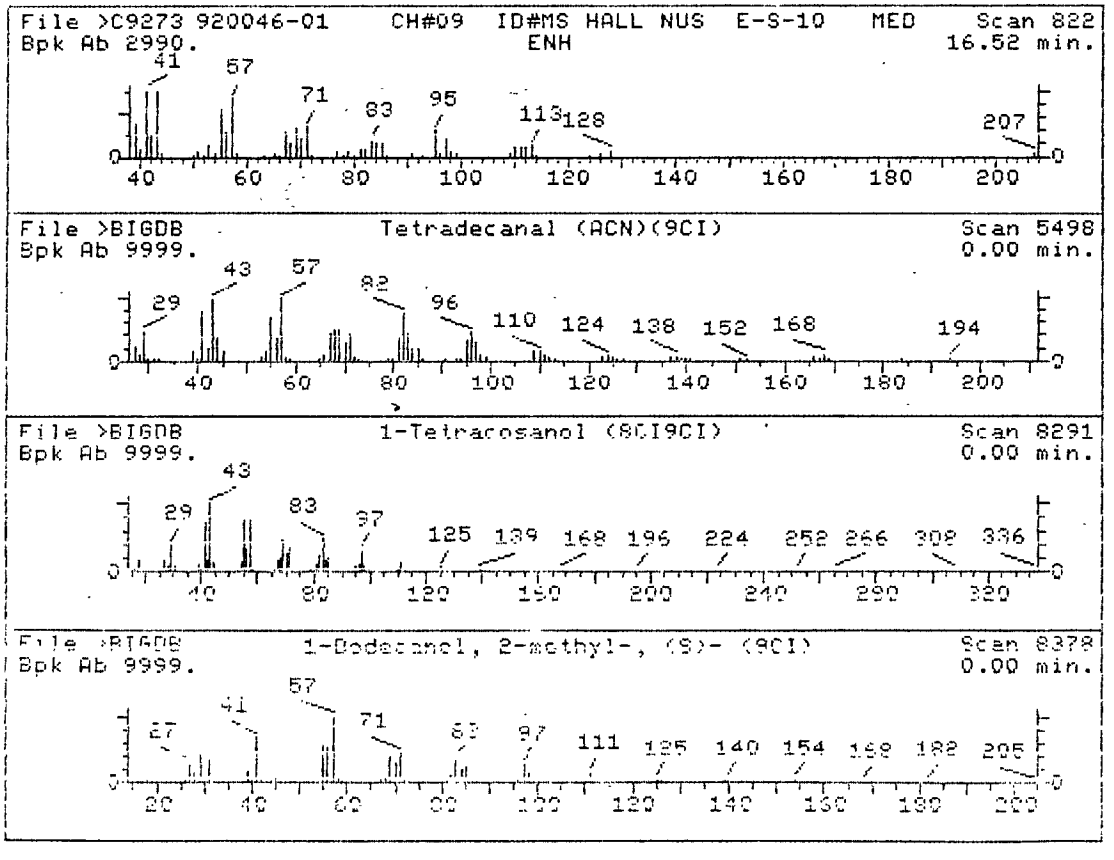
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Tetradecanal (ACN)(9CI) 212 C14H28O
2. 1-Tetracosanol (8CI9CI) 354 C24H50O
3. 1-Dodecanol, 2-methyl-, (S)- (9CI) 200 C13H28O
4. 1-Hexacosanol (8CI9CI) 382 C26H54O
5. Octane, 2-methyl- (8CI9CI) 128 C9H20

Sample file: >C9273 Spectrum #: 822
Search speed: 2 Tilting option: S No. of ion ranges searched: 74

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52	124254	5498	"BIGDB	74	75	3	0	89	17	20	13
2.	42	506514	8291	"BIGDB	105	59	3	0	93	33	16	25
3.	41	57289266	8378	"BIGDB	86	48	2	0	69	35	16	24
4.	34	506525	8292	"BIGDB	96	67	3	0	97	38	14	21
5.	32*	3221612	6061	"BIGDB	58	37	1	0	126	51	9	49



Conc = 163704 / 950214 × 50/1
= 23/9 × 140
= 3300 / 1300 ppb

UMK

proj #3196

LH

MS data file header from : >C9273::D5

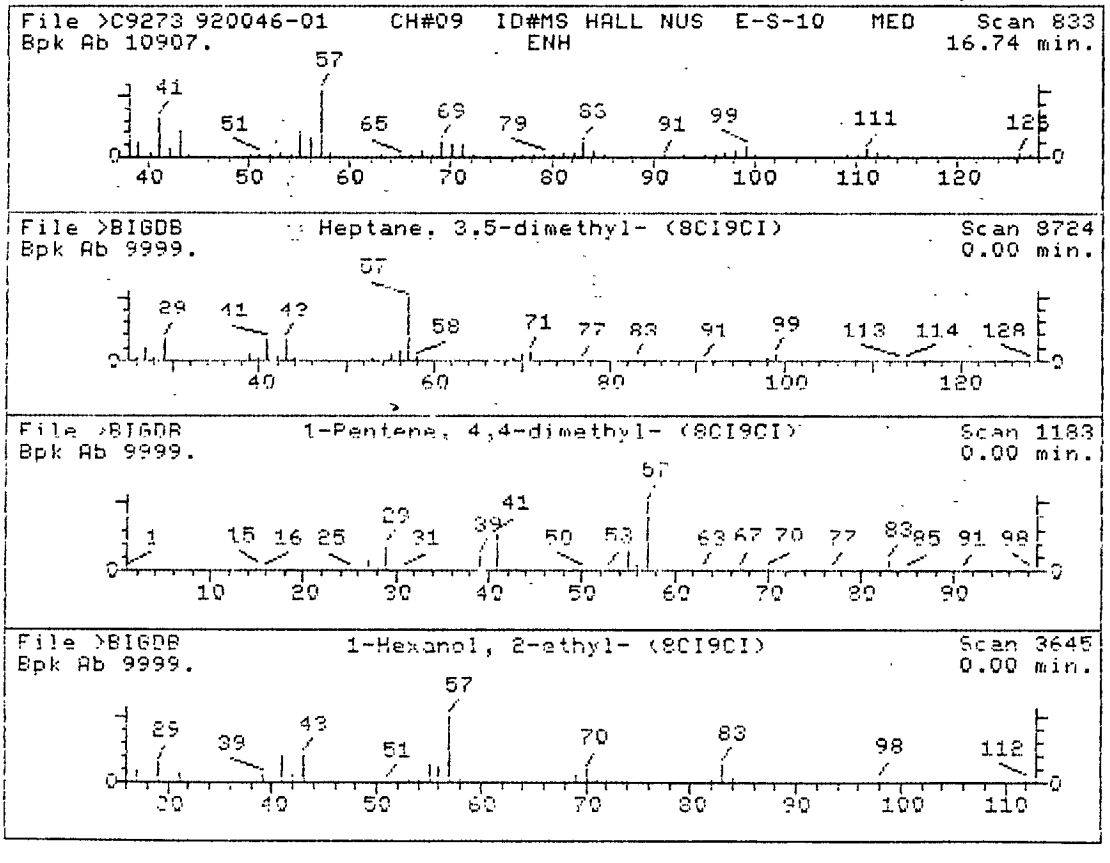
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3,5-dimethyl- (8CI9CI) 128 C9H20
2. 1-Pentene, 4,4-dimethyl- (8CI9CI) 98 C7H14
3. 1-Hexanol, 2-ethyl- (8CI9CI) 130 C8H18O
4. Heptane, 2,5-dimethyl- (8CI9CI) 128 C9H20
5. Octane, 3-methyl- (8CI9CI) 128 C9H20

Sample file: >C9273 Spectrum #: 833
Search speed: 2 Tilting option: S No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	69*	926829	8724	"BIGDB	50	32	0	0	100	31	26	65
2.	65*	762629	1183	"BIGDB	42	34	0	0	100	34	24	55
3.	57	104767	3645	"BIGDB	50	44	0	0	77	21	22	29
4.	49*	2216300	8730	"BIGDB	34	52	0	0	73	34	20	33
5.	43*	2216333	8731	"BIGDB	38	46	1	0	100	28	19	21



$Conc = \frac{297727}{\cancel{348440}\ 1695024} \times \frac{50}{1}$

$= \cancel{43} \times \cancel{140}$

$= \cancel{6000}\ \cancel{2200}$ ppb

unknown

proj #3186

MS data file header from : >C9273::D5

Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

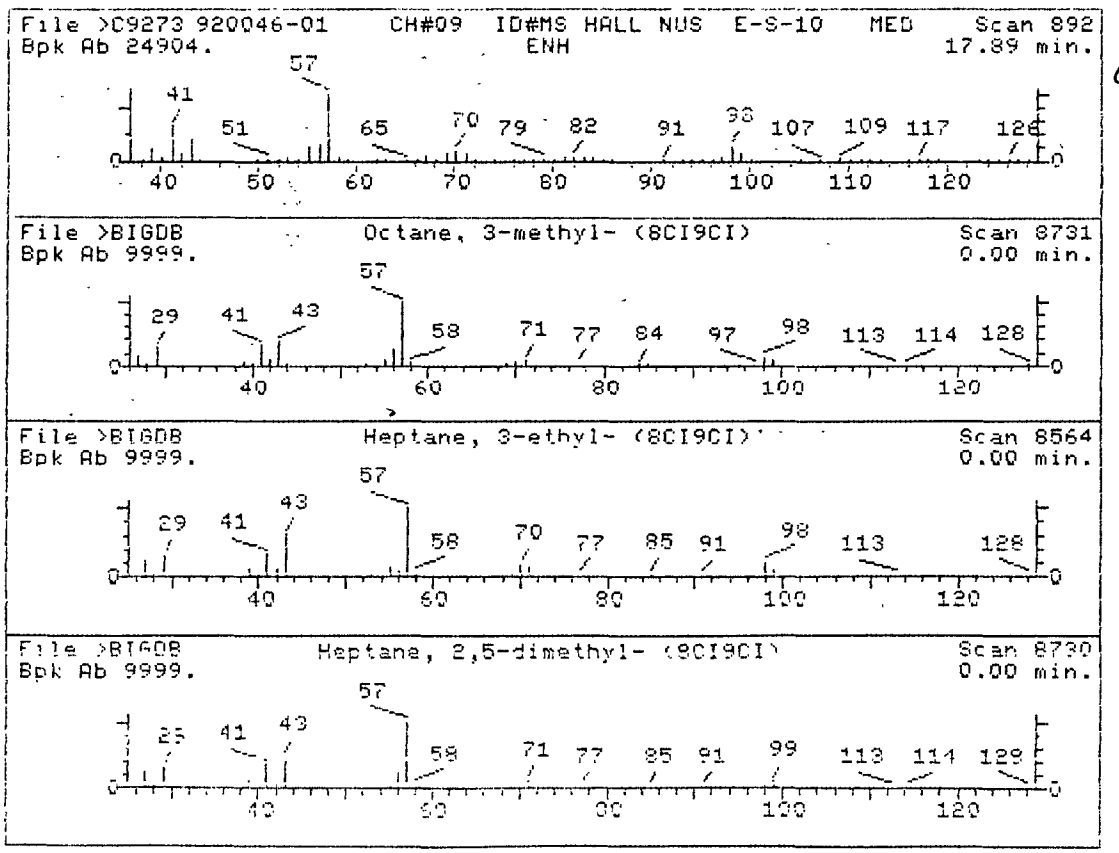
Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 3-methyl- (8CI9CI) 128 C9H20
2. Heptane, 3-ethyl- (8CI9CI) 128 C9H20
3. Heptane, 2,5-dimethyl- (8CI9CI) 128 C9H20
4. Heptane, 4-(1-methylethyl)- (9CI) 142 C10H22
5. Heptane, 3,5-dimethyl- (8CI9CI) 128 C9H20

Sample file: >C9273 Spectrum #: 892
Search speed: 2 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	70*	2216333	8731	"BIGDB	46	38	0	0	100	19	32	57
2.	63*	15869804	8564	"BIGDB	49	39	1	0	73	19	30	37
3.	53*	2216300	8730	"BIGDB	43	43	1	0	98	22	22	25
4.	52	52896874	8582	"BIGDB	41	42	1	0	79	20	20	14
5.	50*	926829	8724	"BIGDB	33	49	0	0	80	30	24	30

C_9H_{20} Isomer



$$\text{Conc} = \frac{1443637}{\cancel{348440}\ 950214} \times \frac{50}{1}$$

$$= \frac{\cancel{64}}{23} \times \cancel{140}$$

$$= \cancel{8900}\ \text{ppb}$$

$\cancel{3200}$

~~UNKNOWN~~

proj# 3196

121

MS data file header from : >C9273::D5

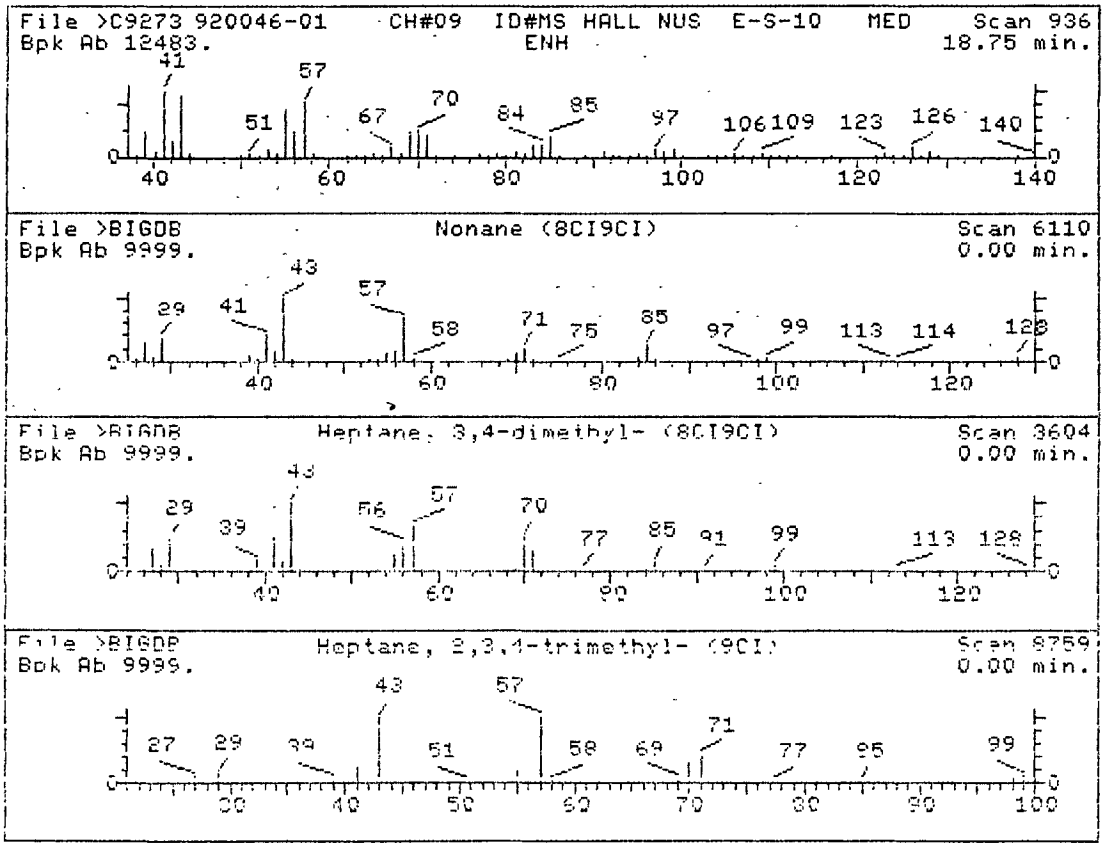
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Nonane (8CI9CI) 128 C9H20
2. Heptane, 3,4-dimethyl- (8CI9CI) 128 C9H20
3. Heptane, 2,3,4-trimethyl- (9CI) 142 C10H22
4. Hexane, 3-ethyl-4-methyl- (8CI9CI) 128 C9H20
5. Pentane, 3-ethyl-2,3-dimethyl- (8CI9CI) 128 C9H20

Sample file: >C9273 Spectrum #: 936
Search speed: 2 Tilting option: S No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	59*	111842	6110	"BIGDB	50	46	1	0	123	24	27	33
2.	58*	922281	3604	"BIGDB	41	56	0	0	83	35	22	43
3.	54	52896954	8759	"BIGDB	56	34	0	0	82	30	24	34
4.	45*	3074779	3606	"BIGDB	51	45	1	0	77	40	17	34
5.	41	16747334	8750	"BIGDB	53	43	0	0	69	43	14	31



aliphatic hydrocarbon

$$Conc = \frac{593502}{950214} \times \frac{50}{1}$$

$= 31 \times 140$

$= 4400$ ppb

~~unknown~~

proj #3196

LH

MS data file header from : >C9273::D5

Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

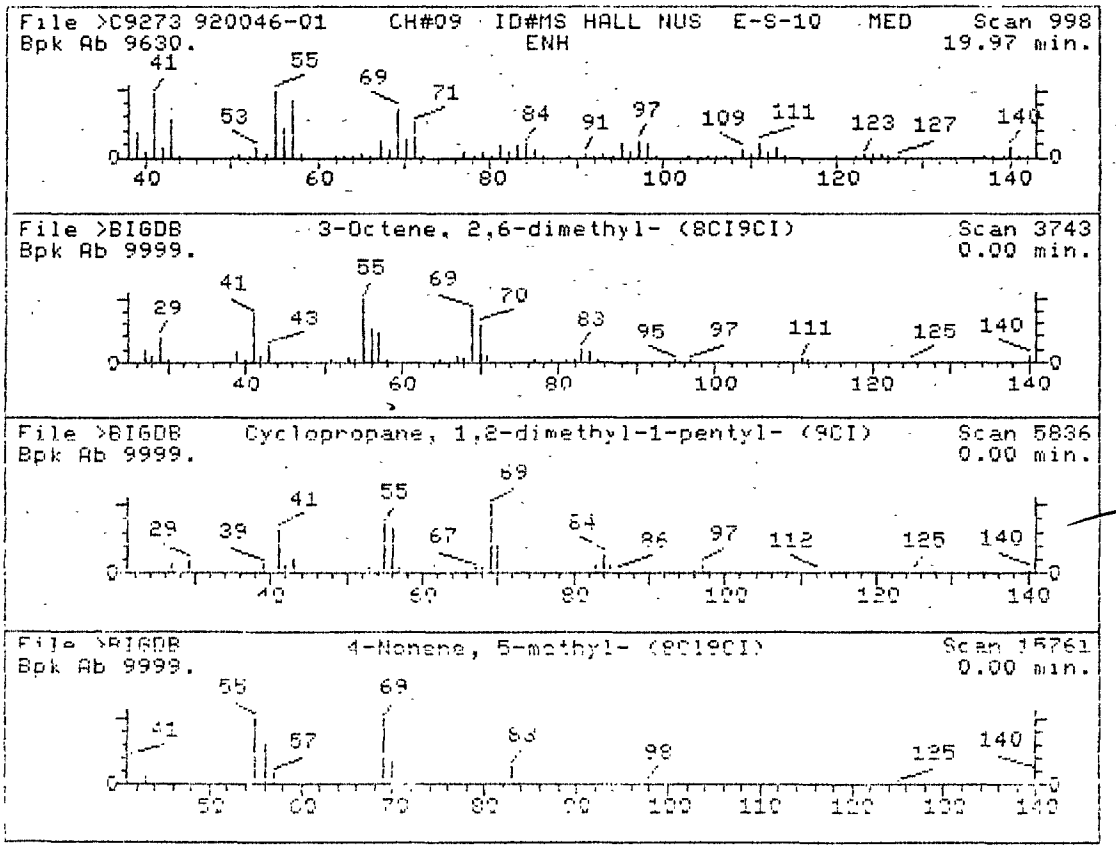
Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. 3-Octene, 2,6-dimethyl- (8CI9CI) 140 C10H20
2. Cyclopropane, 1,2-dimethyl-1-pentyl- (9CI) 140 C10H20
3. 4-Nonene, 5-methyl- (8CI9CI) 140 C10H20
4. Cyclopentanone, 2-methyl-3-(1-methylethyl)- (9CI) 140 C9H16O
5. 1-Pentene, 3-ethyl- (8CI9CI) 98 C7H14

Sample file: >C9273 Spectrum #: 998
Search speed: 2 Tilting option: S No. of ion ranges searched: 77

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60*	6874288	3743	"BIGDB	65	43	1	0	84	41	18	65
2.	59*	62238044	5836	"BIGDB	45	57	0	0	68	39	21	53
3.	56*	15918077	15761	"BIGDB	49	34	0	0	74	43	18	61
4.	51*	54549814	15773	"BIGDB	64	50	1	2	81	41	17	54
5.	43*	4038044	3592	"BIGDB	53	43	0	0	93	53	11	65

C10H20 isomer



$$Conc = \frac{226815}{950214} \times \frac{50}{1}$$

$= 12 \times 140$

$= 1700$ ppb

HHK

proj #3196
LH

MS data file header from : >C9273::D5

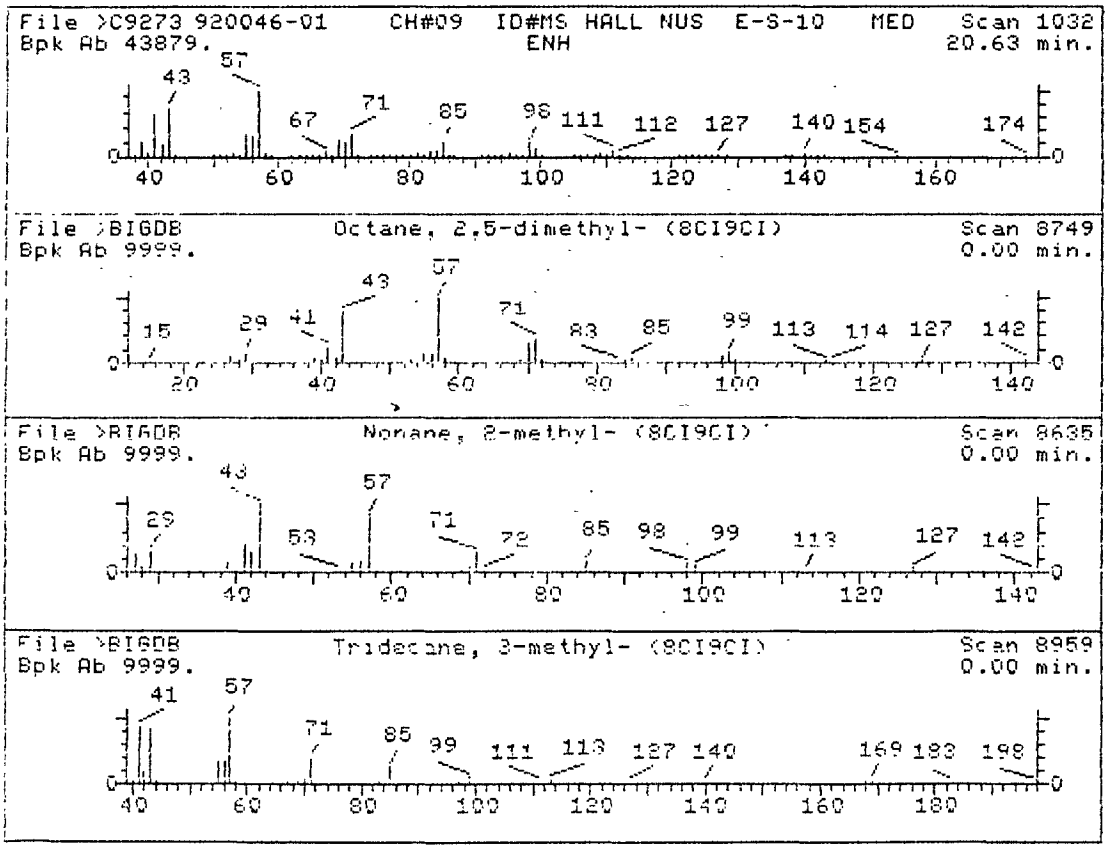
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 2,5-dimethyl- (8CI9CI) 142 C10H22
2. Nonane, 2-methyl- (8CI9CI) 142 C10H22
3. Tridecane, 3-methyl- (8CI9CI) 198 C14H30
4. Dodecane, 3-methyl- (8CI9CI) 184 C13H28
5. Octane, 3,5-dimethyl- (8CI9CI) 142 C10H22

Sample file: >C9273 Spectrum #: 1032
Search speed: 2 Tilting option: S No. of ion ranges searched: 60

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	75*	15869893	8749	"BIGDB	61	31	0	0	71	30	37	73
2.	60*	871830	8635	"BIGDB	51	45	3	0	118	15	30	19
3.	49	6418413	8959	"BIGDB	73	37	2	0	75	24	22	21
4.	49	17312571	6195	"BIGDB	62	37	2	0	87	25	22	21
5.	46*	15869939	3611	"BIGDB	31	62	0	0	77	27	19	24



$$Conc = \frac{1713504}{950214} \times \frac{50}{1}$$

$= 90$ ~~x140~~

$=$ ~~13000 ppb~~

Aliphatic hydrocarbon

Proj #3196

LH

MS data file header from : >C9273::D5

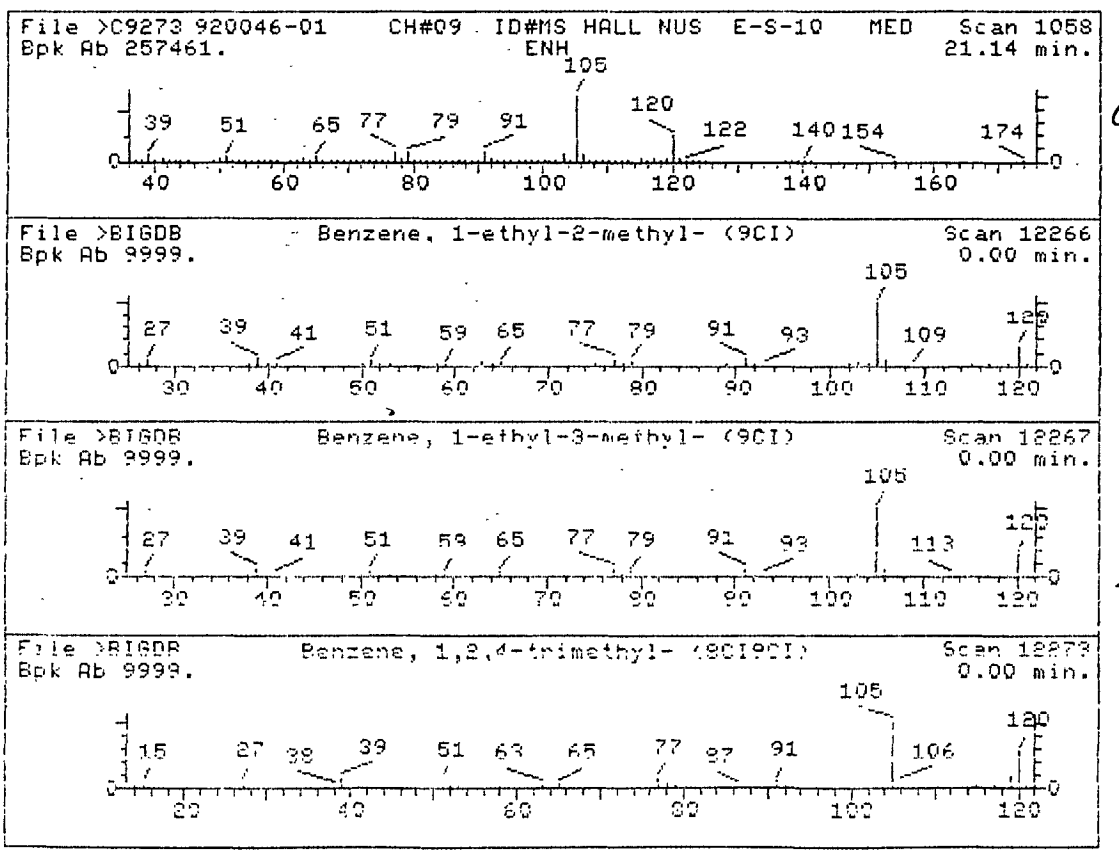
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
3. Benzene, 1,2,4-trimethyl- (8CI9CI) 120 C9H12
4. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12
5. Benzene, (1-methylethyl)- (9CI) 120 C9H12

Sample file: >C9273 Spectrum #: 1058
Search speed: 2 Tilting option: S No. of ion ranges searched: 40

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	611143	12266	"BIGDB	78	7	0	0	100	4	72	97
2.	95*	620144	12267	"BIGDB	75	12	0	0	100	4	72	95
3.	83*	95636	12273	"BIGDB	60	35	1	0	68	10	54	56
4.	81*	526738	12280	"BIGDB	65	35	2	0	85	6	53	44
5.	76*	98828	12259	"BIGDB	66	21	1	0	100	21	41	72



C3 benzene Isomer

$$\text{Conc} = \frac{7294607}{950214} \times \frac{50}{1}$$

$= 380 \times 440$

$= \cancel{5300 \text{ ppb}}$

~~LMK~~

proj #3196

LH

MS data file header from : >C9273::D5

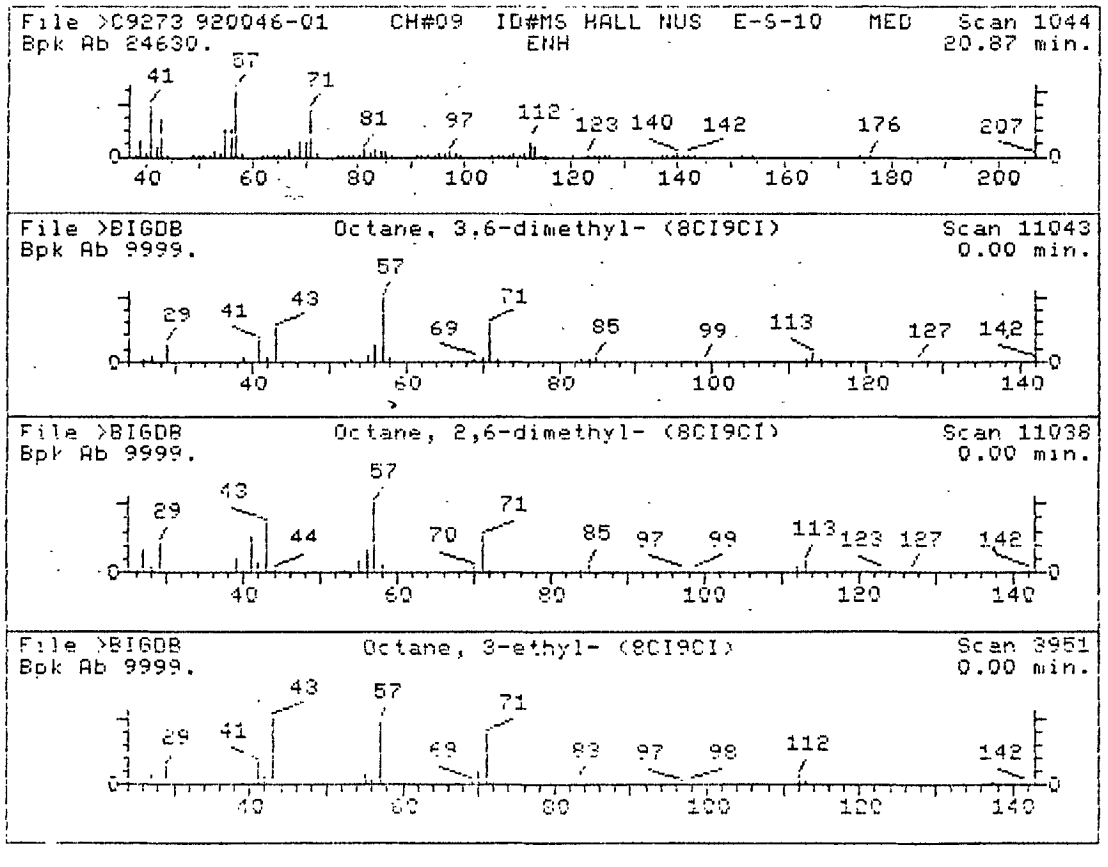
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 3,6-dimethyl- (8CI9CI) 142 C10H22
2. Octane, 2,6-dimethyl- (8CI9CI) 142 C10H22
3. Octane, 3-ethyl- (8CI9CI) 142 C10H22
4. 1-Decene, 3,4-dimethyl- (9CI) 168 C12H24
5. Tridecane, 7-methyl- (8CI9CI) 198 C14H30

Sample file: >C9273 Spectrum #: 1044
Search speed: 2 Tilting option: S No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	67*	15869940	11043	"BIGDB	45	44	0	0	100	27	27	53
2.	66*	2051301	11038	"BIGDB	55	40	1	0	88	20	31	42
3.	58*	5881174	3951	"BIGDB	59	34	2	-2	86	17	25	28
4.	56	50871039	10926	"BIGDB	52	50	0	0	67	21	22	28
5.	52	26730143	10858	"BIGDB	73	38	2	1	89	19	20	17



aliphatic hydrocarbon

$$Conc = \frac{614101}{950214} \times \frac{50}{1}$$

$= 32$ ~~x140~~

$= \cancel{4500}$ ppb

~~HMC~~

proj#3196

HH

MS data file header from : >C9273::D5

Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, 1,3,5-trimethyl- (9CI) 120 C9H12
4. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
5. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12

Sample file: >C9273 Spectrum #: 1068
Search speed: 2 Tilting option: S No. of ion ranges searched: 40

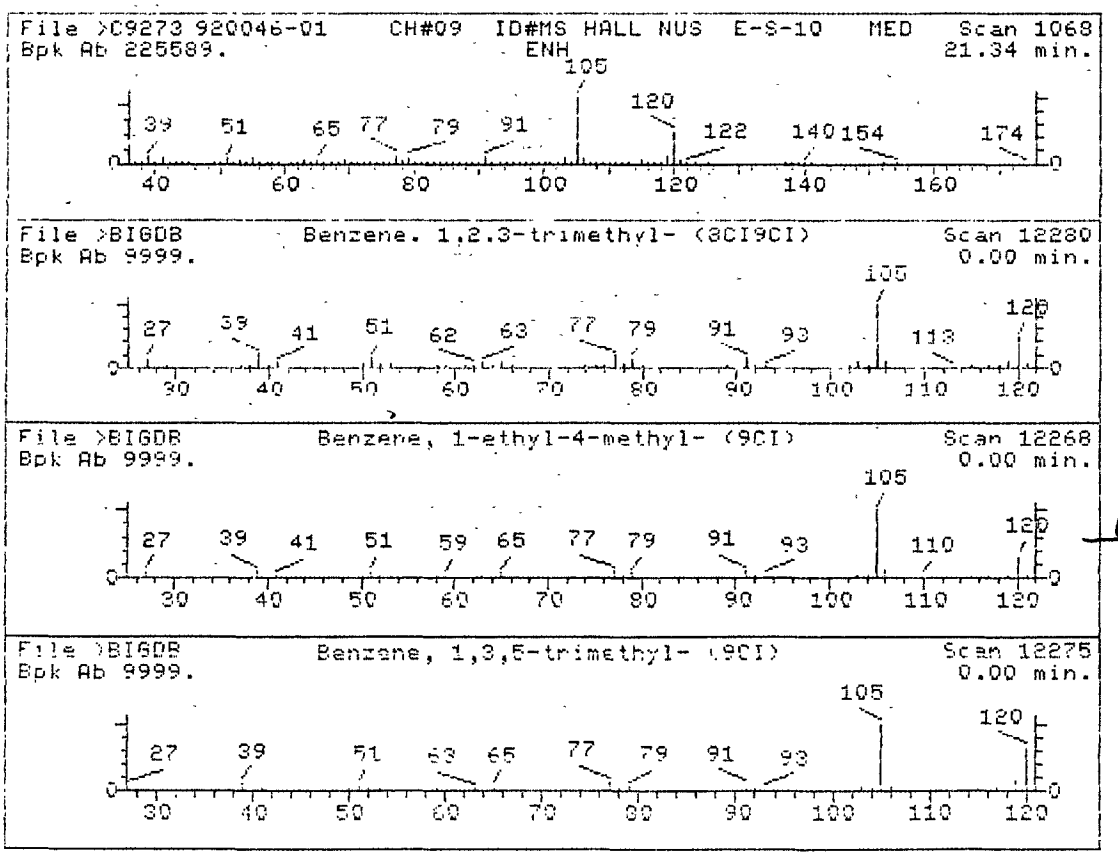
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83*	526738	12280	"BIGDB	71	29	2	0	71	6	54	52
2.	81*	622968	12268	"BIGDB	64	21	0	1	70	25	41	77
3.	81*	108678	12275	"BIGDB	62	26	2	0	74	6	53	49
4.	76*	611143	12266	"BIGDB	64	21	1	0	81	23	41	72
5.	73*	620144	12267	"BIGDB	64	23	1	0	81	23	32	67

C3 benzene isomer

$$\text{Conc} = \frac{5475226}{950214} \times \frac{50}{1}$$

$= 290$ ~~x 140~~

$=$ ~~41000 ppb~~



unic

proj# 3196

LH

MS data file header from : >C9273::D5

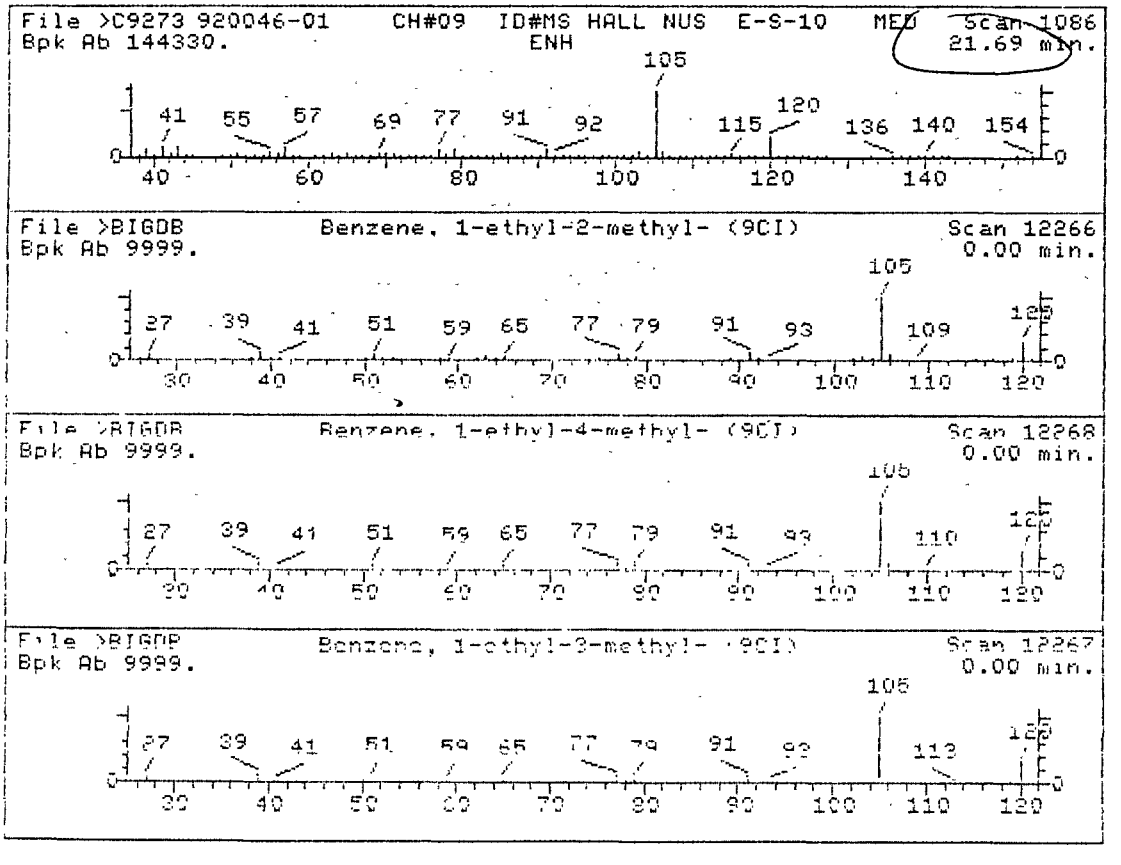
Sample: 920046-01 CH#09 Operator: VOA2 REG. GRP. 2/06/92 1:44
Misc : ID#MS HALL NUS E-S-10 MED SOIL 4G/10MLX100UL+IS LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9273 Spectrum #: 1086
Search speed: 2 Tilting option: S No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	611143	12266	"BIGDB	85	0	0	0	86	5	72	97
2.	96*	622968	12268	"BIGDB	80	5	1	0	100	5	72	96
3.	89*	620144	12267	"BIGDB	70	17	2	0	92	5	66	61
4.	84*	98828	12259	"BIGDB	64	23	1	0	82	9	55	67
5.	65*	526738	12280	"BIGDB	55	30	1	0	44	35	24	52



C3 benzene isomer

$$Conc = \frac{379922}{950214} \times \frac{50}{1}$$

$= 200 \times 140$

$= 28{,}000$ ppb

~~Lute~~

proj #3196

128

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-11

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-02

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9274

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 9 Date Analyzed: 02/06/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	620	J
67-64-1	Acetone	1400	U
75-15-0	Carbon Disulfide	1400	U
75-35-4	1,1-Dichloroethene	1400	U
75-34-3	1,1-Dichloroethane	1400	U
540-59-0	1,2-Dichloroethene (total)	1400	U
67-66-3	Chloroform	1400	U
107-06-2	1,2-Dichloroethane	1400	U
78-93-3	2-Butanone	1400	U
71-55-6	1,1,1-Trichloroethane	720	J
56-23-5	Carbon Tetrachloride	1400	U
75-27-4	Bromodichloromethane	1400	U
78-87-5	1,2-Dichloropropane	1400	U
10061-01-5	cis-1,3-Dichloropropene	1400	U
79-01-6	Trichloroethene	1400	U
124-48-1	Dibromochloromethane	1400	U
79-00-5	1,1,2-Trichloroethane	1400	U
71-43-2	Benzene	1400	U
10061-02-6	trans-1,3-Dichloropropene	1400	U
75-25-2	Bromoform	1400	U
108-10-1	4-Methyl-2-Pentanone	1400	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	1400	U
79-34-5	1,1,2,2-Tetrachloroethane	1400	U
108-88-3	Toluene	590	J
108-90-7	Chlorobenzene	1400	U
100-41-4	Ethylbenzene	600	J
100-42-5	Styrene	1400	U
1330-20-7	Xylene (total)	4700	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-11

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-02

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9274

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 9 Date Analyzed: 02/06/92

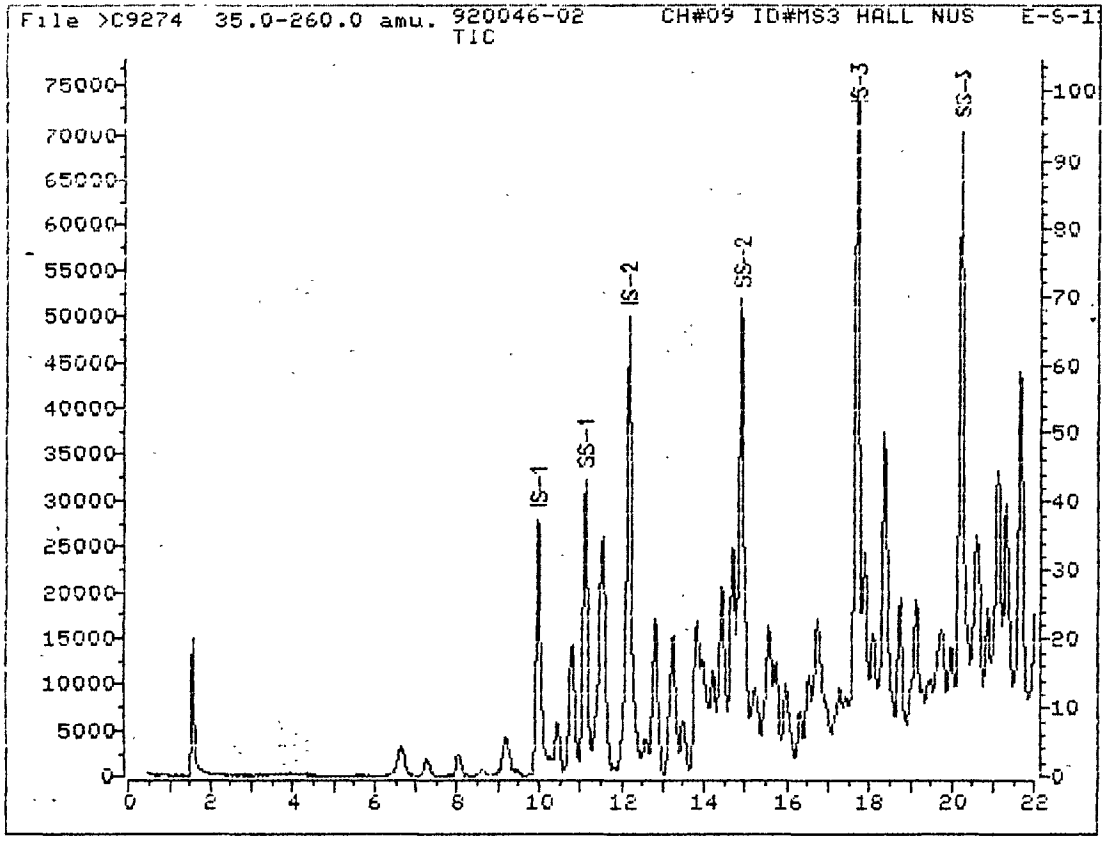
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Aliphatic hydrocarbon	10.81	4000	J
2. 000000	Unknown	11.53	4400	J
3. 000000	C7H14 isomer	12.82	2300	J
4. 000000	Aliphatic hydrocarbon	13.25	2300	J
5. 000000	Aliphtaic hydrocarbon	13.82	2300	J
6. 000000	Aliphatic hydrocarbon	14.42	1600	J
7. 000000	Aliphatic hydrocarbon	14.68	2200	J
8. 000000	C8H18 isomer	15.58	1500	J
9. 000000	C9H20 isomer	16.75	2200	J
10. 000000	C9H20 isomer	17.88	1500	J
11. 000000	Aliphatic hydrocarbon	18.75	1200	J
12. 000000	Aliphatic hydrocarbon	20.59	2500	J
13. 000000	C3-benzene isomer	21.09	3000	J
14. 000000	C3-benzene isomer	21.31	2300	J
15. 000000	Aliphatic hydrocarbon	21.64	3600	J



MS data file header from : >C9274::D5

Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

proj # 3186
4

QUANT REPORT

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920206 03:09
Output File: ^C9274::QT Injected at: 920206 02:37
Data File: >C9274::D5 Dilution Factor: 1.00000
Name: 920046-02 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920205 21:45

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.97	128.0	38893	50.00	UG/L	82
6)	C030 Methylene Chloride	6.59	84.0	4800	4.53	UG/L	77
13)	CS15 1,2-Dichloroethane-d4	11.12	65.0	57368	47.14	UG/L 94%	96
16)	*CI10 1,4-Difluorobenzene	12.16	114.0	154994	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.44	97.0	11943	5.21	UG/L	84
18)	C120 Carbon Tetrachloride	~~10.44~~	~~117.0~~	~~1482~~	~~.609~~	UG/L	89
28)	*CI20 Chlorobenzene-d5	17.71	117.0	134869	50.00	UG/L	96
33)	C230 Toluene	15.01	91.0	13708	4.31	UG/L	99
34)	CS05 Toluene d-8	14.89	98.0	119231M	41.91	UG/L 84%	91
35)	C235 Chlorobenzene	~~17.67~~	~~112.0~~	~~1057~~	.344	UG/L	76
36)	C240 Ethylbenzene	18.10	106.0	5171	4.35	UG/L	95
38)	C250 Total Xylenes	18.35	106.0	47040M	34.00	UG/L	99
39)	CS10 Bromofluorobenzene	20.21	95.0	92244	42.75	UG/L 86%	80

* Compound is ISTD

$$\text{Dry Factor} = \frac{(5)(10)}{(0.1)(4)(0.91)} = 137$$

proj #3196
LH

CB

Chromatographic temperatures : [illegible] 110. 170. [illegible] [illegible]
Chromatographic times, min. : 5.0 0.0 15.0 0.0 0.0
Chromatographic rate, deg/min: 6.0 50.0 0.0 1.5 0.0

>C9274 920046-02 CH#09 ID#MS3 HALL NUS E-S-11 MED SOIL 4G/1

35.0| 260.0 TIC
Upslope: .2000 Area Reject:10.00 % Max Peaks: 26 Bunch: 1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

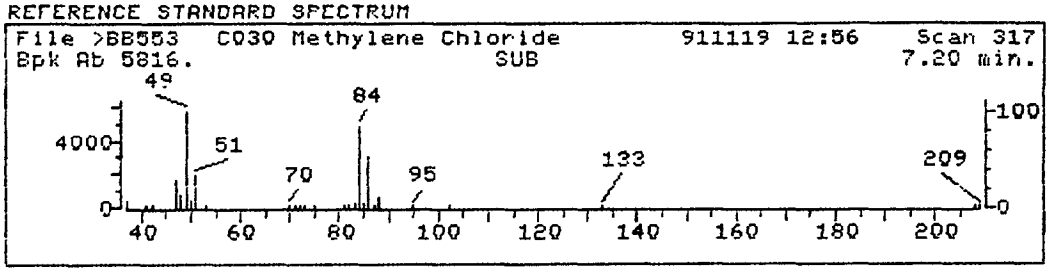
Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	9.97	480	487	499	27717	224898	1st 219263	44.57	4.231
2	10.81	521	530	538	13520	140638	126798*	25.78	2.447
3	11.12	538	546	554	31659	251436	237551*	48.29	4.584
4	11.53	554	567	580	25153	310639	286309*	58.20	5.525
5	12.16	585	599	615	49292	466658	2nd 443361	90.13	8.555
6	12.82	625	633	643	16729	155895	148170	30.12	2.859
7	13.25	643	655	662	14919	159201	151048	30.70	2.915
8	13.82	675	684	689	16114	166597	152364	30.97	2.940
9	14.42	709	715	722	13726	207423	104073	21.16	2.008
10	14.68	722	728	733	18112	224189	138520	28.16	2.673
11	14.89	733	739	750	45564	495382	368097	74.83	7.103
12	15.58	764	774	779	11849	191733	110865	22.54	2.139
13	15.97	789	794	806	7990	116486	75182	15.28	1.451
14	16.52	817	822	827	6881	103011	54421*	11.06	1.050
15	16.75	827	834	851	12465	286554	155066	31.52	2.992
16	17.69	874	882	889	66627	633382	3rd 491938	100.00	9.493
17	17.88	889	892	898	16124	192139	104563*	21.26	2.018
18	18.37	910	917	930	30886	418345	265142	53.90	5.116
19	18.75	931	936	944	13661	179711	91533	18.61	1.766
20	19.14	945	956	961	13316	222854	112760	22.92	2.176
21	20.21	1005	1011	1023	61595	639775	452229	91.93	8.726
22	20.59	1023	1030	1038	17639	332823	178955	36.38	3.453
23	20.84	1038	1043	1048	9587	171628	69905	14.21	1.349
24	21.09	1050	1056	1062	24716	333633	211553	43.00	4.082
25	21.31	1062	1067	1076	21138	314184	171841	34.93	3.316
26	21.64	1078	1084	1094	35501	421979	260772	53.01	5.032

Sum of corrected areas: 5182279.

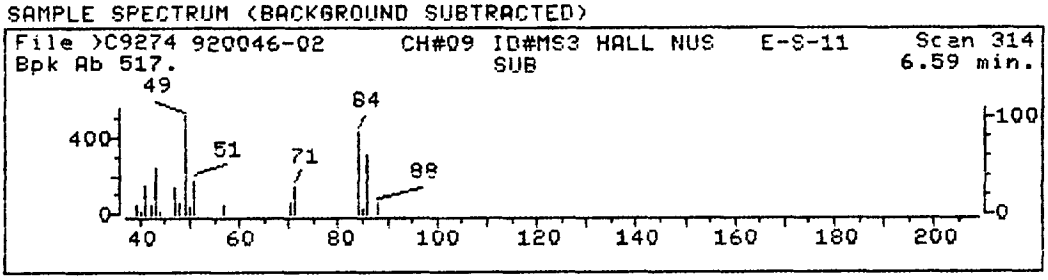
~~20~~ 15
TZC
LH

pg #3196
LH

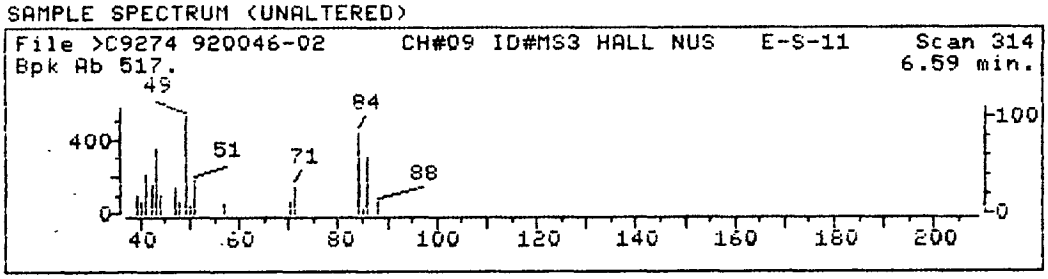
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



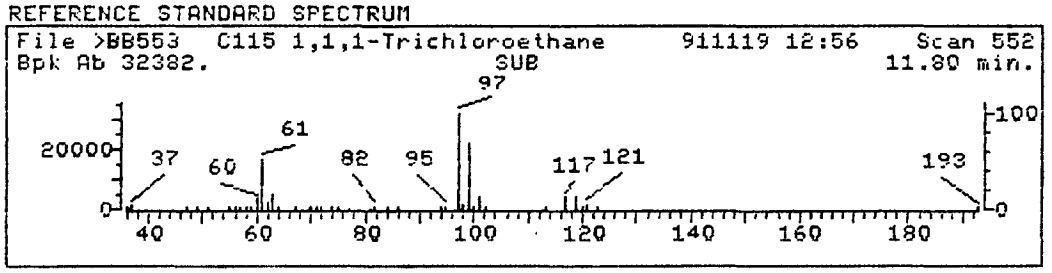
Data File: >C9274::D5 Quant Output File: ^C9274::QT
Name: 920046-02 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Quant Time: 920206 03:09 Quant ID File: V3ID::SC
Injected at: 920206 02:37 Last Calibration: 910429 11:21
Last Qcal Time: 920205 21:45

Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 314
Retention Time: 6.59 min.
Quant Ion : 84.0
Area : 4800
Concentration : 4.53 UG/L
q-value : 77

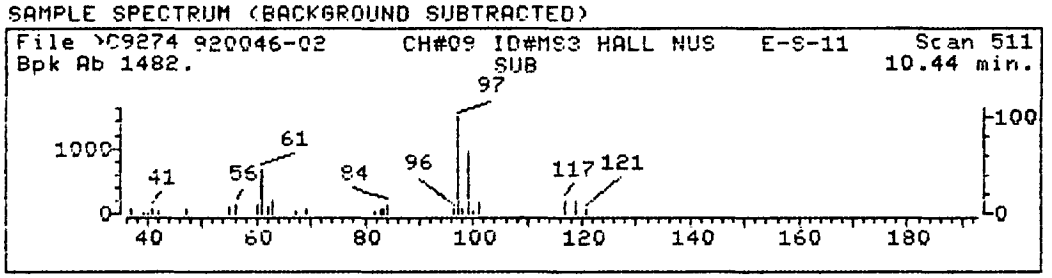
proj # 3096
LM

CB

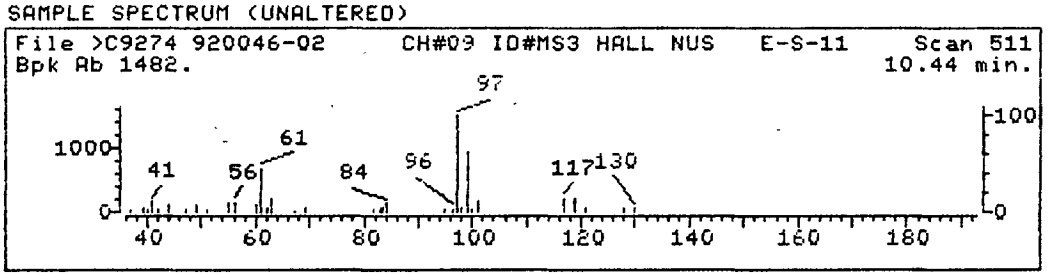
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9274::D5 Quant Output File: ^C9274::QT
Name: 920046-02 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Quant Time: 920206 03:09 Quant ID File: V3ID::SC
Injected at: 920206 02:37 Last Calibration: 910429 11:21
Last Qcal Time: 920205 21:45

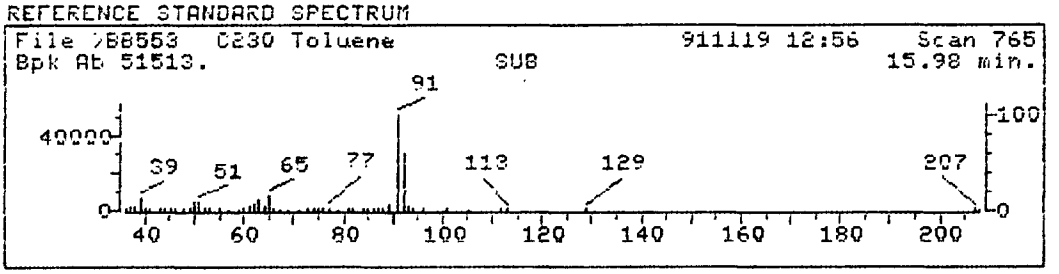
Compound No : 17
Compound Name : C115 1,1,1-Trichloroethane
Scan Number : 511
Retention Time: 10.44 min.
Quant Ion : 97.0
Area : 11943
Concentration : 5.21 UG/L
q-value : 84

proj #3196

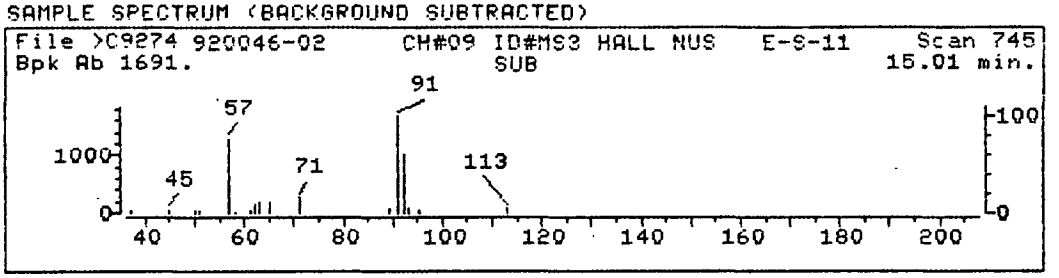
LH

CB

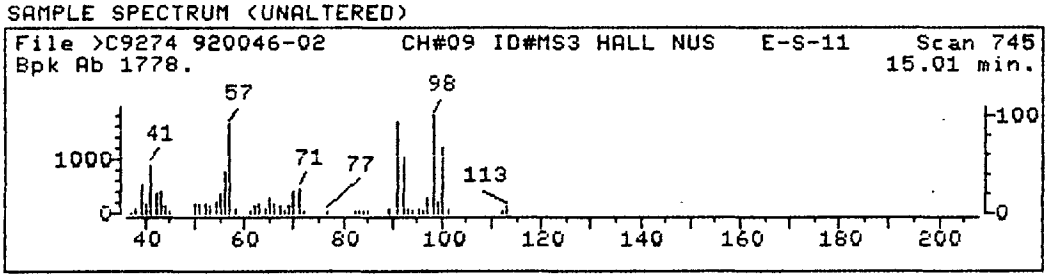
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9274::D5
Name: 920046-02 CH#09
Misc: ID#MS3 HALL NUS E-S-11
Quant Time: 920206 03:09
Injected at: 920206 02:37
Last Qcal Time: 920205 21:45

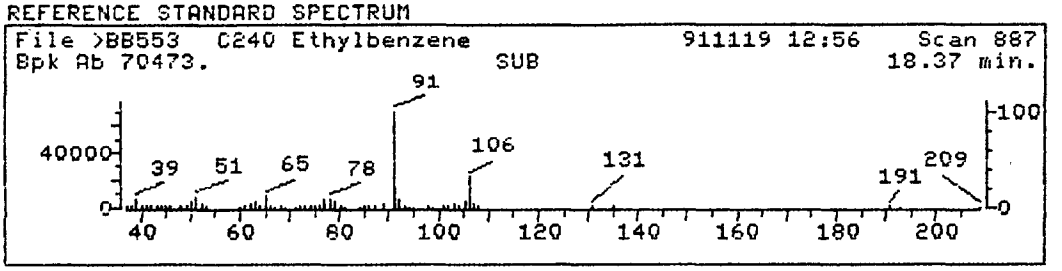
Quant Output File: ^C9274::QT
Instrument ID: MS3
MED SOIL 4G/10MLX100UL LH
Quant ID File: V3ID::SC
Last Calibration: 910429 11:21

Compound No : 33
Compound Name : C230 Toluene
Scan Number : 745
Retention Time: 15.01 min.
Quant Ion : 91.0
Area : 13708
Concentration : 4.31 UG/L
q-value : 99

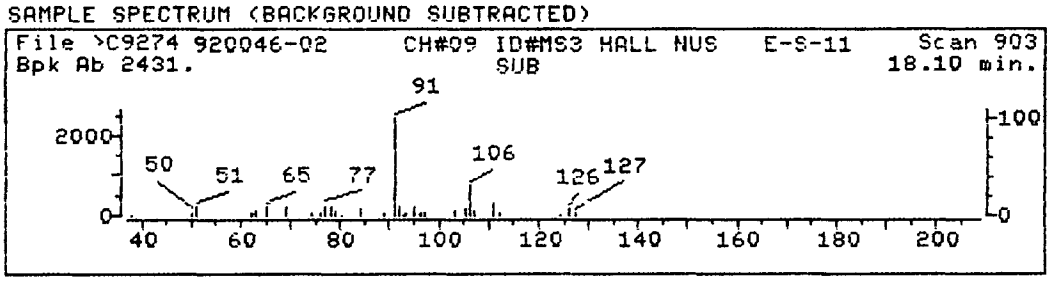
proj # 3196
UH

CB

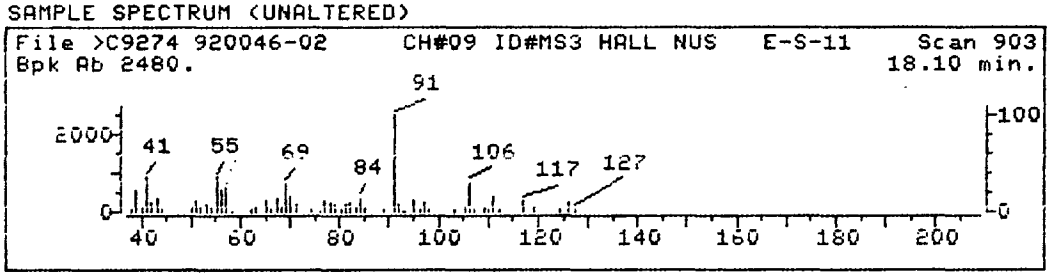
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



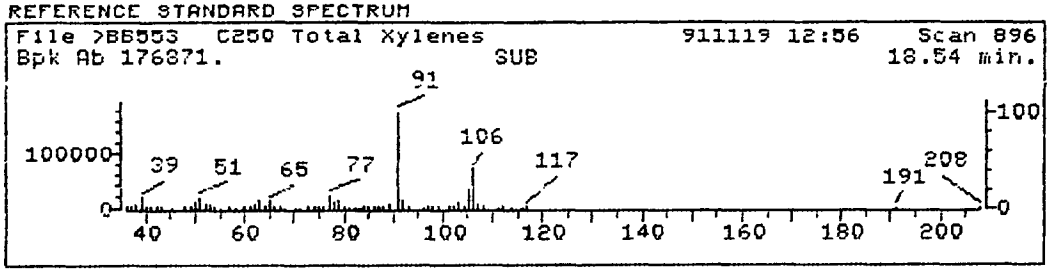
Data File: >C9274::D5 Quant Output File: ^C9274::QT
Name: 920046-02 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Quant Time: 920206 03:09 Quant ID File: V3ID::SC
Injected at: 920206 02:37 Last Calibration: 910429 11:21
Last Qcal Time: 920205 21:45

Compound No : 36
Compound Name : C240 Ethylbenzene
Scan Number : 903
Retention Time: 18.10 min.
Quant Ion : 106.0
Area : 5171
Concentration : 4.35 UG/L
q-value : 95

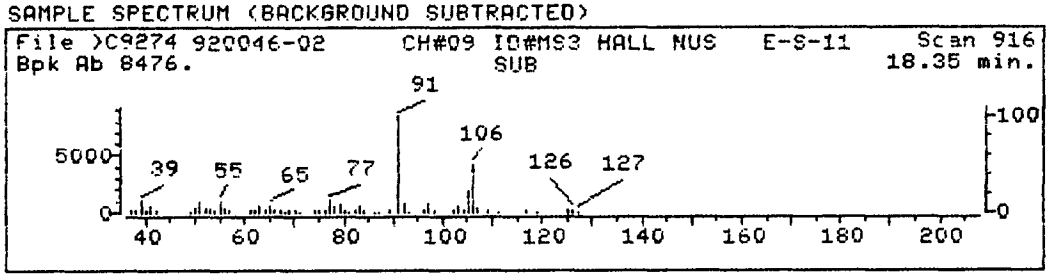
proj #3186
LH

CB

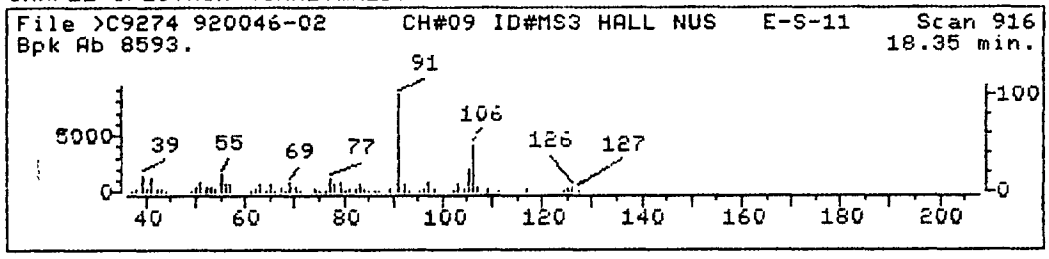
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9274::D5 Quant Output File: ^C9274::QT
Name: 920046-02 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Quant Time: 920206 03:09 Quant ID File: V3ID::SC
Injected at: 920206 02:37 Last Calibration: 910429 11:21
Last Qcal Time: 920205 21:45

Compound No : 38
Compound Name : C250 Total Xylenes
Scan Number : 916
Retention Time: 18.35 min.
Quant Ion : 106.0
Area : 47040M
Concentration : 34.00 UG/L
q-value : 99

proj # 3196
LH

CB

MS data file header from : >C9274::D5

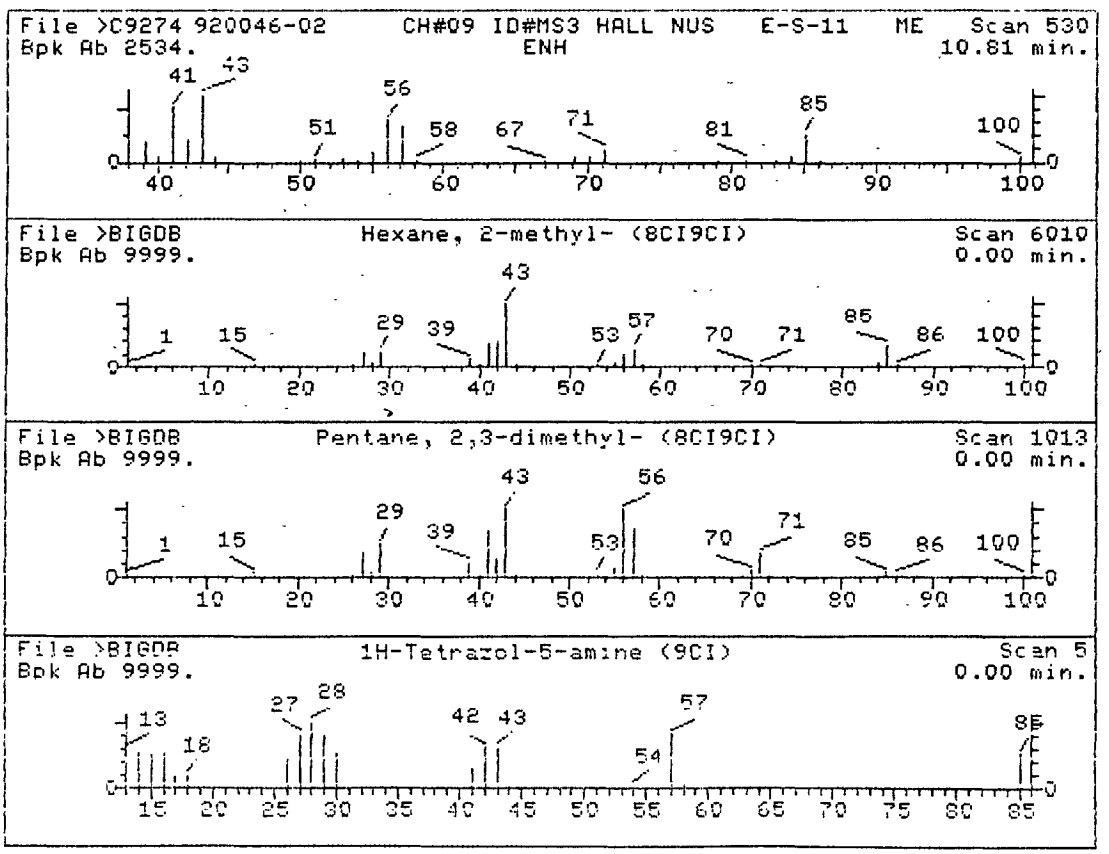
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Hexane, 2-methyl- (8CI9CI) 100 C7H16
2. Pentane, 2,3-dimethyl- (8CI9CI) 100 C7H16
3. 1H-Tetrazol-5-amine (9CI) 85 CH3N5
4. Furan, tetrahydro-2,5-dimethyl-, cis- (8CI9CI) 100 C6H12O
5. Aziridine, 2-methyl- (8CI9CI) 57 C3H7N

Sample file: >C9274 Spectrum #: 530
Search speed: 2 Tilting option: S No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	41*	591764	6010	"BIGDB	33	53	0	0	88	40	17	30
2.	32*	565593	1013	"BIGDB	28	67	1	0	52	35	12	15
3.	27*	4418615	5	"BIGDB	27	83	1	0	44	42	8	15
4.	26*	2144414	6013	"BIGDB	26	52	2	0	47	45	8	14
5.	25*	75558	946	"BIGDB	21	46	0	0	62	46	7	15



aliphatic hydrocarbon

$$\text{Conc} = \frac{126798}{219263} \times \frac{50}{1}$$

$= 29$ ppb $\times 140$

$= \cancel{4100}$

~~unk aliphatic~~

proj # 3196

hm

MS data file header from : >C9274::D5

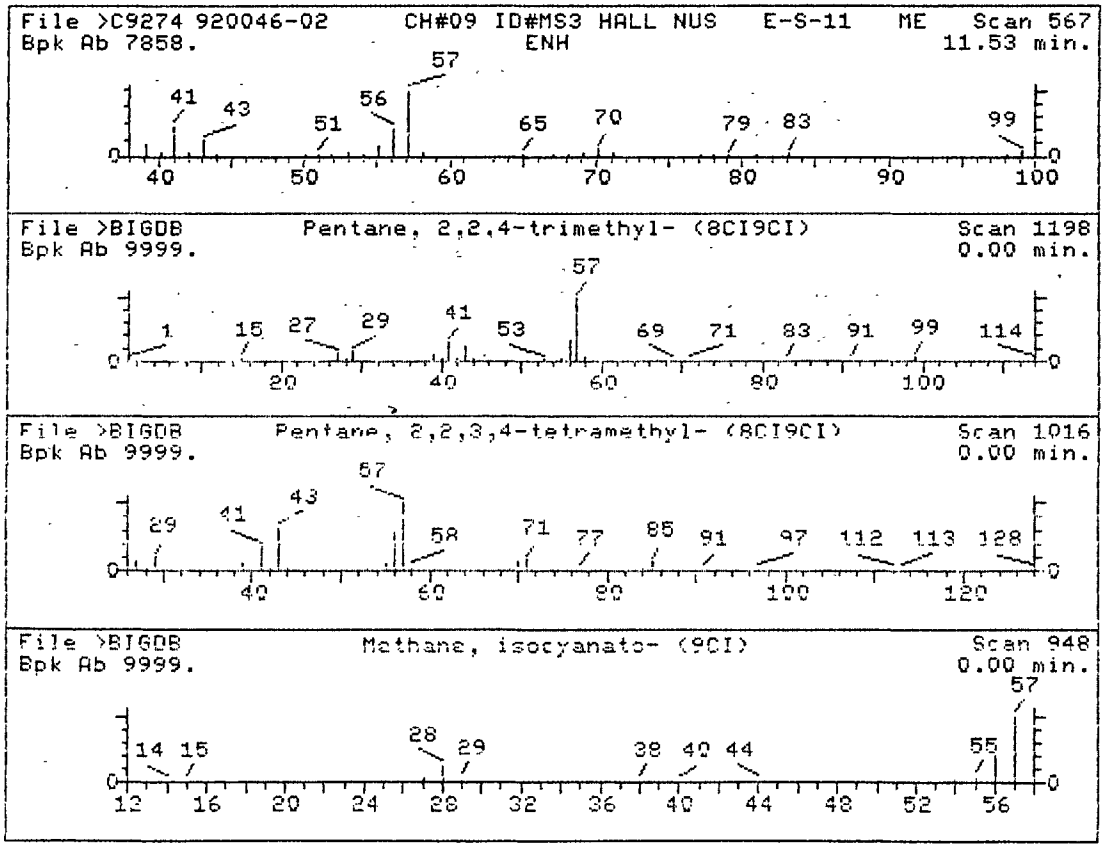
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Pentane, 2,2,4-trimethyl- (8CI9CI) 114 C8H18
2. Pentane, 2,2,3,4-tetramethyl- (8CI9CI) 128 C9H20
3. Methane, isocyanato- (9CI) 57 C2H3NO
4. Hexane, 2,2-dimethyl- (8CI9CI) 114 C8H18
5. Hexane, 2,2,5,5-tetramethyl- (8CI9CI) 142 C10H22

Sample file: >C9274 Spectrum #: 567
Search speed: 2 Tilting option: S No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	67	540841	1198	"BIGDB	41	33	0	0	100	15	34	23
2.	60	1186534	1016	"BIGDB	48	38	3	0	72	12	30	13
3.	52*	624839	948	"BIGDB	27	37	2	0	100	20	20	14
4.	52	590738	1199	"BIGDB	28	44	0	0	100	17	20	14
5.	52	1071814	967	"BIGDB	43	36	2	0	90	17	20	14



Conc = 286309 / ~~443361~~ 443361 × 50/1
= ~~32~~ ppb
~~65~~ 32 × ~~140~~
= ~~9000~~ ~~4500~~

uw/c

proj# 3196

44

140

X

MS data file header from : >C9274::D5

Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
- Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1.	Cyclohexane, methyl- (8CI9CI)	98	C7H14
2.	2-Pentene, 2,3-dimethyl- (8CI9CI)	98	C7H14
3.	Cyclopropane, 1,1,2,2-tetramethyl- (8CI9CI)	98	C7H14
4.	1H-Pyrazole, 4,5-dihydro-4,5-dimethyl- (9CI)	98	C5H10N2
5.	7-Oxabicyclo[4.1.0]heptane (8CI9CI)	98	C6H10O

Sample file: >C9274 Spectrum #: 633
Search speed: 2 Tilting option: S No. of ion ranges searched: 48

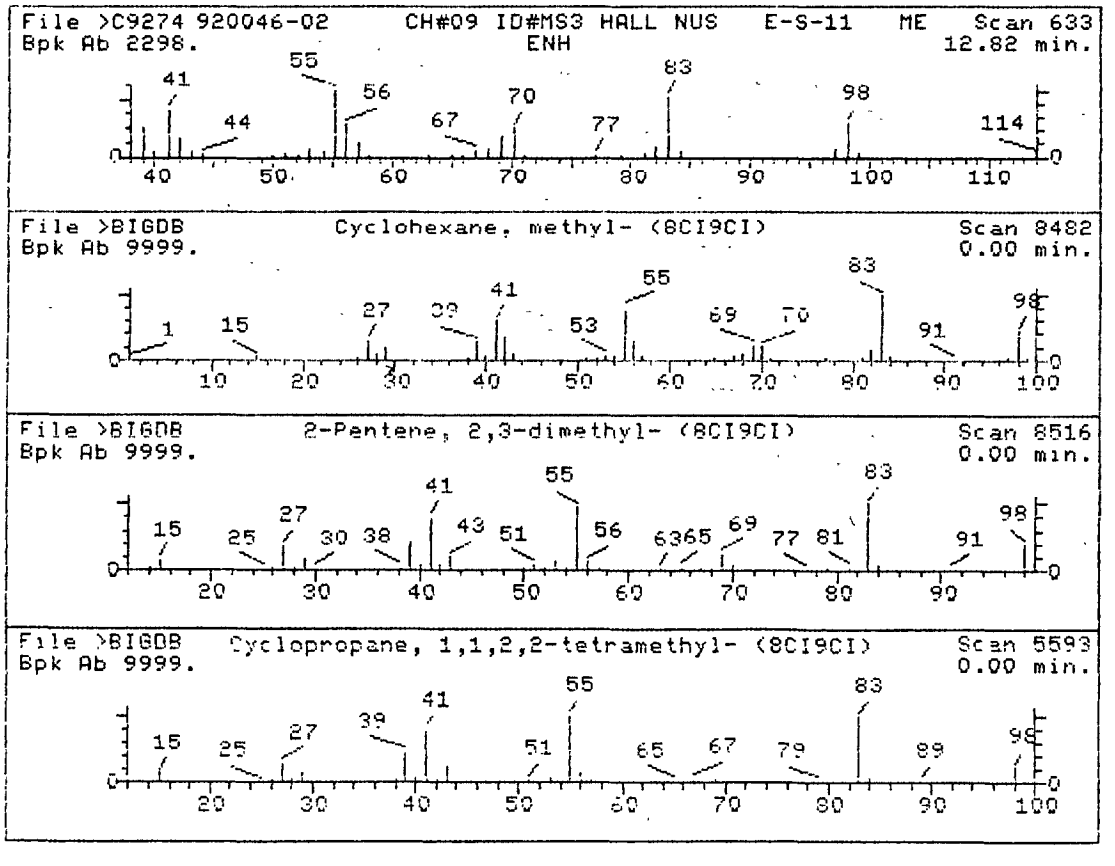
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	67*	108872	8482	"BIGDB	49	54	0	0	80	29	27	59
2.	62*	10574375	8516	"BIGDB	69	32	1	0	88	44	18	67
3.	45*	4127473	5593	"BIGDB	56	41	0	0	84	55	11	67
4.	33*	28019945	8525	"BIGDB	39	54	2	0	91	36	10	19
5.	30*	286204	5586	"BIGDB	37	78	3	0	91	32	12	13

C7H14 isomer

$conc = \frac{148170}{443361} \times \frac{50}{1}$

= 17 ppb ~~x140~~

= ~~2400~~



proj #3196

LH

MS data file header from : >C9274::D5

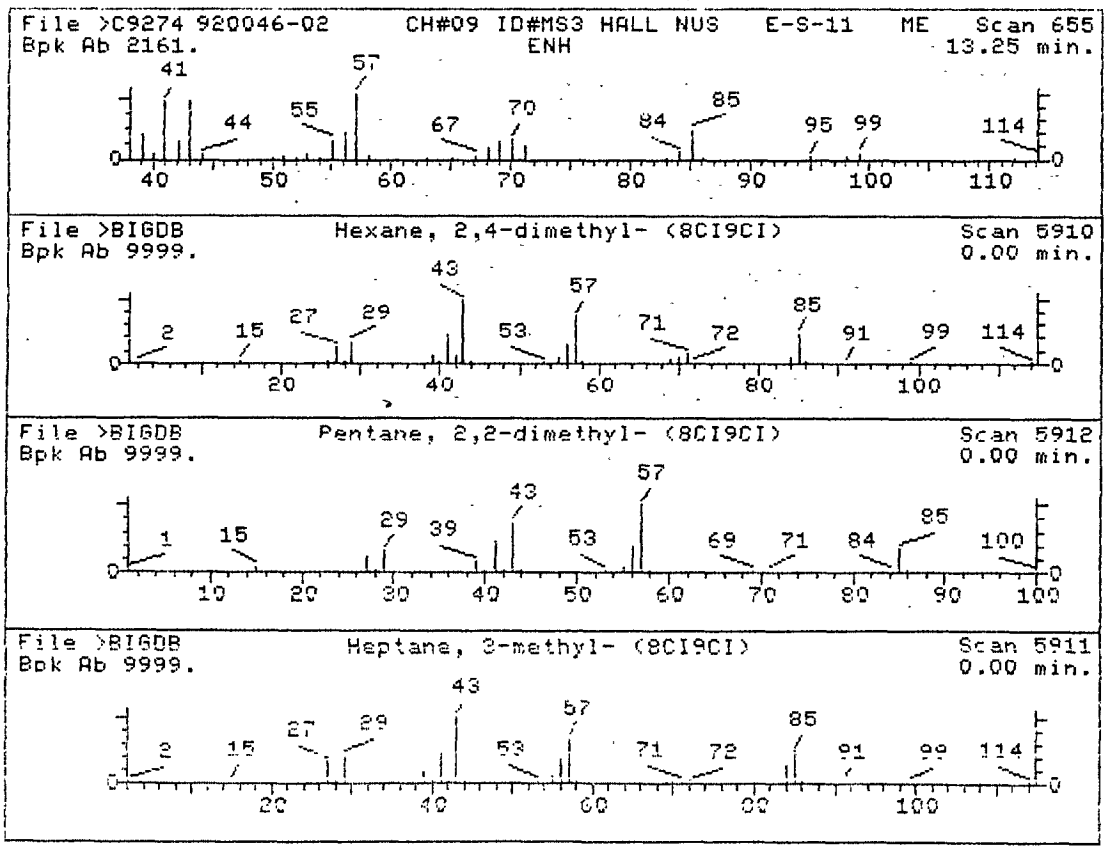
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Hexane, 2,4-dimethyl- (8CI9CI) 114 C8H18
2. Pentane, 2,2-dimethyl- (8CI9CI) 100 C7H16
3. Heptane, 3-methyl- (8CI9CI) 114 C8H18
4. Hexane, 2,5-dimethyl- (8CI9CI) 114 C8H18
5. Methane, isocyanato- (9CI) 57 C2H3NO

Sample file: >C9274 Spectrum #: 655
Search speed: 2 Tilting option: S No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	67*	589435	5910	"BIGDB	41	57	1	0	98	11	34	23
2.	38	590352	5912	"BIGDB	39	45	0	0	100	31	16	21
3.	27*	589811	5911	"BIGDB	27	64	1	0	88	45	8	15
4.	25*	592132	8819	"BIGDB	40	50	2	0	85	47	7	19
5.	25*	624839	948	"BIGDB	26	38	0	0	100	48	7	18



aliphatic hydrocarbon

$Conc = \frac{157048}{443361} \times \frac{50}{1}$

= 17 ppb ~~x140~~

= ~~2400~~

~~unk aliphatic~~

proj # 3196

hh

MS data file header from : >C9274::D5

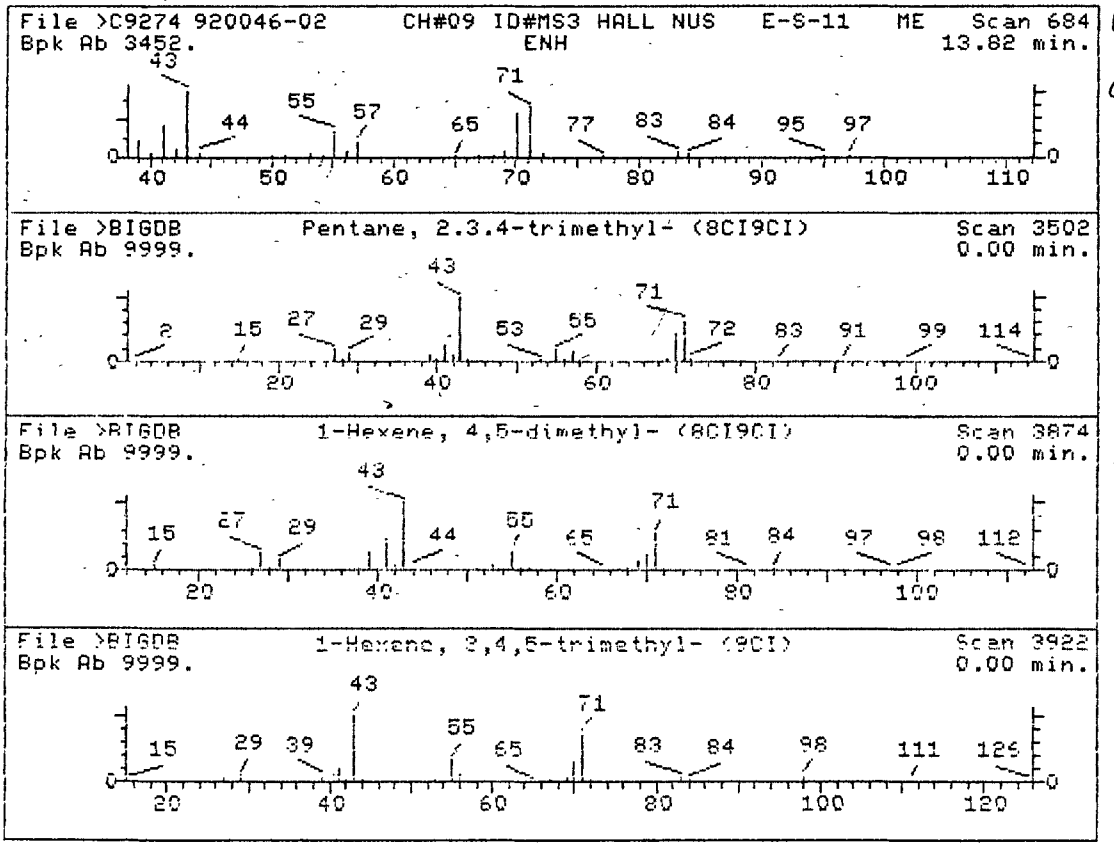
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Pentane, 2,3,4-trimethyl- (8CI9CI) 114 C8H18
2. 1-Hexene, 4,5-dimethyl- (8CI9CI) 112 C8H16
3. 1-Hexene, 3,4,5-trimethyl- (9CI) 126 C9H18
4. Pentane, 3-ethyl- (8CI9CI) 100 C7H16
5. Pyrrolidine (DOT)(8CI9CI) 71 C4H9N

Sample file: >C9274 Spectrum #: 684
Search speed: 2 Tilting option: S No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	70	565753	3502	"BIGDB	34	46	1	0	100	10	42	12
2.	63*	16106595	3874	"BIGDB	50	37	2	0	99	17	30	31
3.	60	56728100	3922	"BIGDB	40	45	2	0	100	12	30	14
4.	27	617787	3504	"BIGDB	45	38	2	0	134	42	8	15
5.	25*	123751	3498	"BIGDB	22	66	2	0	100	45	8	13



aliphatic hydrocarbon

$$Conc = \frac{152364}{443361} \times \frac{50}{1}$$

$= 17$ ppb $\times 140$

$= 2400$

~~TMTC~~

Proj #3196
LH

MS data file header from : >C9274::D5

Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 2-methyl- (8CI9CI) 114 C8H18
2. Heptane, 2,3,4-trimethyl- (9CI) 142 C10H22
3. Hexane, 2,5-dimethyl- (8CI9CI) 114 C8H18
4. Octane, 3,5-dimethyl- (8CI9CI) 142 C10H22
5. Hexane, 4-ethyl-2-methyl- (8CI9CI) 128 C9H20

Sample file: >C9274 Spectrum #: 715
Search speed: 2 Tilting option: S No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	62*	592278	8820	"BIGDB	41	52	0	0	88	30	25	43
2.	48	52896954	8759	"BIGDB	37	53	0	0	77	25	17	19
3.	46*	592132	8819	"BIGDB	48	42	1	0	84	36	17	35
4.	46	15869939	3611	"BIGDB	49	44	1	0	85	25	17	17
5.	35	3074757	8735	"BIGDB	33	56	1	0	75	30	14	12

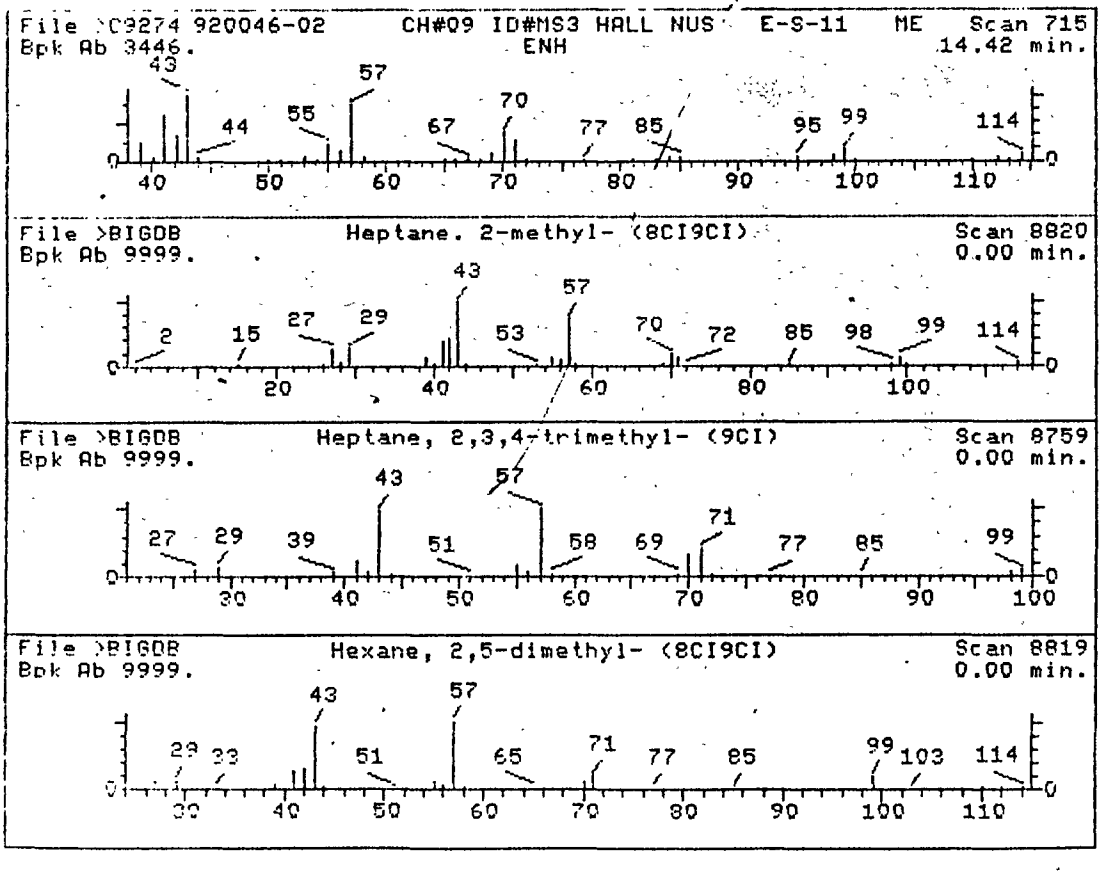
aliphatic hydrocarbon

$$Conc = \frac{104873}{443361} \times \frac{50}{1}$$

$= 12$ ppb ~~440~~

$= \cancel{1700}$

~~HMK~~



144

CB.

MS data file header from : >C9274::D5

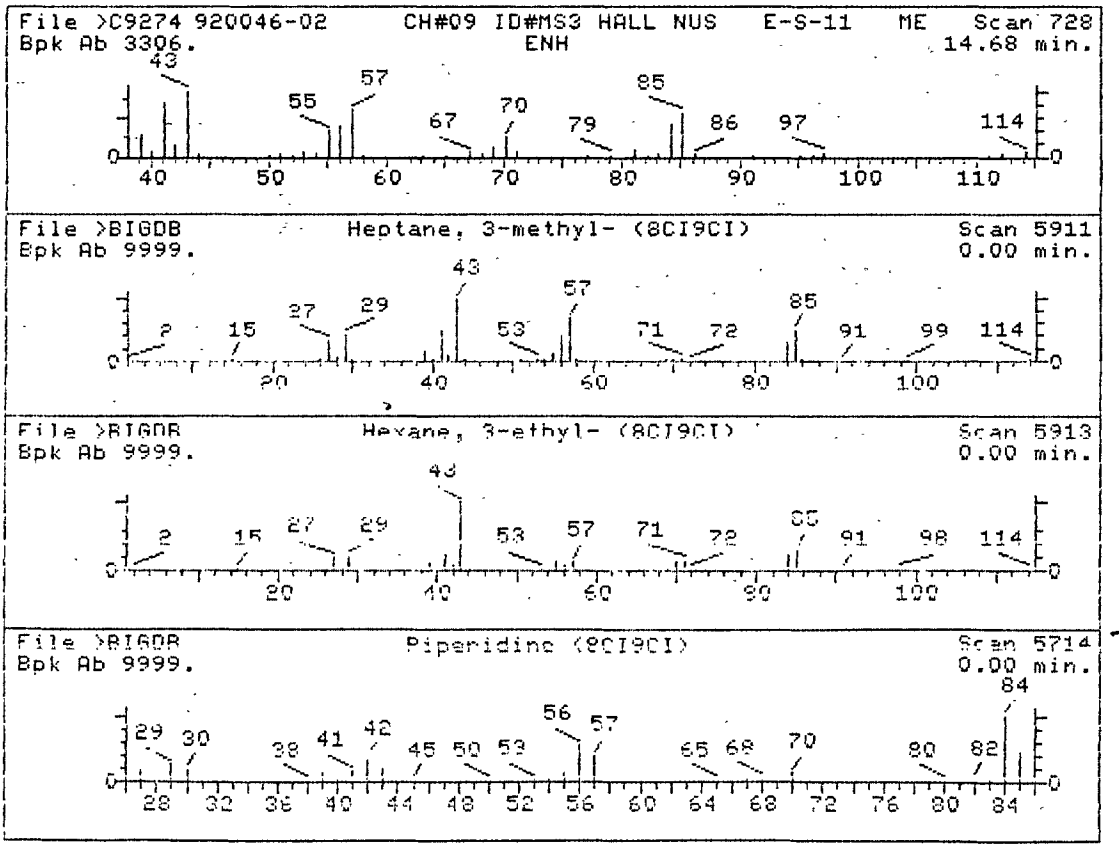
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3-methyl- (8CI9CI) 114 C8H18
2. Hexane, 3-ethyl- (8CI9CI) 114 C8H18
3. Piperidine (8CI9CI) 85 C5H11N
4. Hexane, 2,3,3-trimethyl- (8CI9CI) 128 C9H20
5. Hexane, 2,4-dimethyl- (8CI9Cl) 114 C8H18

Sample file: >C9274 Spectrum #: 728
Search speed: 2 Tilting option: S No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	51*	589811	5911	"BIGDB	39	52	0	0	100	37	19	42
2.	45*	619998	5913	"BIGDB	48	42	2	0	227	31	16	28
3.	25*	110894	5714	"BIGDB	26	73	2	0	50	47	7	14
4.	20	16747287	5966	"BIGDB	37	52	1	0	97	55	5	14
5.	20*	589435	5910	"BIGDB	31	67	2	0	99	52	5	14



aliphatic hydrocarbon

$$Conc = \frac{1385-20}{443361} \times \frac{50}{1}$$

$= 16$ ppb ~~x140~~

$= \cancel{2200}$

~~unk~~

proj 145 5996

hh

MS data file header from : >C9274::D5

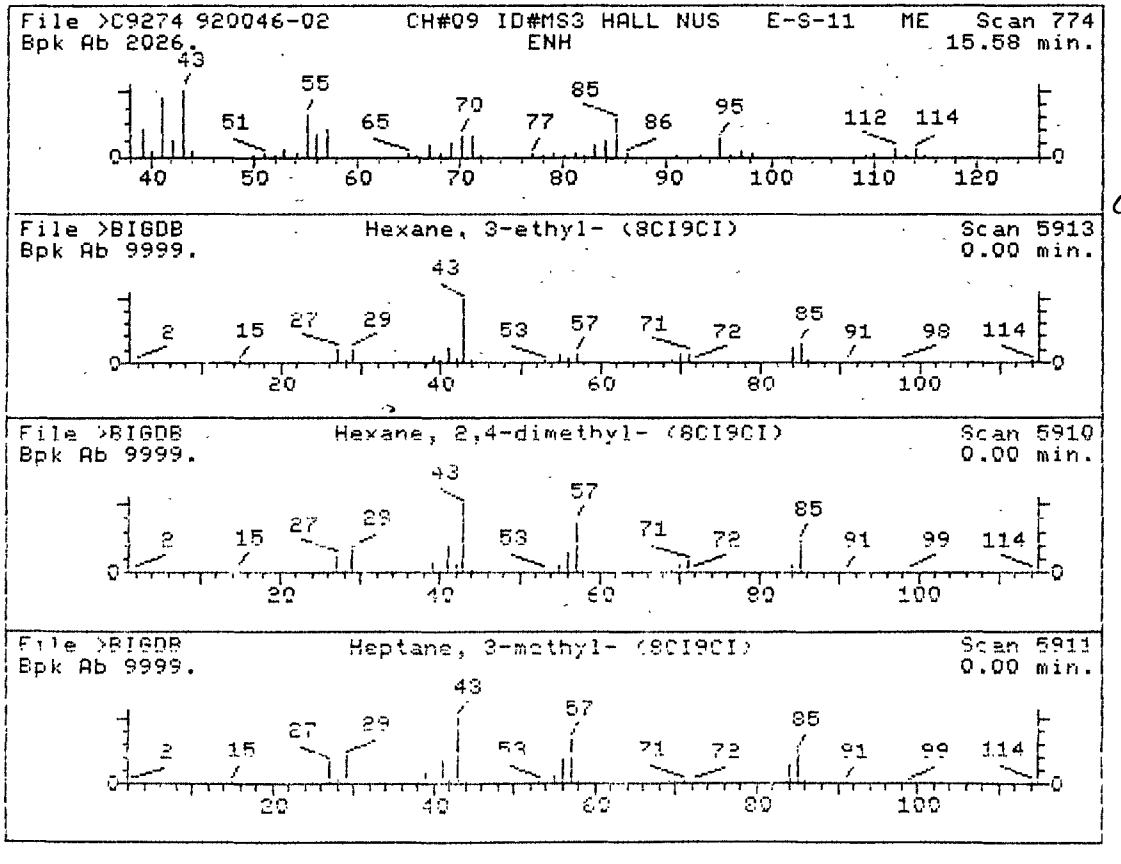
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Hexane, 3-ethyl- (8CI9CI) 114 C8H18
2. Hexane, 2,4-dimethyl- (8CI9CI) 114 C8H18
3. Heptane, 3-methyl- (8CI9CI) 114 C8H18
4. Octane (DOT)(8CI9CI) 114 C8H18
5. Pentane, 3-ethyl-2-methyl- (8CI9CI) 114 C8H18

Sample file: >C9274 Spectrum #: 774
Search speed: 2 Tilting option: S No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	27*	619998	5913	"BIGDB	30	60	2	0	193	44	8	15
2.	26*	589435	5910	"BIGDB	32	66	2	0	100	44	8	14
3.	25*	589811	5911	"BIGDB	36	55	1	0	89	47	7	19
4.	20*	111659	6064	"BIGDB	30	63	1	0	85	55	5	16
5.	20*	609267	3551	"BIGDB	22	69	3	0	280	51	5	12



C8H18 isomer

Conc = $\frac{110865}{\cancel{443361}\ 491938} \times \frac{50}{1}$

= ~~10~~ 11 ppb ~~x 140~~

= ~~1500~~

~~conc~~

proj #3196

LH 146

MS data file header from : >C9274::D5

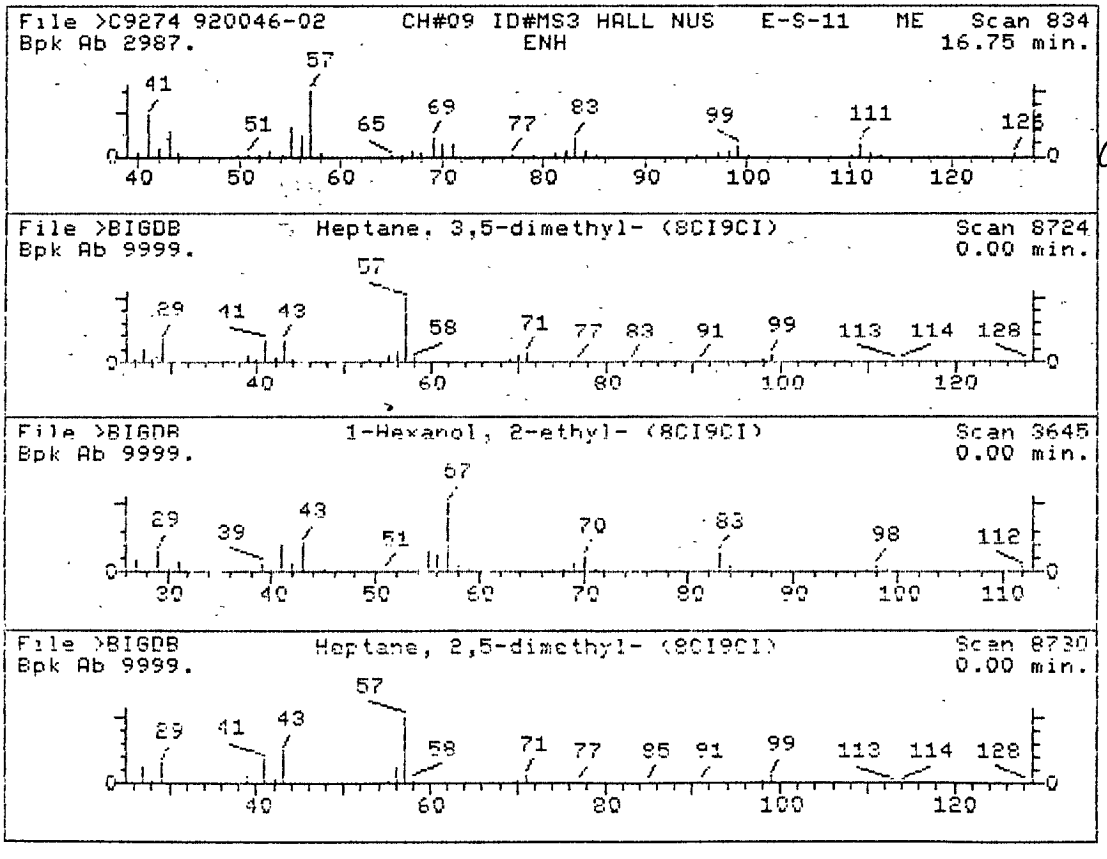
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3,5-dimethyl- (8CI9CI) 128 C9H20
2. 1-Hexanol, 2-ethyl- (8CI9CI) 130 C8H18O
3. Heptane, 2,5-dimethyl- (8CI9CI) 128 C9H20
4. Octane, 3-methyl- (8CI9CI) 128 C9H20
5. Heptane, 3-ethyl- (8CI9CI) 128 C9H20

Sample file: >C9274 Spectrum #: 834
Search speed: 2 Tilting option: S No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	65*	926829	8724	"BIGDB	41	41	0	0	100	35	24	53
2.	63	104767	3645	"BIGDB	58	36	0	0	92	16	30	35
3.	46*	2216300	8730	"BIGDB	42	44	1	0	100	29	19	24
4.	41*	2216333	8731	"BIGDB	33	51	1	0	100	29	14	18
5.	36*	15869804	8564	"BIGDB	40	48	2	0	100	35	12	19



C9H20 isomer

Conc = $\frac{155066}{\cancel{44336}\ 491938} \times \frac{50}{1}$

= 16 ppb ~~x140~~

= ~~2400 2200~~

~~UNAC~~

Proj #3196

hA7

X

MS data file header from : >C9274::D5

Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 3-methyl- (8CI9CI) 128 C9H20
2. Heptane, 3-ethyl- (8CI9CI) 128 C9H20
3. Heptane, 2,5-dimethyl- (8CI9CI) 128 C9H20
4. Heptane, 2-bromo- (8CI9CI) 178 C7H15Br
5. Heptane, 4-(1-methylethyl)- (9CI) 142 C10H22

Sample file: >C9274 Spectrum #: 892
Search speed: 2 Tilting option: S No. of ion ranges searched: 59

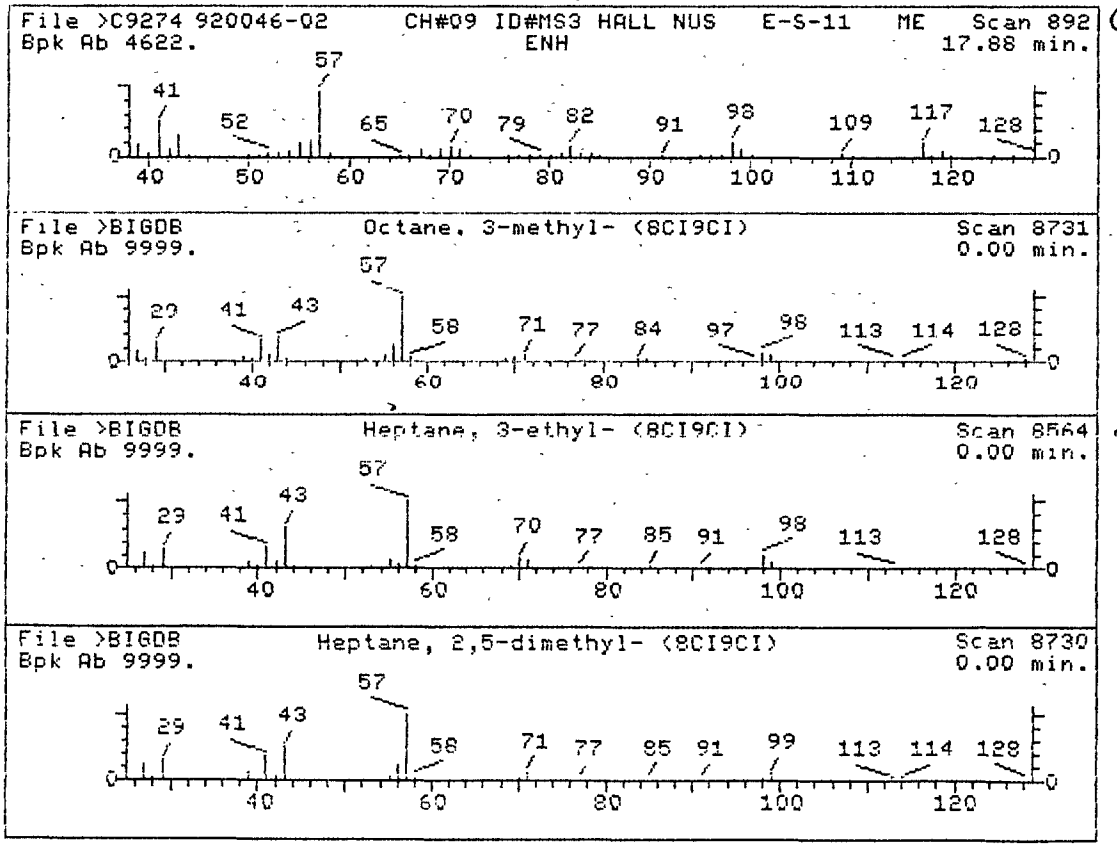
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	67*	2216333	8731	"BIGDB	46	38	0	0	100	28	27	57
2.	57*	15869804	8564	"BIGDB	49	39	1	0	76	28	24	37
3.	47*	2216300	8730	"BIGDB	43	43	1	0	100	30	19	25
4.	41	1974045	1201	"BIGDB	49	35	0	0	84	40	14	28
5.	37	52896874	8582	"BIGDB	40	43	2	0	93	29	14	14

C9H20 18mer

$Conc = \frac{104563}{491938} \times \frac{50}{1}$

$= 11$ ppb $\times$ ~~140~~

~~= 1500~~



~~LMK~~

proj #3196

LH

L4

MS data file header from : >C9274::D5

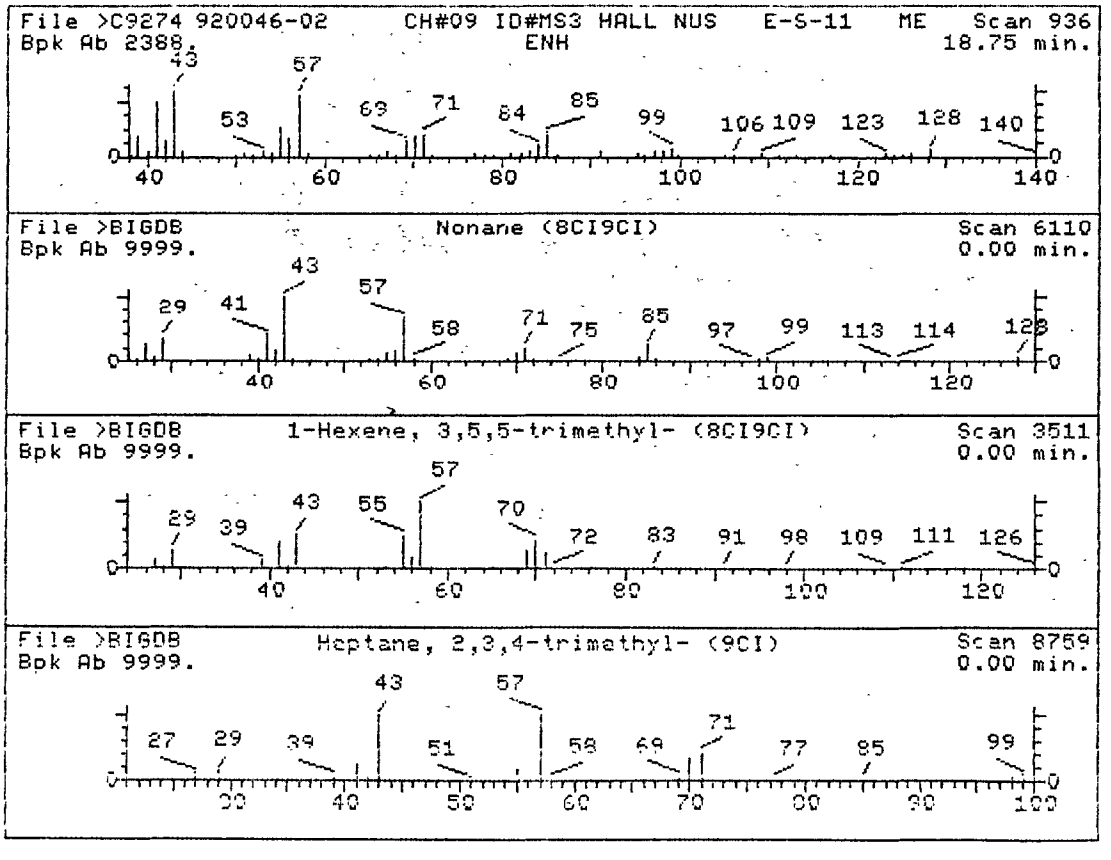
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Nonane (8CI9CI) 128 C9H20
2. 1-Hexene, 3,5,5-trimethyl- (8CI9CI) 126 C9H18
3. Heptane, 2,3,4-trimethyl- (9CI) 142 C10H22
4. Pentane, 2,2,3,3-tetramethyl- (8CI9CI) 128 C9H20
5. Hexane, 3-ethyl-4-methyl- (8CI9CI) 128 C9H20

Sample file: >C9274 Spectrum #: 936
Search speed: 2 Tilting option: S No. of ion ranges searched: 62

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	84*	111842	6110	"BIGDB	63	33	1	0	139	10	55	60
2.	55*	4316658	3511	"BIGDB	42	48	0	0	72	38	19	46
3.	50	52896954	8759	"BIGDB	56	34	0	0	81	31	20	34
4.	47	7154792	8746	"BIGDB	44	45	0	0	75	30	19	25
5.	46*	3074779	3606	"BIGDB	52	44	2	0	82	32	20	30



aliphatic hydrocarbon

$$Conc = \frac{91533}{491938} \times \frac{50}{1}$$

$= 9$ ppb ~~x 140~~

~~= 1300~~

unk ~~aliphatic~~

proj #3186

LH

MS data file header from : >C9274::D5

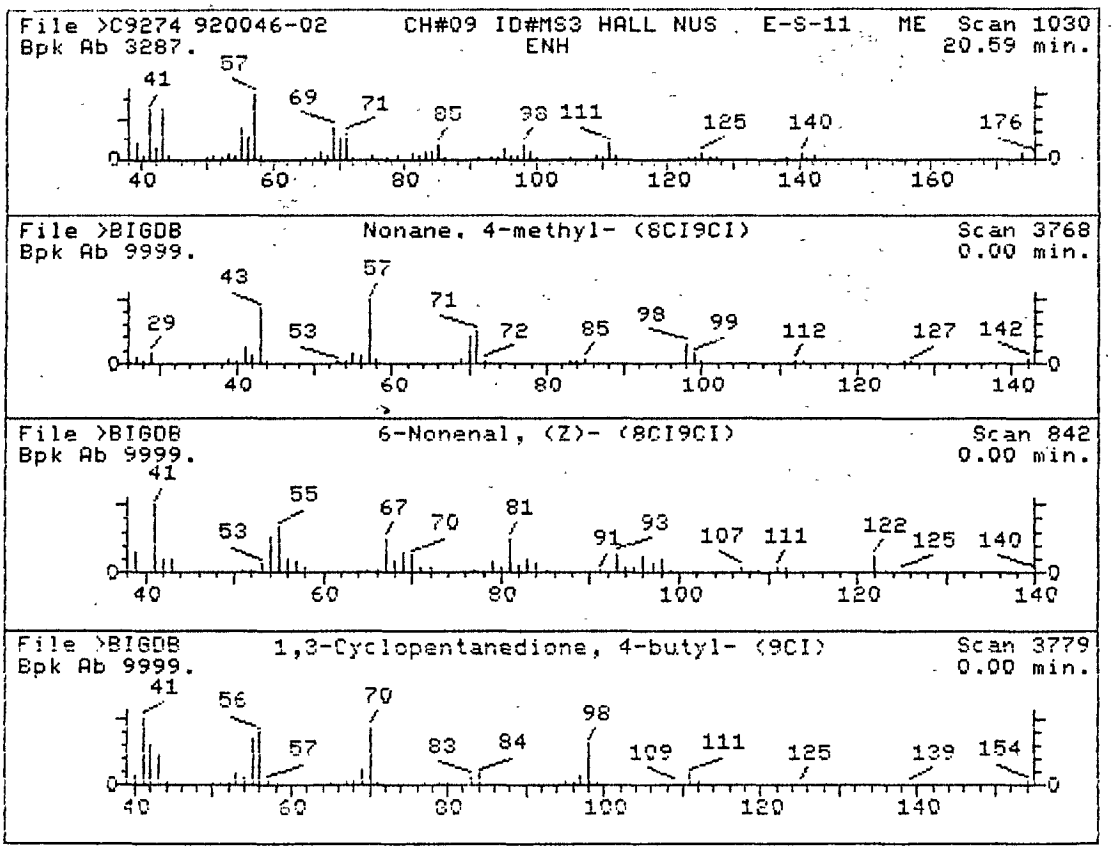
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Nonane, 4-methyl- (8CI9CI) 142 C10H22
2. 6-Nonenal, (Z)- (8CI9CI) 140 C9H16O
3. 1,3-Cyclopentanedione, 4-butyl- (9CI) 154 C9H14O2
4. Octane, 2,5-dimethyl- (8CI9CI) 142 C10H22
5. Octane, 3,5-dimethyl- (8CI9CI) 142 C10H22

Sample file: >C9274 Spectrum #: 1030
Search speed: 2 Tilting option: S No. of ion ranges searched: 72

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25	17301949	3768	"BIGDB	57	43	2	0	73	47	7	15
2.	20*	2277192	842	"BIGDB	35	78	3	0	75	54	5	13
3.	20	54244723	3779	"BIGDB	50	47	1	0	29	54	5	15
4.	15*	15869893	8749	"BIGDB	56	36	1	0	84	65	3	44
5.	12*	15869939	3611	"BIGDB	44	49	1	0	100	65	2	26



aliphatic hydrocarbon

$Conc = \frac{178955}{491938} \times \frac{50}{1}$

$= 18$ ppb ~~x140~~

~~= 2500~~

unc

Proj #3196

LH

150

MS data file header from : >C9274::D5

Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9274 Spectrum #: 1056
Search speed: 2 Tilting option: S No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	95*	622968	12268	"BIGDB	80	5	1	0	100	11	64	96
2.	95*	611143	12266	"BIGDB	80	5	1	0	100	11	64	96
3.	93*	620144	12267	"BIGDB	75	12	1	0	84	11	64	93
4.	81*	98828	12259	"BIGDB	55	32	2	0	98	9	53	41
5.	79*	526738	12280	"BIGDB	64	36	2	1	67	9	48	38

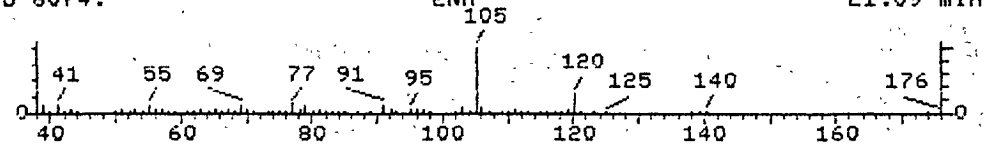
C3 benzene isomer ~~hydrocarb~~

$$Conc = \frac{211553}{491938} \times \frac{50}{1}$$

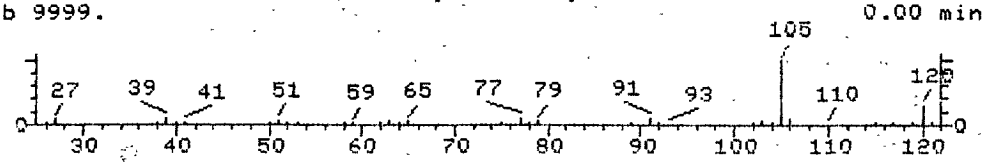
$= 22$ ppb ~~2x110~~

~~= 3100~~

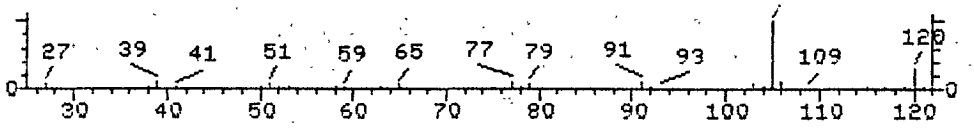
File >C9274 920046-02 CH#09 ID#MS3 HALL NUS E-S-11 ME Scan 1056
Bpk Ab 8074. ENH 21.09 min.



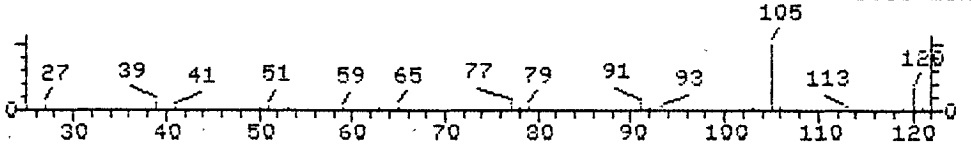
File >BIGDB Benzene, 1-ethyl-4-methyl- (9CI) Scan 12268
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-3-methyl- (9CI) Scan 12267
Bpk Ab 9999. 0.00 min.



proj#3186

MA

MS data file header from : >C9274::D5

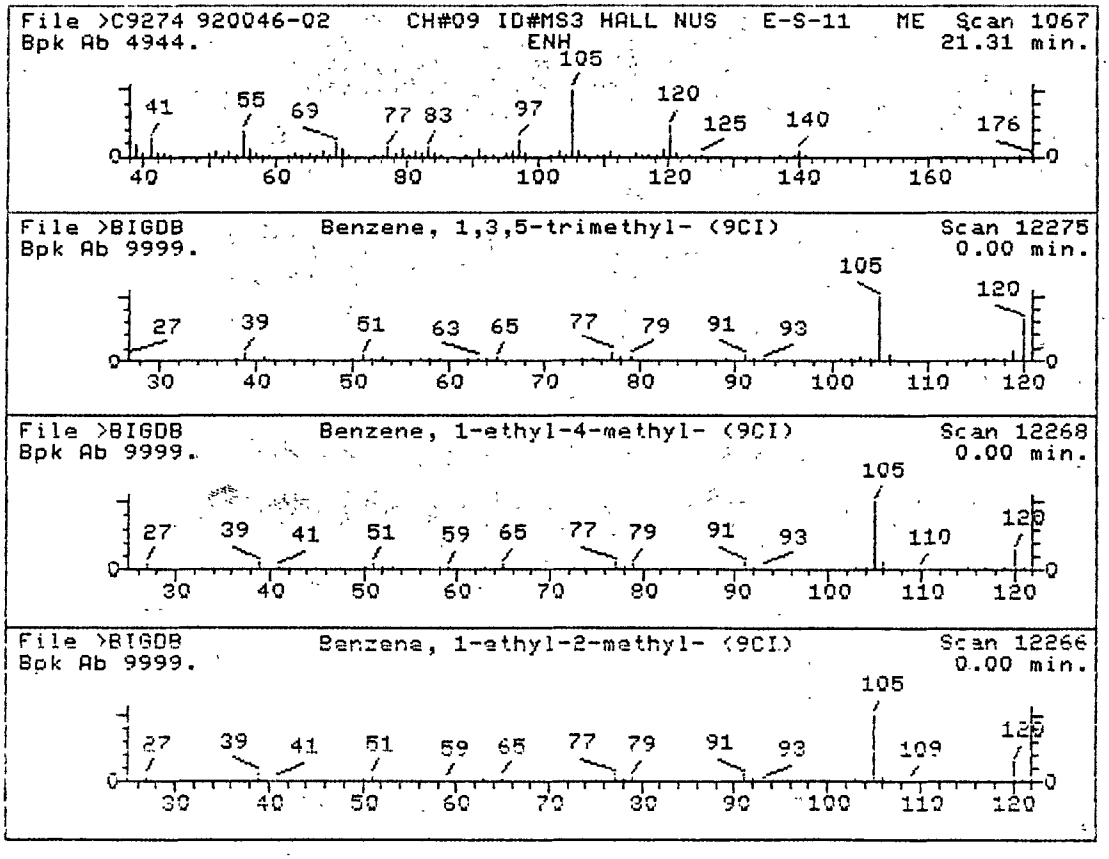
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1,3,5-trimethyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
4. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
5. Benzene, 1,2,4-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9274 Spectrum #: 1067
Search speed: 2 Tilting option: S No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	89*	108678	12275	"BIGDB	73	15	1	0	72	25	47	89
2.	85*	622968	12268	"BIGDB	69	16	0	1	86	38	37	89
3.	69*	611143	12266	"BIGDB	66	19	1	0	91	41	24	76
4.	68*	620144	12267	"BIGDB	66	21	1	0	91	40	28	72
5.	47*	95636	12273	"BIGDB	61	34	1	0	58	48	13	57



C3 benzene ~~hydrocarbon~~

$$Conc = \frac{171841}{491938} \times \frac{50}{1}$$

= 17 ppb ~~x140~~

~~= 2400~~

proj #3196

LH

MS data file header from : >C9274::D5

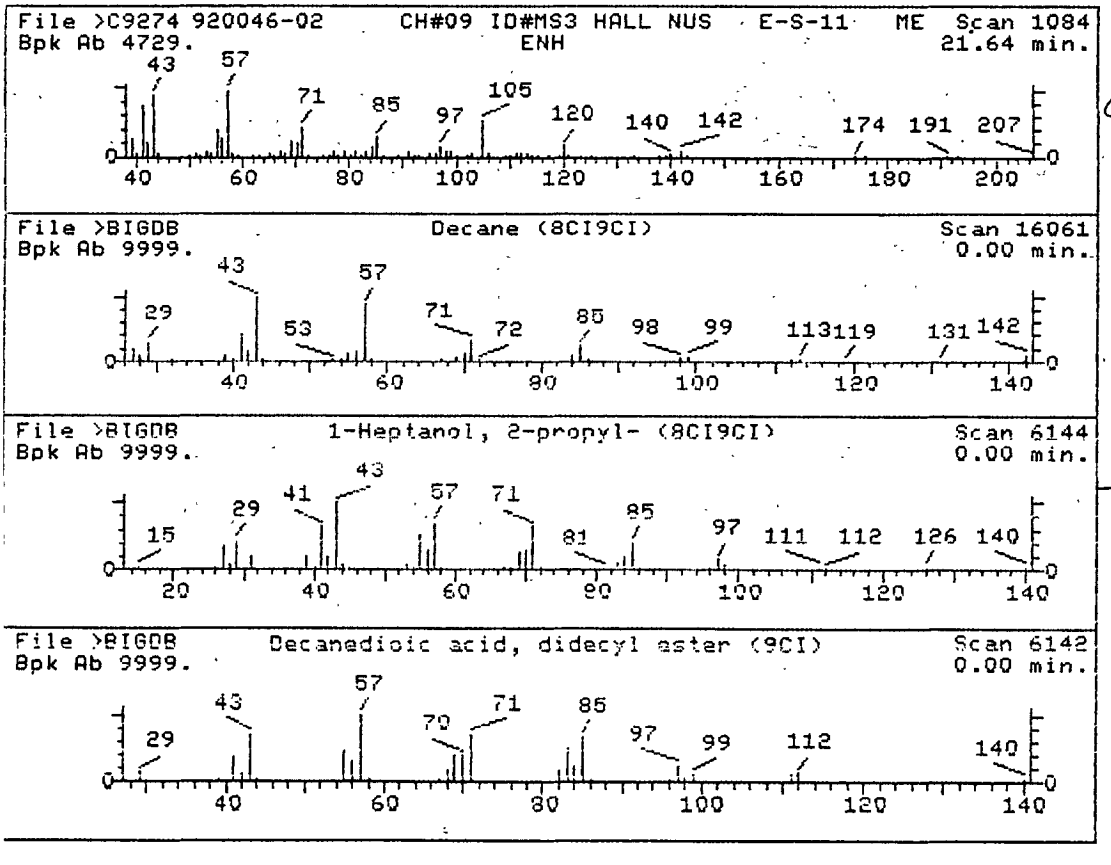
Sample: 920046-02 CH#09 Operator: VOA2 REG. GRP. 2/06/92 2:37
Misc : ID#MS3 HALL NUS E-S-11 MED SOIL 4G/10MLX100UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Decane (8CI9CI)	142	C10H22
2. 1-Heptanol, 2-propyl- (8CI9CI)	158	C10H22O
3. Decanedioic acid, didecyl ester (9CI)	482	C30H58O4
4. 1-Octanol, 2-butyl- (8CI9CI)	186	C12H26O
5. Octane, 2,2,6-trimethyl- (9CI)	156	C11H24

Sample file: >C9274 Spectrum #: 1084
Search speed: 2 Tilting option: S No. of ion ranges searched: 74

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	76*	124185	16061	"BIGDB	59	41	0	0	93	24	41	72
2.	62	10042598	6144	"BIGDB	86	23	1	0	69	29	25	45
3.	43	2432895	6142	"BIGDB	65	81	2	0	44	24	17	14
4.	43	3913028	6217	"BIGDB	66	53	2	0	75	25	17	14
5.	41	62016288	1027	"BIGDB	36	41	2	0	365	25	17	12



aliphatic hydrocarbon

$Conc = \frac{26.772}{491938} \times \frac{50}{1}$

= 2.6 ppb ~~x440~~

~~= 3600~~

~~conc~~

proj # 3196

LH

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-13

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1566

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. 7 Date Analyzed: 02/05/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	10	J
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-13

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1566

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. 7 Date Analyzed: 02/05/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

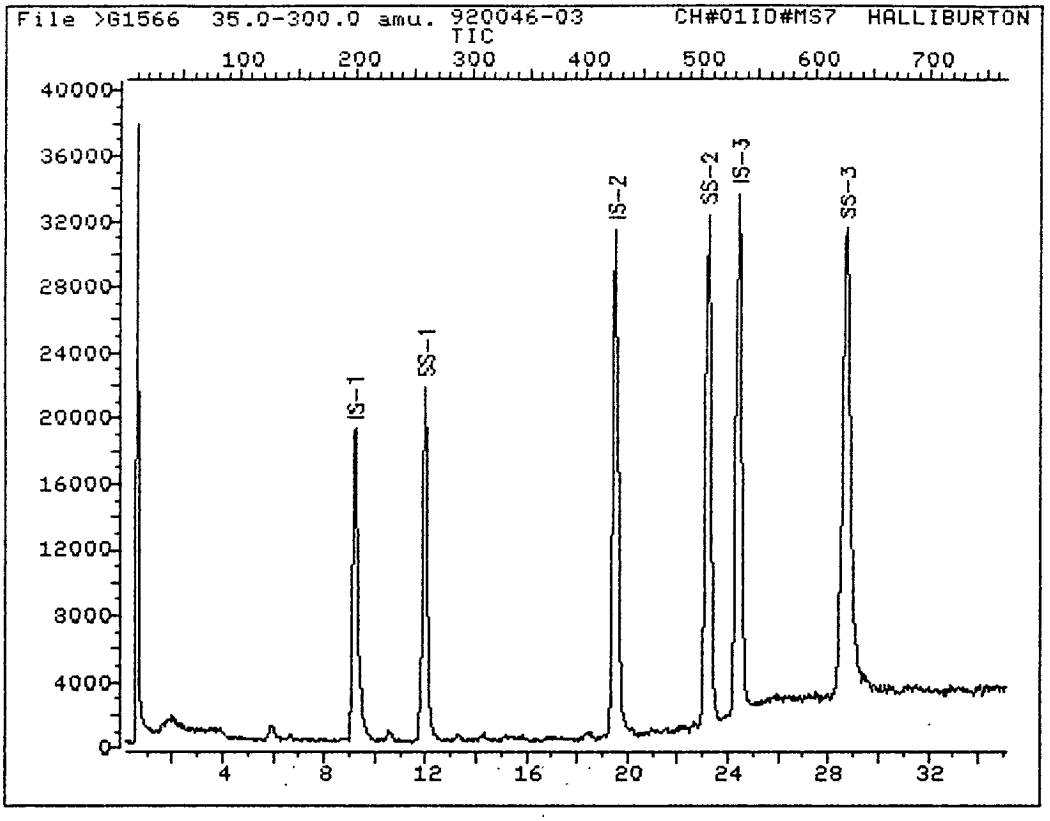
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >G1566::D7 Quant Output File: ^G1566::QT
Name: 920046-03 CH#01 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-~~3~~-13 5.0GM CLB
S

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920205 12:00

Operator ID: VOA7
Quant Time : 920205 16:16
Injected at: 920205 15:39

proj # 3196
CH

CB

QUANT REPORT

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920205 16:16
Output File: ^G1566::QT Injected at: 920205 15:39
Data File: >G1566::D7 Dilution Factor: 1.00000
Name: 920046-03 CH#01 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-~~3~~-13 5.0GM CLB
5

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920205 12:00

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	43069	50.00	UG/L	70
6)	C030 Methylene Chloride	5.91	84.0	3744	3.46	UG/L	63
7)	C035 Acetone	6.64	43.0	3208	9.36	UG/L	99
13)	CS15 1,2-Dichloroethane-d4	11.98	65.0	122911	52.22	UG/L (104%)	86
16)	*CI10 1,4-Difluorobenzene	19.50	114.0	170146	50.00	UG/L	92
17)	C115 1,1,1-Trichloroethane	13.30	97.0	2064	.598	UG/L	87
28)	*CI20 Chlorobenzene-d5	24.42	117.0	142732	50.00	UG/L	96
34)	CS05 Toluene d-8	23.19	98.0	162422	53.60	UG/L (107%)	99
39)	CS10 Bromofluorobenzene	28.71	95.0	120408	51.99	UG/L (104%)	93

* Compound is ISTD

proj # 3196
CH

CB

:RU,FI,>G1566
:RU,EC,,,0:32

reg	type	# pts	scan#	range: amu\r.t.	base	file	ion range
X	GC	699	1	.17- 32.00	37988.0	>G1566	35.00- 300.00

:RU,MSH

MS data file header from : >G1566::D7

Sample: 920046-03 CH#01 Operator: VOA7 REG. GRP. 2/05/92 15:39
Misc : ID#MS7 HALLIBURTON NUS E-3-13 5.0GM CLB
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7B Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	3.0	24.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

:RU,INT,,5,,-1

>G1566 920046-03 CH#01ID#MS7 HALLIBURTON NUS E-3-13 5.0GM
35.0| 300.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 7 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR75 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	.62	7	11	23	37705	263402	251018	37.40	8.625
2	9.24	193	200	218	18909	322385	292771	43.62	10.060
3	11.98	248	260	275	21481	322313	296020	44.10	10.171
4	19.50	417	425	442	30776	490767	444623*	66.24	15.277
5	23.19	498	506	516	31173	517766	457603	68.18	15.723
6	24.42	525	533	545	31730	603234	497110	74.06	17.081
7	28.71	617	627	641	28247	885064	671212	100.00	23.063

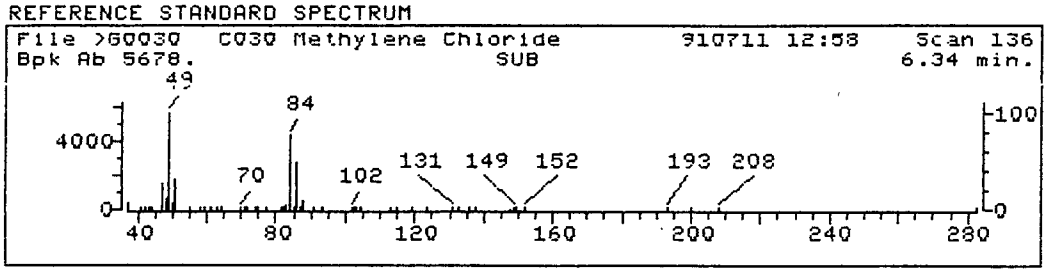
Sum of corrected areas: 2910357.

:RU,AL,,1,1

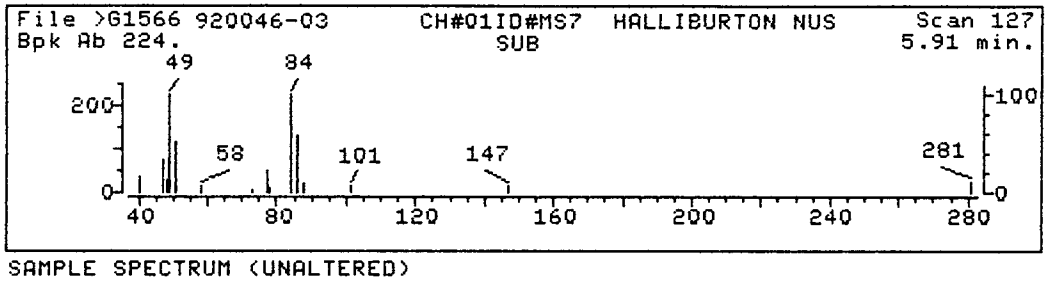
(0) TIC
LH

proj #3086
LH

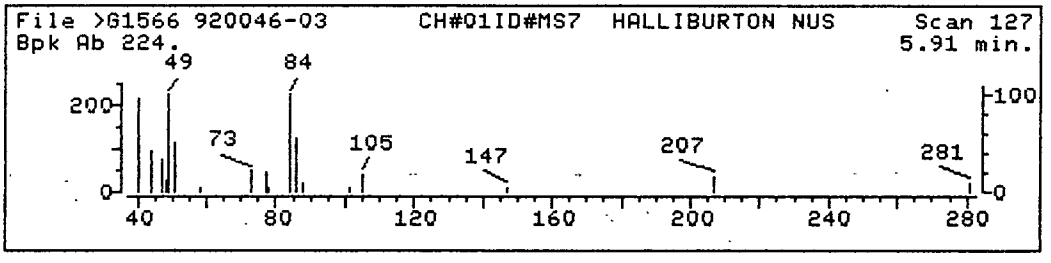
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



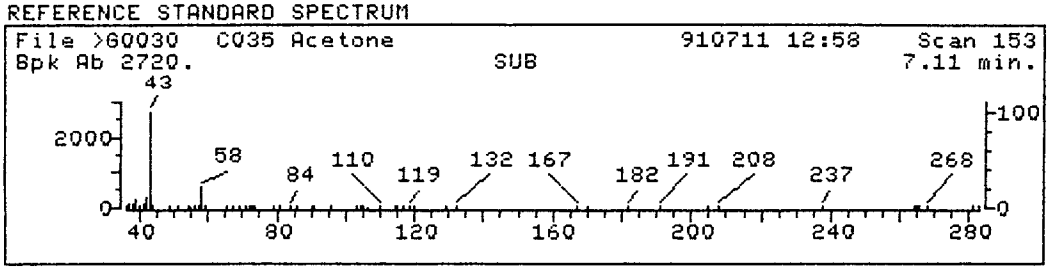
Data File: >G1566::D7 Quant Output File: ^G1566::QT
Name: 920046-03 CH#01 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-~~8~~-13 5.0GM . CLB
Quant Time: 920205 16:16 5 Quant ID File: V7ID::SC
Injected at: 920205 15:39 Last Calibration: 910703 01:53
Last Qcal Time: 920205 12:00

Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 127
Retention Time: 5.91 min.
Quant Ion : 84.0
Area : 3744
Concentration : 3.46 UG/L
q-value : 63

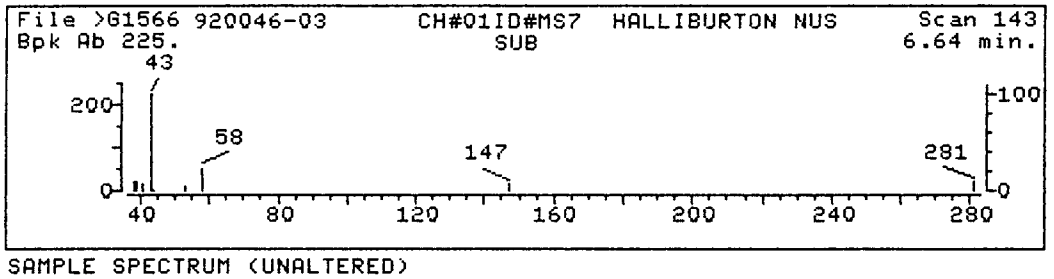
Proj #3196
LH

CB

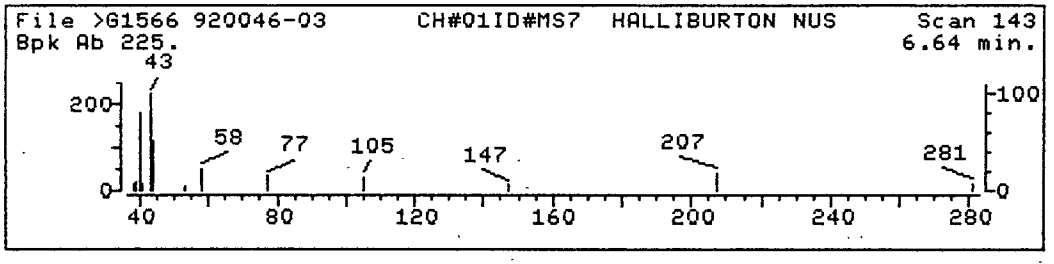
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >G1566::D7 Quant Output File: ^G1566::QT
Name: 920046-03 CH#01 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-~~3~~-13 5.0GM CLB
Quant Time: 920205 16:16 5 Quant ID File: V7ID::SC
Injected at: 920205 15:39 Last Calibration: 910703 01:53
Last Qcal Time: 920205 12:00

Compound No : 7
Compound Name : C035 Acetone
Scan Number : 143
Retention Time: 6.64 min.
Quant Ion : 43.0
Area : 3208
Concentration : 9.36 UG/L
q-value : 99

Proj # 3186
LH

160

CB

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-14

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-04

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9305

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 14 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 20.0(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	7300	U
74-83-9	Bromomethane	7300	U
75-01-4	Vinyl Chloride	7300	U
75-00-3	Chloroethane	7300	U
75-09-2	Methylene Chloride	7300	U
67-64-1	Acetone	7300	U
75-15-0	Carbon Disulfide	7300	U
75-35-4	1,1-Dichloroethene	7300	U
75-34-3	1,1-Dichloroethane	7300	U
540-59-0	1,2-Dichloroethene (total)	7300	U
67-66-3	Chloroform	7300	U
107-06-2	1,2-Dichloroethane	7300	U
78-93-3	2-Butanone	7300	U
71-55-6	1,1,1-Trichloroethane	3300	J
56-23-5	Carbon Tetrachloride	7300	U
75-27-4	Bromodichloromethane	7300	U
78-87-5	1,2-Dichloropropane	7300	U
10061-01-5	cis-1,3-Dichloropropene	7300	U
79-01-6	Trichloroethene	7300	U
124-48-1	Dibromochloromethane	7300	U
79-00-5	1,1,2-Trichloroethane	7300	U
71-43-2	Benzene	7300	U
10061-02-6	trans-1,3-Dichloropropene	7300	U
75-25-2	Bromoform	7300	U
108-10-1	4-Methyl-2-Pentanone	7300	U
591-78-6	2-Hexanone	7300	U
127-18-4	Tetrachloroethene	7300	U
79-34-5	1,1,2,2-Tetrachloroethane	7300	U
108-88-3	Toluene	23000	
108-90-7	Chlorobenzene	7300	U
100-41-4	Ethylbenzene	15000	
100-42-5	Styrene	7300	U
1330-20-7	Xylene (total)	350000	E

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-14

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-04

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9305

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 14 Date Analyzed: 02/08/92

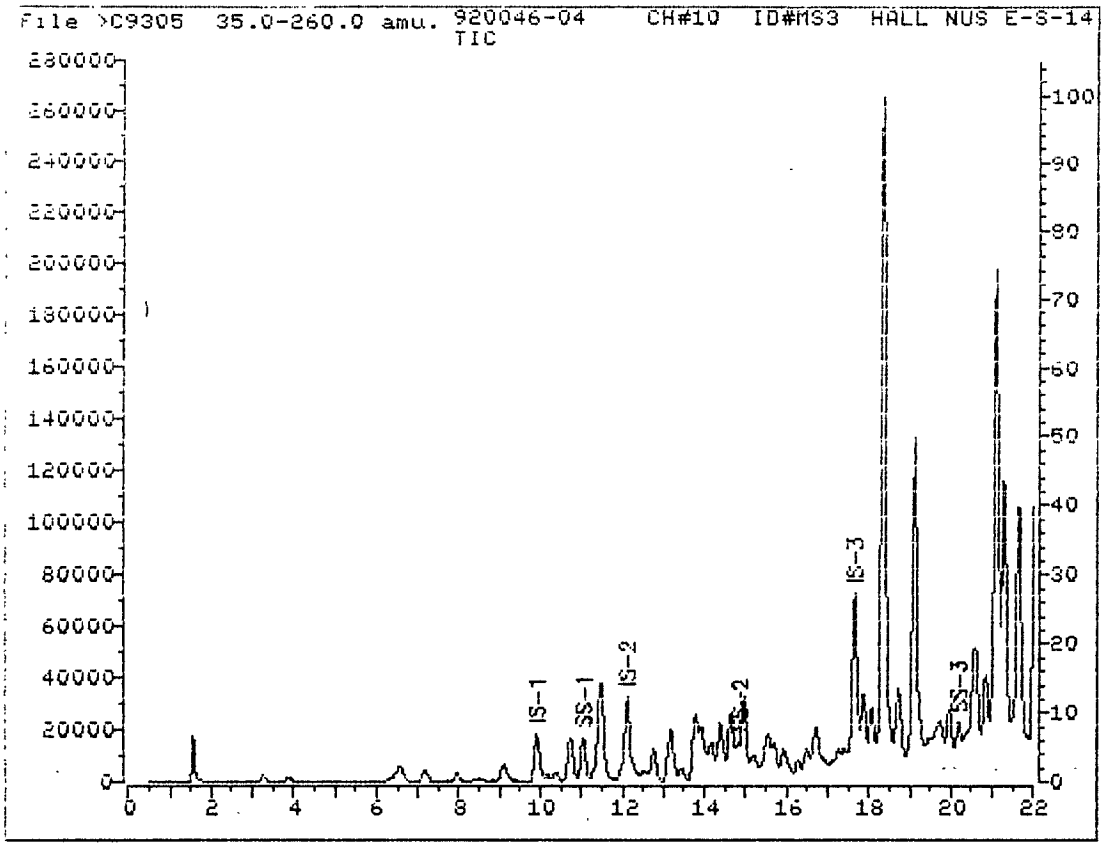
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 20.0(uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Aliphatic hydrocarbon	10.74	34000	J
2. 000000	Unknown	11.46	44000	J
3. 000000	C7H14 isomer	12.77	13000	J
4. 000000	Aliphatic hydrocarbon	13.18	22000	J
5. 000000	Aliphatic hydrocarbon	13.79	26000	J
6. 000000	Aliphatic hydrocarbon	14.37	12000	J
7. 000000	Aliphatic hydrocarbon	14.65	15000	J
8. 000000	Unknown	15.53	9400	J
9. 000000	Unknown	16.72	14000	J
10. 000000	Aliphatic hydrocarbon	18.73	17000	J
11. 000000	Aliphatic hydrocarbon	20.59	26000	J
12. 000000	Unknown	20.83	13000	J
13. 000000	C3-benzene isomer	21.08	120000	J
14. 000000	C3-benzene isomer	21.28	60000	J
15. 000000	C3-benzene isomer	21.63	56000	J



MS data file header from : >C9305::D5

Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

proj # 3096
LH

CB

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920208 15:12
Output File: ^C9305::QT Injected at: 920208 14:37
Data File: >C9305::D5 Dilution Factor: 1.00000
Name: 920046-04 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920208 09:28

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.90	128.0	27836	50.00	UG/L	78
13)	CS15 1,2-Dichloroethane-d4	11.05	65.0	9780	9.99	UG/L 100%	95
16)	*CI10 1,4-Difluorobenzene	12.10	114.0	94861	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.35	97.0	6248	4.54	UG/L	84
28)	*CI20 Chlorobenzene-d5	17.66	117.0	91248	50.00	UG/L	93
33)	C230 Toluene	14.98	91.0	56147	31.11	UG/L	97
34)	CS05 Toluene d-8	14.84	98.0	19854	10.64	UG/L 106%	99
35)	C235 Chlorobenzene	17.64	112.0	1254	.701	UG/L	86
36)	C240 Ethylbenzene	18.07	106.0	14086	21.11	UG/L	97
38)	C250 Total Xylenes	18.34	106.0	428332M	474.64	UG/L	97
39)	CS10 Bromofluorobenzene	20.18	95.0	15191	9.47	UG/L 95%	74

* Compound is ISTD

$$\text{Dry Factor} = \frac{(5)(10)}{(0.02)(4)(0.86)} = 727$$

proj #3196
LH

Chromatographic times, min. : 5.0 0.0 15.0 0.0 0.0
Chromatographic rate, deg/min: 6.0 50.0 0.0 1.5 0.0

>C9305 920046-04 CH#10 ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10

35.0| 260.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 27 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

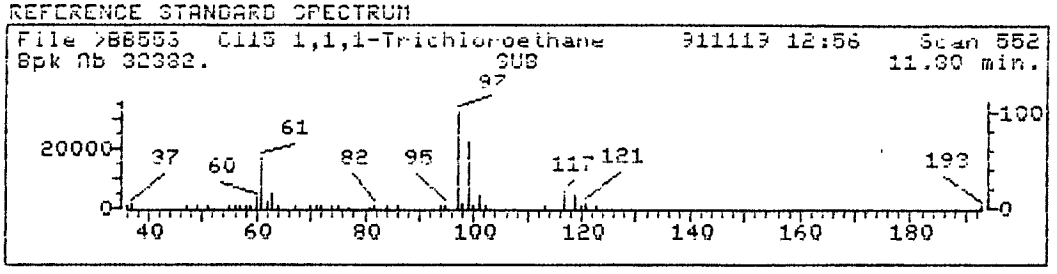
Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	1.56	50	56	79	17807	98677	98677	5.35	1.016
2	9.92	475	484	495	18743	165964	164089	8.89	1.689
3	10.74	516	526	535	15909	169243	155364	8.42	1.599
4	11.05	535	542	550	15734	142259	118868*	6.44	1.223
5	11.46	550	563	584	37036	432658	391878	21.24	4.033
6	12.10	584	596	613	31948	357001	322200	17.47	3.316
7	12.77	622	630	640	12323	123255	115657	6.27	1.190
8	13.18	640	651	659	19535	202999	194978	10.57	2.007
9	13.79	672	682	686	25312	250108	232262	12.59	2.391
10	14.37	707	712	719	14219	222144	104461	5.66	1.075
11	14.65	720	726	732	17389	257725	138171	7.49	1.422
12	14.96	737	742	749	24806	277863	171154	9.28	1.762
13	15.53	763	771	777	12146	225227	115383	6.25	1.188
14	15.94	786	792	804	9522	166589	96492	5.23	.993
15	16.72	825	832	847	14765	323000	165988*	9.00	1.708
16	17.66	872	880	886	60776	637816	444621	24.10	4.576
17	17.85	886	890	896	21202	294882	151390*	8.21	1.558
18	18.07	896	901	907	16251	279378	118078*	6.40	1.215
19	18.34	907	915	928	253266	2162589	1844752*	100.00	18.987
20	18.73	929	935	944	25787	381652	207499	11.25	2.136
21	19.13	944	955	967	122567	1217768	950676	51.53	9.785
22	19.95	993	997	1004	14275	268037	97013	5.26	.998
23	20.59	1022	1030	1037	34684	630481	320447	17.37	3.298
24	20.83	1037	1042	1047	23890	361782	160722	8.71	1.654
25	21.08	1048	1055	1061	180925	1680578	1419801	76.96	14.613
26	21.28	1061	1065	1074	99089	992887	733166	39.74	7.546
27	21.63	1076	1083	1096	89603	1076974	682120	36.98	7.021

Sum of corrected areas: 9715908.

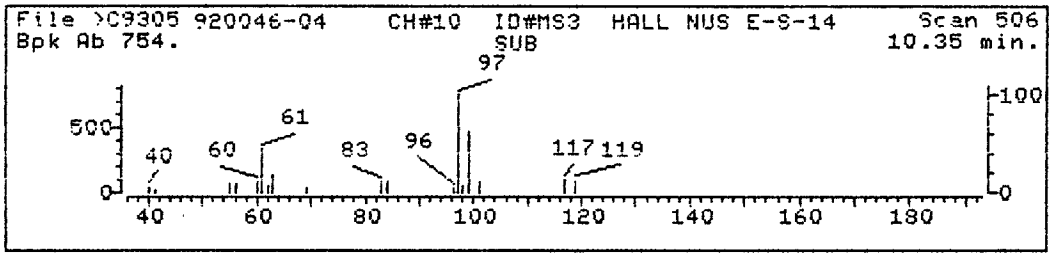
19 15
TIC
LH

proj #3196
LH

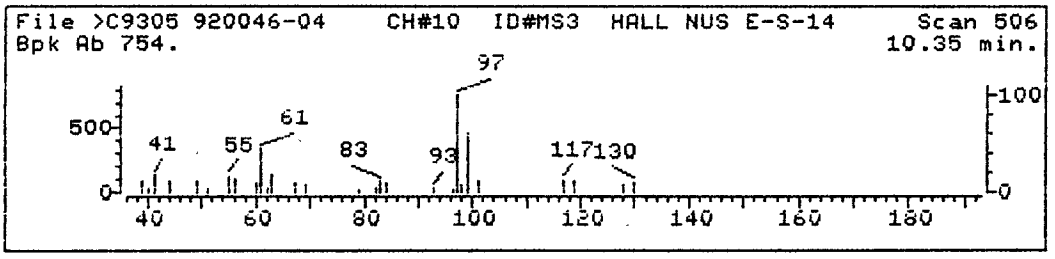
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

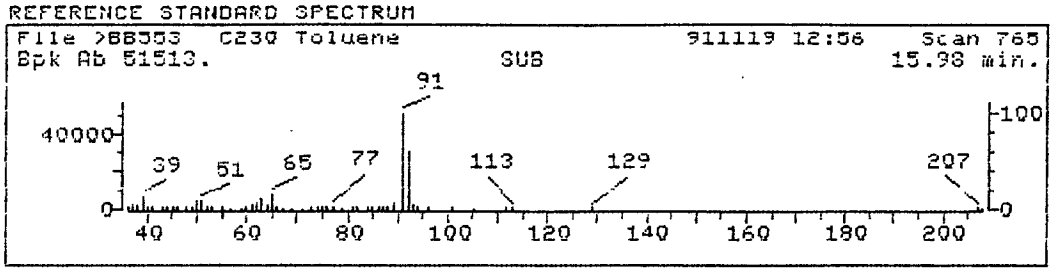


Data File: >C9305::D5 Quant Output File: ^C9305::QT
Name: 920046-04 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Quant Time: 920208 15:12 Quant ID File: V3ID::SC
Injected at: 920208 14:37 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

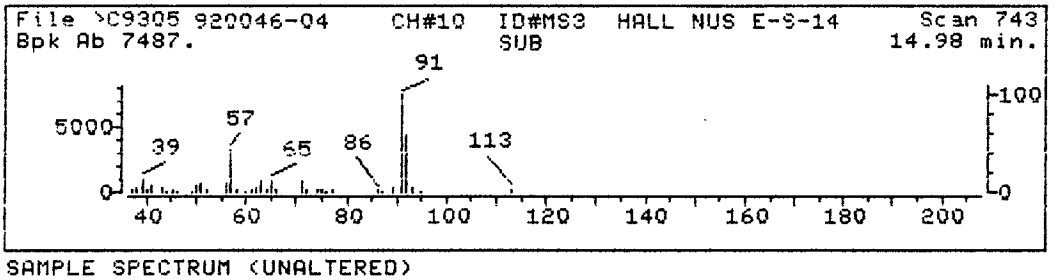
Compound No : 17
Compound Name : C115 1,1,1-Trichloroethane
Scan Number : 506
Retention Time: 10.35 min.
Quant Ion : 97.0
Area : 6248
Concentration : 4.54 UG/L
q-value : 84

proj #3196
CH

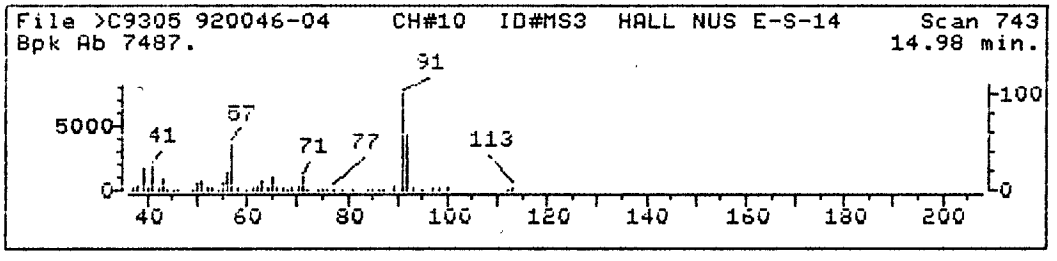
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9305::D5
Name: 920046-04 CH#10
Misc: ID#MS3 HALL NUS E-S-14
Quant Time: 920208 15:12
Injected at: 920208 14:37
Last Qcal Time: 920208 09:28

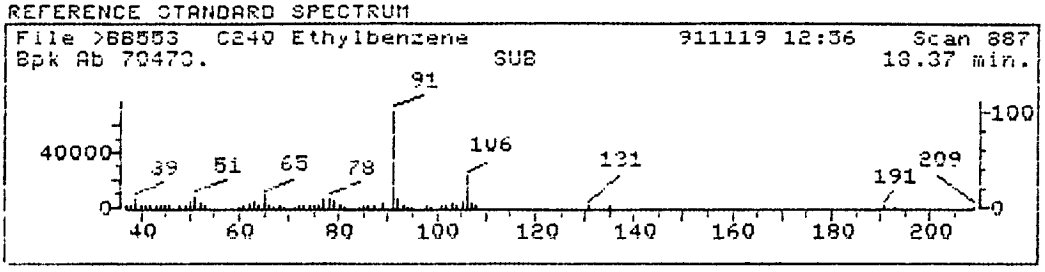
Quant Output File: ^C9305::QT
Instrument ID: MS3
MED SOIL 4G/10MLX 20UL LH
Quant ID File: V3ID::SC
Last Calibration: 910429 11:21

Compound No : 33
Compound Name : C230 Toluene
Scan Number : 743
Retention Time: 14.98 min.
Quant Ion : 91.0
Area : 56147
Concentration : 31.11 UG/L
q-value : 97

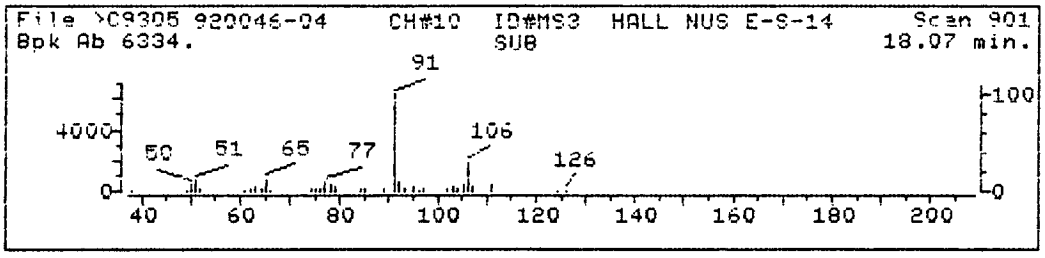
proj #3486

44

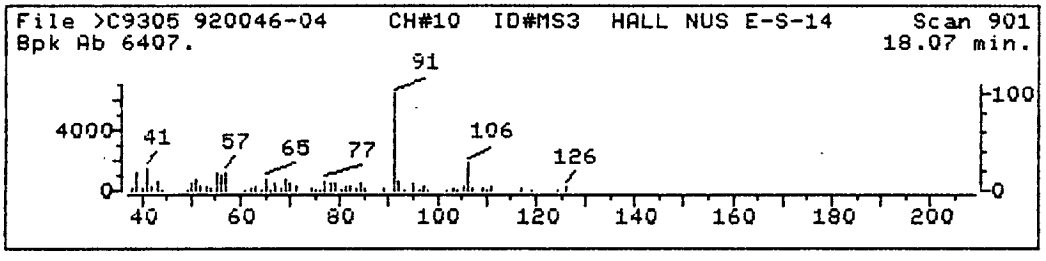
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



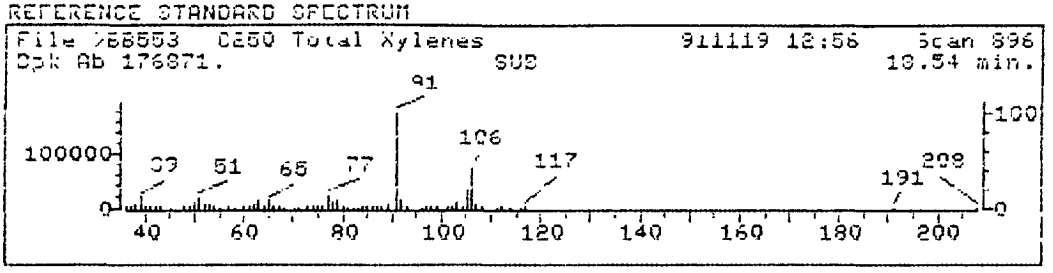
Data File: >C9305::D5 Quant Output File: ^C9305::QT
Name: 920046-04 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Quant Time: 920208 15:12 Quant ID File: V3ID::SC
Injected at: 920208 14:37 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

Compound No : 36
Compound Name : C240 Ethylbenzene
Scan Number : 901
Retention Time: 18.07 min.
Quant Ion : 106.0
Area : 14086
Concentration : 21.11 UG/L
q-value : 97

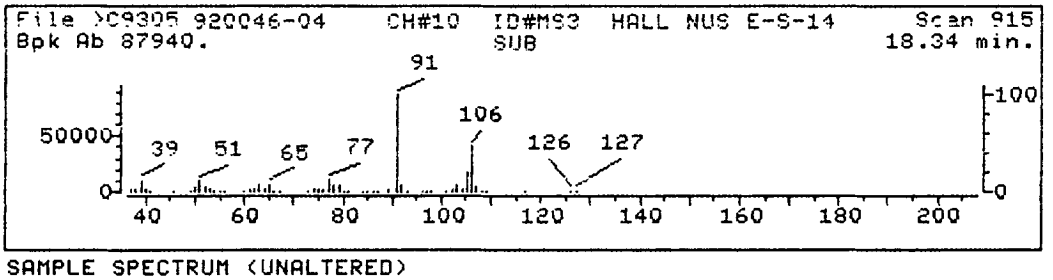
proj #3186

LH

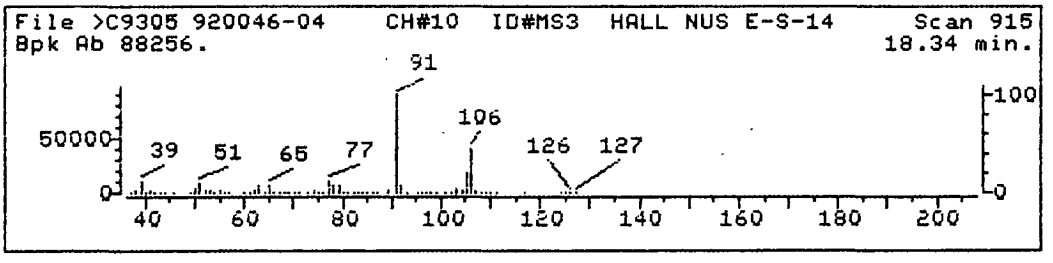
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9305::D5
Name: 920046-04 CH#10
Misc: ID#MS3 HALL NUS E-S-14
Quant Time: 920208 15:12
Injected at: 920208 14:37
Last Qcal Time: 920208 09:28

Quant Output File: ^C9305::QT
Instrument ID: MS3
MED SOIL 4G/10MLX 20UL LH
Quant ID File: V3ID::SC
Last Calibration: 910429 11:21

Compound No : 38
Compound Name : C250 Total Xylenes
Scan Number : 915
Retention Time: 18.34 min.
Quant Ion : 106.0
Area : 428332M
Concentration : 474.64 UG/L
q-value : 97

proj #3186
LH

MS data file header from : >C9305::D5

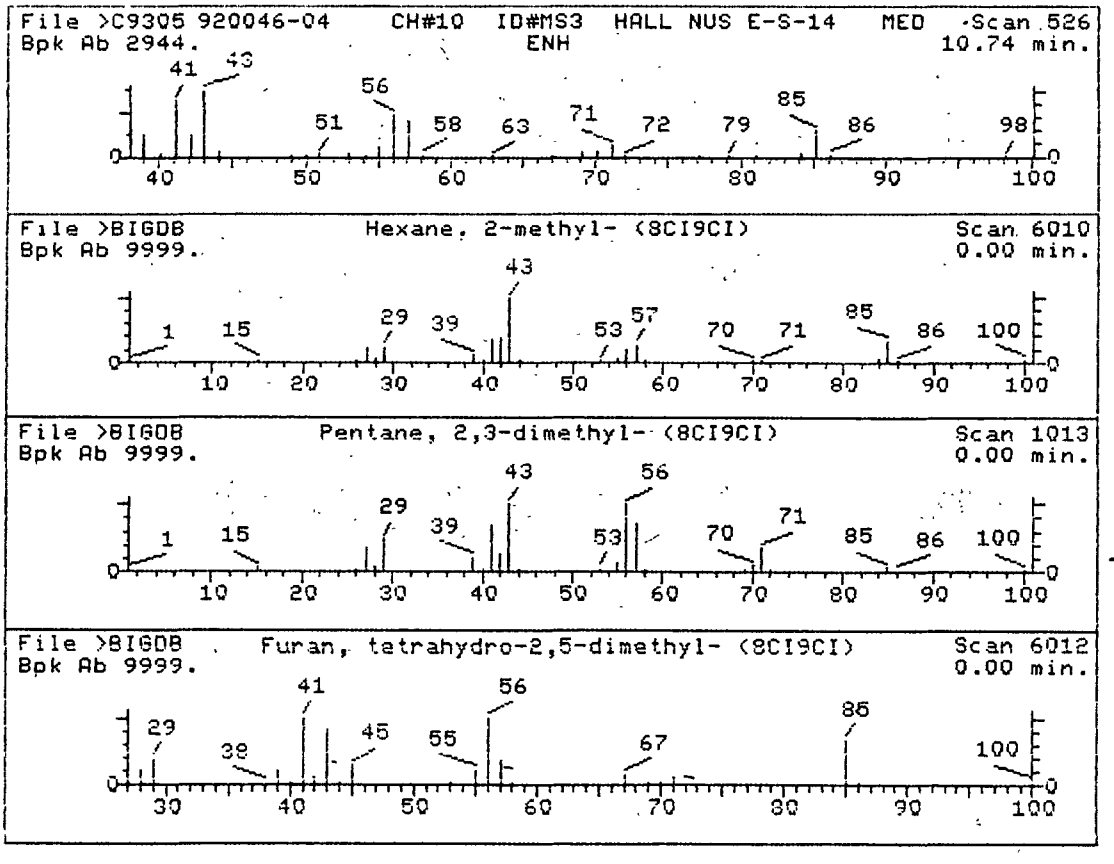
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Hexane, 2-methyl- (8CI9CI) 100 C7H16
2. Pentane, 2,3-dimethyl- (8CI9CI) 100 C7H16
3. Furan, tetrahydro-2,5-dimethyl- (8CI9CI) 100 C6H12O
4. Furan, tetrahydro-2,5-dimethyl-, cis- (8CI9CI) 100 C6H12O
5. Cyclobutanone, oxime (8CI9CI) 85 C4H7NO

Sample file: >C9305 Spectrum #: 526
Search speed: 2 Tilting option: S No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	47*	591764	6010	"BIGDB	39	47	0	0	92	45	16	48
2.	32*	565593	1013	"BIGDB	28	67	1	0	50	34	12	15
3.	29*	1003389	6012	"BIGDB	41	59	2	0	60	40	10	15
4.	28*	2144414	6013	"BIGDB	26	52	2	0	47	40	10	14
5.	27*	2972056	5957	"BIGDB	31	65	3	0	53	40	10	13



aliphatic hydrocarbon

$$Conc = \frac{155364}{164089} \times \frac{50}{1}$$

$= 47$ ppb ~~x 730~~

~~= 34000~~

~~blank~~

page #3 96

44

170

MS data file header from : >C9305::D5

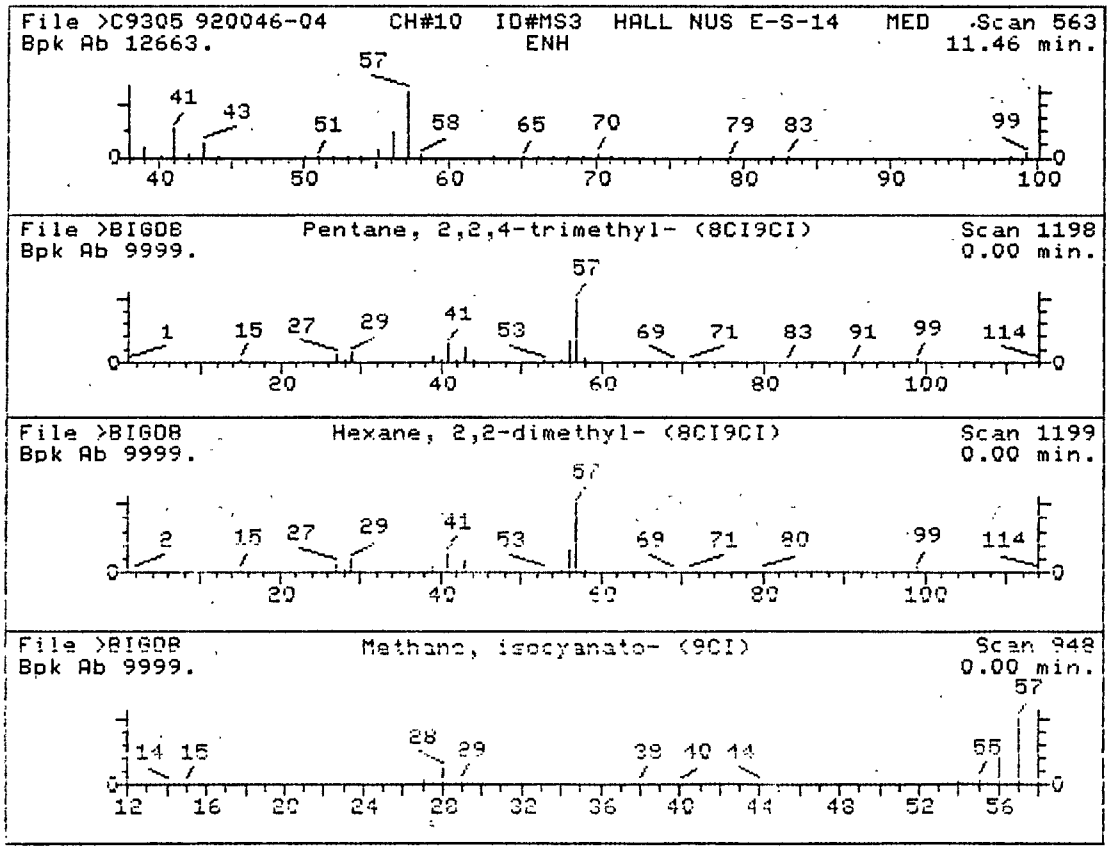
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Pentane, 2,2,4-trimethyl- (8CI9CI) 114 C8H18
2. Hexane, 2,2-dimethyl- (8CI9CI) 114 C8H18
3. Methane, isocyanato- (9CI) 57 C2H3NO
4. Heptane, 3,5-dimethyl- (8CI9CI) 128 C9H20
5. Hexane, 2,2,4-trimethyl- (8CI9CI) 128 C9H20

Sample file: >C9305 Spectrum #: 563
Search speed: 2 Tilting option: S No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	76	540841	1198	"BIGDB	48	26	0	0	97	9	45	27
2.	60	590738	1199	"BIGDB	35	37	0	0	100	11	30	18
3.	60*	624839	948	"BIGDB	27	37	1	0	91	15	30	15
4.	60	926829	8724	"BIGDB	48	34	2	0	69	15	30	16
5.	60	16747265	1177	"BIGDB	40	37	2	0	97	11	30	14



unknown

Conc = $\frac{39,878}{\cancel{164,089}\ 322200} \times \frac{50}{1}$

= ~~119~~ 61 ppb ~~x730~~

= ~~44000~~ ~~87000~~

proj # 3096

MS data file header from : >C9305::D5

Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Cyclohexane, methyl- (8CI9CI) 98 C7H14
2. 2-Pentene, 2,3-dimethyl- (8CI9CI) 98 C7H14
3. Cyclopentane, 1,1-dimethyl- (8CI9CI) 98 C7H14
4. 1H-Pyrazole, 4,5-dihydro-4,5-dimethyl- (9CI) 98 C5H10N2
5. Cyclopropane, 1,1,2,2-tetramethyl- (8CI9CI) 98 C7H14

Sample file: >C9305 Spectrum #: 630
Search speed: 2 Tilting option: S No. of ion ranges searched: 48

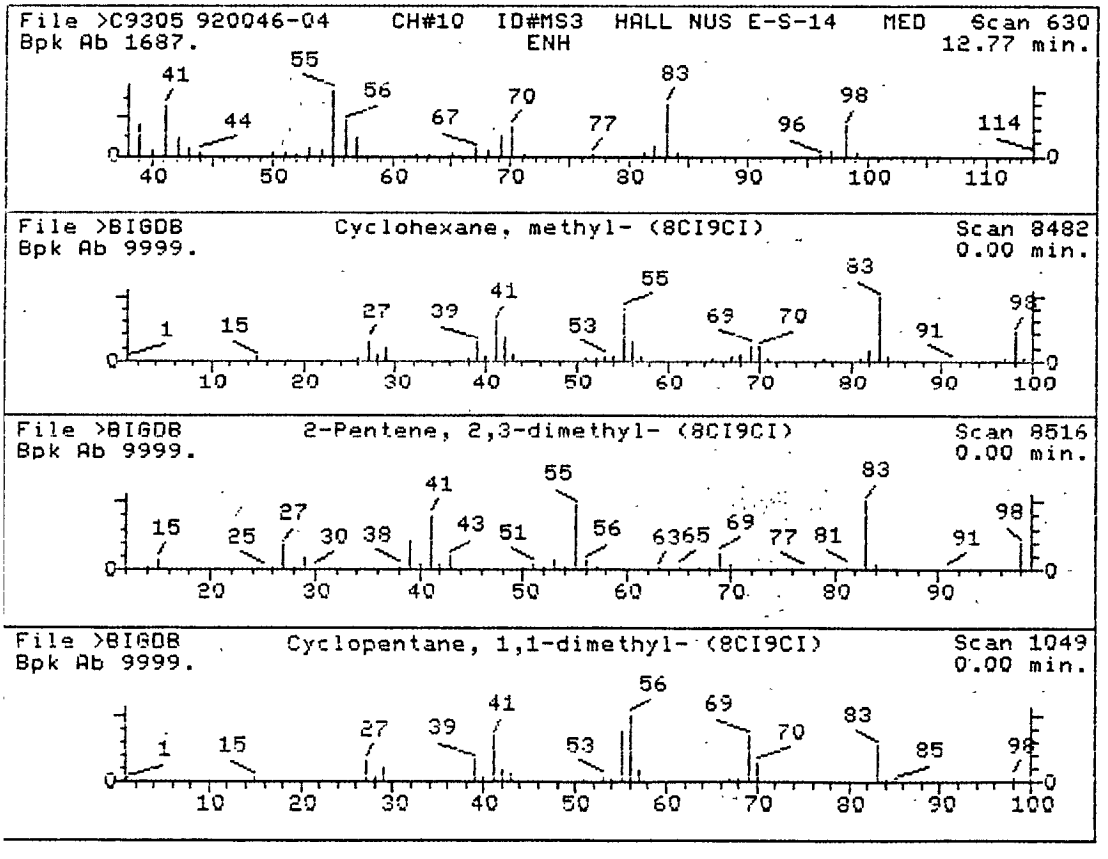
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	67*	108872	8482	"BIGDB	49	54	0	0	77	29	27	59
2.	55*	10574375	8516	"BIGDB	63	38	1	0	80	44	18	60
3.	41*	1638262	1049	"BIGDB	57	42	2	0	112	44	14	34
4.	33*	28019945	8525	"BIGDB	39	54	2	0	80	36	10	19
5.	31*	4127473	5593	"BIGDB	51	46	0	0	81	59	8	61

C7H14 isomer

$$\text{conc} = \frac{115657}{322200} \times \frac{50}{1}$$

= 18 ppb ~~x730~~

= ~~13000~~



~~HATK~~

proj # 3196

LH

MS data file header from : >C9305::D5

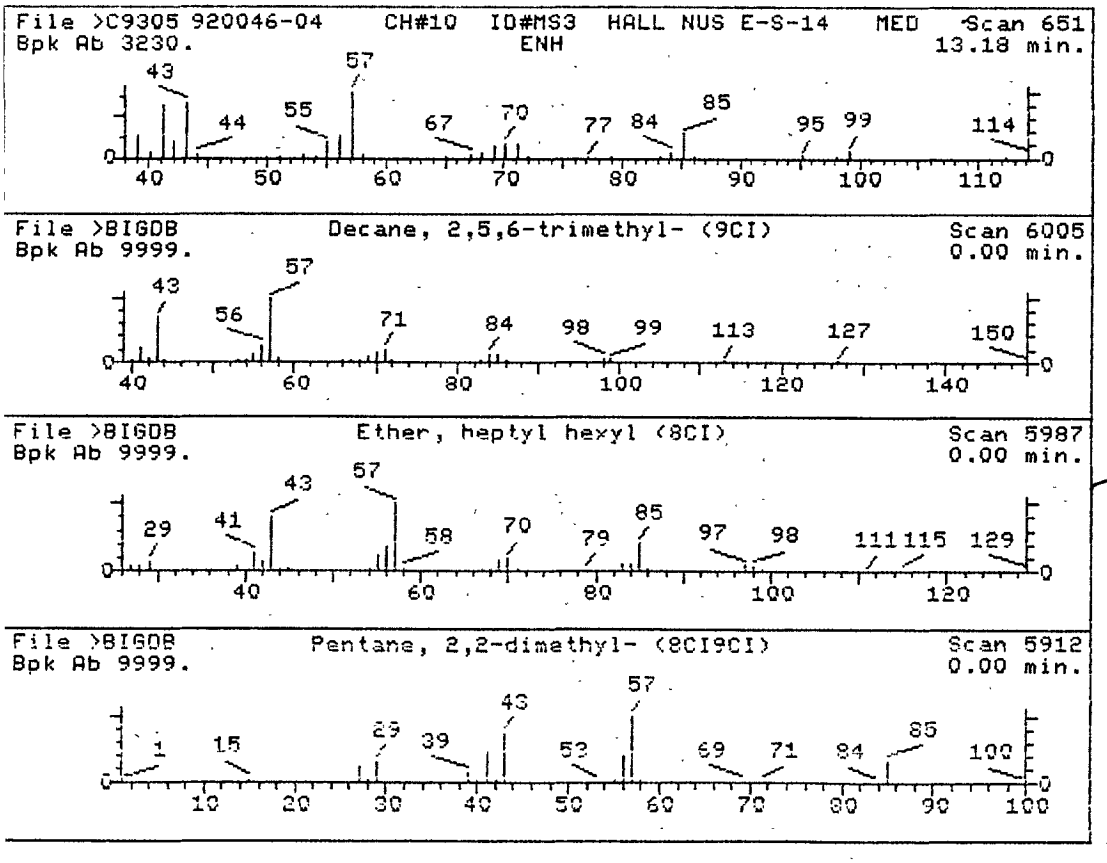
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Decane, 2,5,6-trimethyl- (9CI) 184 C13H28
2. Ether, heptyl hexyl (8CI) 200 C13H28O
3. Pentane, 2,2-dimethyl- (8CI9CI) 100 C7H16
4. Hexane, 2,2,3,3-tetramethyl- (8CI9CI) 142 C10H22
5. Heptane, 2-bromo- (8CI9CI) 178 C7H15Br

Sample file: >C9305 Spectrum #: 651
Search speed: 2 Tilting option: S No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60	62108230	6005	"BIGDB	59	42	2	0	99	14	30	16
2.	43	7289409	5987	"BIGDB	66	45	2	0	89	21	17	14
3.	38	590352	5912	"BIGDB	39	45	0	0	88	35	16	21
4.	37	13475815	5994	"BIGDB	50	45	2	0	76	30	14	14
5.	35	1974045	1201	"BIGDB	46	38	0	0	100	44	12	26



aliphatic hydrocarbon

$$\text{Conc} = \frac{194978}{322200} \times \frac{50}{1}$$

$= 30$ ppb ~~x 750~~

$=$ ~~22000~~

~~max Aliphatic~~

proj #3196

LH

MS data file header from : >C9305::D5

Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Pentane, 2,3,4-trimethyl- (8CI9CI) 114 C8H18
2. Heptane, 3,3,4-trimethyl- (8CI9CI) 142 C10H22
3. Hexane, 2,3-dimethyl- (8CI9CI) 114 C8H18
4. 1-Hexene, 4,5-dimethyl- (8CI9CI) 112 C8H16
5. Hexane, 3,3,4,4-tetramethyl- (8CI9CI) 142 C10H22

Sample file: >C9305 Spectrum #: 682
Search speed: 2 Tilting option: S No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83*	565753	3502	"BIGDB	43	37	0	0	100	8	54	59
2.	70	20278879	3892	"BIGDB	39	47	2	0	74	9	42	13
3.	70	584941	3503	"BIGDB	34	53	1	0	100	9	42	12
4.	51*	16106595	3874	"BIGDB	40	47	1	0	77	22	22	23
5.	42	5171846	3950	"BIGDB	40	47	2	0	85	25	17	13

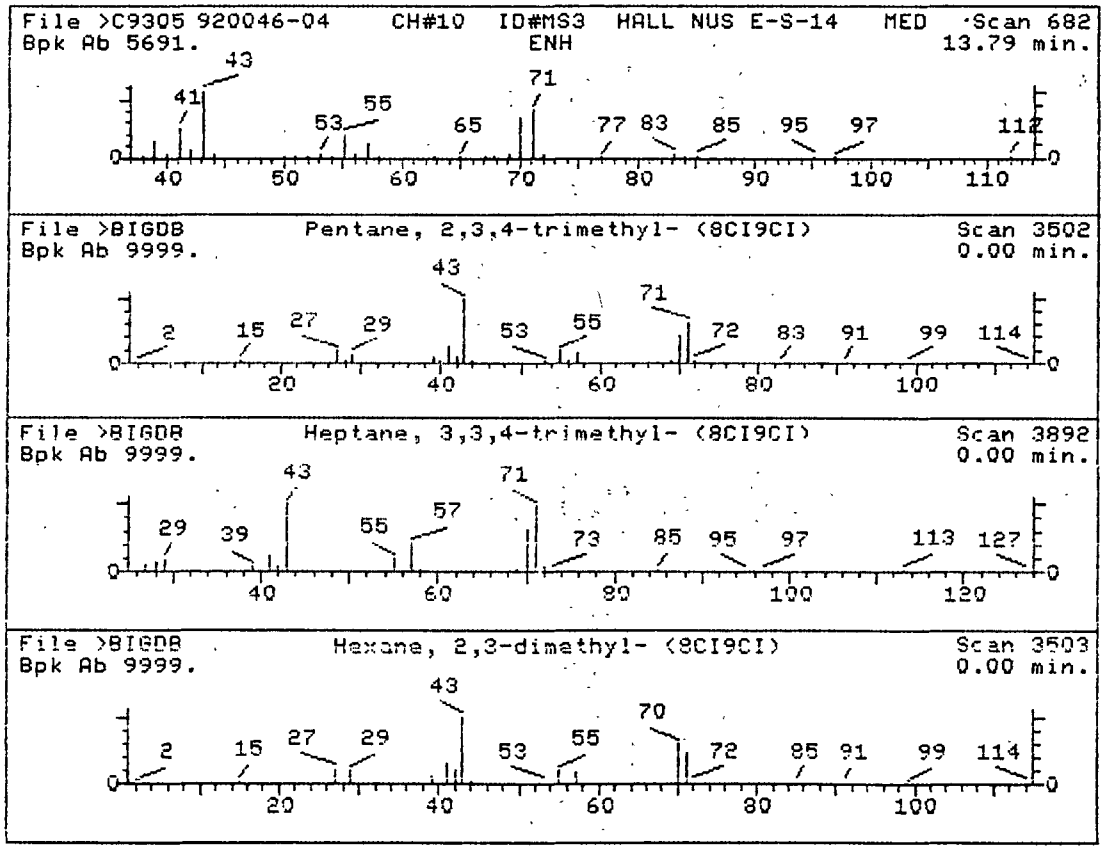
aliphatic hydrocarbon

$$Conc = \frac{232262}{322200} \times \frac{50}{1}$$

36

$= \cancel{3} \cancel{4ppb \times 730}$

$= \cancel{2900}$



~~unit~~

proj # 3196

LH

MS data file header from : >C9305::D5

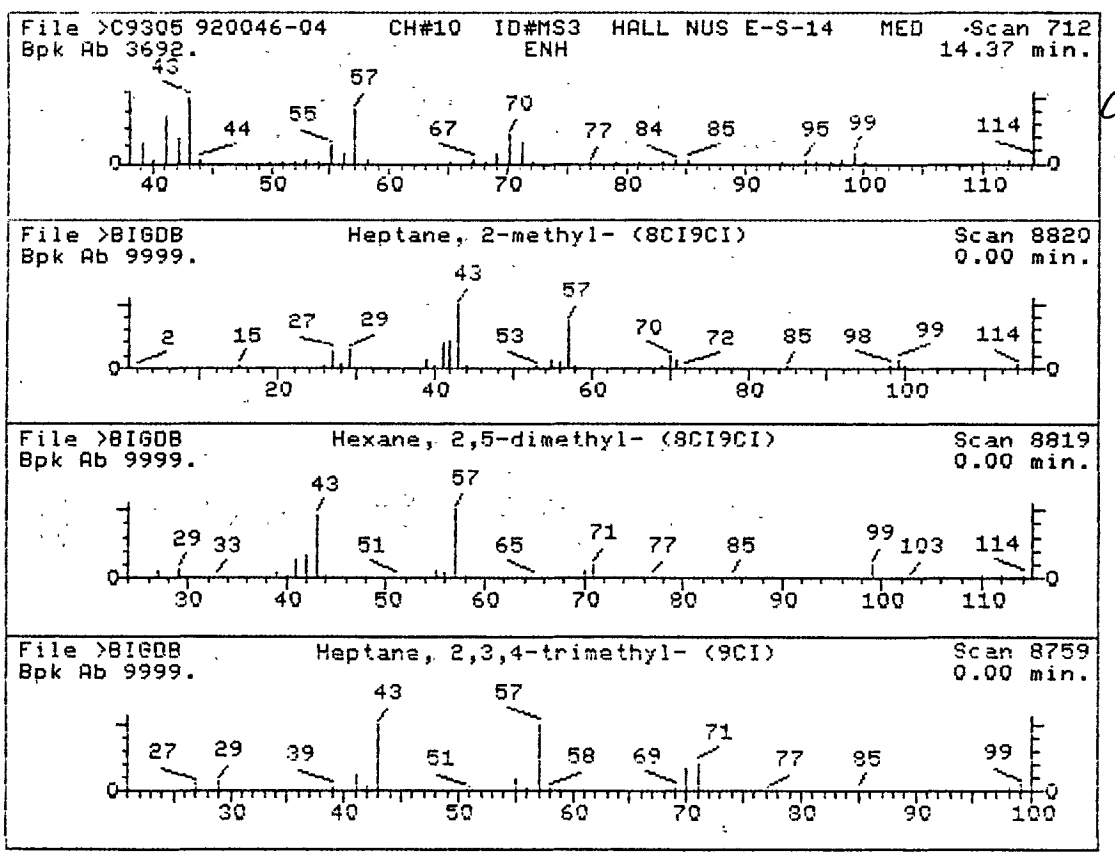
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 2-methyl- (8CI9CI) 114 C8H18
2. Hexane, 2,5-dimethyl- (8CI9CI) 114 C8H18
3. Heptane, 2,3,4-trimethyl- (9CI) 142 C10H22
4. Octane, 2,5-dimethyl- (8CI9CI) 142 C10H22
5. Octane, 3,5-dimethyl- (8CI9CI) 142 C10H22

Sample file: >C9305 Spectrum #: 712
Search speed: 2 Tilting option: S No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	65*	592278	8820	"BIGDB	49	44	0	0	89	31	24	59
2.	45*	592132	8819	"BIGDB	48	42	1	1	86	35	16	28
3.	42	52896954	8759	"BIGDB	37	53	0	0	74	26	14	19
4.	41	15869893	8749	"BIGDB	43	49	2	0	82	21	17	12
5.	40	15869939	3611	"BIGDB	49	44	1	0	82	26	14	17



aliphatic hydrocarbon

$$\text{Conc} = \frac{104461}{322200} \times \frac{50}{1}$$

$= 16$ ppb $\times 750$

$= \cancel{12000}$

~~isomic aliphatic~~

proj #3196

LH

175

MS data file header from : >C9305::D5

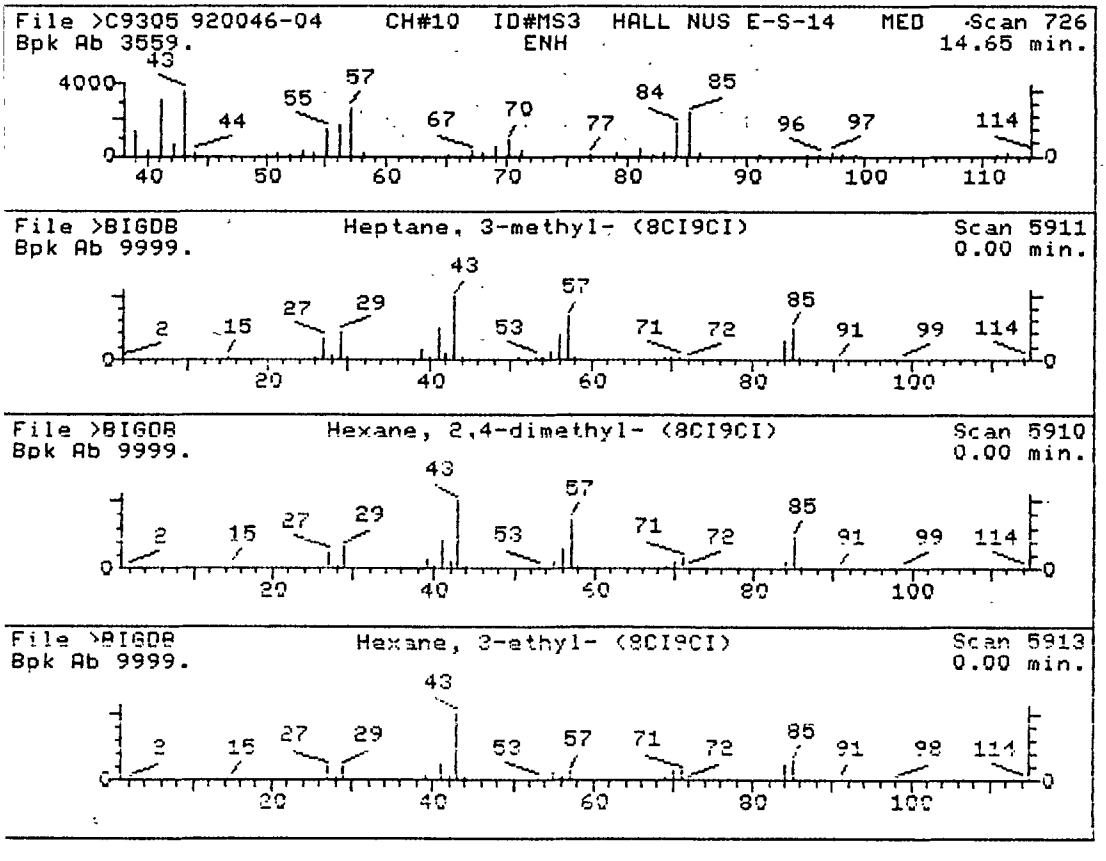
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3-methyl- (8CI9CI) 114 C8H18
2. Hexane, 2,4-dimethyl- (8CI9CI) 114 C8H18
3. Hexane, 3-ethyl- (8CI9CI) 114 C8H18
4. Cyclobutanone, oxime (8CI9CI) 85 C4H7NO
5. 1H-Tetrazol-5-amine (9CI) 85 CH3N5

Sample file: >C9305 Spectrum #: 726
Search speed: 2 Tilting option: S No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	59*	589811	5911	"BIGDB	34	57	0	0	100	21	27	33
2.	36*	589435	5910	"BIGDB	36	62	1	0	97	31	12	19
3.	28*	619998	5913	"BIGDB	33	57	2	0	186	43	8	16
4.	25*	2972056	5957	"BIGDB	31	65	3	0	73	45	8	13
5.	25*	4418615	5	"BIGDB	21	104	2	0	73	48	7	13



aliphatic hydrocarbon

$$Conc = \frac{138171}{322200} \times \frac{50}{1}$$

$= 21$ ppb ~~x 730~~

$= 15000$

~~trace~~ aliphatic

proj #3196

24 **176**

MS data file header from : >C9305:!D5

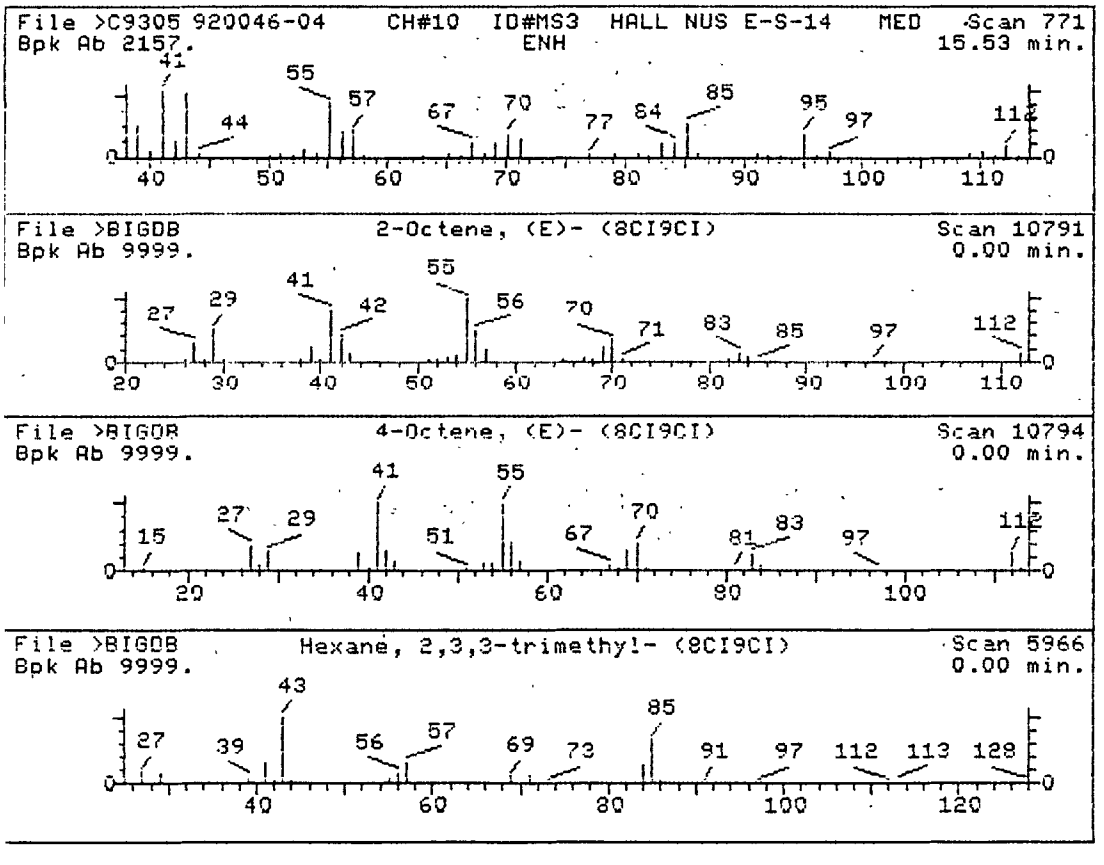
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. 2-Octene, (E)- (8CI9CI) 112 C8H16
2. 4-Octene, (E)- (8CI9CI) 112 C8H16
3. Hexane, 2,3,3-trimethyl- (8CI9CI) 128 C9H20
4. Hexane, 2,3,5-trimethyl- (8CI9CI) 128 C9H20
5. Heptane, 3-methyl- (8CI9CI) 114 C8H18

Sample file: >C9305 Spectrum #: 771
Search speed: 2 Tilting option: S No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	47*	13389429	10791	"BIGDB	60	40	1	-3	54	37	17	36
2.	24*	14850238	10794	"BIGDB	71	31	0	0	67	68	8	89
3.	15	16747287	5966	"BIGDB	38	51	0	0	79	60	3	19
4.	15	1069530	5919	"BIGDB	37	54	1	0	89	56	3	13
5.	15*	589811	5911	"BIGDB	36	55	1	0	81	60	3	19



conc = 115383 / ~~322200~~ 444621 × 50/1
= ~~18~~ 13 ppb × ~~750~~
= ~~13000~~ 9500

unc

proj# 3196
LH

MS data file header from : >C9305::D5

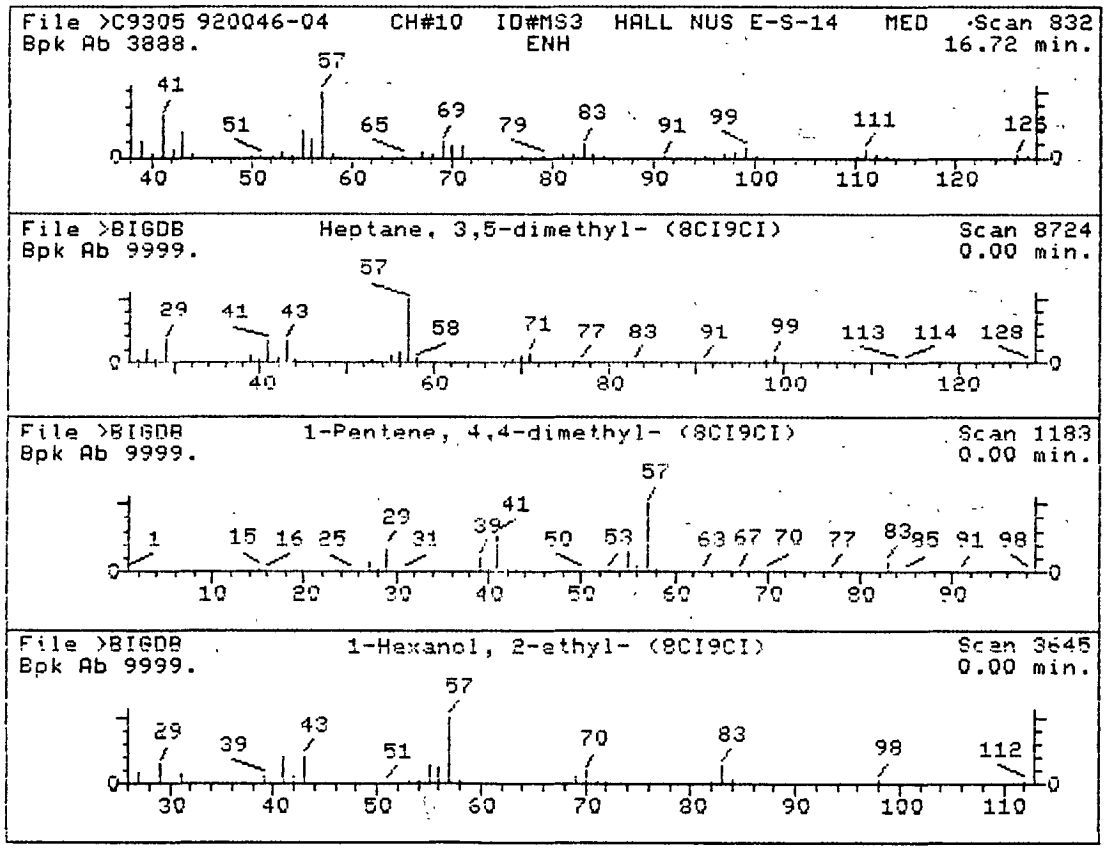
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3,5-dimethyl- (8CI9CI) 128 C9H20
2. 1-Pentene, 4,4-dimethyl- (8CI9CI) 98 C7H14
3. 1-Hexanol, 2-ethyl- (8CI9CI) 130 C8H18O
4. Heptane, 2,5-dimethyl- (8CI9CI) 128 C9H20
5. Octane, 3-methyl- (8CI9CI) 128 C9H20

Sample file: >C9305 Spectrum #: 832
Search speed: 2 Tilting option: S No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	69*	926829	8724	"BIGDB	46	36	0	0	100	31	26	60
2.	59*	762629	1183	"BIGDB	38	38	0	0	100	34	22	44
3.	57	104767	3645	"BIGDB	50	44	0	0	75	21	22	29
4.	49*	2216300	8730	"BIGDB	34	52	0	0	75	34	20	33
5.	43*	2216333	8731	"BIGDB	38	46	1	0	100	28	19	21



unknown

$$Conc = \frac{165988}{\cancel{3000000}\ 444621} \times \frac{50}{1}$$

$$= \frac{\cancel{26}\ 19}{} ppb \times \cancel{750}$$

$$= \cancel{19000\ 14000}$$

~~HMC~~

proj #3196

MH

MS data file header from : >C9305::D5

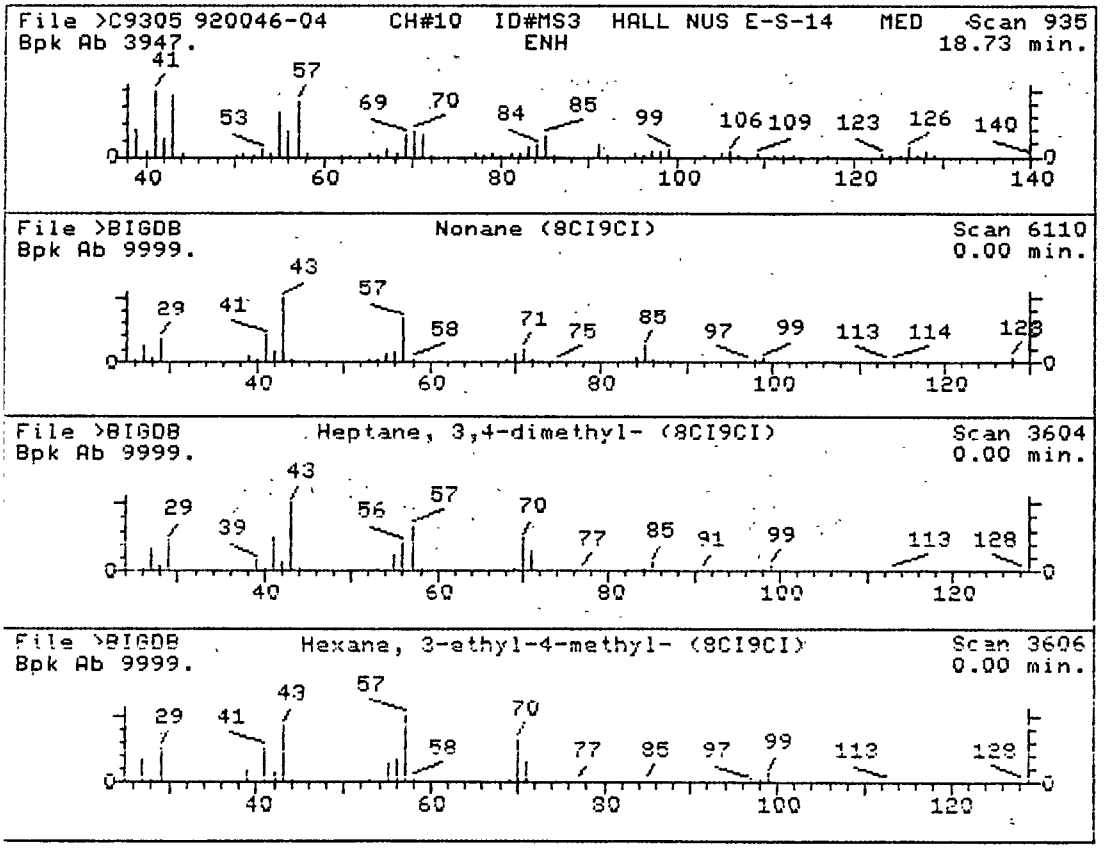
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Nonane (8CI9CI) 128 C9H20
2. Heptane, 3,4-dimethyl- (8CI9CI) 128 C9H20
3. Hexane, 3-ethyl-4-methyl- (8CI9CI) 128 C9H20
4. Ether, heptyl hexyl (8CI) 200 C13H28O
5. Nonane, 2,5-dimethyl- (8CI9CI) 156 C11H24

Sample file: >C9305 Spectrum #: 935
Search speed: 2 Tilting option: S No. of ion ranges searched: 69

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	63*	111842	6110	"BIGDB	50	46	1	0	120	17	30	33
2.	52*	922281	3604	"BIGDB	41	56	0	0	79	39	19	43
3.	46*	3074779	3606	"BIGDB	52	44	2	0	80	34	20	30
4.	43	7289409	5987	"BIGDB	63	48	1	0	75	28	19	21
5.	39	17302271	8752	"BIGDB	53	42	2	0	84	29	14	16



aliphatic hydrocarbon

$Conc = \frac{207499}{444621} \times \frac{50}{1}$

$= 23 ppb \times 770$

$= 17000$

~~[illegible]~~ aliphatic

proj # 3196

LH

MS data file header from : >C9305::D5

Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 2,5-dimethyl- (8CI9CI) 142 C10H22
2. Tridecane, 3-methyl- (8CI9CI) 198 C14H30
3. Octane, 2,4,6-trimethyl- (9CI) 156 C11H24
4. Octane, 3,5-dimethyl- (8CI9CI) 142 C10H22
5. Nonane, 2-methyl- (8CI9CI) 142 C10H22

Sample file: >C9305 Spectrum #: 1030
Search speed: 2 Tilting option: S No. of ion ranges searched: 59

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	75*	15869893	8749	"BIGDB	61	31	0	0	72	26	37	73
2.	58	6418413	8959	"BIGDB	73	37	2	0	77	20	25	21
3.	54	62016379	6004	"BIGDB	46	39	0	0	82	25	22	26
4.	52*	15869939	3611	"BIGDB	31	62	0	0	72	24	22	24
5.	52*	871830	8635	"BIGDB	51	45	3	0	118	16	20	19

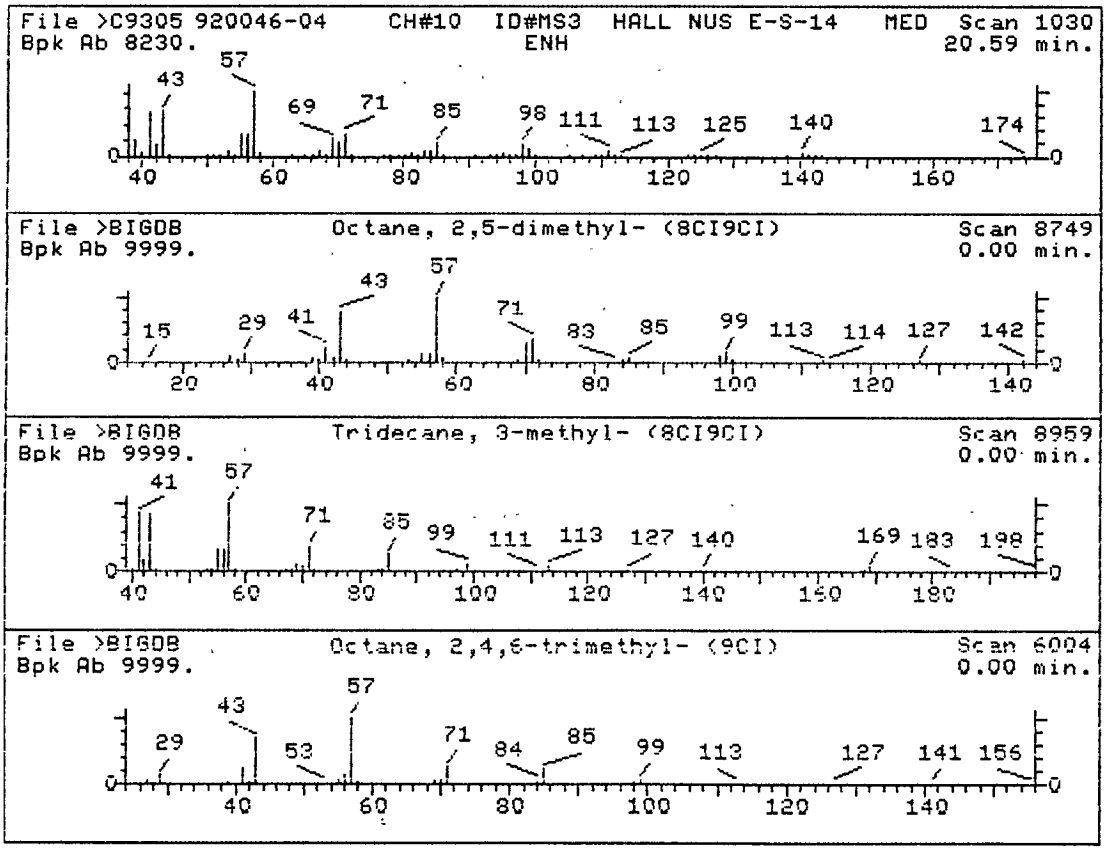
aliphatic hydrocarbon

$conc = \frac{320447}{444621} \times \frac{50}{1}$

$= 36$ ppb ~~x 770~~

$=$ ~~28000~~

~~conc aliphatic~~



proj # 3196

LH

MS data file header from : >C9305::D5

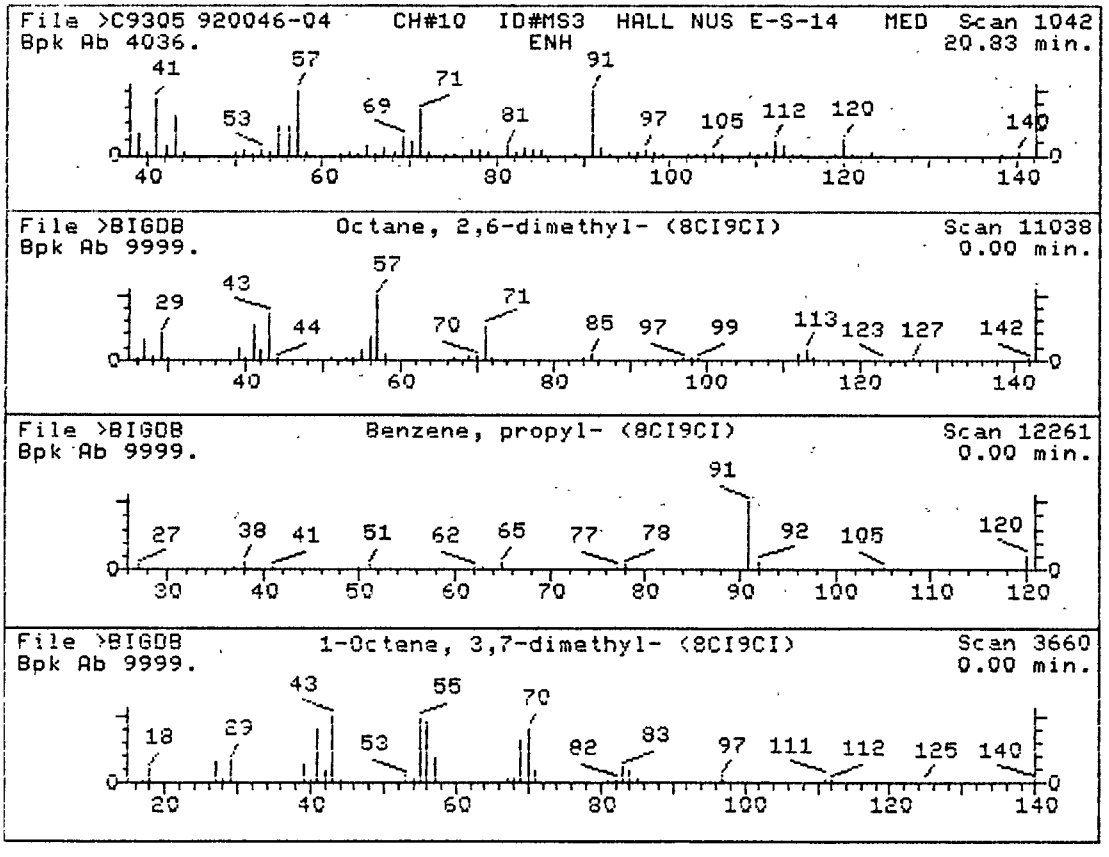
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 2,6-dimethyl- (8CI9CI) 142 $C_{10}H_{22}$
2. Benzene, propyl- (8CI9CI) 120 C_9H_{12}
3. 1-Octene, 3,7-dimethyl- (8CI9CI) 140 $C_{10}H_{20}$
4. Octane, 4-ethyl- (8CI9CI) 142 $C_{10}H_{22}$
5. Cyclooctane, methoxy- (9CI) 142 $C_9H_{18}O$

Sample file: >C9305 Spectrum #: 1042
Search speed: 2 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	58*	2051301	11038	"BIGDB	59	36	2	2	80	29	24	38
2.	32*	103651	12261	"BIGDB	58	27	2	0	98	55	9	44
3.	30*	4984014	3660	"BIGDB	48	45	2	1	42	48	10	22
4.	25*	15869860	10847	"BIGDB	37	56	1	2	50	44	8	13
5.	20*	13213326	4008	"BIGDB	38	60	2	1	66	51	5	12



unknown

Conc = 160722 / 444621 × 50/1

= 18 ppb ~~x 730~~

= ~~13000~~

~~UNAL~~

proj # 3196

LH

MS data file header from : >C9305::D5

Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9305 Spectrum #: 1055
Search speed: 2 Tilting option: S No. of ion ranges searched: 49

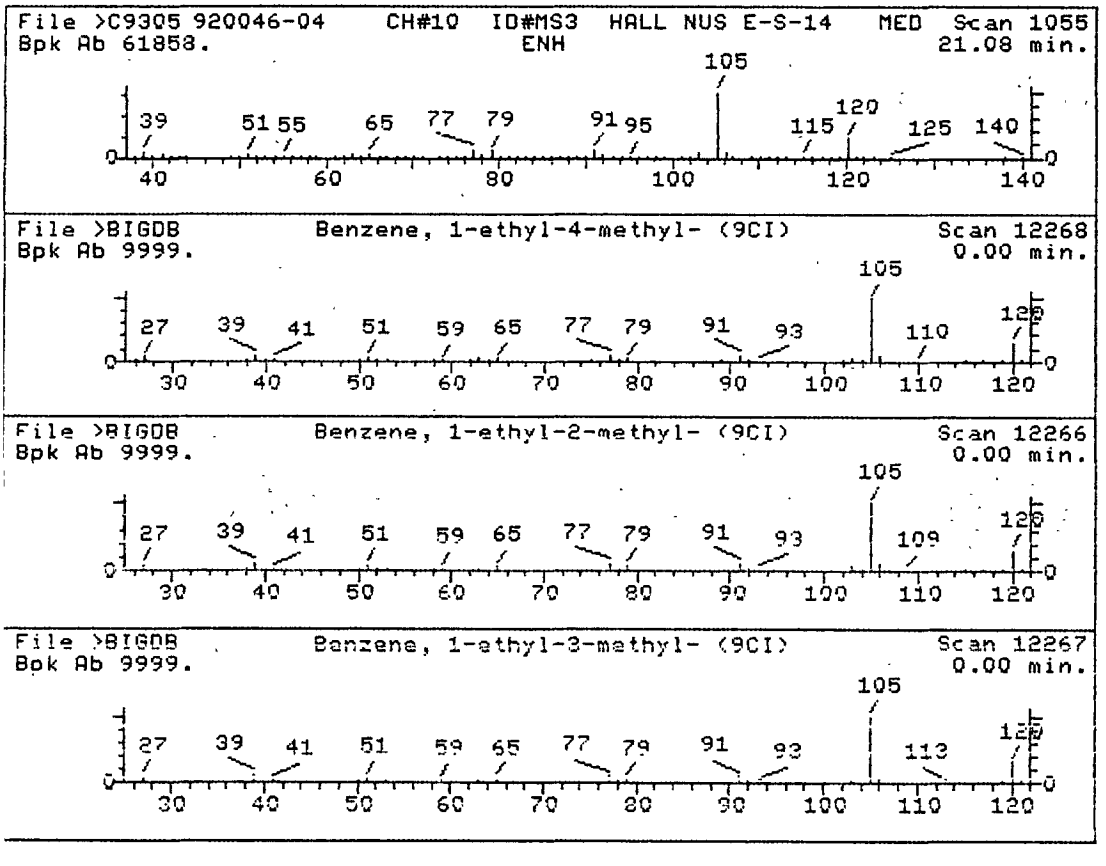
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	622968	12268	"BIGDB	80	5	1	0	99	1	72	96
2.	96*	611143	12266	"BIGDB	80	5	1	0	100	1	72	96
3.	95*	620144	12267	"BIGDB	75	12	1	0	78	5	72	93
4.	79*	98828	12259	"BIGDB	54	33	2	0	93	8	48	39
5.	48*	526738	12280	"BIGDB	55	45	2	0	63	33	20	32

C_3 benzene hydrocarbon

$$Conc = \frac{1419801}{444621} \times \frac{50}{1}$$

$= 160$ ppb ~~x 7%~~

$= \cancel{12000}$



proj #3196

LH

MS data file header from : >C9305::D5

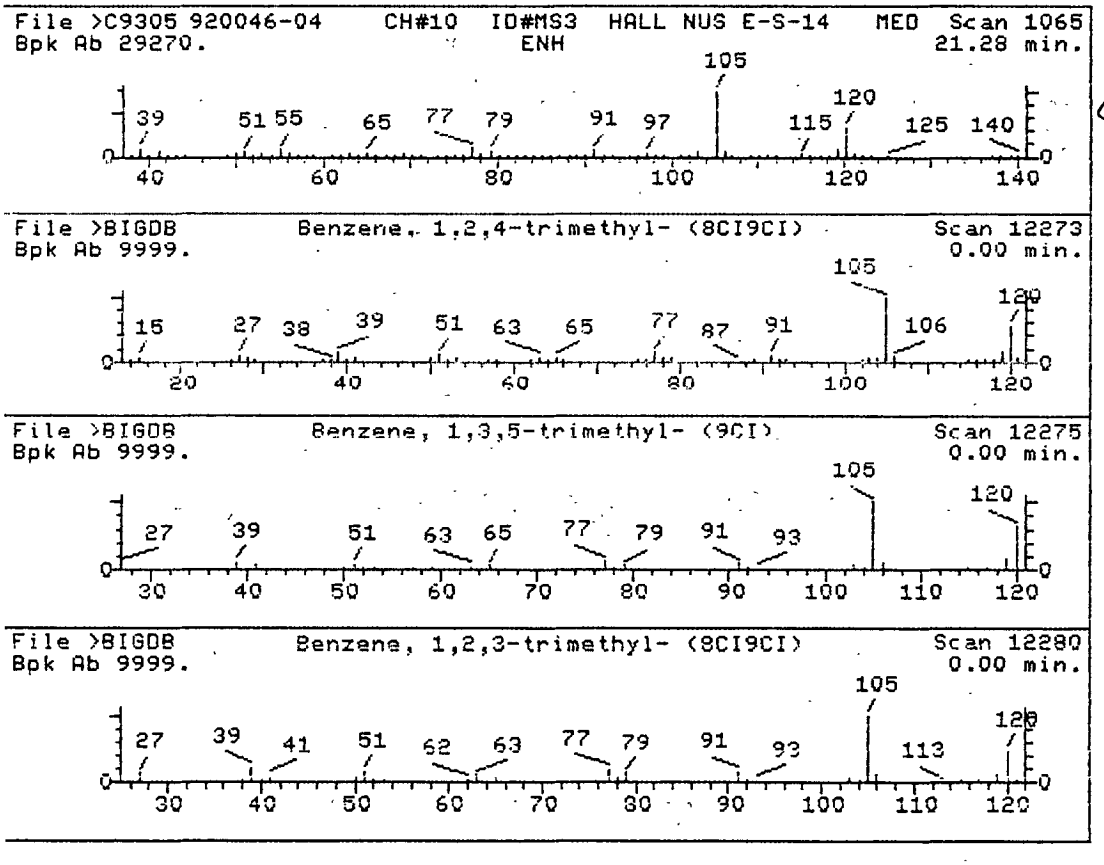
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1,2,4-trimethyl- (8CI9CI) 120 C9H12
2. Benzene, 1,3,5-trimethyl- (9CI) 120 C9H12
3. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12
4. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
5. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12

Sample file: >C9305 Spectrum #: 1065
Search speed: 2 Tilting option: S No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	86*	95636	12273	"BIGDB	75	20	1	0	67	6	59	73
2.	84*	108678	12275	"BIGDB	73	15	2	0	71	6	55	66
3.	83*	526738	12280	"BIGDB	72	28	2	0	77	6	54	54
4.	83*	620144	12267	"BIGDB	65	22	2	0	100	9	54	55
5.	76*	622968	12268	"BIGDB	64	21	1	0	86	23	41	72



C_3 benzene hydrocarbon

$$\text{Conc} = \frac{233166}{444621} \times \frac{50}{1}$$

$= 82$ ppb ~~x 7~~

$= \cancel{60000}$

proj # 3196

MS data file header from : >C9305::D5

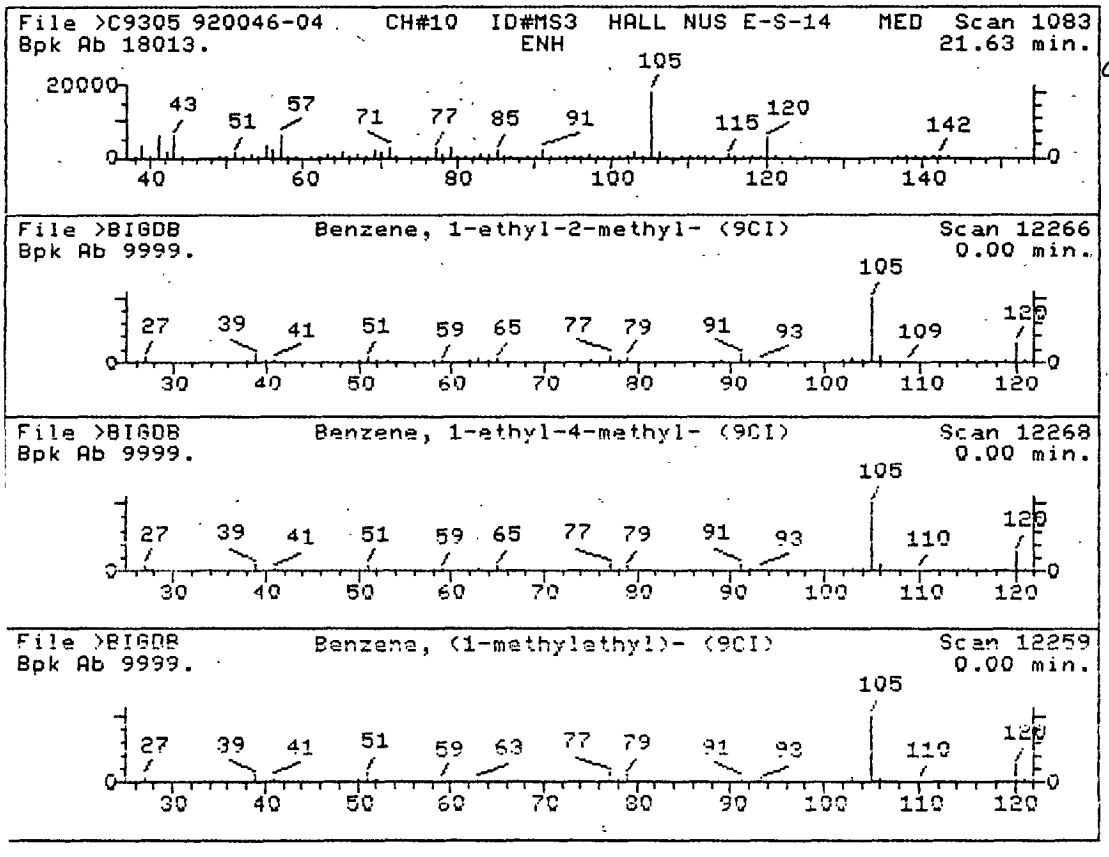
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, (1-methylethyl)- (9CI) 120 C9H12
4. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
5. Benzene, 1,1'-(1-methyl-1,2-ethanediyl)bis- (9CI) 196 C15H16

Sample file: >C9305 Spectrum #: 1083
Search speed: 2 Tilting option: S No. of ion ranges searched: 61

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	611143	12266	"BIGDB	80	5	1	0	96	24	53	96
2.	81*	622968	12268	"BIGDB	67	18	1	0	70	24	41	77
3.	71*	98828	12259	"BIGDB	60	27	1	0	70	29	29	60
4.	68*	620144	12267	"BIGDB	65	22	2	0	92	24	30	55
5.	36	5814857	9857	"BIGDB	67	32	2	0	100	36	14	23



$Conc = \frac{682120}{444621} \times \frac{50}{1}$

$= 77\ ppb \times 730$

$= 56000$

C_3 benzene isomer

~~tmC~~

proj #3196

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-15

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-05

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9308

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 17 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 50.0(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	3000	U
74-83-9	Bromomethane	3000	U
75-01-4	Vinyl Chloride	3000	U
75-00-3	Chloroethane	3000	U
75-09-2	Methylene Chloride	630	BJ
67-64-1	Acetone	3000	U
75-15-0	Carbon Disulfide	3000	U
75-35-4	1,1-Dichloroethene	3000	U
75-34-3	1,1-Dichloroethane	3000	U
540-59-0	1,2-Dichloroethene (total)	3000	U
67-66-3	Chloroform	3000	U
107-06-2	1,2-Dichloroethane	3000	U
78-93-3	2-Butanone	3000	U
71-55-6	1,1,1-Trichloroethane	1400	J
56-23-5	Carbon Tetrachloride	3000	U
75-27-4	Bromodichloromethane	3000	U
78-87-5	1,2-Dichloropropane	3000	U
10061-01-5	cis-1,3-Dichloropropene	3000	U
79-01-6	Trichloroethene	3000	U
124-48-1	Dibromochloromethane	3000	U
79-00-5	1,1,2-Trichloroethane	3000	U
71-43-2	Benzene	3000	U
10061-02-6	trans-1,3-Dichloropropene	3000	U
75-25-2	Bromoform	3000	U
108-10-1	4-Methyl-2-Pentanone	3000	U
591-78-6	2-Hexanone	3000	U
127-18-4	Tetrachloroethene	3000	U
79-34-5	1,1,2,2-Tetrachloroethane	3000	U
108-88-3	Toluene	3500	
108-90-7	Chlorobenzene	3000	U
100-41-4	Ethylbenzene	790	J
100-42-5	Styrene	3000	U
1330-20-7	Xylene (total)	130000	~~E~~ MH

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-15

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-05

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9308

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 17 Date Analyzed: 02/08/92

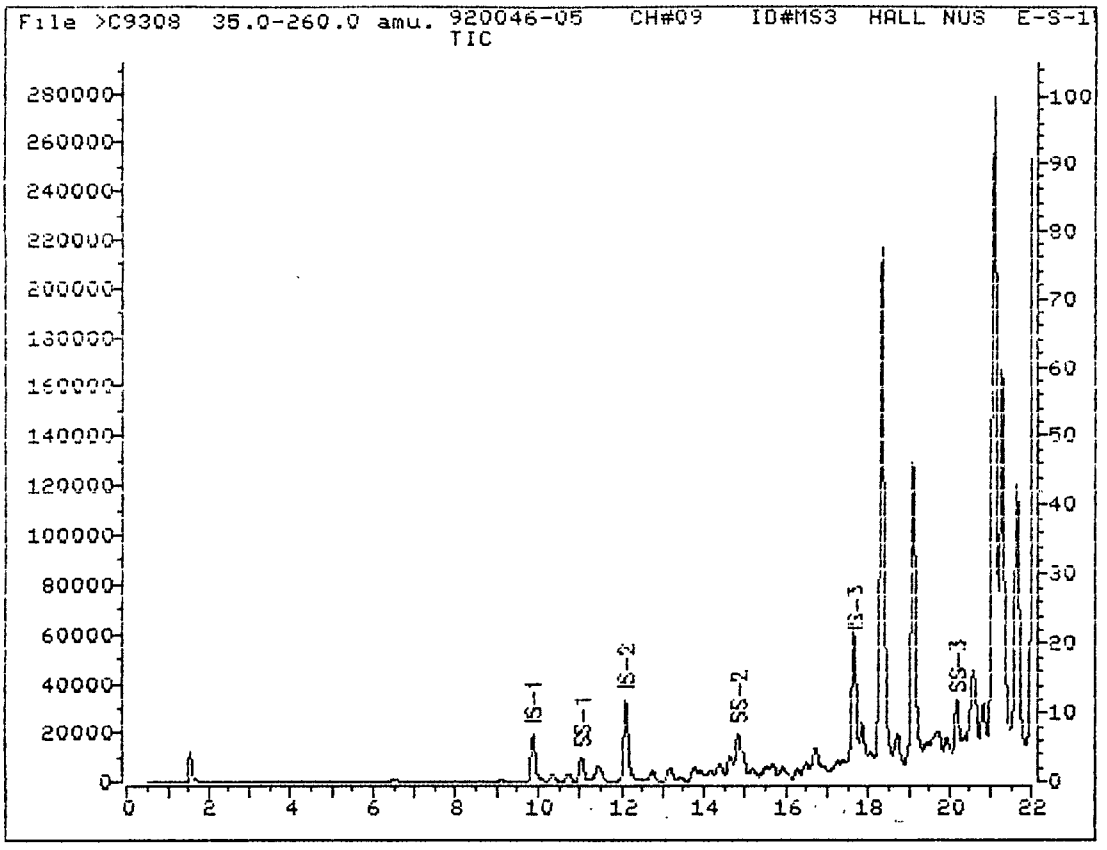
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 50.0(uL)

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Aliphatic hydrocarbon	16.71	4200	J
2. 000000	Aliphatic hydrocarbon	20.59	11000	J
3. 000000	Aliphatic hydrocarbon	20.82	4200	J
4. 000000	C3-benzene isomer	21.10	80000	J
5. 000000	C3-benzene isomer	21.27	43000	J
6. 000000	C3-benzene isomer	21.65	31000	J



MS data file header from : >C9308::D5

Sample: 920046-05 CH#09 Operator: VOA2 REG. GRP. 2/08/92 18:12
Misc : ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

proj # 3196
CH

CB

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920208 18:43
Output File: ^C9308::QT Injected at: 920208 18:12
Data File: >C9308::D5 Dilution Factor: 1.00000
Name: 920046-05 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920208 09:28

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.87	128.0	23950	50.00	~~UG/L~~	80
6)	C030 Methylene Chloride	6.44	84.0	1118	2.08	UG/L	45
13)	CS15 1,2-Dichloroethane-d4	11.05	65.0	20611	~~24.48~~	UG/L 98%	98
16)	*CI10 1,4-Difluorobenzene	12.10	114.0	102054	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.36	97.0	6913	4.67	~~UG/L~~	84
28)	*CI20 Chlorobenzene-d5	17.67	117.0	89564	50.00	UG/L	96
33)	C230 Toluene	14.95	91.0	20485	11.56	~~UG/L~~	99
34)	CS05 Toluene d-8	14.84	98.0	44582	24.34	UG/L 97%	91
36)	C240 Ethylbenzene	18.06	106.0	1708	2.61	UG/L	94
38)	C250 Total Xylenes	18.34	106.0	372379M	420.40	UG/L	96
39)	CS10 Bromofluorobenzene	20.20	95.0	32837	20.85	UG/L 83%	91

* Compound is ISTD

proj # 3186
KH

188

MS data file header from : >C9308::D5

Sample: 920046-05 CH#09 Operator: VOA2 REG. GRP. 2/08/92 18:12
Misc : ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

>C9308 920046-05 CH#09 ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10

35.0| 260.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 13 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	9.87	475	482	500	19398	148406	145591	7.15	1.835
2	12.10	583	596	612	33168	256393	250714	12.32	3.159
3	14.84	730	736	749	16559	246442	178043*	8.75	2.244
4	16.71	825	832	848	9391	220395	108577*	5.33	1.368
5	17.65	872	880	886	52129	519103	382979	18.82	4.826
6	18.34	906	915	929	206471	1776247	1495622	73.48	18.847
7	19.10	944	954	967	120858	1139001	932249	45.80	11.747
8	20.18	1003	1009	1015	21509	316950	153699	7.55	1.937
9	20.59	1022	1030	1037	28852	550383	269426	13.24	3.395
10	20.82	1037	1042	1047	16889	288509	109349	5.37	1.378
11	21.10	1047	1056	1061	264825	2285524	2035279	100.00	25.647
12	21.27	1061	1065	1075	152072	1333917	1085502	53.33	13.679
13	21.65	1076	1084	1096	105335	1136405	788714	38.75	9.939

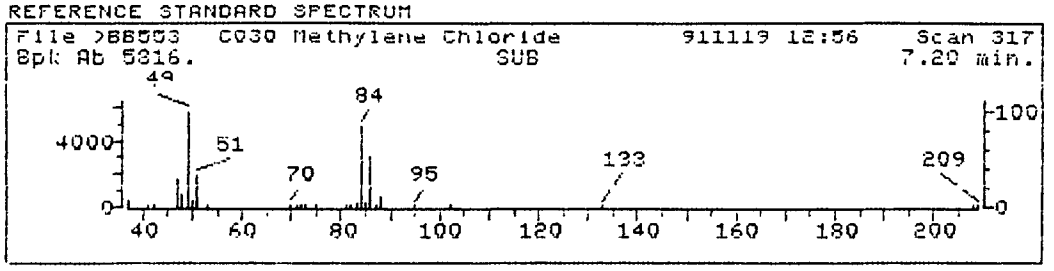
Sum of corrected areas: 7935744.

6 6 TIC LH

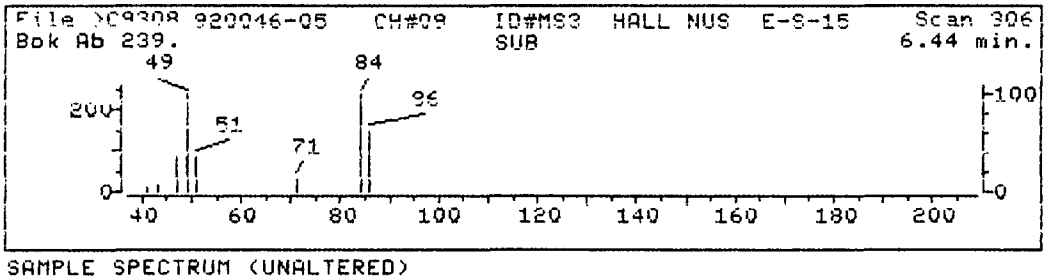
proj #3196

LH

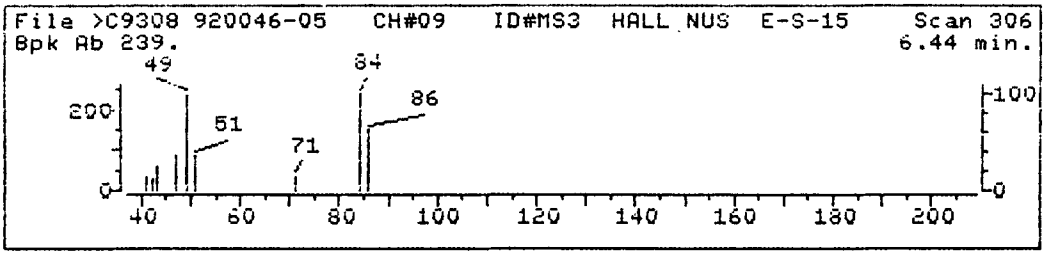
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

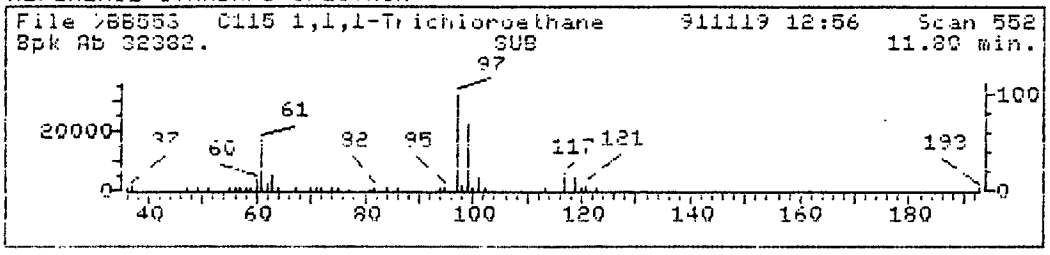


Data File: >C9308::D5 Quant Output File: ^C9308::QT
Name: 920046-05 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Quant Time: 920208 18:43 Quant ID File: V3ID::SC
Injected at: 920208 18:12 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

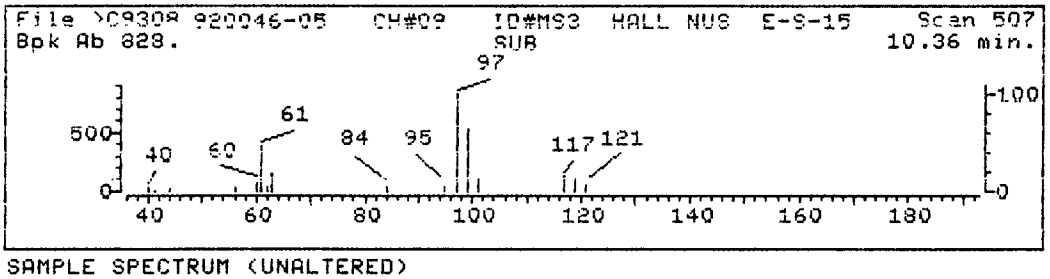
Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 306
Retention Time: 6.44 min.
Quant Ion : 84.0
Area : 1118
Concentration : 2.08 UG/L
q-value : 45

proj # 3186
CH

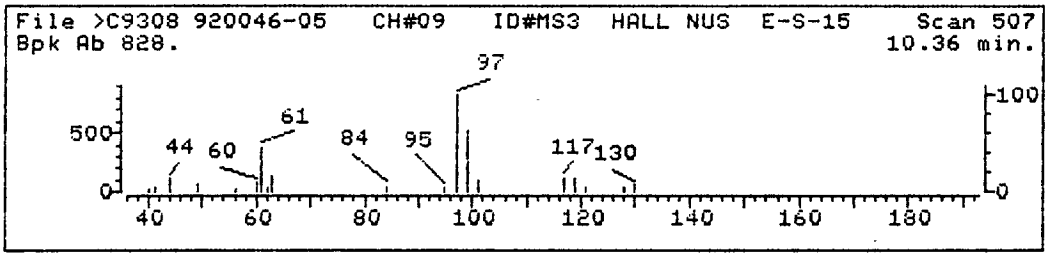
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

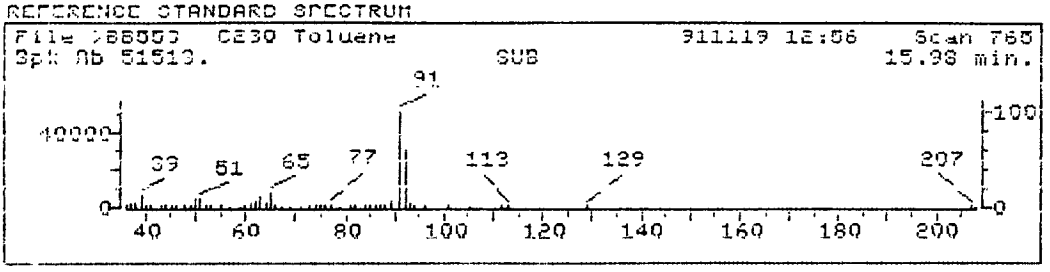


Data File: >C9308::D5 Quant Output File: ^C9308::QT
Name: 920046-05 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Quant Time: 920208 18:43 Quant ID File: V3ID::SC
Injected at: 920208 18:12 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

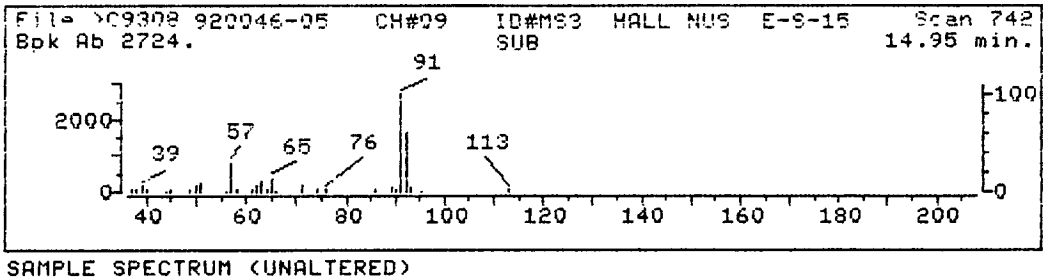
Compound No : 17
Compound Name : C115 1,1,1-Trichloroethane
Scan Number : 507
Retention Time: 10.36 min.
Quant Ion : 97.0
Area : 6913
Concentration : 4.67 UG/L
q-value : 84

proj # 3126
CH

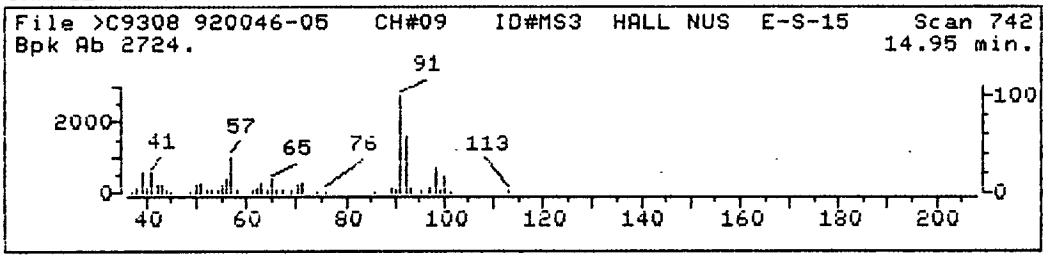
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



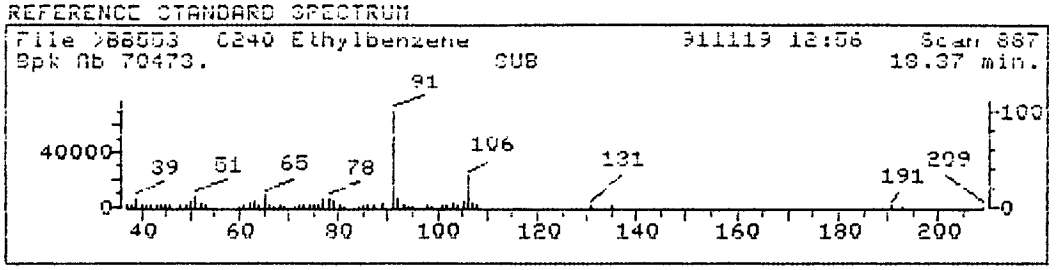
Data File: >C9308::D5
Name: 920046-05 CH#09
Misc: ID#MS3 HALL NUS E-S-15
Quant Time: 920208 18:43
Injected at: 920208 18:12
Last Qcal Time: 920208 09:28

Quant Output File: ^C9308::QT
Instrument ID: MS3
MED SOIL 4G/10MLX50UL LH
Quant ID File: V3ID::SC
Last Calibration: 910429 11:21

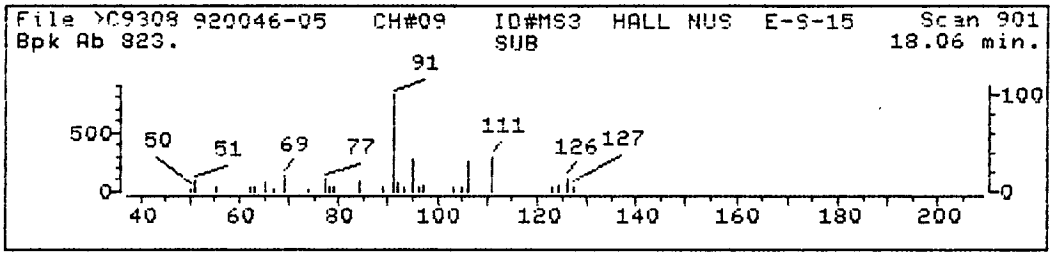
Compound No : 33
Compound Name : C230 Toluene
Scan Number : 742
Retention Time: 14.95 min.
Quant Ion : 91.0
Area : 20485
Concentration : 11.56 UG/L
q-value : 99

proj #3186
4H

REFERENCE STANDARD SPECTRUM

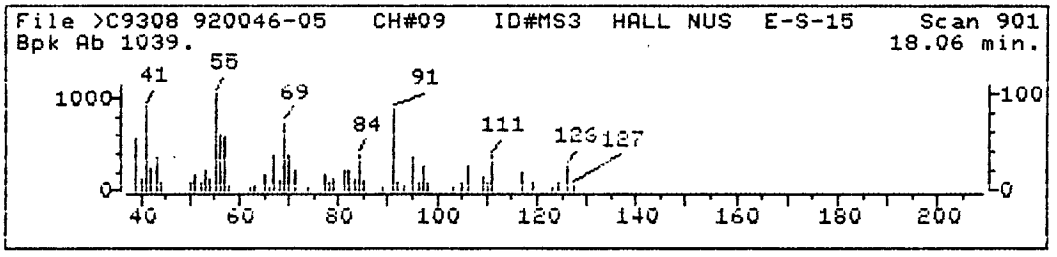


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



m/z 111 from background

SAMPLE SPECTRUM (UNALTERED)

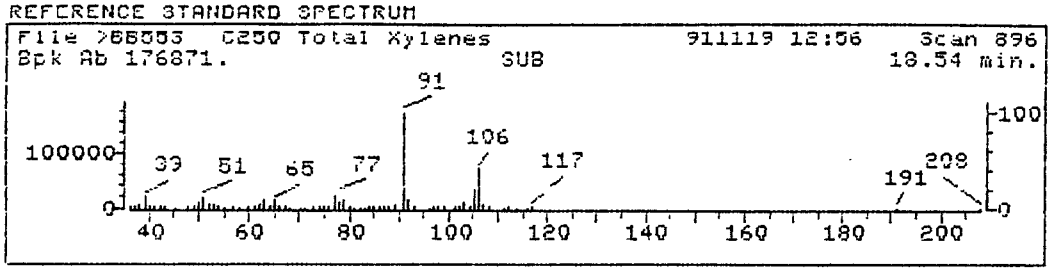


Data File: >C9308::D5 Quant Output File: ^C9308::QT
Name: 920046-05 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Quant Time: 920208 18:43 Quant ID File: V3ID::SC
Injected at: 920208 18:12 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

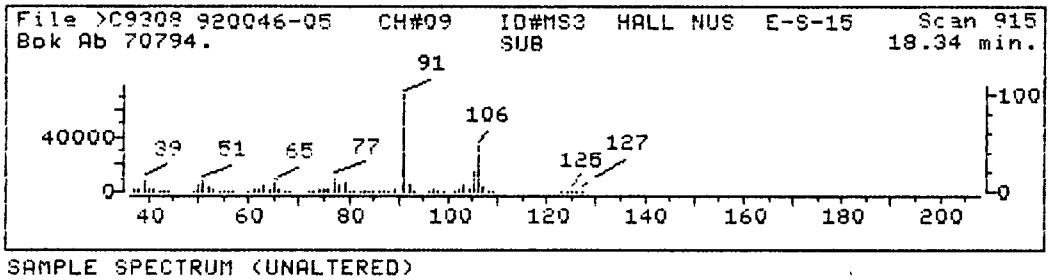
Compound No : 36
Compound Name : C240 Ethylbenzene
Scan Number : 901
Retention Time: 18.06 min.
Quant Ion : 106.0
Area : 1708
Concentration : 2.61 UG/L
q-value : 94

proj #3126
44

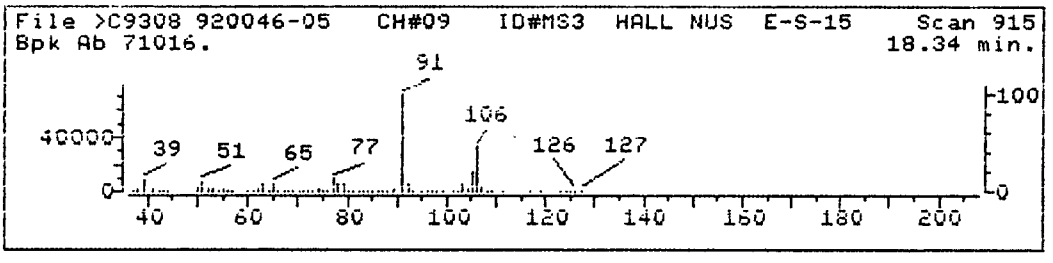
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9308::D5 Quant Output File: ^C9308::QT
Name: 920046-05 CH#09 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Quant Time: 920208 18:43 Quant ID File: V3ID::SC
Injected at: 920208 18:12 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

Compound No : 38
Compound Name : C250 Total Xylenes
Scan Number : 915
Retention Time: 18.34 min.
Quant Ion : 106.0
Area : 372379M
Concentration : 420.40 UG/L
q-value : 96

P20 #3486

LH

MS data file header from : >C9308::D5

Sample: 920046-05 CH#09 Operator: VOA2 REG. GRP. 2/08/92 18:12
Misc : ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

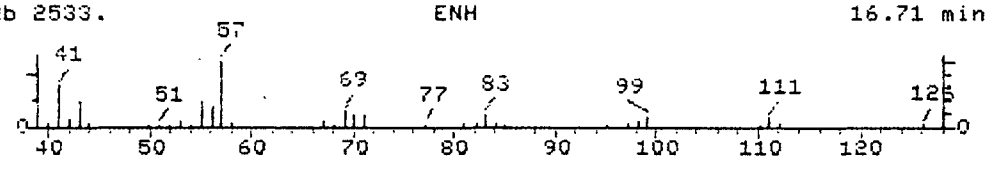
Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 2,5-dimethyl- (8CI9CI) 128 C9H20
2. 1-Pentene, 4,4-dimethyl- (8CI9CI) 98 C7H14
3. 3-Undecene, 6-methyl-, (E)- (9CI) 168 C12H24
4. Octane, 3-methyl- (8CI9CI) 128 C9H20
5. Hexane, 4-ethyl-2-methyl- (8CI9CI) 128 C9H20

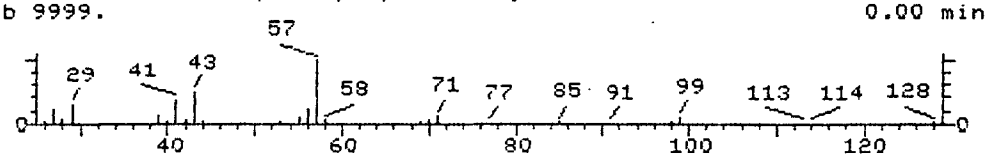
Sample file: >C9308 Spectrum #: 832
Search speed: 2 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	53*	2216300	8730	"BIGDB	34	52	0	0	76	27	24	33
2.	53*	762629	1183	"BIGDB	38	38	0	0	100	40	19	44
3.	52	74630527	8530	"BIGDB	41	46	2	0	100	16	20	13
4.	49*	2216333	8731	"BIGDB	38	46	1	0	100	22	22	21
5.	47*	3074757	8735	"BIGDB	37	52	2	0	100	22	17	18

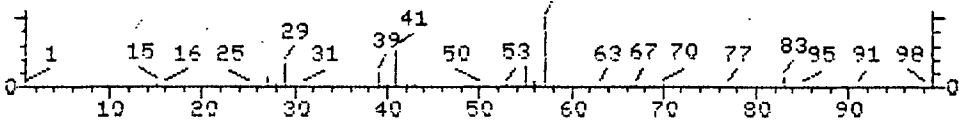
File >C9308 920046-05 CH#09 ID#MS3 HALL NUS E-S-15 MED Scan 832
Bpk Ab 2533. ENH 16.71 min.



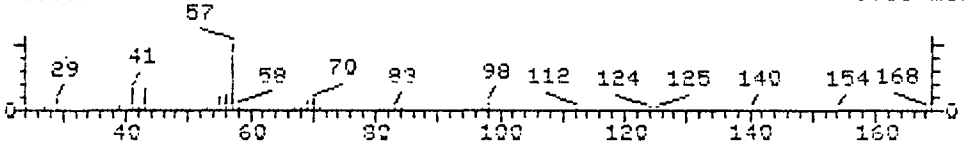
File >BIGDB Heptane, 2,5-dimethyl- (8CI9CI) Scan 8730
Bpk Ab 9999. 0.00 min.



File >BIGDB 1-Pentene, 4,4-dimethyl- (8CI9CI) Scan 1183
Bpk Ab 9999. 0.00 min.



File >BIGDB 3-Undecene, 6-methyl-, (E)- (9CI) Scan 8530
Bpk Ab 9999. 0.00 min.



aliphatic hydrocarbon

$$Conc = \frac{108577}{\cancel{250714}\ 382979} \times \frac{50}{1}$$

$= 14\cancel{22} \times \cancel{300}$

$= \cancel{4200}\ \cancel{6600}$ ppb

proj # 3196

hm

MS data file header from : >C9308::D5

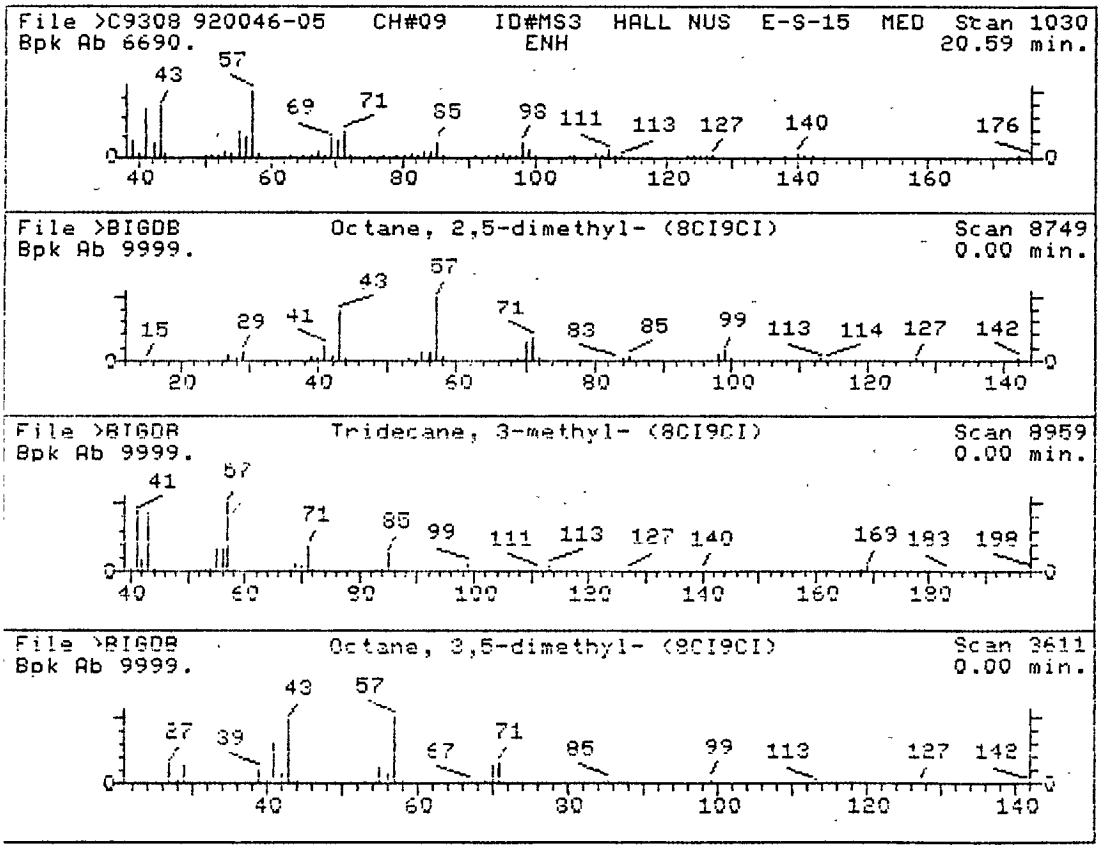
Sample: 920046-05 CH#09 Operator: VOA2 REG. GRP. 2/08/92 18:12
Misc : ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 2,5-dimethyl- (8CI9CI) 142 C10H22
2. Tridecane, 3-methyl- (8CI9CI) 198 C14H30
3. Octane, 3,5-dimethyl- (8CI9CI) 142 C10H22
4. Dodecane, 3-methyl- (8CI9CI) 184 C13H28
5. 1,3-Cyclopentanedione, 4-butyl- (9CI) 154 C9H14O2

Sample file: >C9308 Spectrum #: 1030
Search speed: 2 Tilting option: S No. of ion ranges searched: 63

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	63*	15869893	8749	"BIGDB	61	31	0	0	78	50	20	73
2.	34	6418413	8959	"BIGDB	73	37	2	0	83	40	14	21
3.	30*	15869939	3611	"BIGDB	31	62	0	0	79	46	10	24
4.	30	17312571	6195	"BIGDB	62	37	2	0	91	42	12	21
5.	30	54244723	3779	"BIGDB	60	37	2	0	27	48	10	21



$$\text{conc} = \frac{269426}{382979} \times \frac{50}{1}$$

$$= 35 \times 300$$

$$= 4000 \text{ ppb}$$

~~Hydr~~ aliphatic hydrocarbon

pro) #3196

MS data file header from : >C9308::D5

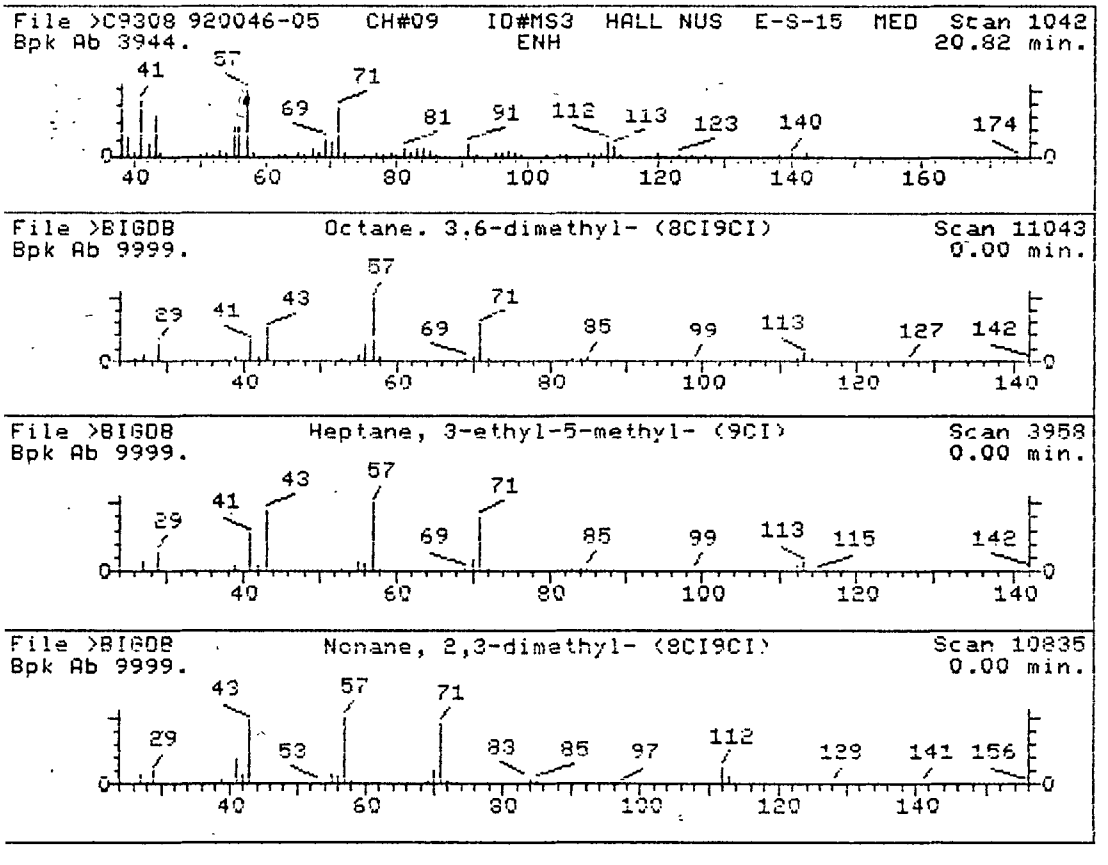
Sample: 920046-05 CH#09 Operator: VOA2 REG. GRP. 2/08/92 18:12
Misc : ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 3,6-dimethyl- (8CI9CI) 142 C10H22
2. Heptane, 3-ethyl-5-methyl- (9CI) 142 C10H22
3. Nonane, 2,3-dimethyl- (8CI9CI) 156 C11H24
4. Octane, 3-ethyl- (8CI9CI) 142 C10H22
5. Octane, 2,3,6-trimethyl- (9CI) 156 C11H24

Sample file: >C9308 Spectrum #: 1042
Search speed: 2 Tilting option: S No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	59*	15869940	11043	"BIGDB	45	44	0	0	100	36	21	53
2.	47*	52896909	3958	"BIGDB	40	54	0	0	68	41	16	41
3.	46	2884062	10835	"BIGDB	56	45	1	0	82	24	17	17
4.	44*	5881174	3951	"BIGDB	45	48	1	0	99	32	16	27
5.	44	62016335	3961	"BIGDB	47	45	0	0	77	35	16	27



aliphatic hydrocarb.

$$Conc = \frac{109349}{382979} \times \frac{50}{1}$$

$$= 14 \times 3.02 = \cancel{4200}$$ ppb

Proj #3196

LH

MS data file header from : >C9308::D5

Sample: 920046-05 CH#09 Operator: VOA2 REG. GRP. 2/08/92 18:12
Misc : ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

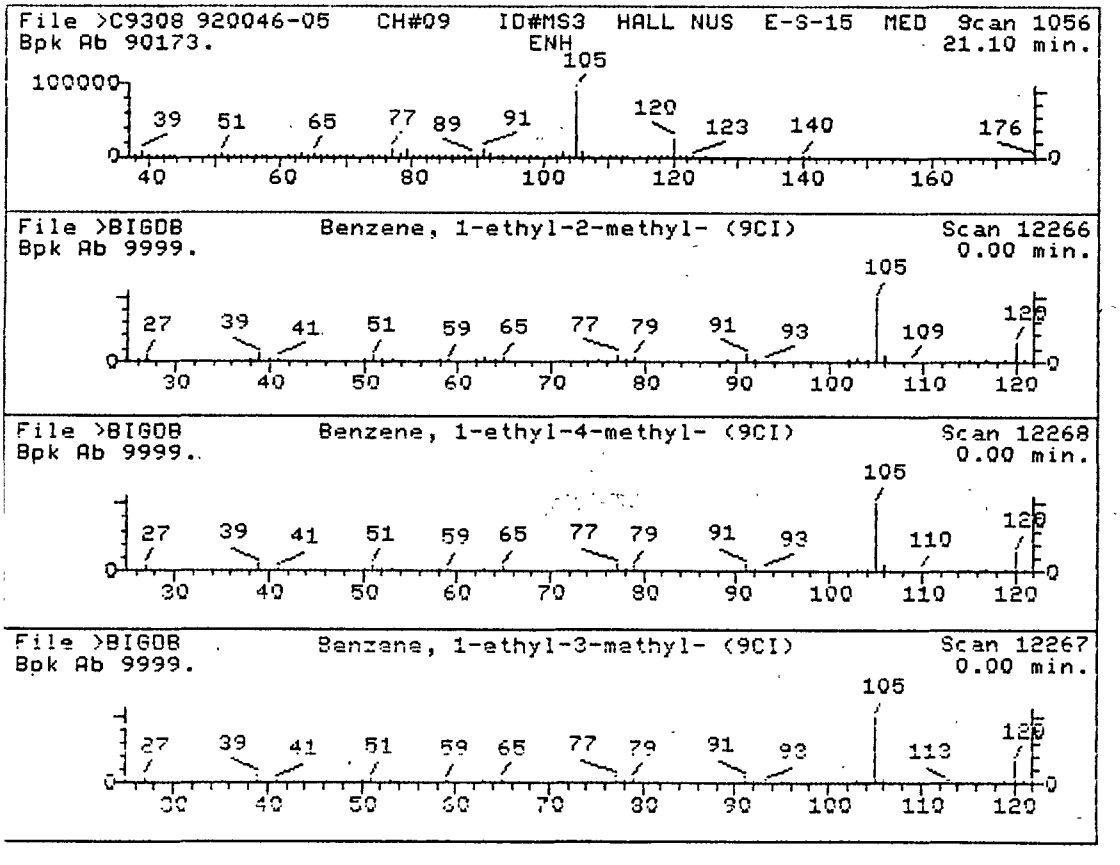
Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9308 Spectrum #: 1056
Search speed: 2 Tilting option: S No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	611143	12266	"BIGDB	80	5	1	0	95	1	72	96
2.	95*	622968	12268	"BIGDB	79	6	1	0	95	1	72	95
3.	93*	620144	12267	"BIGDB	80	7	1	2	77	1	68	80
4.	81*	98828	12259	"BIGDB	55	32	2	0	95	8	53	41
5.	48*	526738	12280	"BIGDB	55	45	2	0	60	33	20	32

C3-benzene isomer



$$\text{conc} = \frac{2035279}{382979} \times \frac{50}{1}$$

= 266 ppb ~~x 300~~ =

= 80000 ppb

proj # 3196
LH

198

CB

MS data file header from : >C9308::D5

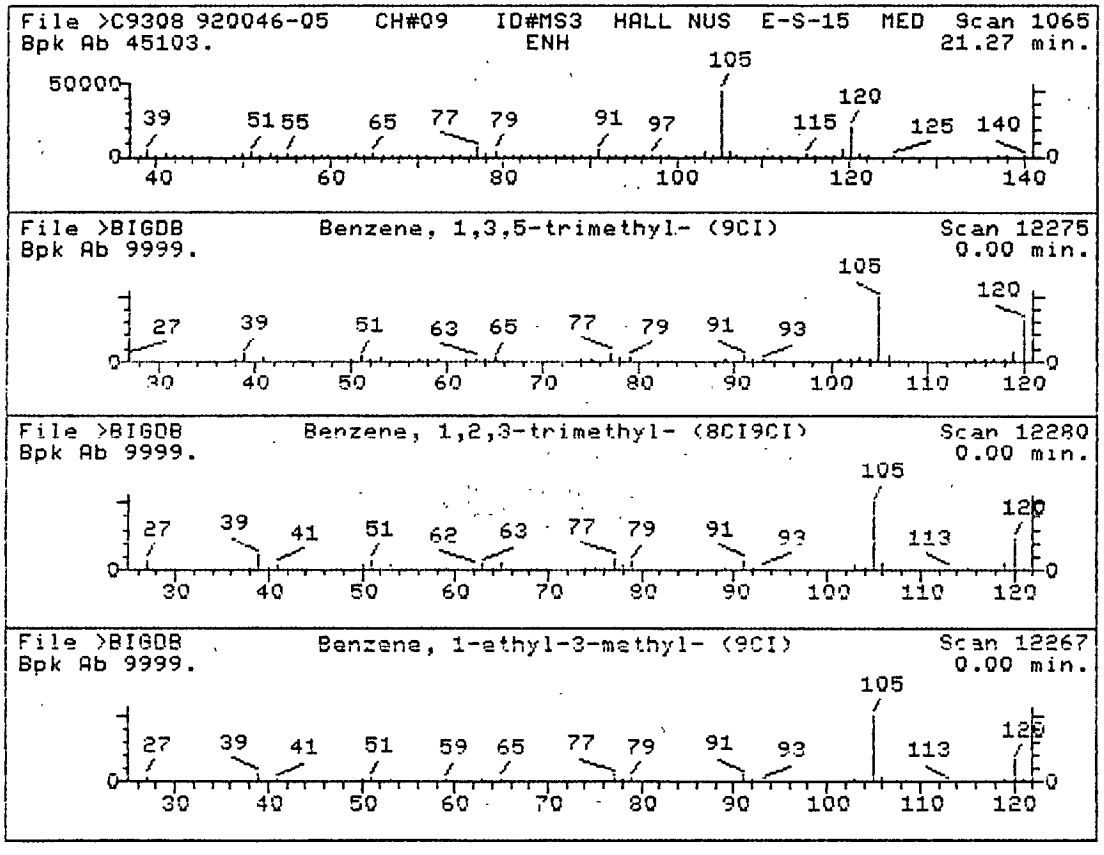
Sample: 920046-05 CH#09 Operator: VOA2 REG. GRP. 2/08/92 18:12
Misc : ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1,3,5-trimethyl- (9CI) 120 C9H12
2. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
5. Benzene, 1,2,4-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9308 Spectrum #: 1065
Search speed: 2 Tilting option: S No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83*	108678	12275	"BIGDB	67	21	2	0	70	6	54	57
2.	83*	526738	12280	"BIGDB	72	28	2	0	73	6	54	54
3.	83*	620144	12267	"BIGDB	65	22	2	0	97	9	54	55
4.	76*	622968	12268	"BIGDB	64	21	1	0	84	23	41	72
5.	71*	95636	12273	"BIGDB	67	28	1	0	65	30	29	66



C_3 benzene isomer

$$\text{conc} = \frac{1085502}{382979} \times \frac{50}{1}$$

$= 142$ ppb ~~x 300 =~~

~~42000~~ ppb

proj #3196
CH

CB

MS data file header from : >C9308::D5

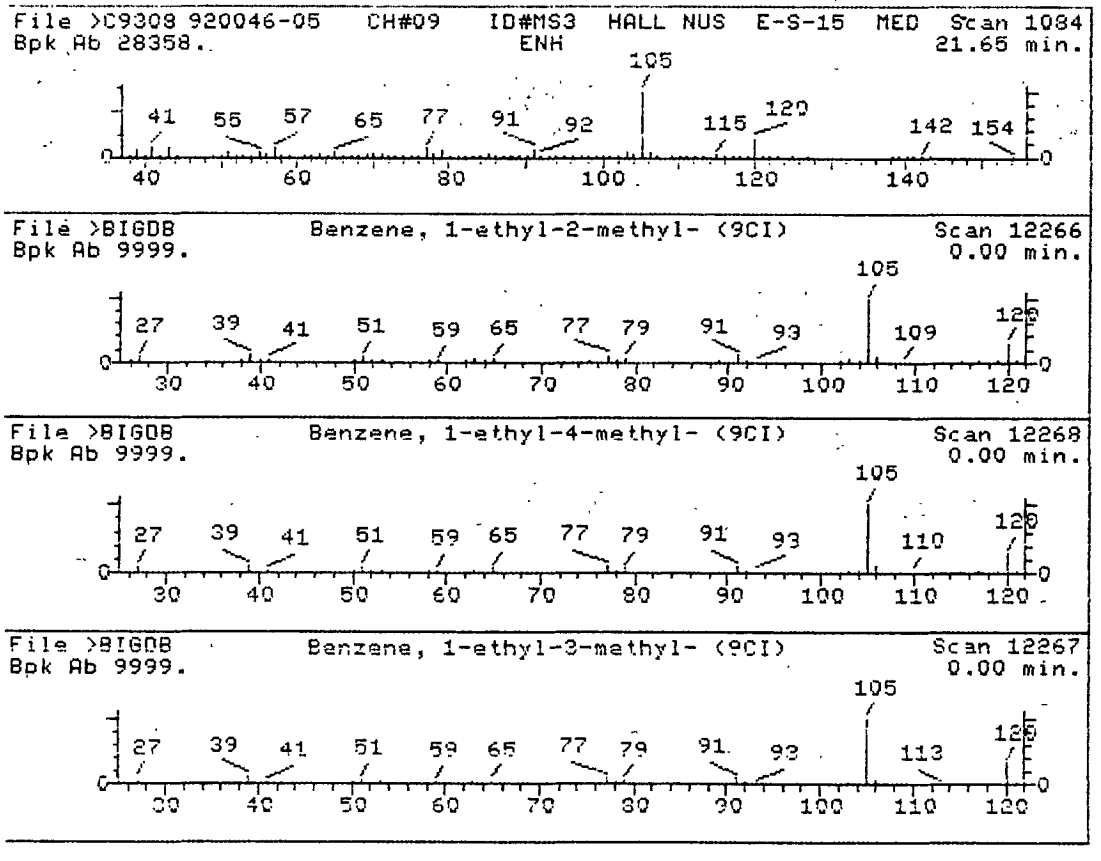
Sample: 920046-05 CH#09 Operator: VOA2 REG. GRP. 2/08/92 18:12
Misc : ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9308 Spectrum #: 1084
Search speed: 2 Tilting option: S No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	611143	12266	"BIGDB	85	0	0	0	96	9	68	97
2.	94*	622968	12268	"BIGDB	72	13	0	0	71	11	64	95
3.	84*	620144	12267	"BIGDB	70	17	2	0	91	9	55	61
4.	84*	98828	12259	"BIGDB	64	23	1	0	93	7	55	67
5.	59*	526738	12280	"BIGDB	55	30	1	0	48	38	21	52



C3 benzene isomer

$$Conc = \frac{788714}{382979} \times \frac{5}{1}$$

$= 10.3 \times 3000$

$= 31000$ ppb

proj #3196

200

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-15-D

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-06

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9286

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 12 Date Analyzed: 02/07/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 10.0(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14000	U
74-83-9	Bromomethane	14000	U
75-01-4	Vinyl Chloride	14000	U
75-00-3	Chloroethane	14000	U
75-09-2	Methylene Chloride	14000	U
67-64-1	Acetone	14000	U
75-15-0	Carbon Disulfide	14000	U
75-35-4	1,1-Dichloroethene	14000	U
75-34-3	1,1-Dichloroethane	14000	U
540-59-0	1,2-Dichloroethene (total)	14000	U
67-66-3	Chloroform	14000	U
107-06-2	1,2-Dichloroethane	14000	U
78-93-3	2-Butanone	14000	U
71-55-6	1,1,1-Trichloroethane	14000	U
56-23-5	Carbon Tetrachloride	14000	U
75-27-4	Bromodichloromethane	14000	U
78-87-5	1,2-Dichloropropane	14000	U
10061-01-5	cis-1,3-Dichloropropene	14000	U
79-01-6	Trichloroethene	14000	U
124-48-1	Dibromochloromethane	14000	U
79-00-5	1,1,2-Trichloroethane	14000	U
71-43-2	Benzene	14000	U
10061-02-6	trans-1,3-Dichloropropene	14000	U
75-25-2	Bromoform	14000	U
108-10-1	4-Methyl-2-Pentanone	14000	U
591-78-6	2-Hexanone	14000	U
127-18-4	Tetrachloroethene	14000	U
79-34-5	1,1,2,2-Tetrachloroethane	14000	U
108-88-3	Toluene	18000	
108-90-7	Chlorobenzene	14000	U
100-41-4	Ethylbenzene	4600	J
100-42-5	Styrene	14000	U
1330-20-7	Xylene (total)	510000	E

201

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-15-D

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-06

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9286

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 12 Date Analyzed: 02/07/92

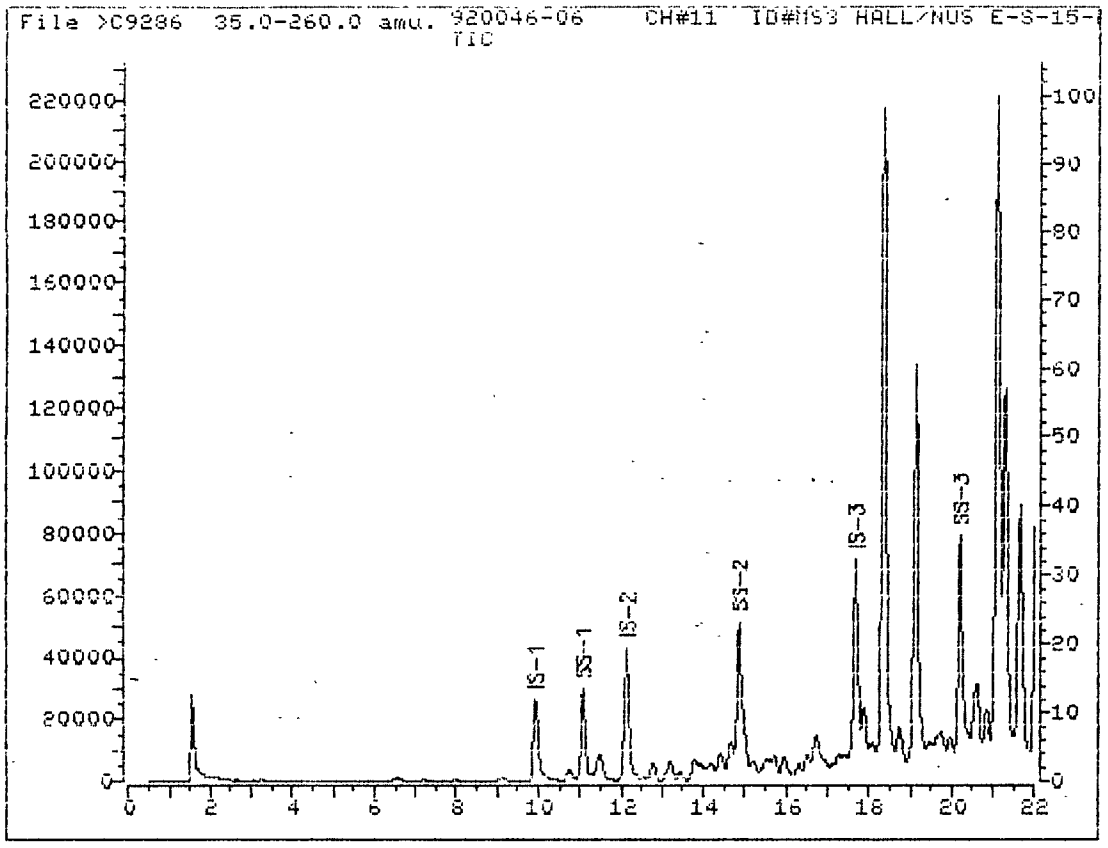
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 10.0(uL)

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	Aliphatic hydrocarbon	11.48	20000	J
2. 000000	Aliphatic hydrocarbon	18.74	13000	J
3. 000000	Aliphatic hydrocarbon	20.59	34000	J
4. 000000	Aliphatic hydrocarbon	20.85	16000	J
5. 000000	C3-benzene isomer	21.10	260000	J
6. 000000	C3-benzene isomer	21.30	130000	J
7. 000000	C3-benzene isomer	21.65	92000	J



Med soil ~~topsoil~~ 4gm/10ml x10ml

MS data file header from : >C9286::D5

Sample: 920046-06 CH#11 Operator: VOA1 REG. GRP. 2/07/92 9:07
Misc : ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

proj#3196
4H

CB

QUANT REPORT

Operator ID: VOA1 Quant Rev: 7 Quant Time: 920207 09:54
Output File: `C9286::QT Injected at: 920207 09:07
Data File: >C9286::D5 Dilution Factor: 1.00000
Name: 920046-06 CH#11 Instrument ID: MS3
Misc: ID#MS3 HALL/NUS E-S-15-D MED SOIL 14gm/10ml ~~WATER~~ 10UL ~10UL Q1-18 YY

ID File: V3ID::SC
Title: VOLATILE ANALYSIS .CLP-TCL DB624 30Mx0.531Dx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920206 14:39

	Compound	R.T.	Q ion	Area	Conc	Units		q
1)	*CI01 Bromochloromethane	9.92	128.0	35892	50.00	UG/L		77
13)	CS15 1,2-Dichloroethane-d4	11.07	65.0	82627	53.30	UG/L	107%	91
16)	*CI10 1,4-Difluorobenzene	12.13	114.0	124252	50.00	UG/L		100
28)	*CI20 Chlorobenzene-d5	17.68	117.0	109136	50.00	UG/L		98
33)	C230 Toluene	14.98	91.0	28065	13.01	UG/L		97
34)	CS05 Toluene d-8	14.86	98.0	123003	52.77	UG/L	106%	98
36)	C240 Ethylbenzene	18.07	106.0	2511	3.21	UG/L		94
38)	C250 Total Xylenes	18.34	106.0	358188M	359.14	UG/L		92
39)	CS10 Bromofluorobenzene	20.20	95.0	103677	51.54	UG/L	103%	91

* Compound is ISTD

Dry Factor $= \frac{(5)(10)}{(0.01)(4)(0.88)} = 1420$

proj #3986
4H

CB

MS data file header from : >C9286::D5

Sample: 920046-06 CH#11 Operator: VOA1 REG. GRP. 2/07/92 9:07
Misc : ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

>C9286 920046-06 CH#11 ID#MS3 HALL/NUS E-S-15-D WATER 10UL +1

35.0| 260.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 16 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	1.57	49	55	75	28171	190855	189789	11.49	2.271
2	9.92	474	483	505	26527	240436	236476	14.32	2.830
3	11.07	534	542	551	29384	221420	211324*	12.80	2.529
4	11.48	555	563	585	8099	103397	91056	5.51	1.090
5	12.13	585	596	613	42914	339247	327720	19.84	3.922
6	14.86	730	736	749	46551	503631	398137*	24.11	4.765
7	17.68	872	880	886	63079	583860	447983	27.13	5.361
8	18.36	906	915	928	208112	1765091	1514034	91.67	18.119
9	18.74	929	934	942	10818	182887	85073	5.15	1.018
10	19.13	943	954	966	127179	1123112	949979	57.52	11.369
11	20.20	1002	1009	1022	69688	755074	537689	32.56	6.435
12	20.59	1022	1029	1037	21271	388544	216080*	13.08	2.586
13	20.85	1037	1042	1047	13468	212796	97224*	5.89	1.164
14	21.10	1047	1055	1061	211471	1813396	1651540*	100.00	19.765
15	21.30	1061	1065	1075	116029	980487	818474*	49.56	9.795
16	21.65	1076	1083	1094	78989	791623	583409*	35.33	6.982

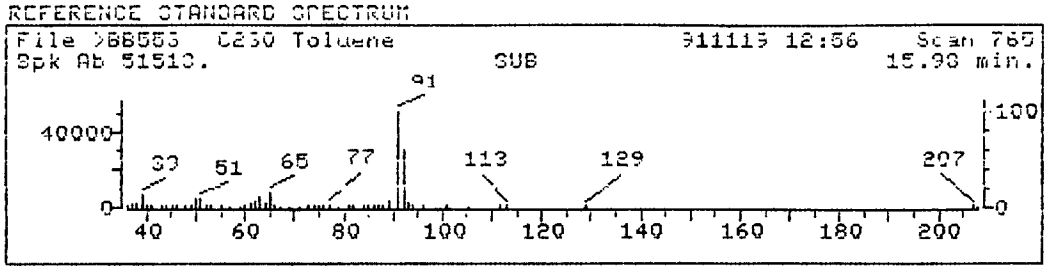
Sum of corrected areas: 8355987.

7 TIC
LH

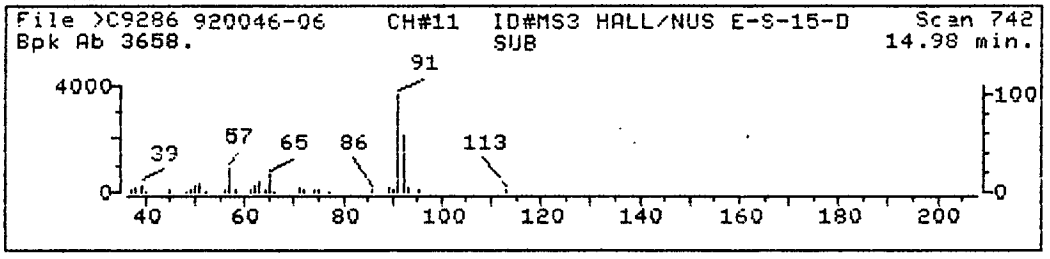
proj#3186
LH

CB

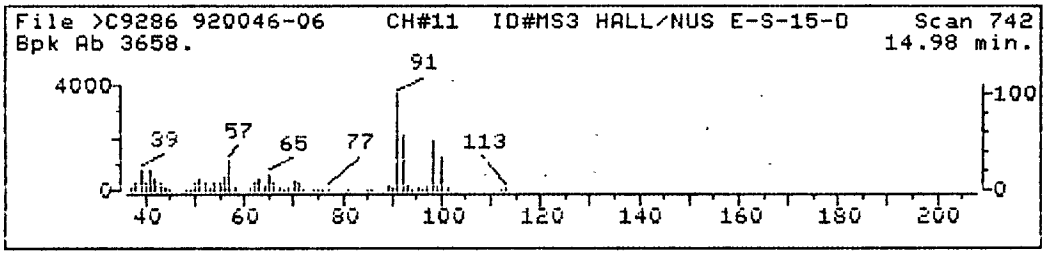
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9286::D5
Name: 920046-06 CH#11
Misc: ID#MS3 HALL/NUS E-S-15-D
Quant Time: 920207 09:34
Injected at: 920207 09:07
Last Qcal Time: 920206 14:39

Quant Output File: ^C9286::QT
Instrument ID: MS3
WATER 10UL +10UL Q1-18 YY
Quant ID File: V3ID::SC
Last Calibration: 910429 11:21

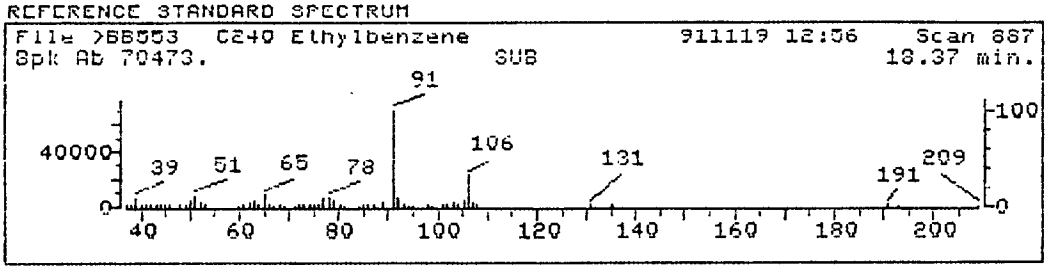
Compound No : 33
Compound Name : C230 Toluene
Scan Number : 742
Retention Time: 14.98 min.
Quant Ion : 91.0
Area : 28065
Concentration : 13.01 UG/L
q-value : 97

Proj #3196

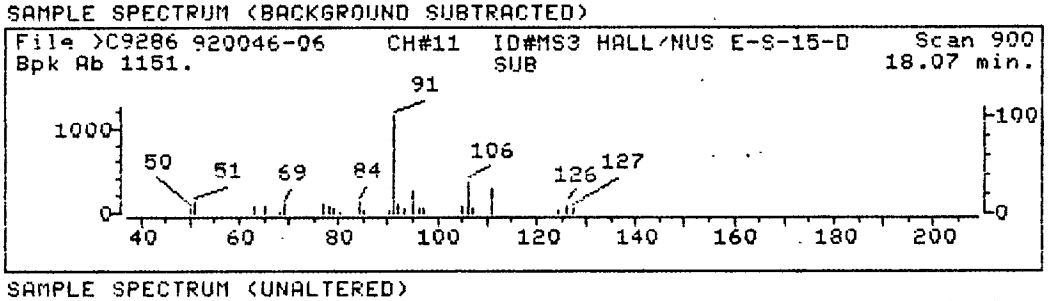
LH

CB

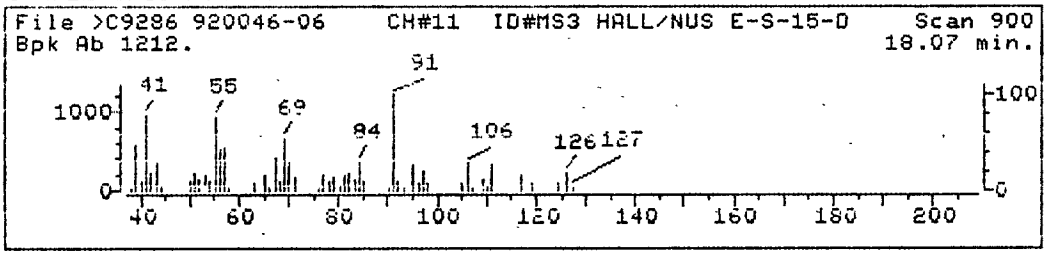
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9286::D5 Quant Output File: ^C9286::QT
Name: 920046-06 CH#11 Instrument ID: MS3
Misc: ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Quant Time: 920207 09:34 Quant ID File: V3ID::SC
Injected at: 920207 09:07 Last Calibration: 910429 11:21
Last Qcal Time: 920206 14:39

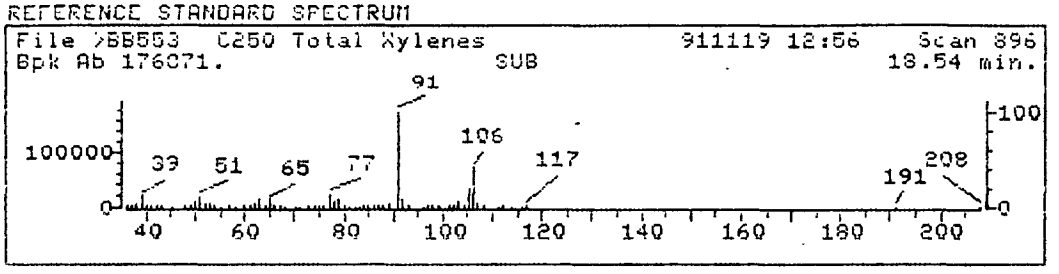
Compound No : 36
Compound Name : C240 Ethylbenzene
Scan Number : 900
Retention Time: 18.07 min.
Quant Ion : 106.0
Area : 2511
Concentration : 3.21 UG/L
q-value : 94

proj # 3186

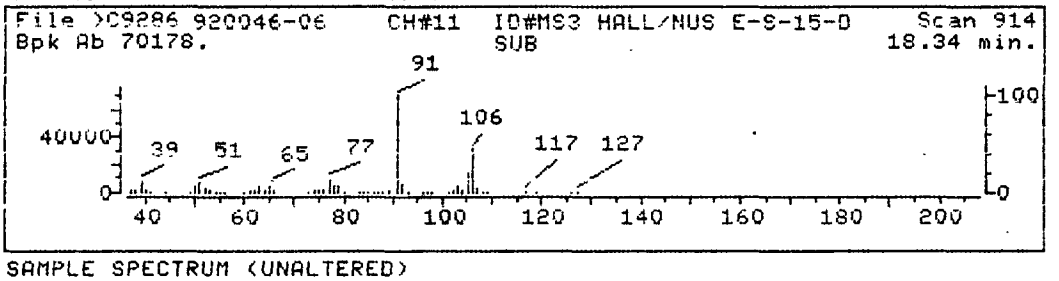
4H

CB

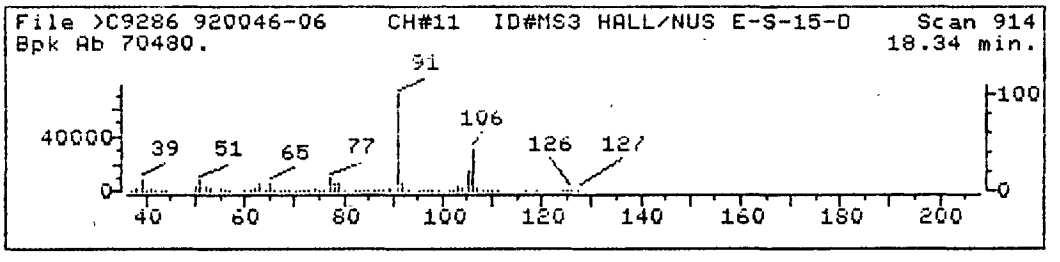
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9286::D5 Quant Output File: ^C9286::QT
Name: 920046-06 CH#11 Instrument ID: MS3
Misc: ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Quant Time: 920207 09:34 Quant ID File: V3ID::SC
Injected at: 920207 09:07 Last Calibration: 910429 11:21
Last Qcal Time: 920206 14:39

Compound No : 38
Compound Name : C250 Total Xylenes
Scan Number : 914
Retention Time: 18.34 min.
Quant Ion : 106.0
Area : 358188M
Concentration : 359.14 UG/L
q-value : 92

proj #3186

44

CB

MS data file header from : >C9286::D5

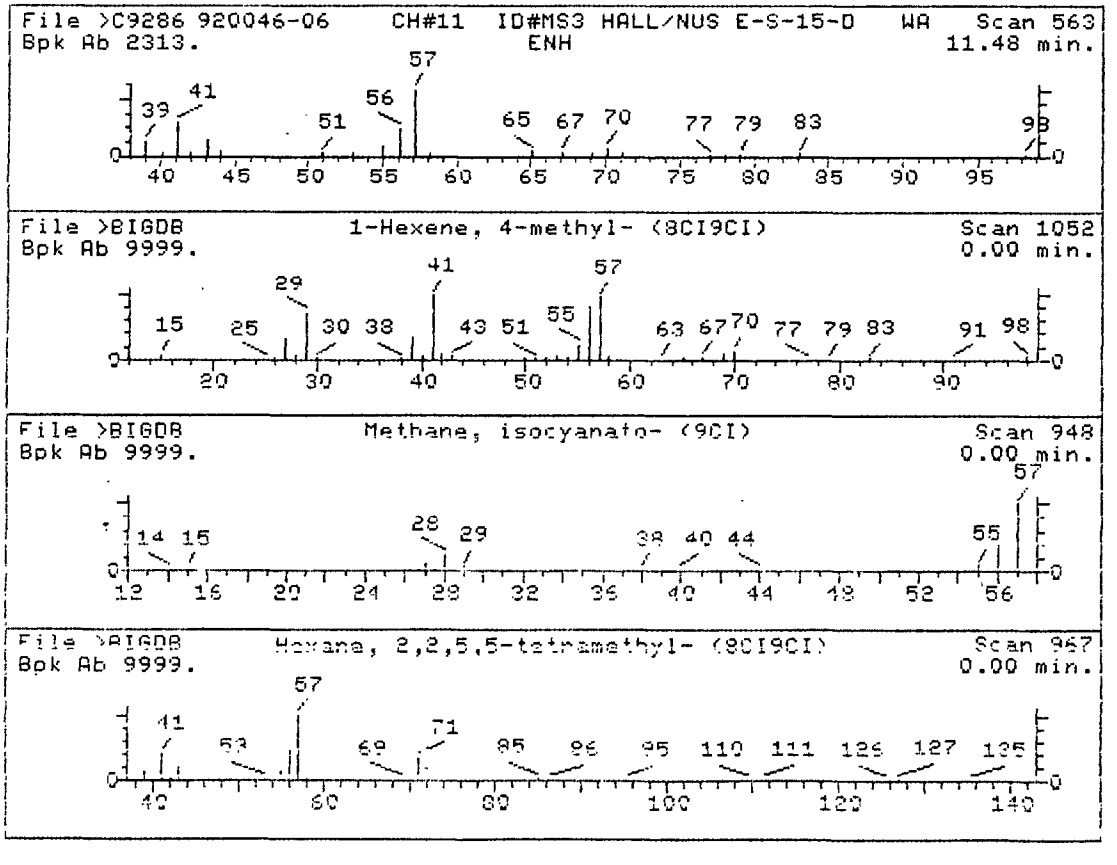
Sample: 920046-06 CH#11 Operator: VOA1 REG. GRP. 2/07/92 9:07
Misc : ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. 1-Hexene, 4-methyl- (8CI9CI) 98 C7H14
2. Methane, isocyanato- (9CI) 57 C2H3NO
3. Hexane, 2,2,5,5-tetramethyl- (8CI9CI) 142 C10H22
4. 1-Pentene, 4,4-dimethyl- (8CI9CI) 98 C7H14
5. Heptane, 2-bromo- (8CI9CI) 178 C7H15Br

Sample file: >C9286 Spectrum #: 563
Search speed: 2 Tilting option: S No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	59*	3769231	1052	"BIGDB	41	37	0	0	46	39	21	53
2.	52*	624839	948	"BIGDB	23	41	1	0	100	20	20	14
3.	52	1071814	967	"BIGDB	44	35	2	0	91	17	20	14
4.	31*	762629	1183	"BIGDB	34	42	2	0	94	40	10	17
5.	30	1974045	1201	"BIGDB	38	46	2	0	78	32	12	13



aliphatic hydrocarbon

$$Conc = \frac{91056}{\cancel{236470}\ 327720} \times \frac{50}{1}$$

$= \cancel{1.9} \times \cancel{14000}$ 1.4

$= \cancel{27000}$ 20000 ppb

proj # 3196

LH 209

MS data file header from : >C9286::D5

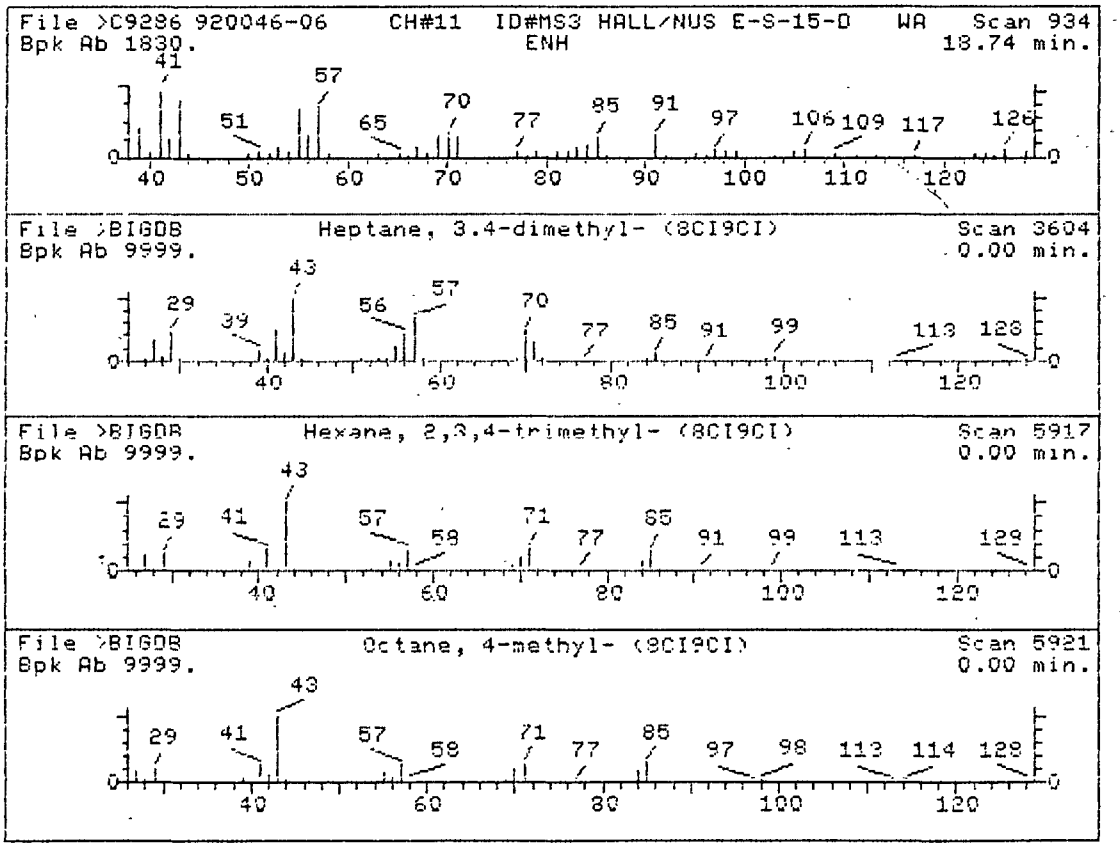
Sample: 920046-06 CH#11 Operator: VOA1 REG. GRP. 2/07/92 9:07
Misc : ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3,4-dimethyl- (8CI9CI) 128 C9H20
2. Hexane, 2,3,4-trimethyl- (8CI9CI) 128 C9H20
3. Octane, 4-methyl- (8CI9CI) 128 C9H20
4. Nonane (8CI9CI) 128 C9H20
5. Hexane, 1-(hexyloxy)-3-methyl- (9CI) 200 C13H28O

Sample file: >C9286 Spectrum #: 934
Search speed: 2 Tilting option: S No. of ion ranges searched: 70

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	30*	922281	3604	"BIGDB	43	54	1	0	78	47	10	25
2.	30*	921471	5917	"BIGDB	34	56	1	0	85	45	8	18
3.	30*	2216344	5921	"BIGDB	34	57	1	0	85	43	8	18
4.	29*	111842	6110	"BIGDB	40	56	2	0	112	43	8	17
5.	26	74421184	6007	"BIGDB	64	57	2	0	61	45	8	14



aliphatic hydrocarbon

$$Conc = \frac{85073}{447983} \times \frac{50}{1}$$

$$= 9 \times \cancel{1400} = 12000$$

ppb

proj #3196

LH

MS data file header from : >C9286::D5

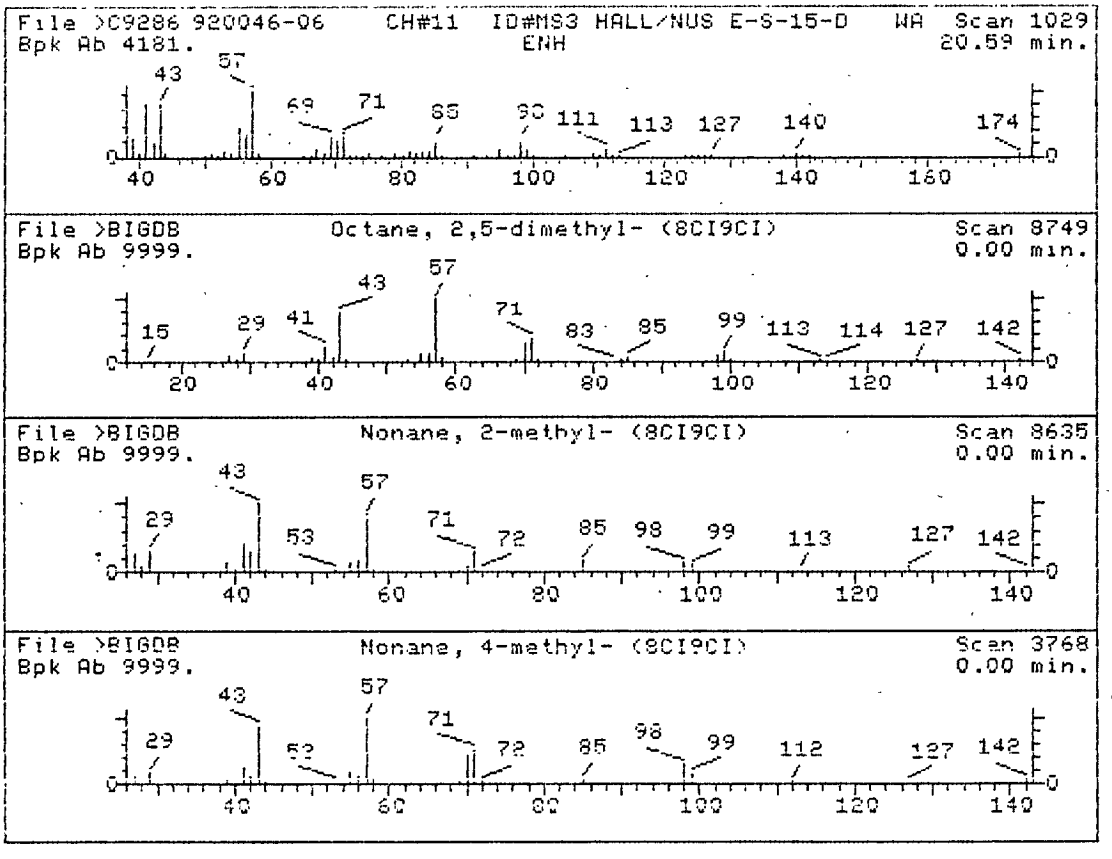
Sample: 920046-06 CH#11 Operator: VOA1 REG. GRP. 2/07/92 9:07
Misc : ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 2,5-dimethyl- (8CI9CI) 142 C10H22
2. Nonane, 2-methyl- (8CI9CI) 142 C10H22
3. Nonane, 4-methyl- (8CI9CI) 142 C10H22
4. Octane, 3,5-dimethyl- (8CI9CI) 142 C10H22
5. Octane, 2,4,6-trimethyl- (9CI) 156 C11H24

Sample file: >C9286 Spectrum #: 1029
Search speed: 2 Tilting option: S No. of ion ranges searched: 72

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	48*	15869893	8749	"BIGDB	61	31	0	0	82	51	16	73
2.	47*	871830	8635	"BIGDB	62	34	2	-1	84	35	20	31
3.	36*	17301949	3768	"BIGDB	47	53	1	1	60	40	14	23
4.	35*	15869939	3611	"BIGDB	39	54	0	0	84	48	11	39
5.	30	62016379	6004	"BIGDB	41	44	0	0	88	50	10	23



aliphatic hydrocarbon

$$Conc = \frac{216080}{447983} \times \frac{500}{1}$$

$= 24 \times 1400$

$= 34000$ ppb

Proj # 3196

LH

MS data file header from : >C9286::D5

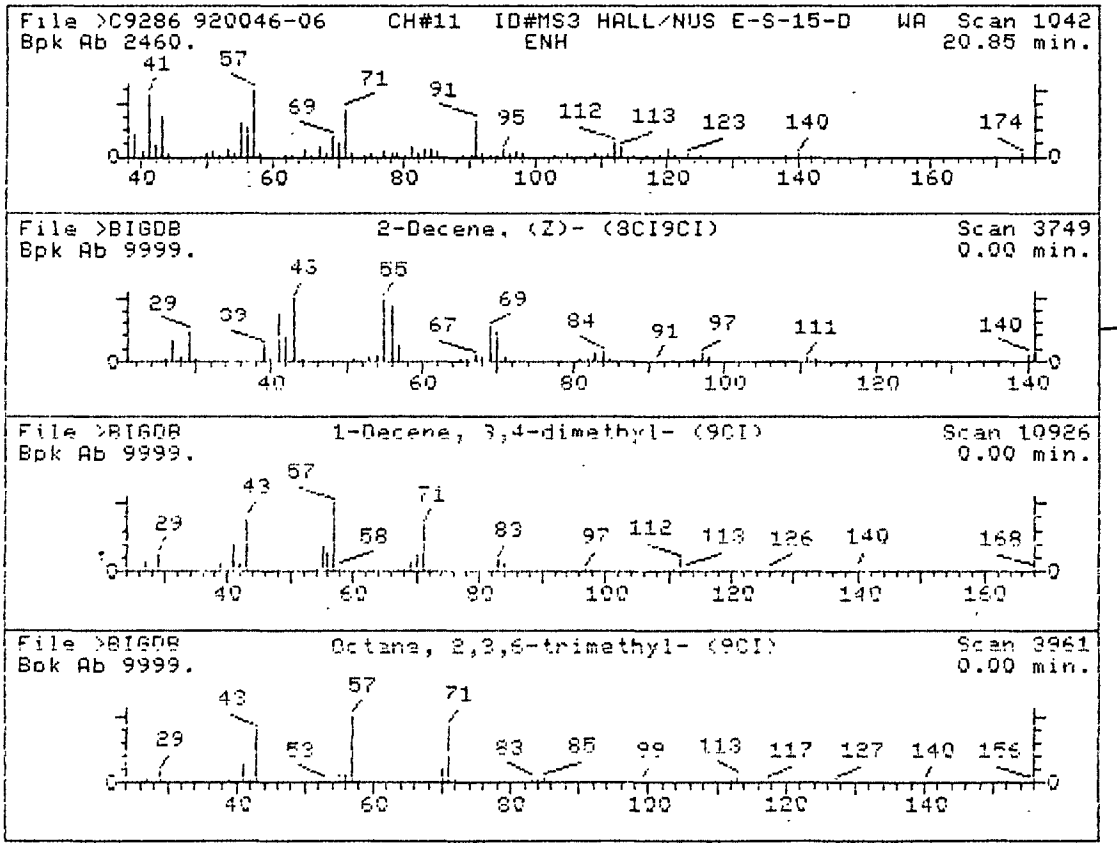
Sample: 920046-06 CH#11 Operator: VOA1 REG. GRP. 2/07/92 9:07
Misc : ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. 2-Decene, (Z)- (8CI9CI) 140 C10H20
2. 1-Decene, 3,4-dimethyl- (9CI) 168 C12H24
3. Octane, 2,3,6-trimethyl- (9CI) 156 C11H24
4. Octane, 3,6-dimethyl- (8CI9CI) 142 C10H22
5. Octane, 3-ethyl- (8CI9CI) 142 C10H22

Sample file: >C9286 Spectrum #: 1042
Search speed: 2 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	49*	20348510	3749	"BIGDB	62	33	0	0	38	54	16	74
2.	44	50871039	10926	"BIGDB	61	41	0	0	72	40	17	33
3.	35	62016335	3961	"BIGDB	53	39	0	0	79	48	11	31
4.	34*	15869940	11043	"BIGDB	45	44	0	0	100	51	10	53
5.	30*	5881174	3951	"BIGDB	40	53	1	0	94	48	10	23



$$Conc = \frac{97224}{447983} \times \frac{50}{1} = 11 \times 400 = 15000\ ppb$$

~~UNK~~

aliphatic hydrocarbon

PAJ #3196

LH

212

MS data file header from : >C9286::D5

Sample: 920046-06 CH#11 Operator: VOA1 REG. GRP. 2/07/92 9:07
Misc : ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9286 Spectrum #: 1055
Search speed: 2 Tilting option: S No. of ion ranges searched: 52

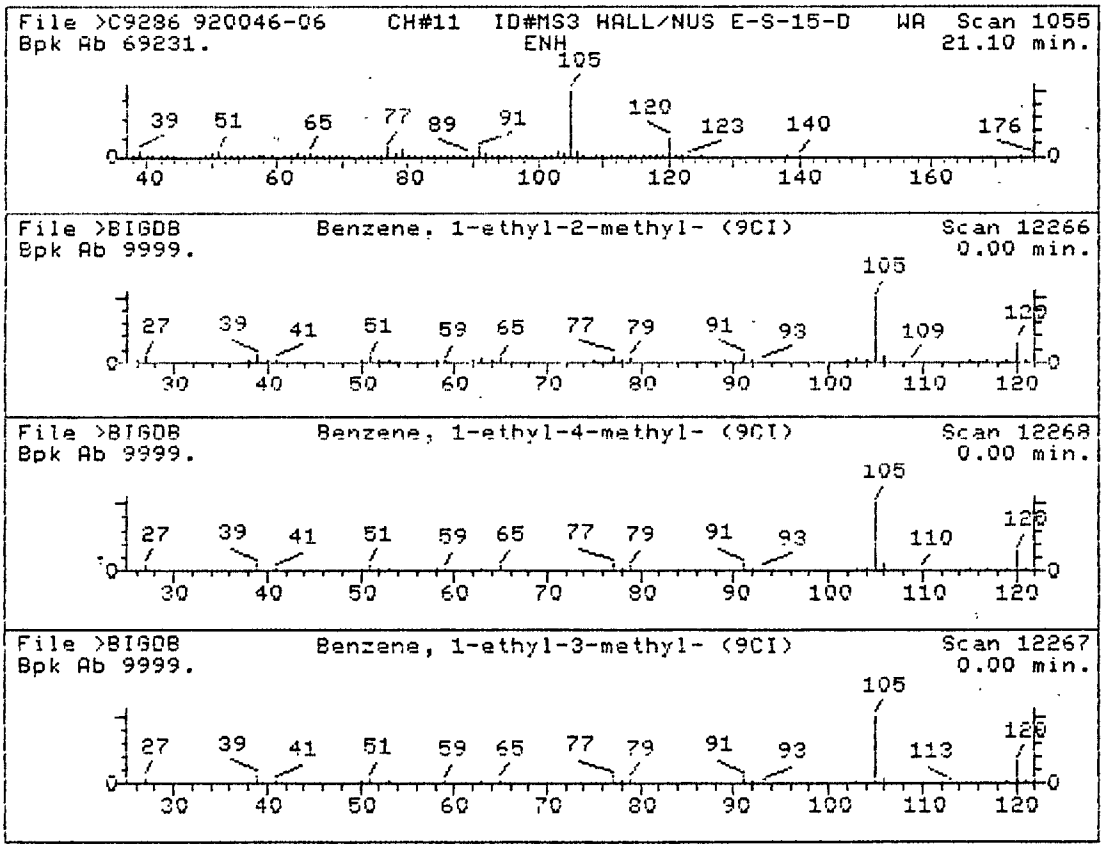
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	611143	12266	"BIGDB	85	0	0	0	93	1	72	97
2.	97*	622968	12268	"BIGDB	78	7	0	0	93	1	72	97
3.	95*	620144	12267	"BIGDB	74	13	0	0	73	1	72	95
4.	86*	98828	12259	"BIGDB	69	18	1	0	93	8	59	77
5.	69*	526738	12280	"BIGDB	60	25	1	0	48	33	26	63

C_3 benzene isomer

$$Conc = \frac{1657540}{447983} \times \frac{50}{1}$$

$= 184$ ppb ~~x1400~~

$= 260000$ ppb



proj #3196
LH

CB

MS data file header from : >C9286::D5

Sample: 920046-06 CH#11 Operator: VOA1 REG. GRP. 2/07/92 9:07
Misc : ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. 1,3-Cyclopentadiene, 5-(1-methylpropylidene)- (9CI) 120 C9H12

Sample file: >C9286 Spectrum #: 1065
Search speed: 2 Tilting option: S No. of ion ranges searched: 41

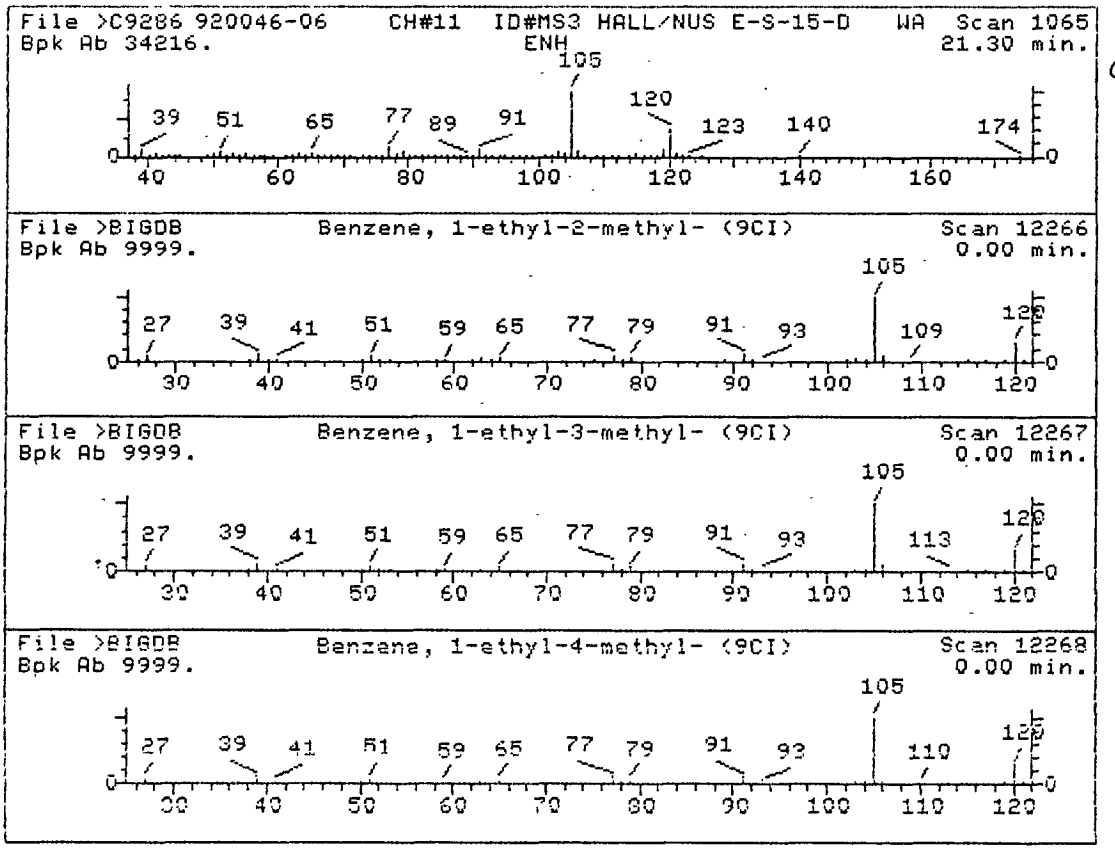
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	611143	12266	"BIGDB	75	10	1	0	98	9	68	93
2.	94*	620144	12267	"BIGDB	75	12	1	0	98	7	68	93
3.	93*	622968	12268	"BIGDB	69	16	0	0	90	21	53	94
4.	89*	98828	12259	"BIGDB	77	10	0	-3	100	4	66	73
5.	78*	3141024	12286	"BIGDB	40	64	3	0	67	4	55	13

C3 benzene isomer

$Conc = \frac{818474}{447983} \times \frac{50}{1}$

= 91 ppb ~~x 1400~~ =

~~130000 ppb~~



proj # 3196

214

CB

MS data file header from : >C9286::D5

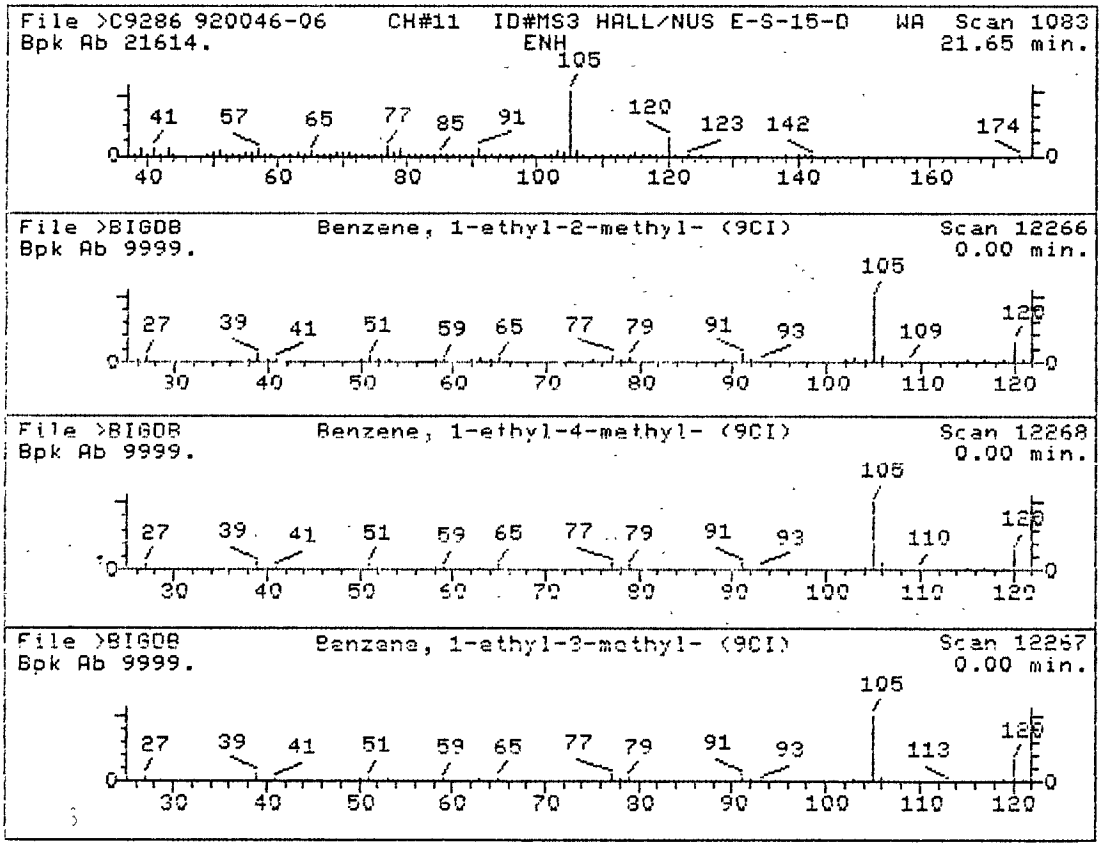
Sample: 920046-06 CH#11 Operator: VOA1 REG. GRP. 2/07/92 9:07
Misc : ID#MS3 HALL/NUS E-S-15-D WATER 10UL +10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9286 Spectrum #: 1083
Search speed: 2 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	611143	12266	"BIGDB	78	7	0	0	89	5	72	97
2.	94*	622968	12268	"BIGDB	72	13	0	3	75	5	72	92
3.	88*	620144	12267	"BIGDB	63	24	2	0	87	5	65	50
4.	86*	98828	12259	"BIGDB	69	18	1	0	93	8	59	77
5.	70*	526738	12280	"BIGDB	72	28	1	0	51	32	32	71



C_3 benzene isomer

$$Conc = \frac{583409}{44983} \times \frac{5\,ml}{1}$$

$= 65\,ppb \times 1400$

~~91000 ppb~~

proj #3126

hm

215

CB

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-16

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-07

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9303

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 10 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 200 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	690	U
74-83-9	Bromomethane	690	U
75-01-4	Vinyl Chloride	690	U
75-00-3	Chloroethane	690	U
75-09-2	Methylene Chloride	440	BJ
67-64-1	Acetone	690	U
75-15-0	Carbon Disulfide	690	U
75-35-4	1,1-Dichloroethene	690	U
75-34-3	1,1-Dichloroethane	690	U
540-59-0	1,2-Dichloroethene (total)	690	U
67-66-3	Chloroform	690	U
107-06-2	1,2-Dichloroethane	690	U
78-93-3	2-Butanone	690	U
71-55-6	1,1,1-Trichloroethane	1300	
56-23-5	Carbon Tetrachloride	170	J
75-27-4	Bromodichloromethane	690	U
78-87-5	1,2-Dichloropropane	690	U
10061-01-5	cis-1,3-Dichloropropene	690	U
79-01-6	Trichloroethene	90	J
124-48-1	Dibromochloromethane	690	U
79-00-5	1,1,2-Trichloroethane	690	U
71-43-2	Benzene	690	U
10061-02-6	trans-1,3-Dichloropropene	690	U
75-25-2	Bromoform	690	U
108-10-1	4-Methyl-2-Pentanone	690	U
591-78-6	2-Hexanone	690	U
127-18-4	Tetrachloroethene	100	J
79-34-5	1,1,2,2-Tetrachloroethane	690	U
108-88-3	Toluene	690	U
108-90-7	Chlorobenzene	690	U
100-41-4	Ethylbenzene	690	U
100-42-5	Styrene	690	U
1330-20-7	Xylene (total)	4100	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-16

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-07

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9303

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 10 Date Analyzed: 02/08/92

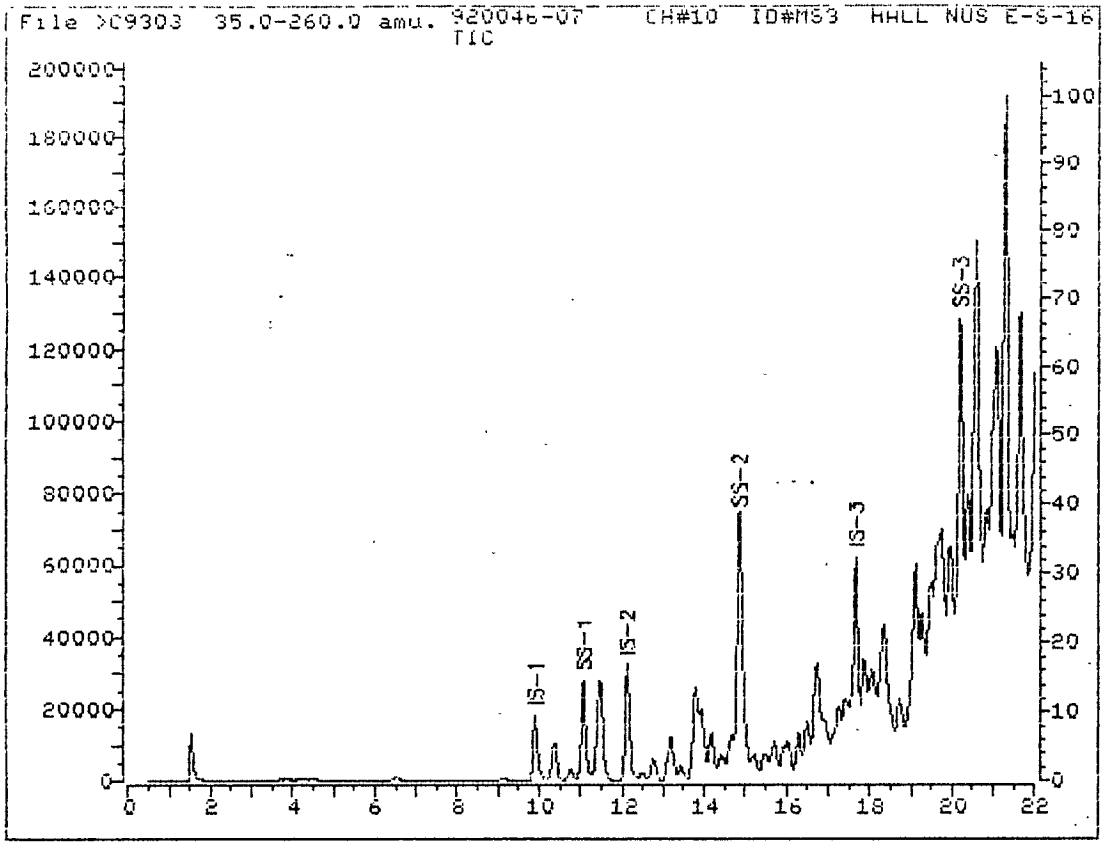
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 200 (uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000000	C8H18 isomer	11.46	3800	J
2. 000000	Aliphatic hydrocarbon	13.18	1700	J
3. 000000	Aliphatic hydrocarbon	13.79	3300	J
4. 000000	Aliphatic hydrocarbon	16.29	970	J
5. 000000	Unknown	16.49	900	J
6. 000000	Unknown	16.72	3700	J
7. 000000	C9H20 isomer	17.86	1000	J
8. 000000	Unknown	18.35	4500	J
9. 000000	Aliphatic hydrocarbon	18.72	900	J
10. 000000	Aliphatic hydrocarbon	19.48	1600	J
11. 000000	Unknown	19.95	1700	J
12. 000000	Aliphatic hydrocarbon	20.58	9200	J
13. 000000	C3-benzene isomer	21.07	7400	J
14. 000000	C3-benzene isomer	21.28	12000	J
15. 000000	C3-benzene isomer	21.66	7300	J



MS data file header from : >C9303::D5

Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

proj # 3196

4H

218

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920208 14:18
Output File: ^C9303::QT Injected at: 920208 13:05
Data File: >C9303::D5 Dilution Factor: 1.00000
Name: 920046-07 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920208 09:28

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.90	128.0	22409	50.00	~~UG/L~~	80
6)	C030 Methylene Chloride	6.49	84.0	3201	6.37	~~UG/L~~	48
13)	CS15 1,2-Dichloroethane-d4	11.07	65.0	74722	94.84	UG/L 95%	98
16)	*CI10 1,4-Difluorobenzene	12.11	114.0	103270	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.37	97.0	27105	18.08	~~UG/L~~	78
18)	C120 Carbon Tetrachloride	10.35	117.0	3589	2.48	~~UG/L~~	88
22)	C150 Trichloroethene	12.46	130.0	1511	1.29	~~UG/L~~	91
28)	*CI20 Chlorobenzene-d5	17.66	117.0	88215	50.00	UG/L	93
31)	C220 Tetrachloroethene	16.00	164.0	1802	1.51	~~UG/L~~	97
33)	C230 Toluene	14.96	91.0	1023	.586	~~UG/L~~	62
34)	CS05 Toluene d-8	14.84	98.0	182982	101.42	UG/L 101%	99
38)	C250 Total Xylenes	19.13	106.0	51564M	59.10	~~UG/L~~	96
39)	CS10 Bromofluorobenzene	20.19	95.0	133271	85.91	UG/L 86%	83

* Compound is ISTD

$$\text{Dry Factor} = \frac{(5)(10)}{(0.2)(4)(0.90)} = 69$$

proj # 3196
4H

JM

Chromatographic rate, deg/min: 6.0 50.0 0.0 1.5 0.0

>C9303 920046-07 CH#10 ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10

35.0| 260.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 28 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	1.55	47	54	78	13389	76920	76920	8.15	1.042
2	9.90	474	482	497	18150	141971	138816	14.71	1.880
3	10.37	497	506	518	10273	94272	91368	9.68	1.238
4	11.07	534	542	551	27541	205777	201482*	21.36	2.729
5	11.46	551	562	577	27405	280599	273086*	28.94	3.699
6	12.13	583	596	608	32652	251277	247084	26.19	3.347
7	12.77	621	629	639	5930	56130	52606	5.58	.713
8	13.18	639	650	658	12035	124546	120826	12.81	1.637
9	13.79	670	681	685	25706	242821	234660	24.87	3.179
10	14.18	696	701	708	9256	120268	63922	6.78	.866
11	14.67	720	726	728	7817	95242	50752*	5.38	.688
12	14.86	728	736	749	69395	749075	622816*	66.01	8.437
13	16.04	786	796	803	7592	156885	91087	9.65	1.234
14	16.29	803	809	814	9790	116175	73612	7.80	.997
15	16.49	814	819	824	9398	152121	66484	7.05	.901
16	16.72	824	831	847	22901	528973	276020*	29.26	3.739
17	17.66	873	879	885	41813	546769	262453*	27.82	3.555
18	17.86	885	889	894	12592	304655	80571	8.54	1.091
19	18.35	907	914	928	29719	684809	339429	35.98	4.598
20	18.72	928	933	940	9062	264442	67155	7.12	.910
21	19.11	942	953	958	44267	714254	416280	44.12	5.639
22	19.48	967	972	975	18183	469177	121839	12.91	1.650
23	19.95	992	996	1002	19160	666955	123790	13.12	1.677
24	20.19	1003	1008	1014	80912	1153066	539155	57.15	7.304
25	20.58	1022	1028	1036	89651	1696614	693961	73.55	9.401
26	21.07	1045	1053	1059	58674	1593871	562239	59.59	7.616
27	21.28	1059	1064	1076	132659	2147157	943481	100.00	12.781
28	21.66	1077	1083	1092	72899	1560047	550091	58.30	7.452

Sum of corrected areas: 7381985.

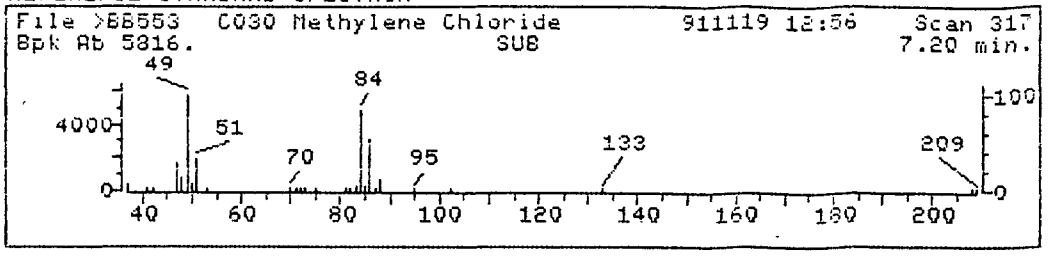
15
N8 TIC
44

proj# 3196
44

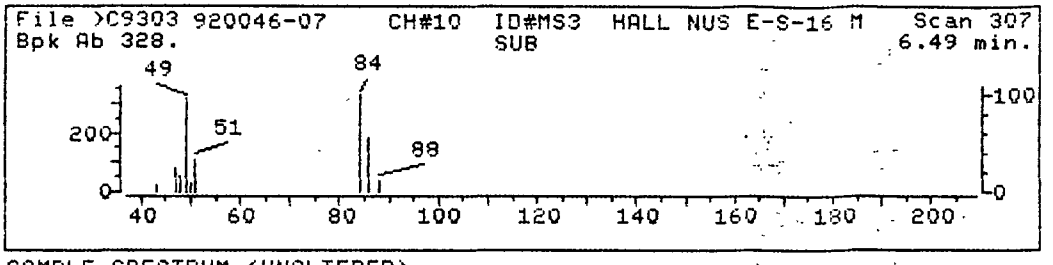
220

CB

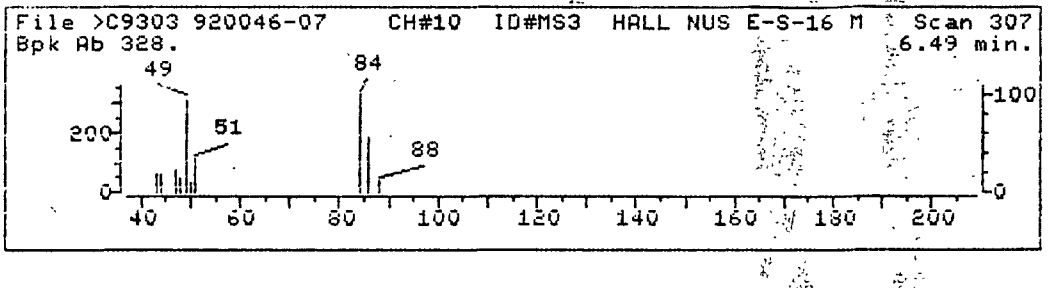
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

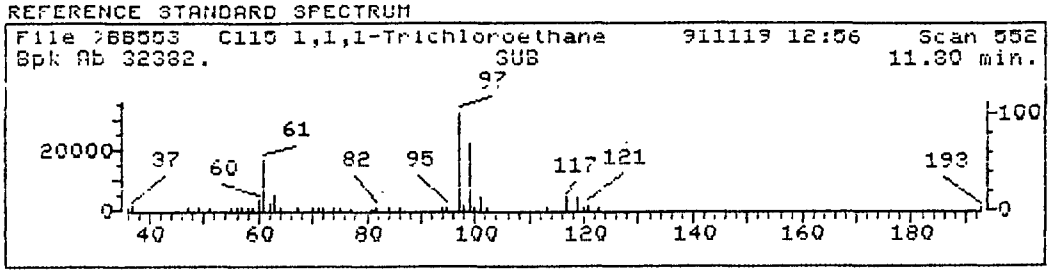


Data File: >C9303::D5 Quant Output File: ^C9303::QT
Name: 920046-07 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Quant Time: 920208 14:18 Quant ID File: V3ID::SC
Injected at: 920208 13:05 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

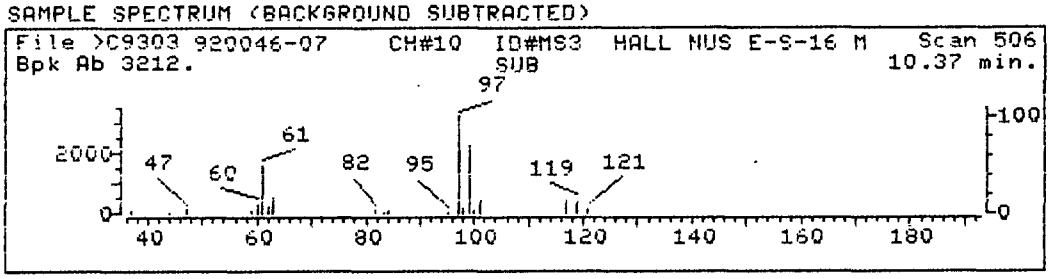
Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 307
Retention Time: 6.49 min.
Quant Ion : 84.0
Area : 3201
Concentration : 6.37 UG/L
q-value : 48

proj # 3196
LH

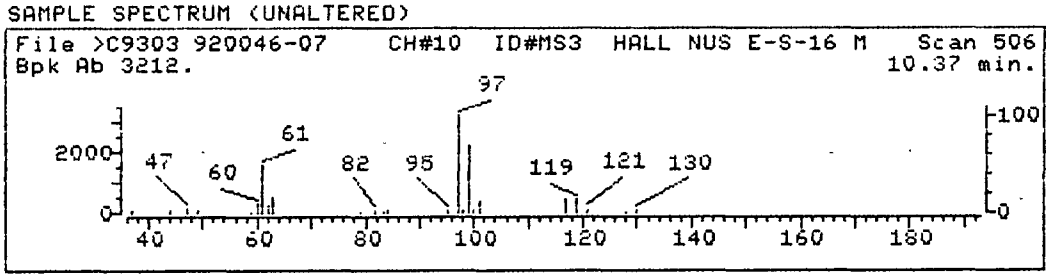
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

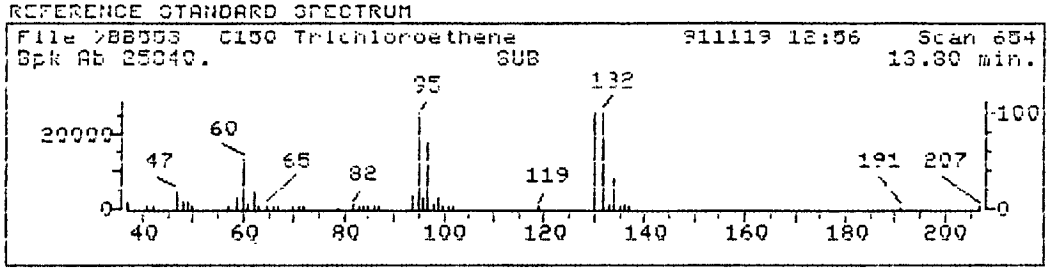


Data File: >C9303::D5 Quant Output File: ^C9303::QT
Name: 920046-07 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Quant Time: 920208 14:18 Quant ID File: V3ID::SC
Injected at: 920208 13:05 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

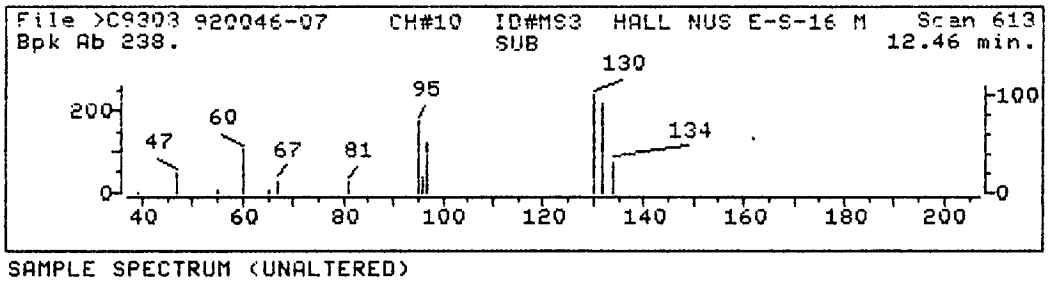
Compound No : 17
Compound Name : C115 1,1,1-Trichloroethane
Scan Number : 506
Retention Time: 10.37 min.
Quant Ion : 97.0
Area : 27105
Concentration : 18.08 UG/L
q-value : 78

proj # 3196

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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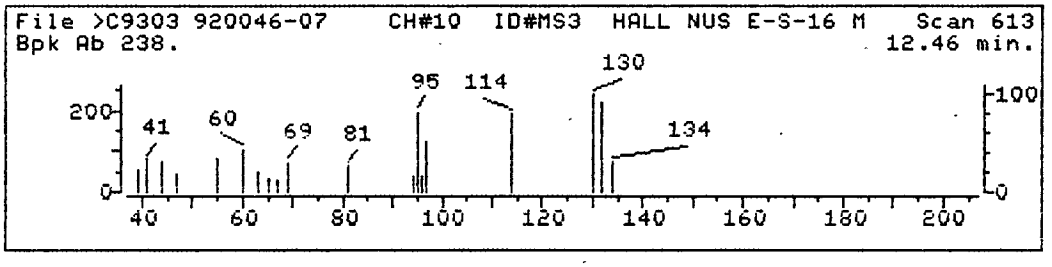


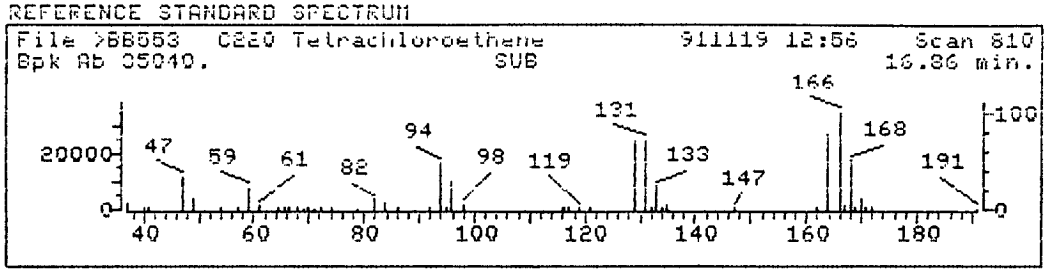
Data File: >C9303::D5 Quant Output File: ^C9303::QT
Name: 920046-07 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Quant Time: 920208 14:18 Quant ID File: V3ID::SC
Injected at: 920208 13:05 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

Compound No : 22
Compound Name : C150 Trichloroethene
Scan Number : 613
Retention Time: 12.46 min.
Quant Ion : 130.0
Area : 1511
Concentration : 1.29 UG/L
q-value : 91

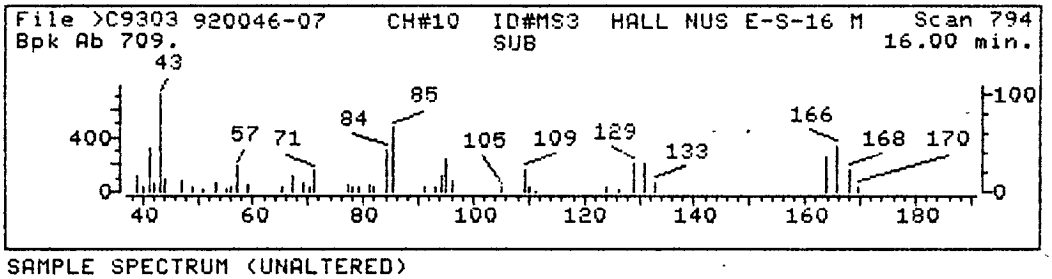
proj# 3196

LH

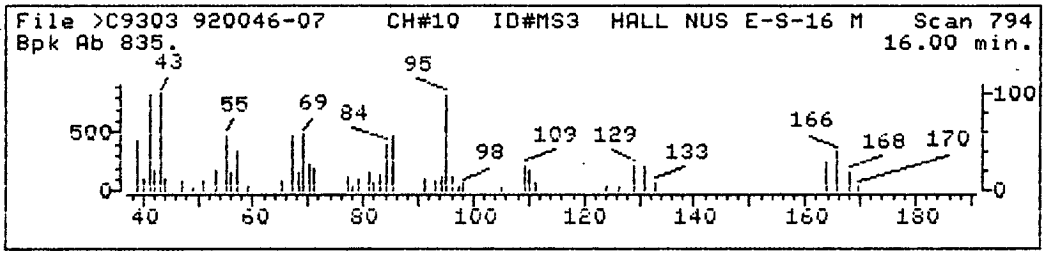
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



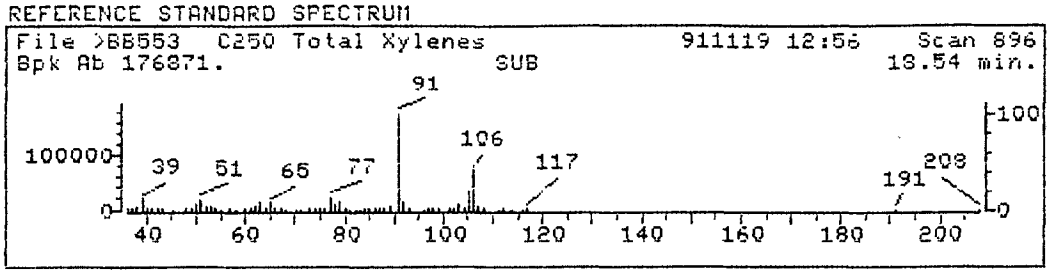
Data File: >C9303::D5 Quant Output File: ^C9303::QT
Name: 920046-07 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Quant Time: 920208 14:18 Quant ID File: V3ID::SC
Injected at: 920208 13:05 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

Compound No : 31
Compound Name : C220 Tetrachloroethene
Scan Number : 794
Retention Time: 16.00 min.
Quant Ion : 164.0
Area : 1802
Concentration : 1.51 UG/L
q-value : 97

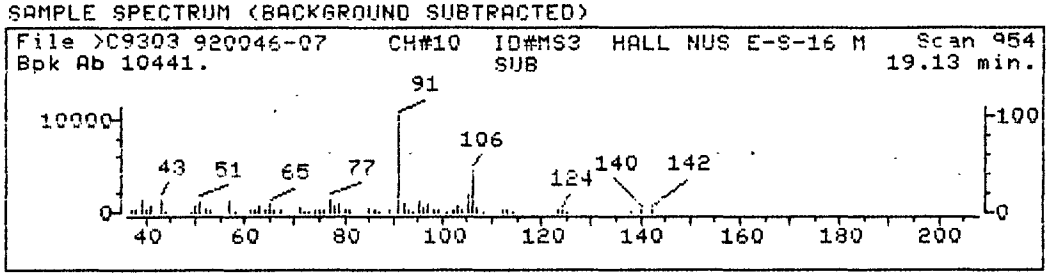
proj #3196

44

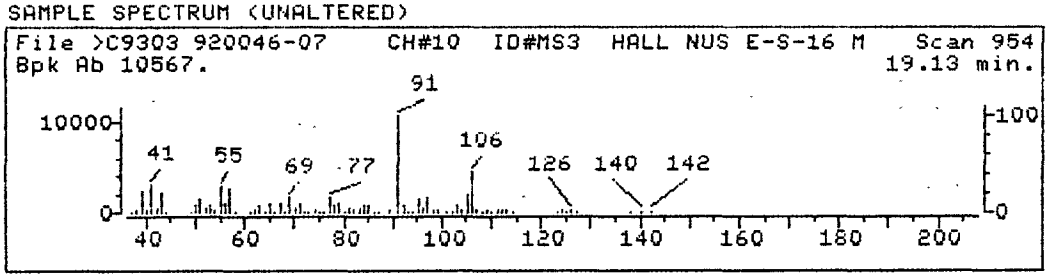
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9303::D5 Quant Output File: ^C9303::QT
Name: 920046-07 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Quant Time: 920208 14:18 Quant ID File: V3ID::SC
Injected at: 920208 13:05 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

Compound No : 38
Compound Name : C250 Total Xylenes
Scan Number : 954
Retention Time: 19.13 min.
Quant Ion : 106.0
Area : 51564M
Concentration : 59.10 UG/L
q-value : 96

proj # 3186
LH

MS data file header from : >C9303::D5

Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Hexane, 2,2-dimethyl- (8CI9CI) 114 C8H18
2. Butane, 2,2,3,3-tetramethyl- (8CI9CI) 114 C8H18
3. Pentane, 2,2,4-trimethyl- (8CI9CI) 114 C8H18
4. Heptane, 2,2,4-trimethyl- (8CI9CI) 142 C10H22
5. Hexane, 2,2,4-trimethyl- (8CI9CI) 128 C9H20

Sample file: >C9303 Spectrum #: 562
Search speed: 2 Tilting option: S No. of ion ranges searched: 44

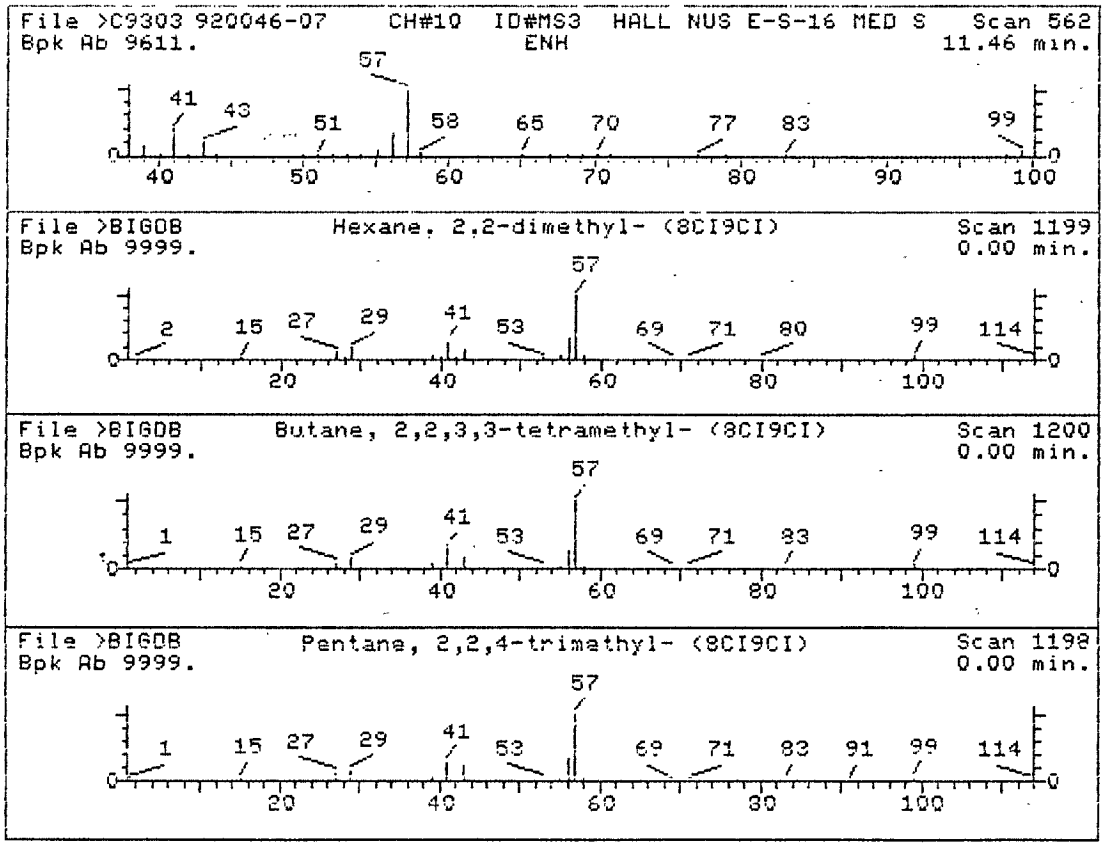
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	79	590738	1199	"BIGDB	52	20	0	0	100	10	48	31
2.	76	594821	1200	"BIGDB	58	14	1	0	100	10	45	25
3.	76	540841	1198	"BIGDB	48	26	0	0	89	8	45	27
4.	60	14720742	1022	"BIGDB	37	44	2	0	72	14	30	12
5.	60	16747265	1177	"BIGDB	35	42	2	0	90	12	30	12

C8H18 isomer

Conc = $\frac{273086}{\cancel{138818}\ \cancel{547084}\ 247084} \times \frac{50}{1}$

= ~~98~~ 55 ppb ~~x 69~~

= ~~3800~~ 3800



unic

proj# 3186

44

MS data file header from : >C9303::D5

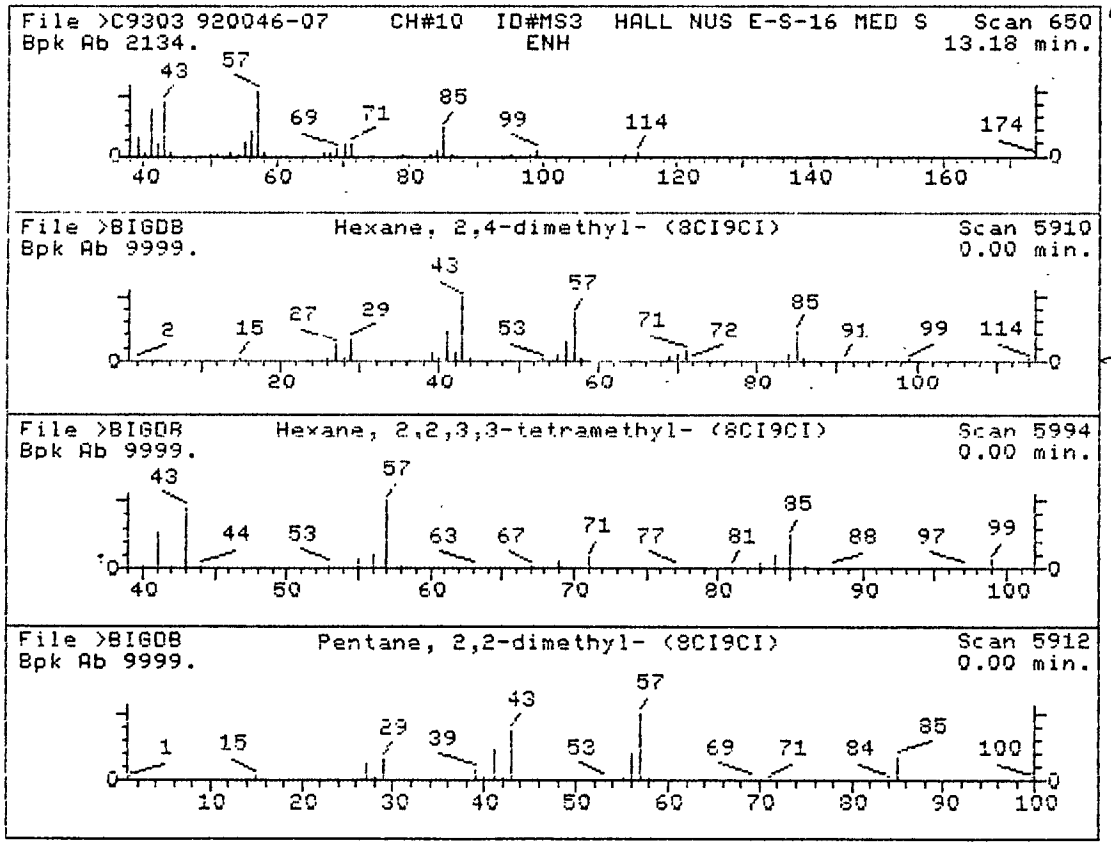
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Hexane, 2,4-dimethyl- (8CI9CI) 114 C8H18
2. Hexane, 2,2,3,3-tetramethyl- (8CI9CI) 142 C10H22
3. Pentane, 2,2-dimethyl- (8CI9CI) 100 C7H16
4. Hexane, 3-ethyl-3-methyl- (8CI9CI) 128 C9H20
5. Hexane, 2,5-dimethyl- (8CI9CI) 114 C8H18

Sample file: >C9303 Spectrum #: 650
Search speed: 2 Tilting option: S No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83*	589435	5910	"BIGDB	46	52	1	0	92	5	57	27
2.	52	13475815	5994	"BIGDB	51	44	2	0	89	20	20	14
3.	43	590352	5912	"BIGDB	39	45	0	0	93	28	19	21
4.	42	3074768	8736	"BIGDB	41	47	2	0	100	24	17	13
5.	31*	592132	8819	"BIGDB	37	53	3	0	90	34	12	14



aliphatic hydrocarbon

$$Conc = \frac{120826}{247084} \times \frac{50}{1}$$

$= 24$ ppb $\times 69$

$= \cancel{1700}$

~~une aliphatic~~

proj #3196

LH

227

MS data file header from : >C9303::D5

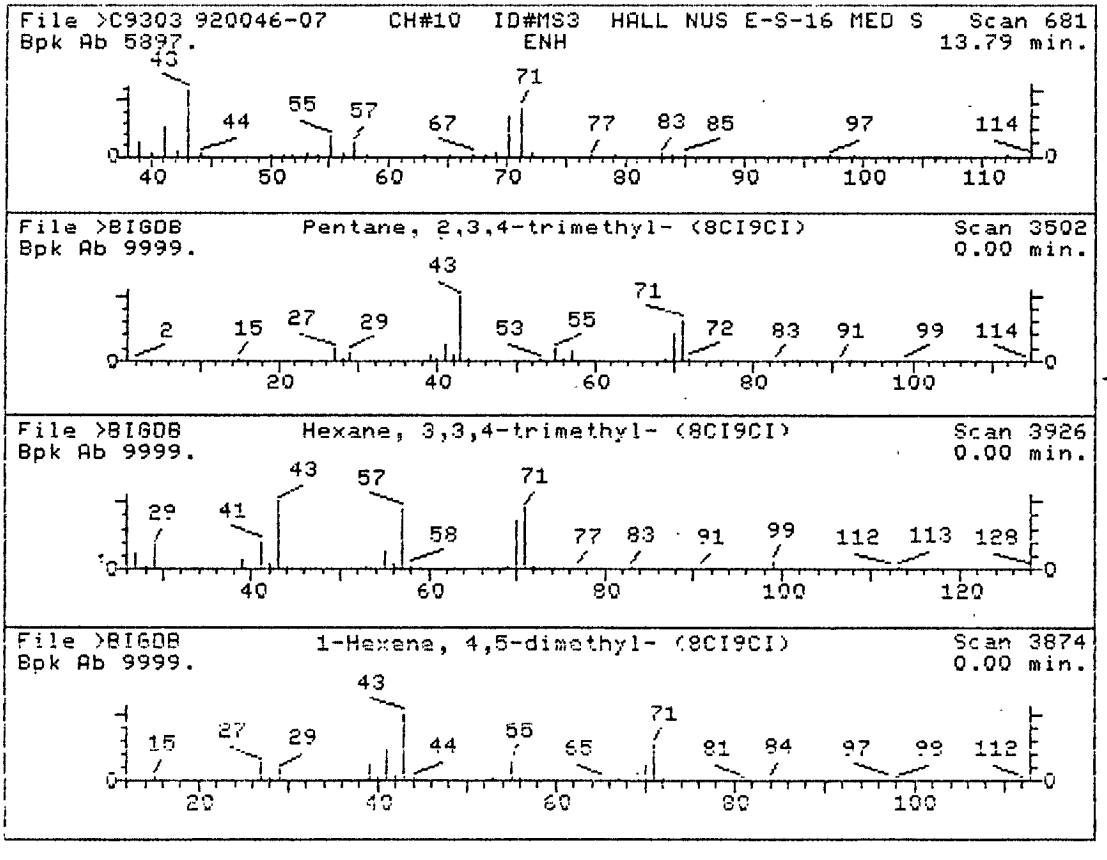
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Pentane, 2,3,4-trimethyl- (8CI9CI) 114 C8H18
2. Hexane, 3,3,4-trimethyl- (8CI9CI) 128 C9H20
3. 1-Hexene, 4,5-dimethyl- (8CI9CI) 112 C8H16
4. Hexane, 2,3-dimethyl- (8CI9CI) 114 C8H18
5. 2-Furanmethanol, tetrahydro-, acetate (9CI) 144 C7H12O3

Sample file: >C9303 Spectrum #: 681
Search speed: 2 Tilting option: S No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	88*	565753	3502	"BIGDB	43	37	0	0	100	5	65	59
2.	70	16747312	3926	"BIGDB	55	39	3	0	80	7	42	12
3.	67*	16106595	3874	"BIGDB	44	43	2	0	92	15	34	23
4.	41	584941	3503	"BIGDB	39	48	2	0	100	24	17	12
5.	41	637649	3905	"BIGDB	37	46	2	0	84	23	17	12



$$\text{Conc} = \frac{234660}{247084} \times \frac{50}{1}$$

$= 47\text{ ppb} \times \cancel{69}$

$= \cancel{3200}$

aliphatic hydrocarbon

~~unk~~

proj # 3196

228

CB

MS data file header from : >C9303::D5

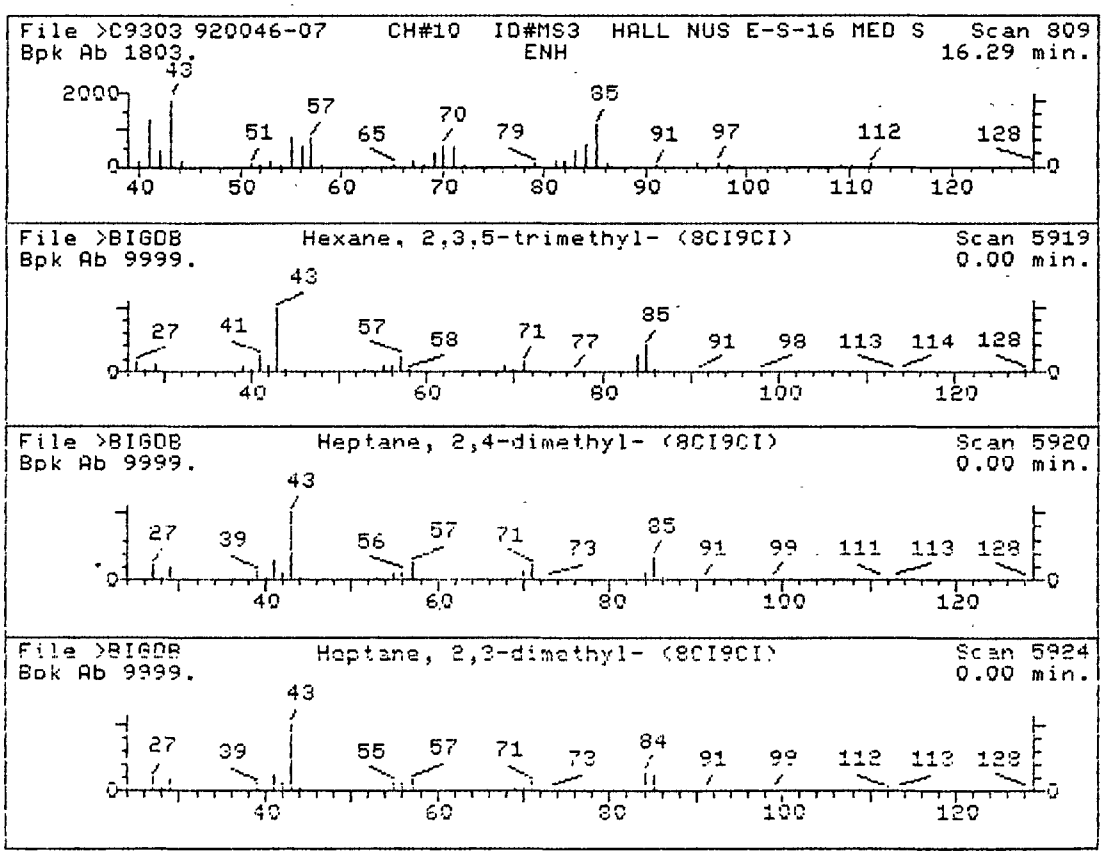
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Hexane, 2,3,5-trimethyl- (8CI9CI) 128 C9H20
2. Heptane, 2,4-dimethyl- (8CI9CI) 128 C9H20
3. Heptane, 2,3-dimethyl- (8CI9CI) 128 C9H20
4. Pentane, 3-ethyl-2,4-dimethyl- (8CI9CI) 128 C9H20
5. Hexane, 2,3,3-trimethyl- (8CI9CI) 128 C9H20

Sample file: >C9303 Spectrum #: 809
Search speed: 2 Tilting option: S No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	36*	1069530	5919	"BIGDB	32	59	0	0	100	41	12	27
2.	31*	2213232	5920	"BIGDB	36	56	2	0	151	38	10	17
3.	30*	3074713	5924	"BIGDB	37	54	2	0	201	41	8	18
4.	30*	1068877	5918	"BIGDB	32	51	0	0	100	49	10	27
5.	25	16747287	5966	"BIGDB	37	52	1	0	95	47	7	14



aliphatic hydrocarbon

Conc = $\frac{73612}{\cancel{247084}\ 262453} \times \frac{50}{1}$

= ~~1x~~ 14 ppb ~~x 69~~

= ~~1000970~~

~~unit aliphatic~~

proj #3196

4

MS data file header from : >C9303::D5

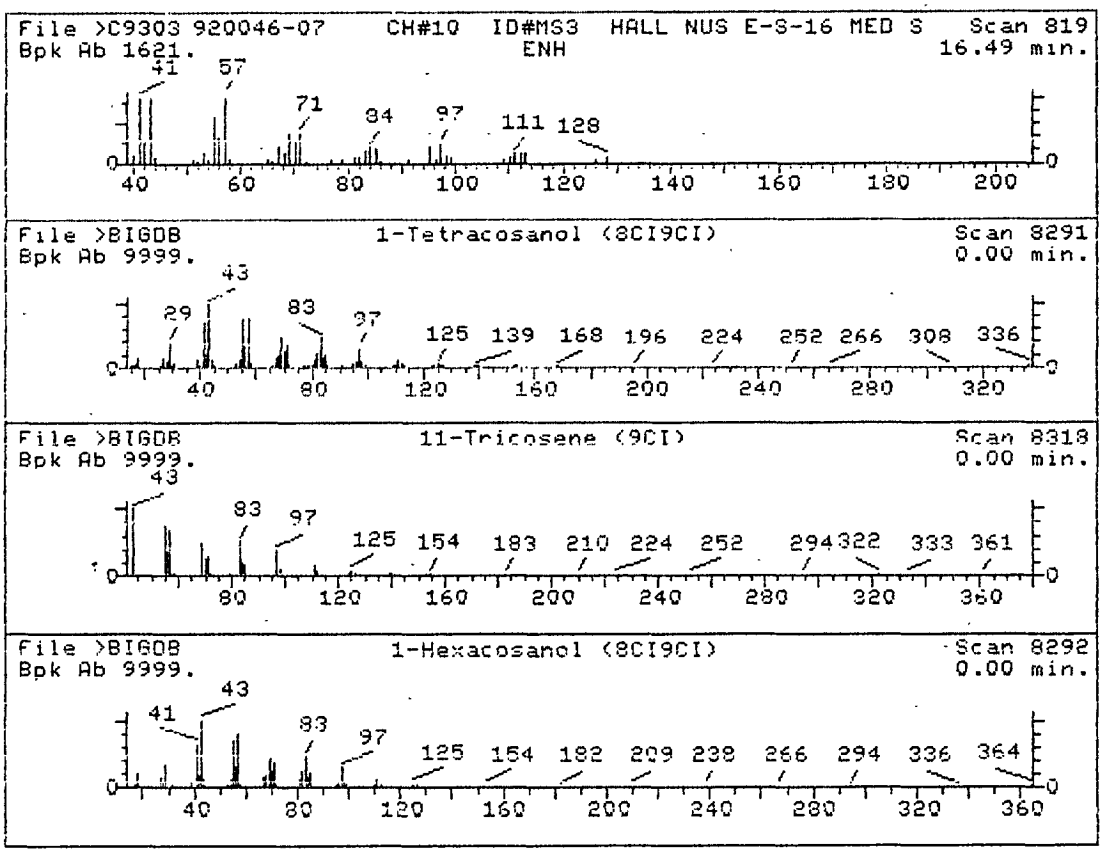
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. 1-Tetracosanol (8CI9CI) 354 C24H50O
2. 11-Tricosene (9CI) 322 C23H46
3. 1-Hexacosanol (8CI9CI) 382 C26H54O
4. 17-Pentatriacontene (8CI) 490 C35H70
5. Hexane, 2,3,5-trimethyl- (8CI9CI) 128 C9H20

Sample file: >C9303 Spectrum #: 819
Search speed: 2 Tilting option: S No. of ion ranges searched: 69

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	44	506514	8291	"BIGDB	83	81	3	0	91	24	17	15
2.	43	52078565	8318	"BIGDB	78	74	3	0	89	24	17	14
3.	42	506525	8292	"BIGDB	73	90	3	0	97	24	17	13
4.	41	6971400	8334	"BIGDB	71	100	3	0	97	24	17	12
5.	25*	1069530	5919	"BIGDB	32	59	3	0	304	50	7	13



unknown

Conc = $\frac{66484}{\cancel{247084}\ 262453} \times \frac{5}{1}$

= 13 ppb X 69

= ~~900~~

~~unit~~

proj # 3196

LH

MS data file header from : >C9303::D5

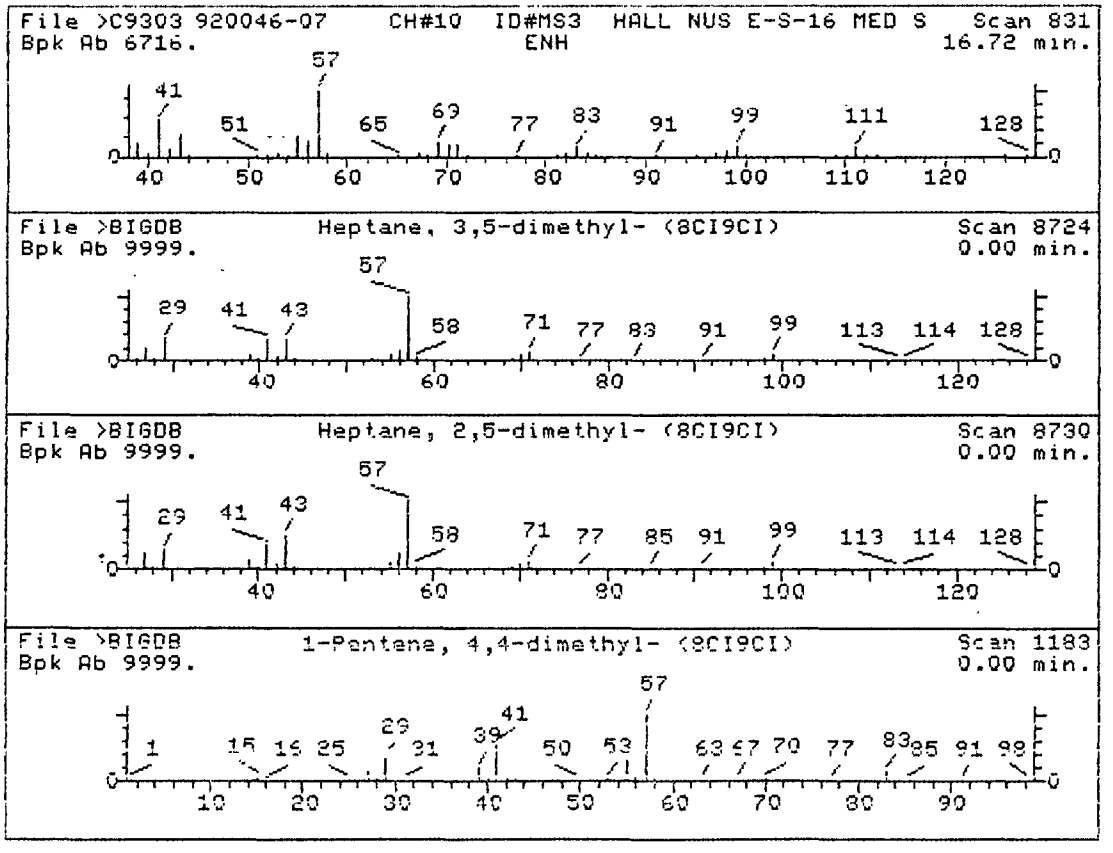
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3,5-dimethyl- (8CI9CI) 128 C9H20
2. Heptane, 2,5-dimethyl- (8CI9CI) 128 C9H20
3. 1-Pentene, 4,4-dimethyl- (8CI9CI) 98 C7H14
4. Octane, 3-methyl- (8CI9CI) 128 C9H20
5. 3-Undecene, 6-methyl-, (E)- (9CI) 168 C12H24

Sample file: >C9303 Spectrum #: 831
Search speed: 2 Tilting option: S No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	73*	926829	8724	"BIGDB	50	32	0	0	100	21	32	65
2.	59*	2216300	8730	"BIGDB	34	52	0	0	71	24	27	33
3.	59*	762629	1183	"BIGDB	42	34	0	0	98	38	21	55
4.	58*	2216333	8731	"BIGDB	38	46	1	0	100	17	25	21
5.	52	74630527	8530	"BIGDB	42	45	2	0	100	19	20	14



unknown
Conc = $\frac{276020}{\cancel{247084}\ 262453} \times \frac{50}{1}$
= ~~56~~ 53 ppb X 64
= ~~3600~~ 3600

UMC

proj # 3196
LH

MS data file header from : >C9303::D5

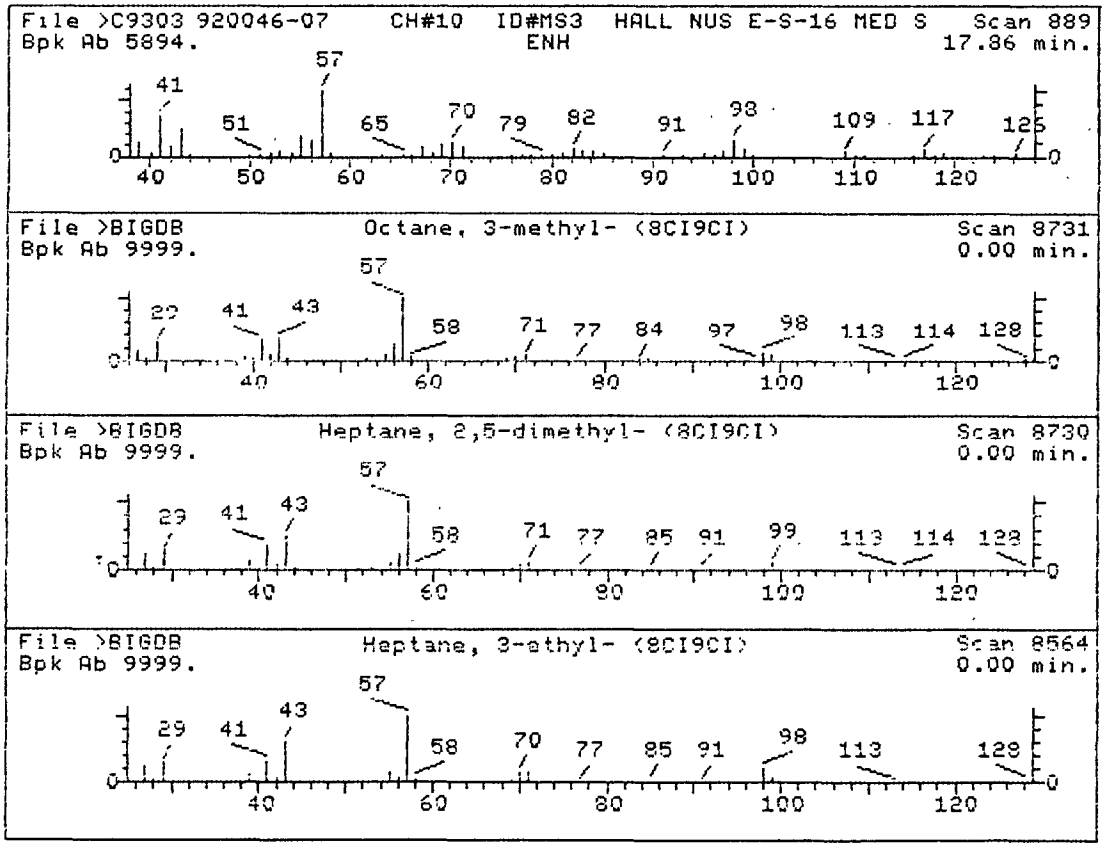
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 3-methyl- (8CI9CI) 128 C9H20
2. Heptane, 2,5-dimethyl- (8CI9CI) 128 C9H20
3. Heptane, 3-ethyl- (8CI9CI) 128 C9H20
4. 3-Undecene, 6-methyl-, (E)- (9CI) 168 C12H24
5. Heptane, 3,5-dimethyl- (8CI9CI) 128 C9H20

Sample file: >C9303 Spectrum #: 889
Search speed: 2 Tilting option: S No. of ion ranges searched: 61

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	67*	2216333	8731	"BIGDB	41	43	0	0	100	28	27	52
2.	57*	2216300	8730	"BIGDB	37	49	0	0	81	32	22	42
3.	50*	15869804	8564	"BIGDB	42	46	2	0	100	22	22	22
4.	48	74630527	8530	"BIGDB	54	33	2	0	100	25	17	19
5.	44*	926829	8724	"BIGDB	34	48	0	0	99	36	17	33



C9H20 isomer

$$\text{Conc} = \frac{80571}{262453} \times \frac{50}{1}$$

$= 15\ ppb \times 69$

$= \cancel{1000}$

unk aliphatic

proj #3496

VH

MS data file header from : >C9303::D5

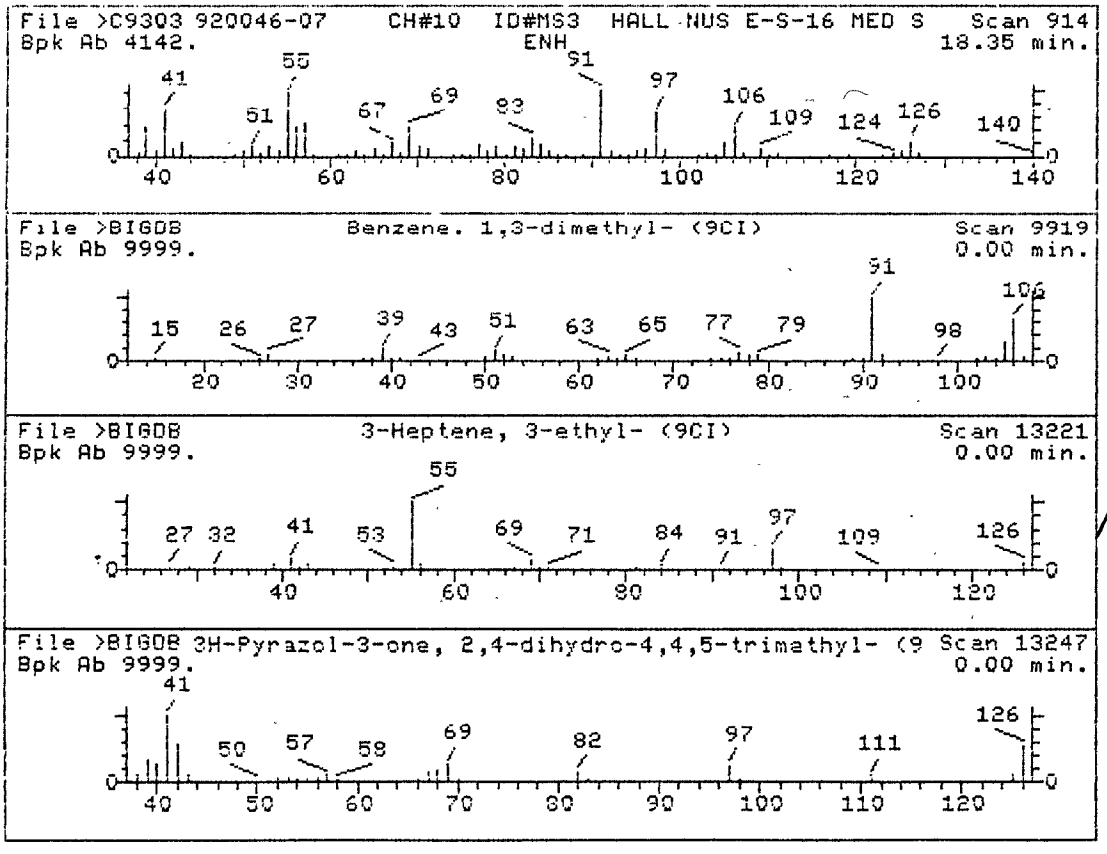
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1,3-dimethyl- (9CI) 106 C8H10
2. 3-Heptene, 3-ethyl- (9CI) 126 C9H18
3. 3H-Pyrazol-3-one, 2,4-dihydro-4,4,5-trimethyl- (9CI) 126 C6H10N2O
4. 4-Nonene (8CI9CI) 126 C9H18
5. Cyclopentene, 1-ethenyl-3-methylene- (9CI) 106 C8H10

Sample file: >C9303 Spectrum #: 914
Search speed: 2 Tilting option: S No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	32*	108383	9919	"BIGDB	73	19	0	0	67	69	11	92
2.	21*	74764468	13221	"BIGDB	53	29	2	1	222	56	5	30
3.	17*	3201205	13247	"BIGDB	57	37	0	-2	25	62	4	50
4.	15*	2198234	13184	"BIGDB	28	75	3	0	103	60	3	13
5.	15*	61142072	9924	"BIGDB	80	25	1	0	52	69	5	77



unknown

$$\text{Conc} = \frac{339429}{262453} \times \frac{52}{1}$$

= 65 ppb X 69

= ~~4500~~

~~toxic~~

proj # 3196

LH

MS data file header from : >C9303::D5

Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Diisoamylene (9CI) 140 C10H20
2. Hexane, 2,3,4-trimethyl- (8CI9CI) 128 C9H20
3. Nonane, 2,6-dimethyl- (8CI9CI) 156 C11H24
4. Heptane, 3,3,4-trimethyl- (8CI9CI) 142 C10H22
5. Decane, 3,3,4-trimethyl- (9CI) 184 C13H28

Sample file: >C9303 Spectrum #: 933
Search speed: 2 Tilting option: S No. of ion ranges searched: 59

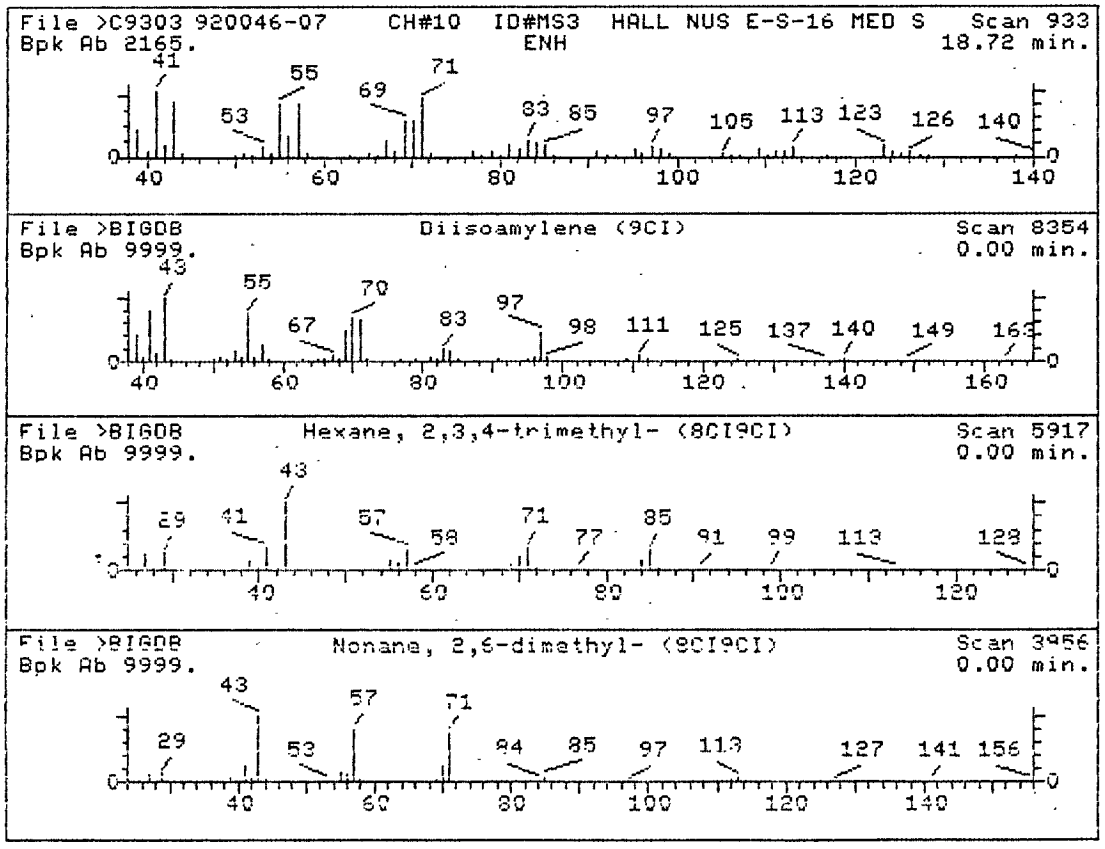
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	56*	54063091	8354	"BIGDB	67	40	1	0	80	48	14	66
2.	45*	921471	5917	"BIGDB	41	49	3	0	268	24	17	16
3.	34	17302282	3956	"BIGDB	39	52	0	0	82	39	14	21
4.	32	20278879	3892	"BIGDB	29	57	0	0	82	33	12	15
5.	32	49622186	3555	"BIGDB	30	66	0	0	64	33	12	15

aliphatic hydrocarbon

$$\text{Conc} = \frac{69155}{262453} \times \frac{5}{1}$$

$= 13$ ppb $\times 69$

$= \cancel{900}$



proj #3196

MS data file header from : >C9303::D5

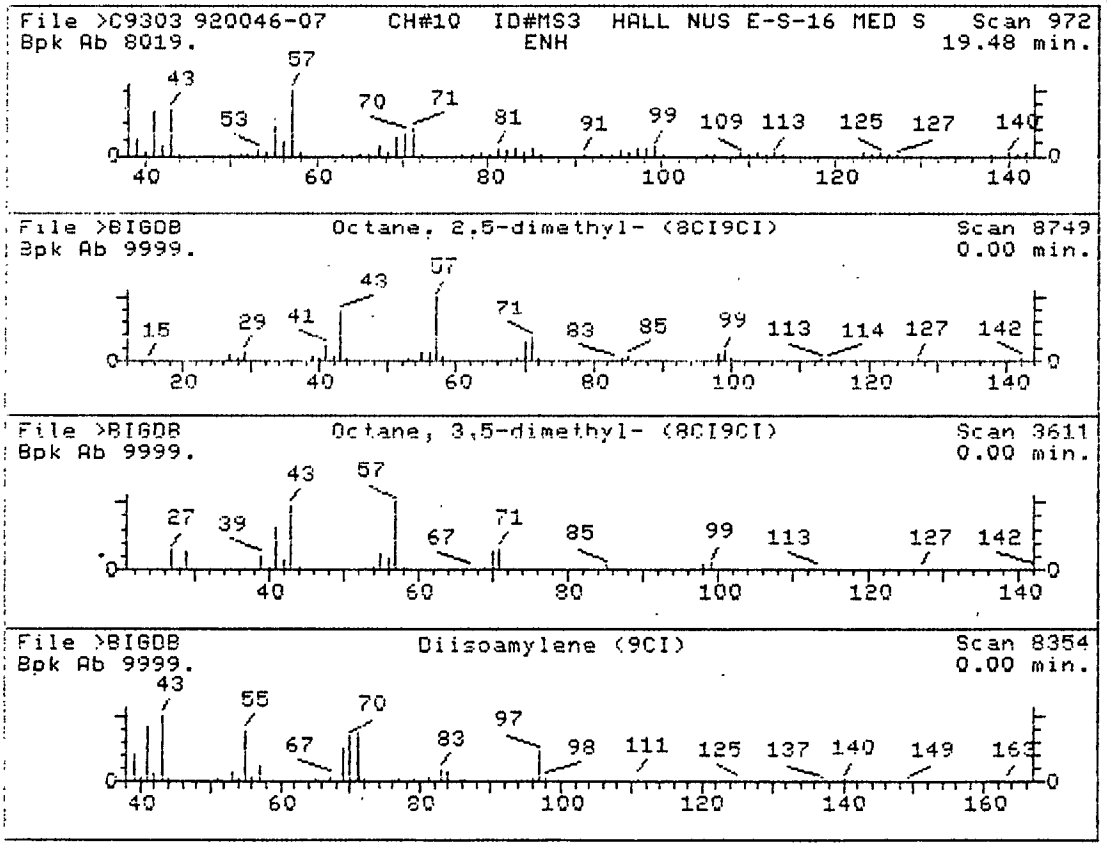
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 2,5-dimethyl- (8CI9CI) 142 C10H22
2. Octane, 3,5-dimethyl- (8CI9CI) 142 C10H22
3. Diisoamylene (9CI) 140 C10H20
4. Heptane, 2,3,4-trimethyl- (9CI) 142 C10H22
5. Pentane, 2,2,3,3-tetramethyl- (8CI9CI) 128 C9H20

Sample file: >C9303 Spectrum #: 972
Search speed: 2 Tilting option: S No. of ion ranges searched: 70

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	92*	15869893	8749	"BIGDB	73	19	0	0	90	20	60	92
2.	73*	15869939	3611	"BIGDB	63	30	1	0	100	22	32	60
3.	61*	54063091	8354	"BIGDB	70	22	1	1	48	45	18	66
4.	47	52896954	8759	"BIGDB	52	38	0	0	72	31	20	31
5.	46	7154792	8746	"BIGDB	51	38	0	0	98	33	20	30



aliphatic hydrocarbon

$$\text{conc} = \frac{121839}{262453} \times \frac{5\text{ml}}{1}$$

$= 23\text{ppb} \times 69$

$= 1600$

proj # 3196

LH

MS data file header from : >C9303::D5

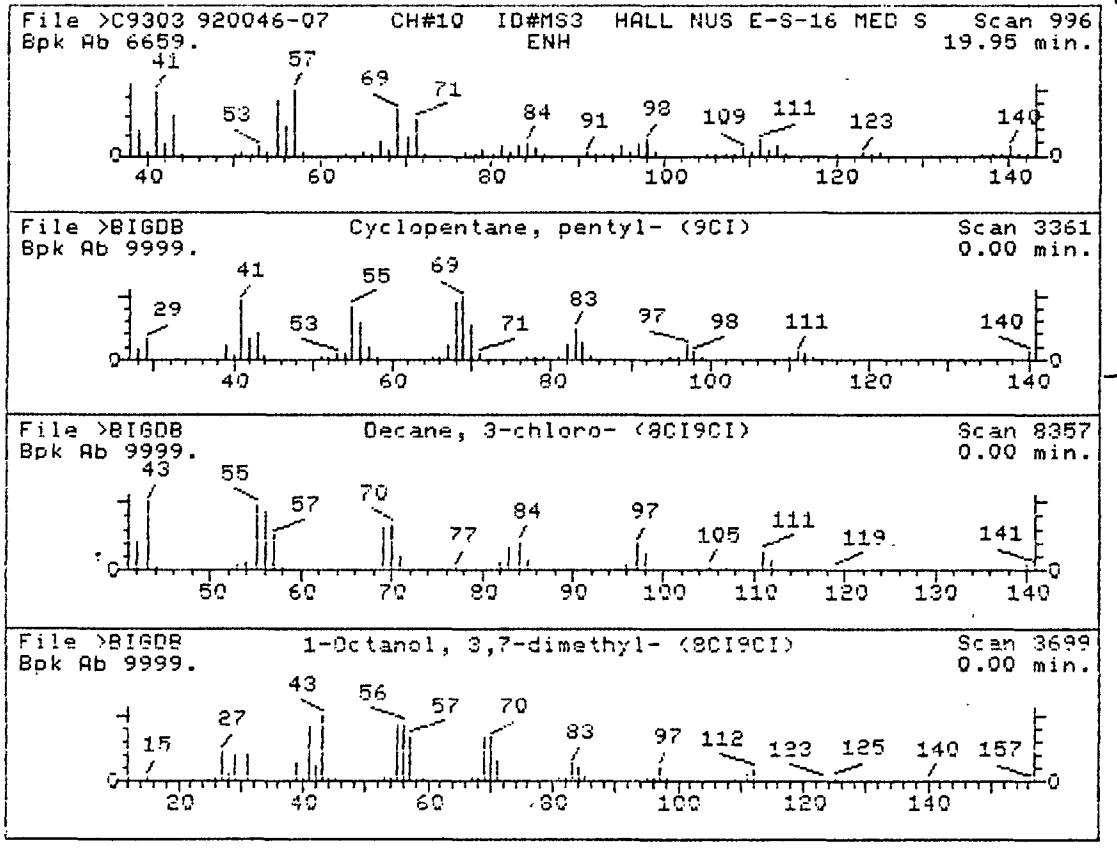
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Cyclopentane, pentyl- (9CI) 140 C10H20
2. Decane, 3-chloro- (8CI9CI) 176 C10H21Cl
3. 1-Octanol, 3,7-dimethyl- (8CI9CI) 158 C10H22O
4. Decane, 2,6,7-trimethyl- (9CI) 184 C13H28
5. Octane, 3,6-dimethyl- (8CI9CI) 142 C10H22

Sample file: >C9303 Spectrum #: 996
Search speed: 2 Tilting option: S No. of ion ranges searched: 73

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	41*	3741002	3361	"BIGDB	64	62	3	0	69	43	14	31
2.	28	1002115	8357	"BIGDB	58	53	1	0	39	44	8	16
3.	25	106218	3699	"BIGDB	38	65	0	0	43	47	7	15
4.	25	62108252	3963	"BIGDB	54	44	1	0	92	47	7	17
5.	23*	15869940	11043	"BIGDB	39	50	0	0	89	60	6	44



unknown

Conc = $\frac{123790}{262453} \times \frac{5}{1}$

= 24ppb x 69

= ~~1500~~

~~HAAE~~

proj # 3196

LH

236

MS data file header from : >C9303::D5

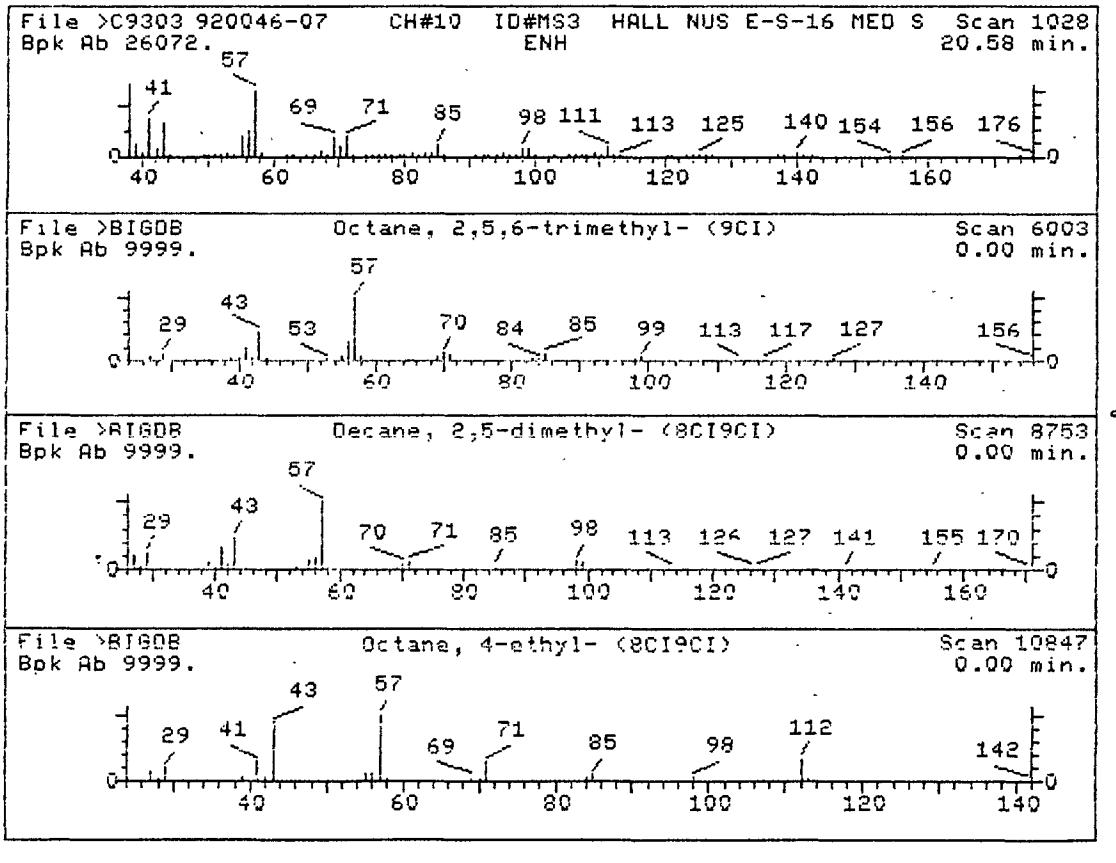
Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 2,5,6-trimethyl- (9CI) 156 C11H24
2. Decane, 2,5-dimethyl- (8CI9CI) 170 C12H26
3. Octane, 4-ethyl- (8CI9CI) 142 C10H22
4. Octane, 2,4,6-trimethyl- (9CI) 156 C11H24
5. Heptane, 3-ethyl-2-methyl- (8CI9CI) 142 C10H22

Sample file: >C9303 Spectrum #: 1028
Search speed: 2 Tilting option: S No. of ion ranges searched: 59

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	59*	62016142	6003	"BIGDB	41	46	0	1	92	34	22	44
2.	52	17312504	8753	"BIGDB	37	52	1	0	96	20	20	14
3.	52*	15869860	10847	"BIGDB	24	69	2	0	100	20	20	14
4.	52	62016379	6004	"BIGDB	44	41	2	0	76	20	20	14
5.	45*	14676290	8561	"BIGDB	42	49	3	0	100	25	17	16



aliphatic hydrocarbon

$$\text{conc} = \frac{693961}{262453} \times \frac{5}{1}$$

= 132 ppb × 69

= ~~9000~~

~~conc~~

PO #3196

~~261~~ 257

MS data file header from : >C9303::D5

Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9303 Spectrum #: 1053
Search speed: 2 Tilting option: S No. of ion ranges searched: 81

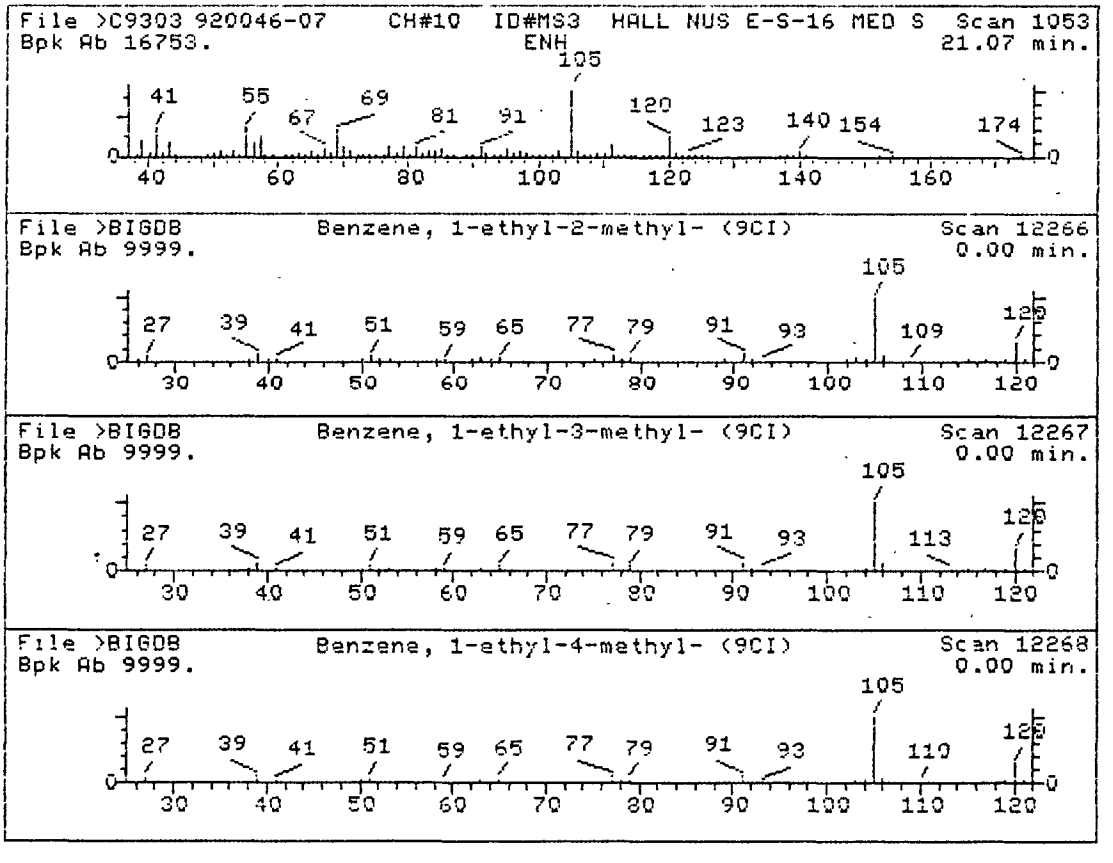
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	90*	611143	12266	"BIGDB	80	5	1	0	100	38	47	96
2.	88*	620144	12267	"BIGDB	75	12	1	0	81	38	47	93
3.	75*	622968	12268	"BIGDB	75	10	1	2	100	35	32	76
4.	59*	98828	12259	"BIGDB	65	22	1	-2	96	36	21	53
5.	54*	526738	12280	"BIGDB	64	36	2	2	70	33	20	38

C3 benzene isomer

$$Conc = \frac{562239}{262453} \times \frac{50}{1}$$

= 107 ppb x 69

= ~~7400~~



proj #3196

LH

MS data file header from : >C9303::D5

Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1,2,4-trimethyl- (8CI9CI) 120 C9H12
2. Benzene, 1,3,5-trimethyl- (9CI) 120 C9H12
3. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12
4. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
5. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12

Sample file: >C9303 Spectrum #: 1064
Search speed: 2 Tilting option: S No. of ion ranges searched: 42

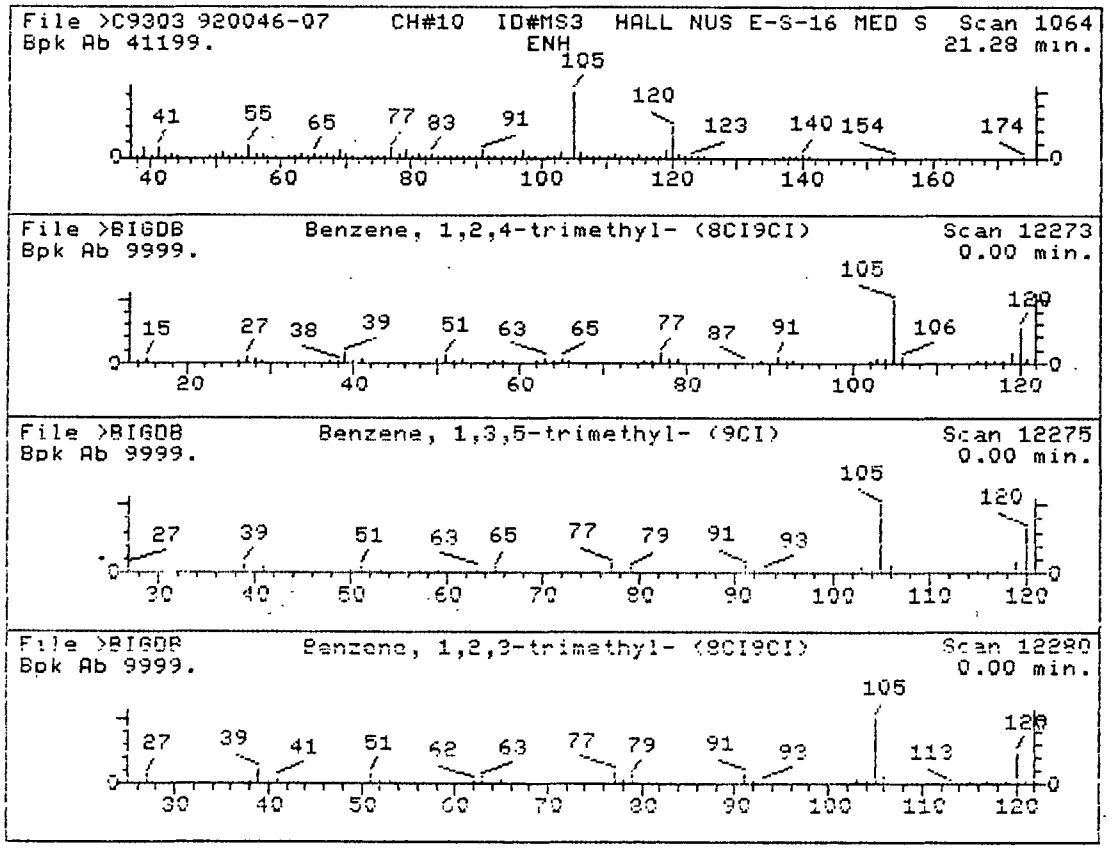
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	81*	95636	12273	"BIGDB	75	20	1	0	68	18	45	73
2.	75*	108678	12275	"BIGDB	73	15	2	0	72	18	35	66
3.	70*	526738	12280	"BIGDB	72	28	2	0	77	18	32	54
4.	69*	622968	12268	"BIGDB	59	26	1	0	81	34	26	61
5.	68*	620144	12267	"BIGDB	65	22	2	0	100	21	30	55

C3 benzene isomer

$$Conc = \frac{943481}{262453} \times \frac{5}{1}$$

$= 180$ ppb $\times 69$

$= \cancel{12000}$



proj #3196

LH

MS data file header from : >C9303::D5

Sample: 920046-07 CH#10 Operator: VOA2 REG. GRP. 2/08/92 13:05
Misc : ID#MS3 HALL NUS E-S-16 MED SOIL 4G/10MLX200UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, (1-methylethyl)- (9CI) 120 C9H12
4. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9303 Spectrum #: 1083
Search speed: 2 Tilting option: S No. of ion ranges searched: 70

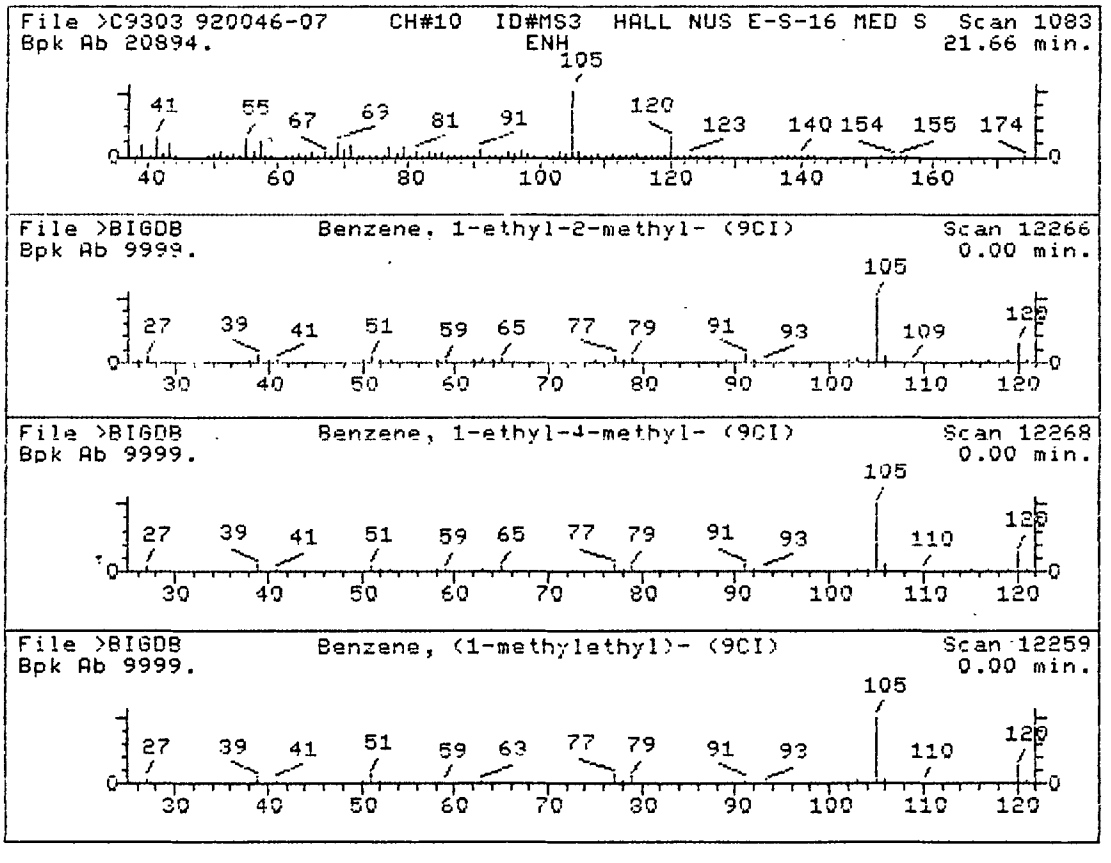
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	95*	611143	12266	"BIGDB	80	5	0	0	96	25	53	97
2.	91*	622968	12268	"BIGDB	72	13	0	1	74	25	53	92
3.	73*	98828	12259	"BIGDB	64	23	1	1	86	24	32	65
4.	68*	620144	12267	"BIGDB	63	24	2	0	92	25	30	50
5.	44*	526738	12280	"BIGDB	66	34	1	0	51	53	11	66

C_3 benzene isomer

$$\text{Conc} = \frac{550091}{262453} \times \frac{5}{1}$$

$= 105\text{ ppb} \times 69$

$= 7000$



proj #3186

LH

240

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-17

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-08

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9306

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 16 Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 25.0(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6000	U
74-83-9	Bromomethane	6000	U
75-01-4	Vinyl Chloride	6000	U
75-00-3	Chloroethane	6000	U
75-09-2	Methylene Chloride	6000	U
67-64-1	Acetone	6000	U
75-15-0	Carbon Disulfide	6000	U
75-35-4	1,1-Dichloroethene	6000	U
75-34-3	1,1-Dichloroethane	6000	U
540-59-0	1,2-Dichloroethene (total)	6000	U
67-66-3	Chloroform	6000	U
107-06-2	1,2-Dichloroethane	6000	U
78-93-3	2-Butanone	6000	U
71-55-6	1,1,1-Trichloroethane	2600	J
56-23-5	Carbon Tetrachloride	6000	U
75-27-4	Bromodichloromethane	6000	U
78-87-5	1,2-Dichloropropane	6000	U
10061-01-5	cis-1,3-Dichloropropene	6000	U
79-01-6	Trichloroethene	6000	U
124-48-1	Dibromochloromethane	6000	U
79-00-5	1,1,2-Trichloroethane	6000	U
71-43-2	Benzene	8700	
10061-02-6	trans-1,3-Dichloropropene	6000	U
75-25-2	Bromoform	6000	U
108-10-1	4-Methyl-2-Pentanone	6000	U
591-78-6	2-Hexanone	6000	U
127-18-4	Tetrachloroethene	6000	U
79-34-5	1,1,2,2-Tetrachloroethane	6000	U
108-88-3	Toluene	110000	
108-90-7	Chlorobenzene	6000	U
100-41-4	Ethylbenzene	31000	
100-42-5	Styrene	6000	U
1330-20-7	Xylene (total)	250000	~~E~~

UM

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-17

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-08

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C9306

Level: (low/med) MED Date Received: 02/04/92

% Moisture: not dec. 16 Date Analyzed: 02/08/92

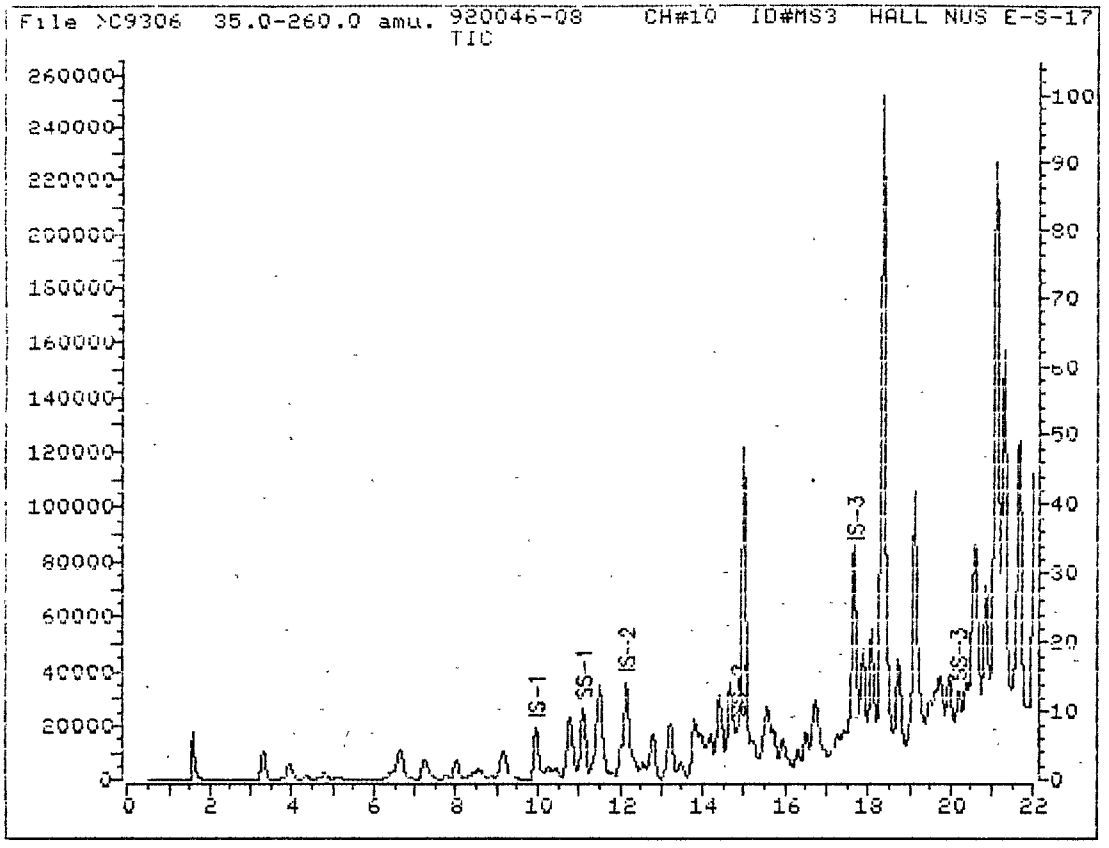
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 25.0(uL)

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 107835	2 Methyl pentane	6.64	30000	J
2. 000000	Unknown	7.26	17000	J
3. 000000	Unknown	9.16	20000	J
4. 000000	Aliphatic hydrocarbon	10.78	39000	J
5. 000000	Unknown	11.50	26000	J
6. 000000	Aliphatic hydrocarbon	13.20	15000	J
7. 000000	Aliphatic hydrocarbon	13.81	14000	J
8. 000000	Aliphatic hydrocarbon	14.66	15000	J
9. 000000	Aliphatic hydrocarbon	16.74	14000	J
10. 000000	C9H20 isomer	18.74	15000	J
11. 000000	Aliphatic hydrocarbon	20.60	32000	J
12. 000000	Unknown	20.86	19000	J
13. 000000	C3-benzene isomer	21.11	93000	J
14. 000000	C3-benzene isomer	21.29	57000	J
15. 000000	C3-benzene isomer	21.66	43000	J



MS data file header from : >C9306::D5

Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

proj #3186
CH

CB

QUANT REPORT

Operator ID: VOA1 Quant Rev: 7 Quant Time: 920208 15:51
Output File: ^C9306::QT Injected at: 920208 15:12
Data File: >C9306::D5 Dilution Factor: 1.00000
Name: 920046-08 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920208 09:28

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.96	128.0	26938	50.00	UG/L	78
13)	CS15 1,2-Dichloroethane-d4	11.11	65.0	13436	14.19	UG/L 114%	95
16)	*CI10 1,4-Difluorobenzene	12.15	114.0	93514	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.41	97.0	5973	4.40	UG/L	84
25)	C165 Benzene	11.13	78.0	17506	14.57	UG/L	100
28)	*CI20 Chlorobenzene-d5	17.68	117.0	89254	50.00	UG/L	95
33)	C230 Toluene	15.00	91.0	318329	180.34	UG/L	98
34)	CS05 Toluene d-8	14.87	98.0	23920	13.10	UG/L 105%	99
35)	C235 Chlorobenzene Ratio off	~~17.66~~	~~112.0~~	1796	1.03	UG/L	79
36)	C240 Ethylbenzene	18.09	106.0	34031	52.13	UG/L	99
38)	C250 Total Xylenes	18.35	106.0	365365M	413.91	UG/L	94
39)	CS10 Bromofluorobenzene	20.19	95.0	19684	12.54	UG/L 100%	80

* Compound is ISTD

$$\text{Dry Factor} = \frac{(5)(10)}{(0.025)(4)(0.84)} = 595$$

proj# 3196 LH

244

JJ

35.0| 260.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 30 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	1.58	52	57	74	17880	94111	92668	5.41	.786
2	6.64	286	316	338	11052	168065	163799	9.57	1.390
3	7.26	338	348	367	7450	90574	89214	5.21	.757
4	9.16	434	445	456	9996	129872	109861	6.42	.932
5	9.96	478	486	496	19000	163978	161488	9.43	1.370
6	10.78	518	528	537	21986	240543	212668	12.42	1.804
7	11.09	537	544	552	23571	230151	182406	10.65	1.547
8	11.50	552	565	585	33349	425261	362913	21.20	3.079
9	12.15	585	598	614	34228	444737	389918	22.77	3.308
10	12.79	624	631	641	16158	158972	149742	8.75	1.270
11	13.20	641	652	660	20150	210806	200491	11.71	1.701
12	13.81	674	683	687	20755	208754	190749	11.14	1.618
13	14.40	707	713	720	21121	313446	163722	9.56	1.389
14	14.67	721	727	733	24901	346952	192817	11.26	1.636
15	14.98	737	743	752	107775	954278	719122*	42.00	6.101
16	15.57	764	773	778	18292	312788	164035	9.58	1.392
17	15.94	787	792	805	10286	197461	93431	5.46	.793
18	16.74	826	833	848	21498	435608	232205*	13.56	1.970
19	17.66	873	880	886	68922	767405	487273	28.46	4.134
20	17.88	886	891	896	28924	414320	180082*	10.52	1.528
21	18.09	896	902	908	34337	508164	213099*	12.45	1.808
22	18.35	908	915	928	234869	2115466	1712147	100.00	14.525
23	18.74	929	935	943	31450	454858	245171	14.32	2.080
24	19.13	944	955	967	93470	1148688	803753	46.94	6.819
25	19.95	993	997	1005	17277	421958	121952	7.12	1.035
26	20.60	1022	1030	1037	59732	1049326	595643*	34.79	5.053
27	20.86	1037	1043	1048	44486	670868	333260*	19.46	2.827
28	21.11	1048	1056	1061	199980	1949649	1549804*	90.52	13.148
29	21.29	1061	1065	1074	130974	1354927	954062*	55.72	8.094
30	21.66	1077	1084	1094	97226	1243789	719870*	42.04	6.107

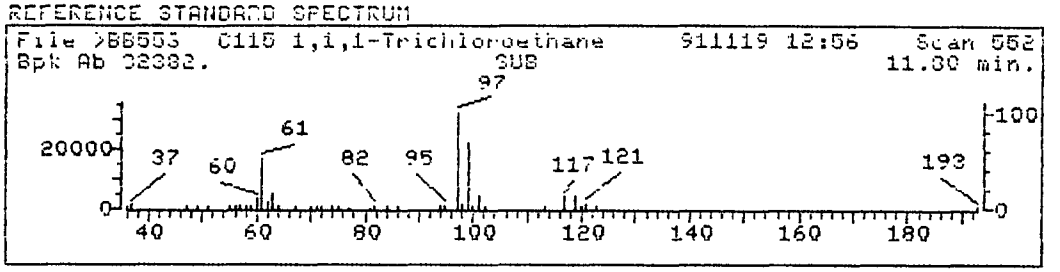
(15) TIC

Sum of corrected areas: 11787366.

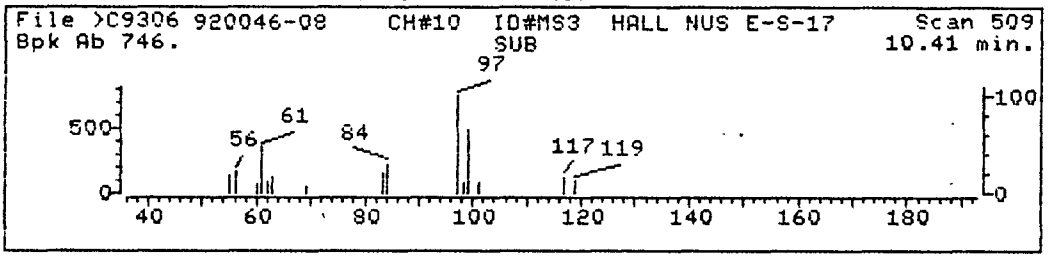
proj #3196

GC

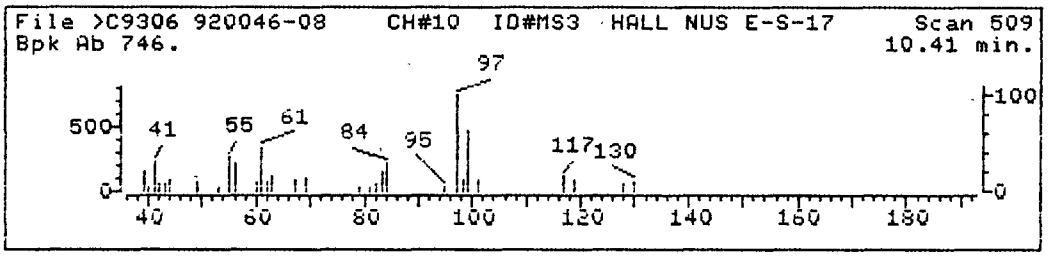
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



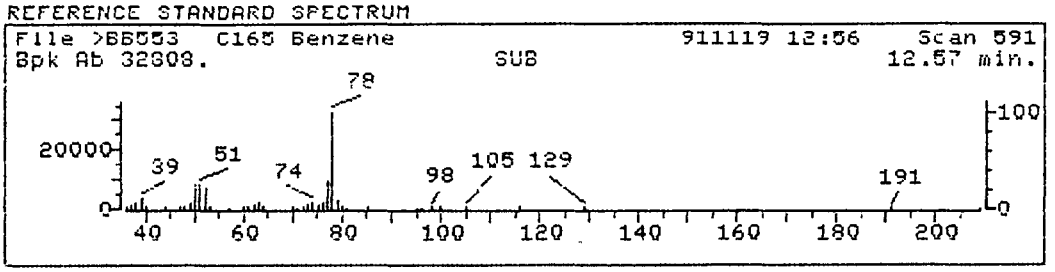
Data File: >C9306::D5 Quant Output File: ^C9306::QT
Name: 920046-08 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Quant Time: 920208 15:51 Quant ID File: V3ID::SC
Injected at: 920208 15:12 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

Compound No : 17
Compound Name : C115 1,1,1-Trichloroethane
Scan Number : 509
Retention Time: 10.41 min.
Quant Ion : 97.0
Area : 5973
Concentration : 4.40 UG/L
q-value : 84

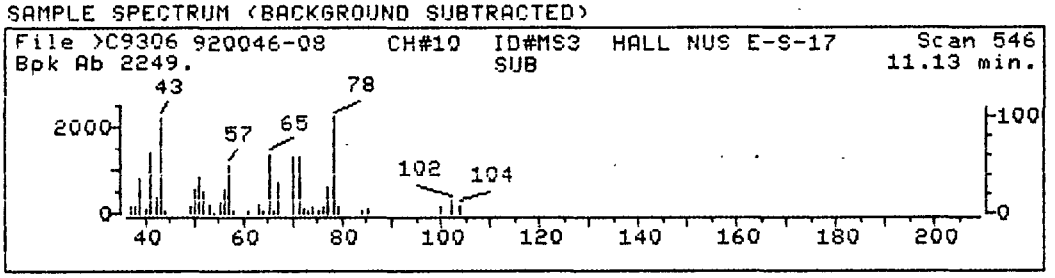
proj #3186

LH

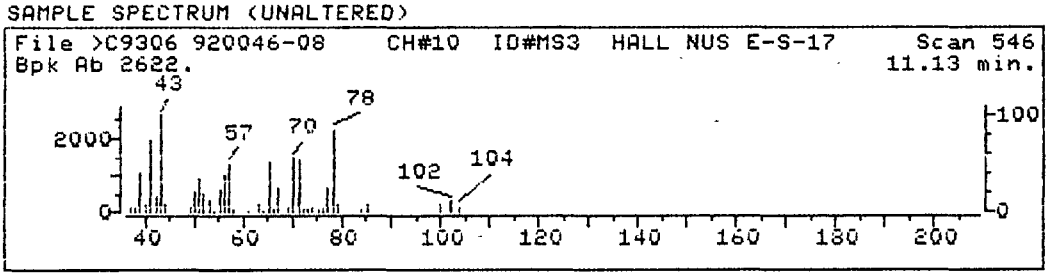
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



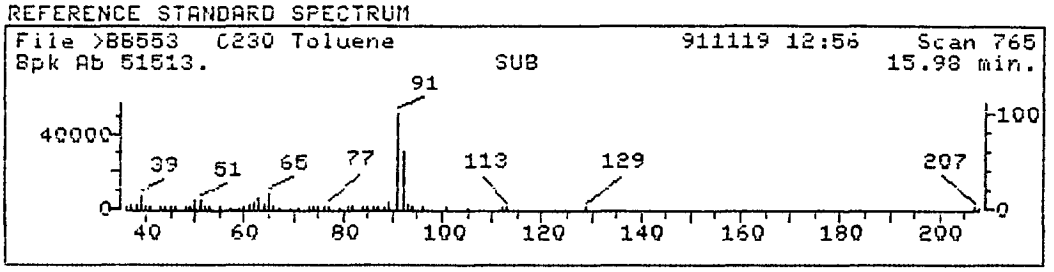
Data File: >C9306::D5
Name: 920046-08 CH#10
Misc: ID#MS3 HALL NUS E-S-17
Quant Time: 920208 15:51
Injected at: 920208 15:12
Last Qcal Time: 920208 09:28

Quant Output File: ^C9306::QT
Instrument ID: MS3
MED SOIL 4G/10MLX 25UL LH
Quant ID File: V3ID::SC
Last Calibration: 910429 11:21

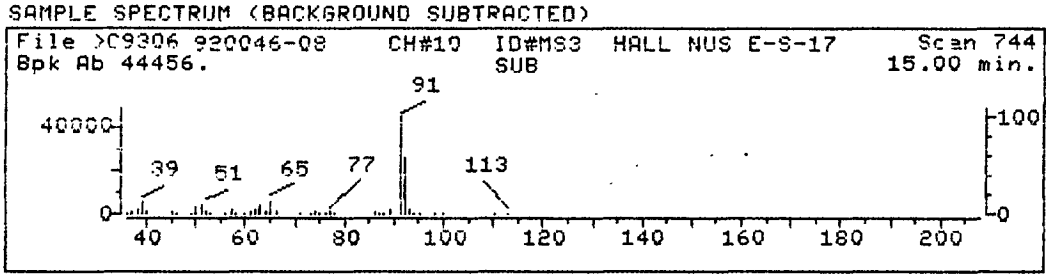
Compound No : 25
Compound Name : C165 Benzene
Scan Number : 546
Retention Time: 11.13 min.
Quant Ion : 78.0
Area : 17506
Concentration : 14.57 UG/L
q-value : 100

proj #3186
LH

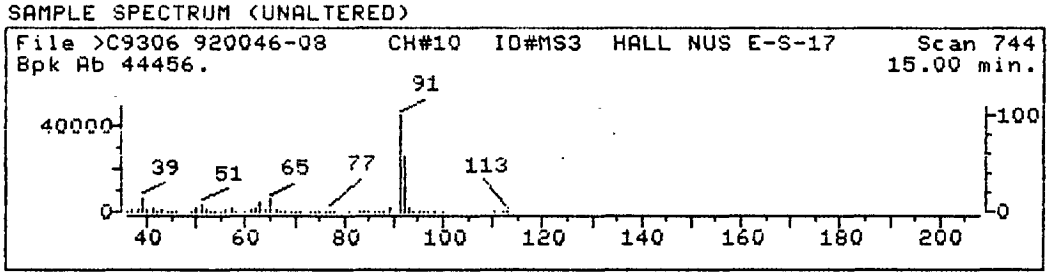
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



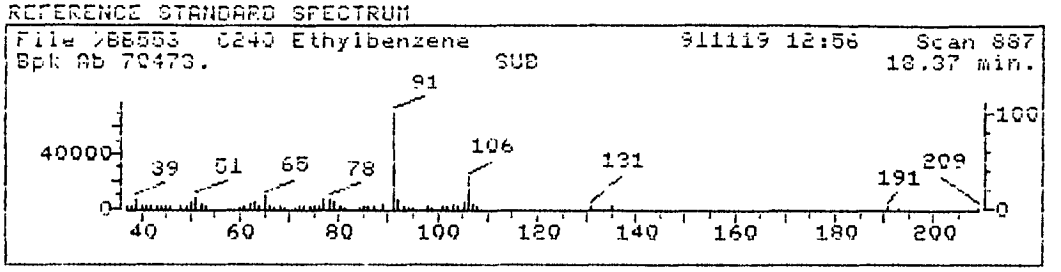
Data File: >C9306::D5
Name: 920046-08 CH#10
Misc: ID#MS3 HALL NUS E-S-17
Quant Time: 920208 15:51
Injected at: 920208 15:12
Last Qcal Time: 920208 09:28

Quant Output File: ^C9306::QT
Instrument ID: MS3
MED SOIL 4G/10MLX 25UL LH
Quant ID File: V3ID::SC
Last Calibration: 910429 11:21

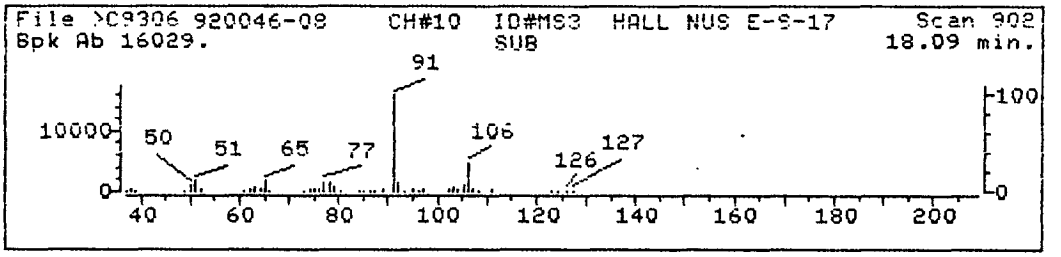
Compound No : 33
Compound Name : C230 Toluene
Scan Number : 744
Retention Time: 15.00 min.
Quant Ion : 91.0
Area : 318329
Concentration : 180.34 UG/L
q-value : 98

proj#3196
44

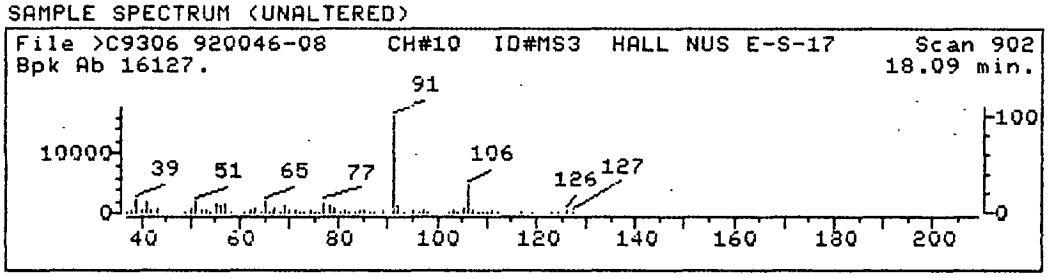
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



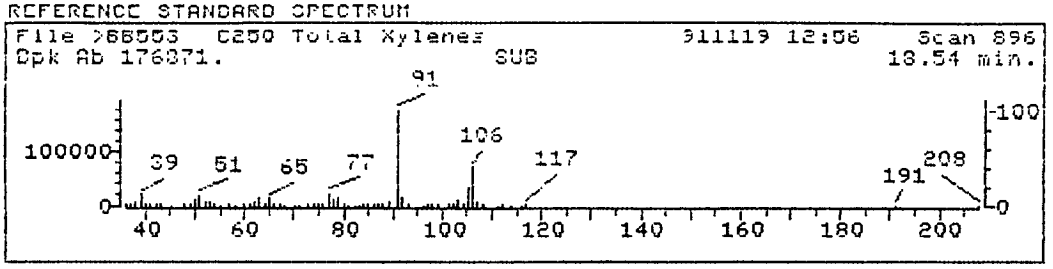
Data File: >C9306::D5 Quant Output File: ^C9306::QT
Name: 920046-08 CH#10 Instrument ID: MS3
Misc: ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Quant Time: 920208 15:51 Quant ID File: V3ID::SC
Injected at: 920208 15:12 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

Compound No : 36
Compound Name : C240 Ethylbenzene
Scan Number : 902
Retention Time: 18.09 min.
Quant Ion : 106.0
Area : 34031
Concentration : 52.13 UG/L
q-value : 99

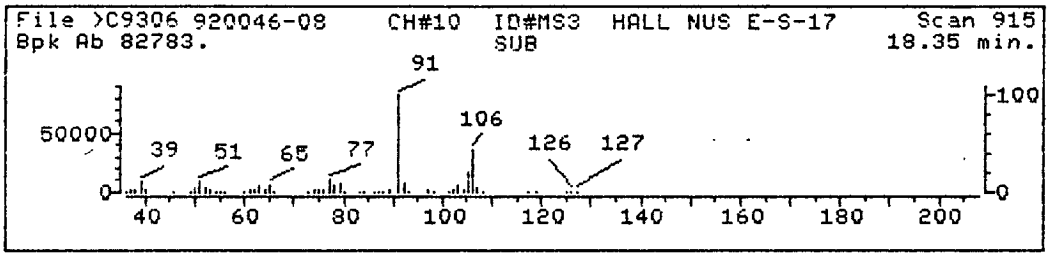
proj # 3086

44

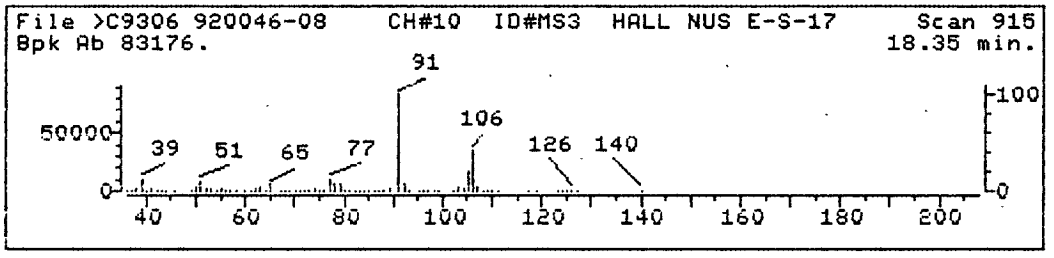
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9306::D5
Name: 920046-08 CH#10
Misc: ID#MS3 HALL NUS E-S-17
Quant Time: 920208 15:51
Injected at: 920208 15:12
Last Qcal Time: 920208 09:28

Quant Output File: ^C9306::QT
Instrument ID: MS3
MED SOIL 4G/10MLX 25UL LH
Quant ID File: V3ID::SC
Last Calibration: 910429 11:21

Compound No : 38
Compound Name : C250 Total Xylenes
Scan Number : 915
Retention Time: 18.35 min.
Quant Ion : 106.0
Area : 365365M
Concentration : 413.91 UG/L
q-value : 94

proj # 3186
44

250

MS data file header from : >C9306::D5

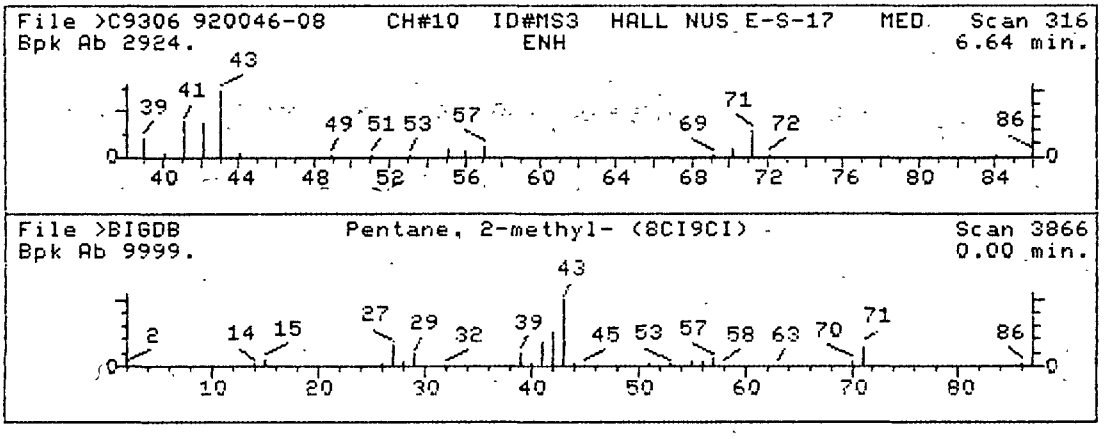
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Pentane, 2-methyl- (8CI9CI) 86 C6H14

Sample file: >C9306 Spectrum #: 316
Search speed: 2 Tilting option: S No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83*	107835	3866	"BIGDB	45	41	0	0	93	7	54	54



2 methyl pentane

$$Conc = \frac{163799}{161488} \times \frac{50}{1}$$

$$= 51 ppb \times 600$$

$$\cancel{= 31000}$$

proj # 3196

UH

MS data file header from : >C9306::D5

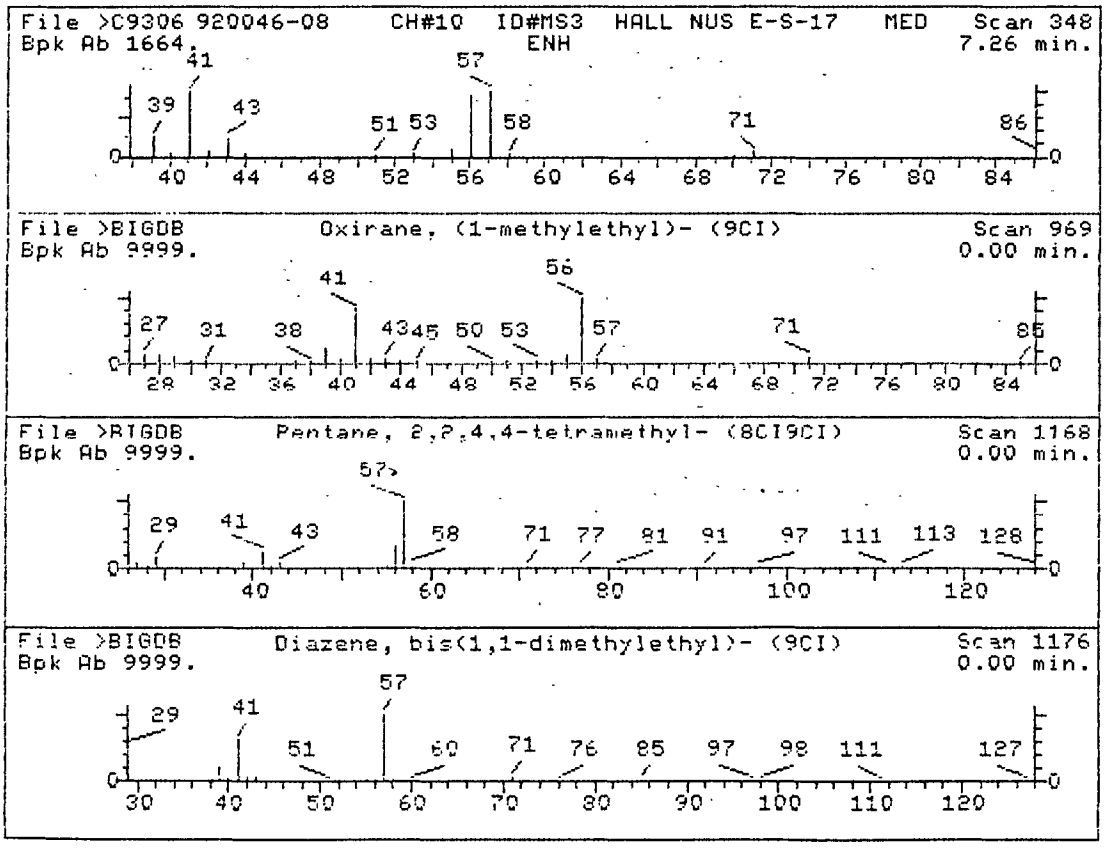
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Oxirane, (1-methylethyl)- (9CI) 86 C5H10O
2. Pentane, 2,2,4,4-tetramethyl- (8CI9CI) 128 C9H20
3. Diazene, bis(1,1-dimethylethyl)- (9CI) 142 C8H18N2
4. 1-Butene (8CI9CI) 56 C4H8

Sample file: >C9306 Spectrum #: 348
Search speed: 2 Tilting option: S No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	30*	1438148	969	"BIGDB	23	53	2	0	91	34	12	13
2.	29	1070877	1168	"BIGDB	36	33	2	0	294	33	12	12
3.	25	927833	1176	"BIGDB	27	44	0	0	97	47	7	14
4.	15*	106989	938	"BIGDB	22	57	2	0	71	60	3	13



unknown

$$\text{Conc} = \frac{89214}{161488} \times \frac{50}{1}$$

$= 28$ ppb ~~x 600~~

$= \cancel{17000}$

~~unit~~

proj #3196

MS data file header from : >C9306::D5

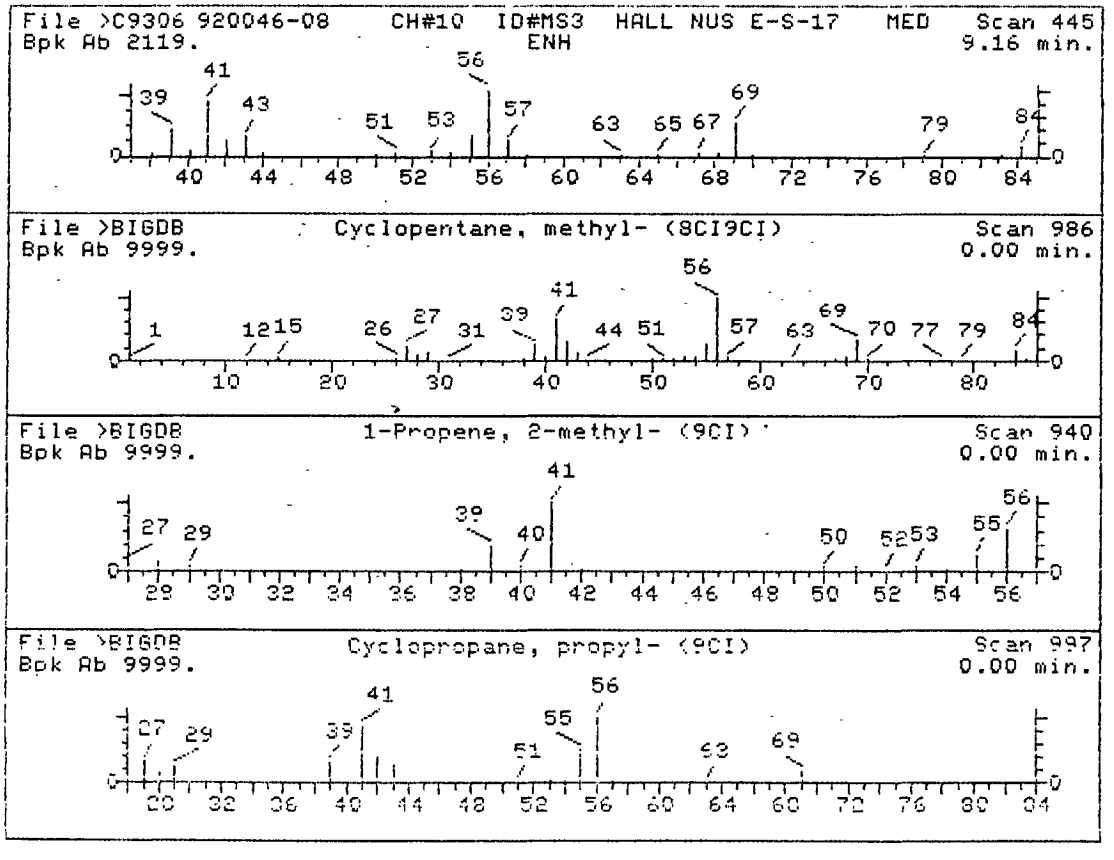
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Cyclopentane, methyl- (8CI9CI) 84 C6H12
2. 1-Propene, 2-methyl- (9CI) 56 C4H8
3. Cyclopropane, propyl- (9CI) 84 C6H12
4. 1H-Tetrazole, 5-methyl- (8CI9CI) 84 C2H4N4
5. Cyclopropane, (1-methylethyl)- (9CI) 84 C6H12

Sample file: >C9306 Spectrum #: 445
Search speed: 2 Tilting option: S No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	65*	96377	986	"BIGDB	48	39	0	0	86	32	24	57
2.	52*	115117	940	"BIGDB	32	41	2	0	110	20	20	16
3.	40*	2415727	997	"BIGDB	34	54	2	0	97	27	14	17
4.	36*	4076362	998	"BIGDB	27	57	0	0	83	31	12	19
5.	26*	3638355	962	"BIGDB	24	59	1	0	100	45	8	14



unknown

$$\text{Conc} = \frac{109861}{1614488} \times \frac{50}{1}$$

$= 34$ ppb ~~×600~~

$= 20000$

~~HALL~~

proj # 3196

253

44

MS data file header from : >C9306::D5

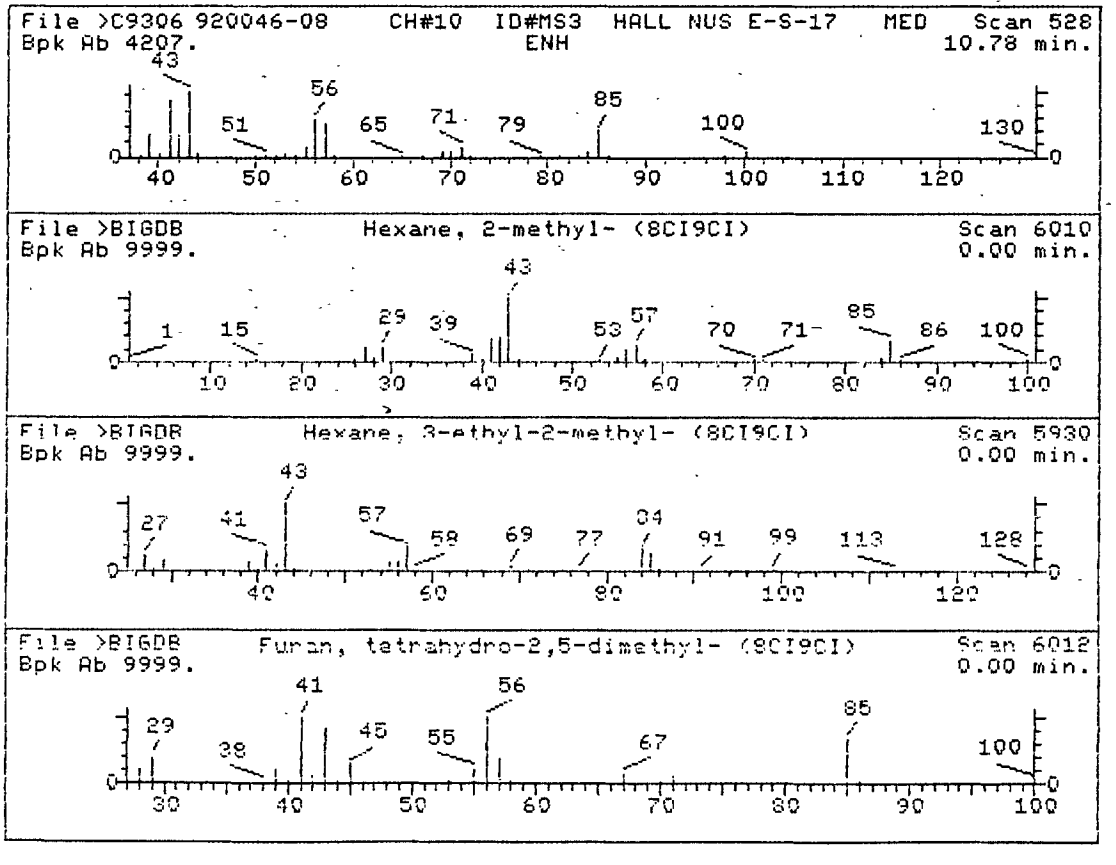
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Hexane, 2-methyl- (8CI9CI) 100 C7H16
2. Hexane, 3-ethyl-2-methyl- (8CI9CI) 128 C9H20
3. Furan, tetrahydro-2,5-dimethyl- (8CI9CI) 100 C6H12O
4. Aziridine, 2-methyl- (8CI9CI) 57 C3H7N
5. Pentane, 2,3-dimethyl- (8CI9CI) 100 C7H16

Sample file: >C9306 Spectrum #: 528
Search speed: 2 Tilting option: S No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	59*	591764	6010	"BIGDB	43	43	0	0	88	37	21	52
2.	29	16789461	5930	"BIGDB	38	49	2	0	100	33	12	12
3.	27*	1003389	6012	"BIGDB	41	59	2	0	58	42	8	15
4.	27*	75558	946	"BIGDB	21	46	0	0	58	44	8	15
5.	27*	565593	1013	"BIGDB	20	75	2	0	58	40	10	13



aliphatic hydrocarbon

Conc = $\frac{212668}{161488} \times \frac{50}{1}$

= 66 ppb × 600

~~= 40000~~

~~usage~~

proj # 3196

LH

MS data file header from : >C9306::D5

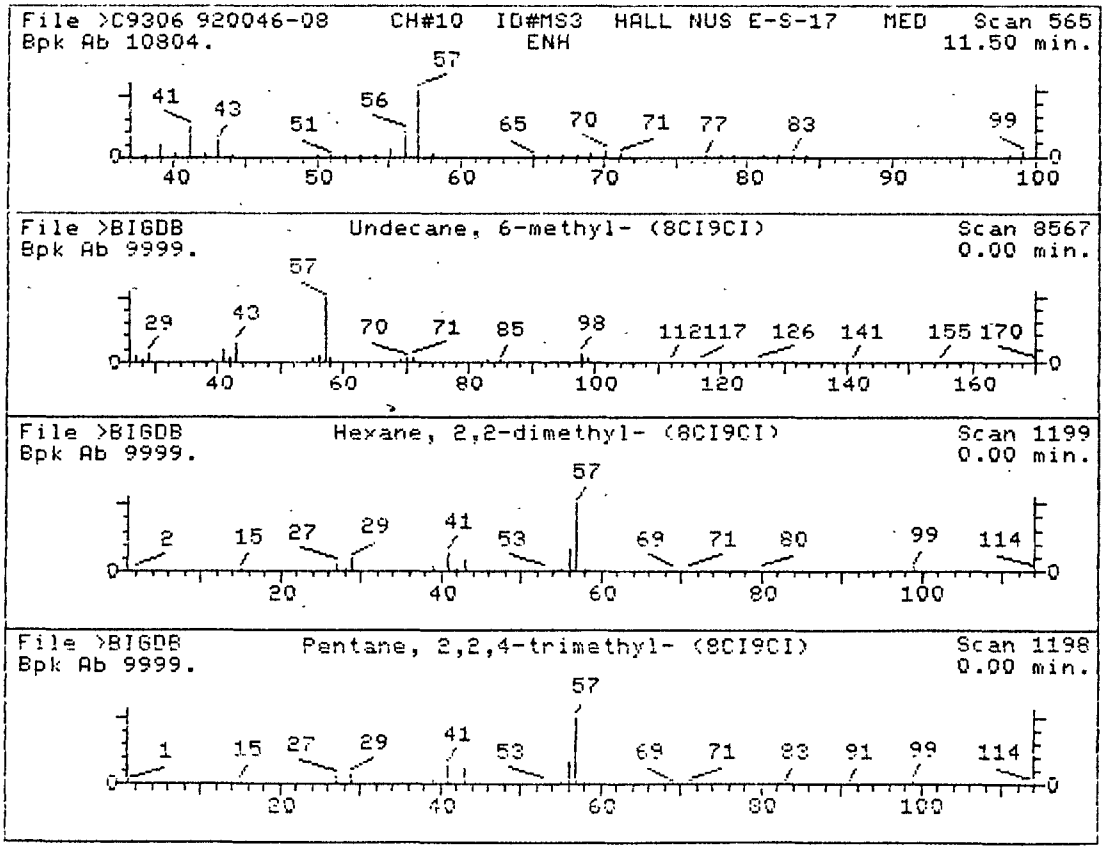
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Undecane, 6-methyl- (8CI9CI) 170 C12H26
2. Hexane, 2,2-dimethyl- (8CI9CI) 114 C8H18
3. Pentane, 2,2,4-trimethyl- (8CI9CI) 114 C8H18
4. Heptane, 3,5-dimethyl- (8CI9CI) 128 C9H20
5. Hexane, 2,2,5,5-tetramethyl- (8CI9CI) 142 C10H22

Sample file: >C9306 Spectrum #: 565
Search speed: 2 Tilting option: S No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60	17302339	8567	"BIGDB	35	43	2	0	100	12	30	12
2.	60	590738	1199	"BIGDB	28	44	0	0	100	14	30	14
3.	58	540841	1198	"BIGDB	40	34	0	0	100	16	25	22
4.	52	926829	8724	"BIGDB	37	45	2	0	73	16	20	12
5.	52	1071814	967	"BIGDB	48	31	2	0	84	16	20	16



unknown

conc = $\frac{345067}{\cancel{38997}\ 389918} \times \frac{50}{1}$

= ~~44 ppb~~

44 ~~+07~~ ppb X600

= ~~64000026000~~

~~conc~~

proj # 3196

MS data file header from : >C9306::D5

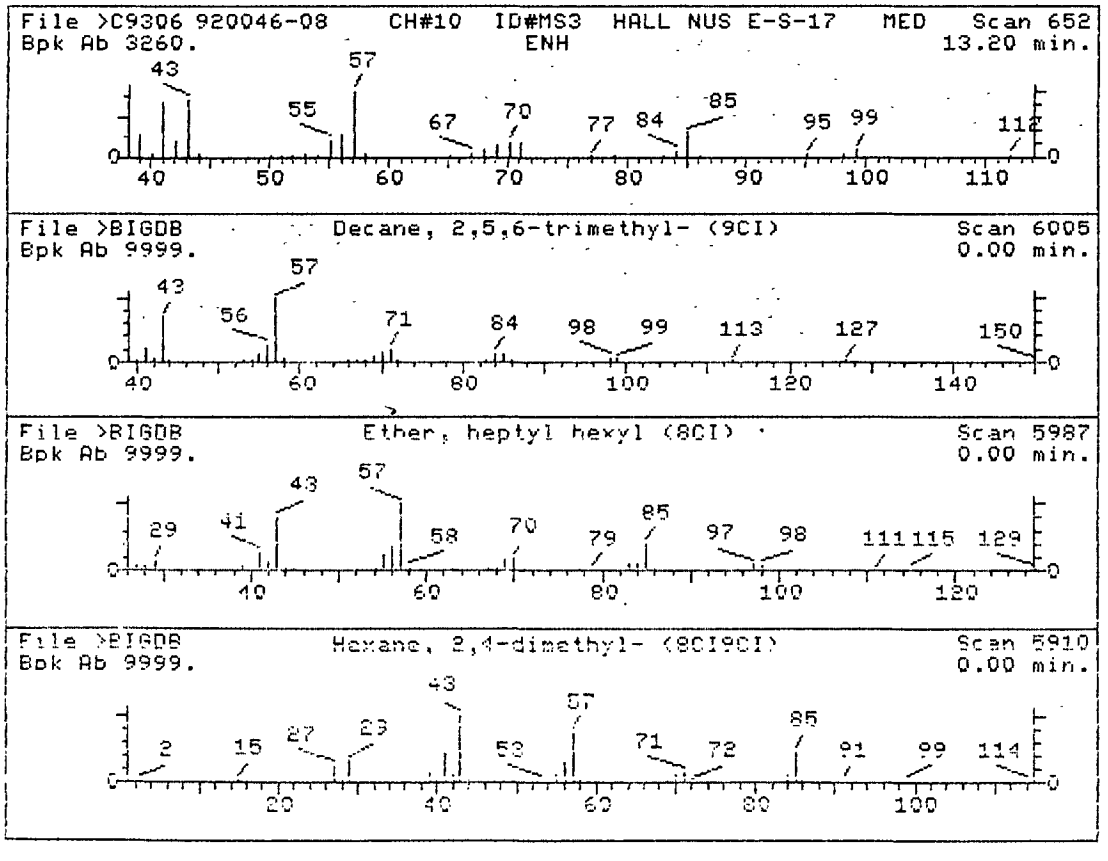
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Decane, 2,5,6-trimethyl- (9CI) 184 C13H28
2. Ether, heptyl hexyl (8CI) 200 C13H28O
3. Hexane, 2,4-dimethyl- (8CI9CI) 114 C8H18
4. Pentane, 2,2-dimethyl- (8CI9CI) 100 C7H16
5. Heptane, 2-bromo- (8CI9CI) 178 C7H15Br

Sample file: >C9306 Spectrum #: 652
Search speed: 2 Tilting option: S No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60	62108230	6005	"BIGDB	59	42	2	0	100	14	30	16
2.	52	7289409	5987	"BIGDB	66	45	2	0	88	20	20	14
3.	41*	589435	5910	"BIGDB	39	59	0	0	78	45	14	38
4.	34	590352	5912	"BIGDB	39	45	0	0	85	37	14	21
5.	31	1974045	1201	"BIGDB	37	47	0	0	100	45	8	19



aliphatic hydrocarbon

$$Conc = \frac{200491}{389918} \times \frac{50}{1}$$

$= 26$ ppb $\times 600$

$= 16000$

~~aliphatic unk~~

proj #3196

MS data file header from : >C9306::D5

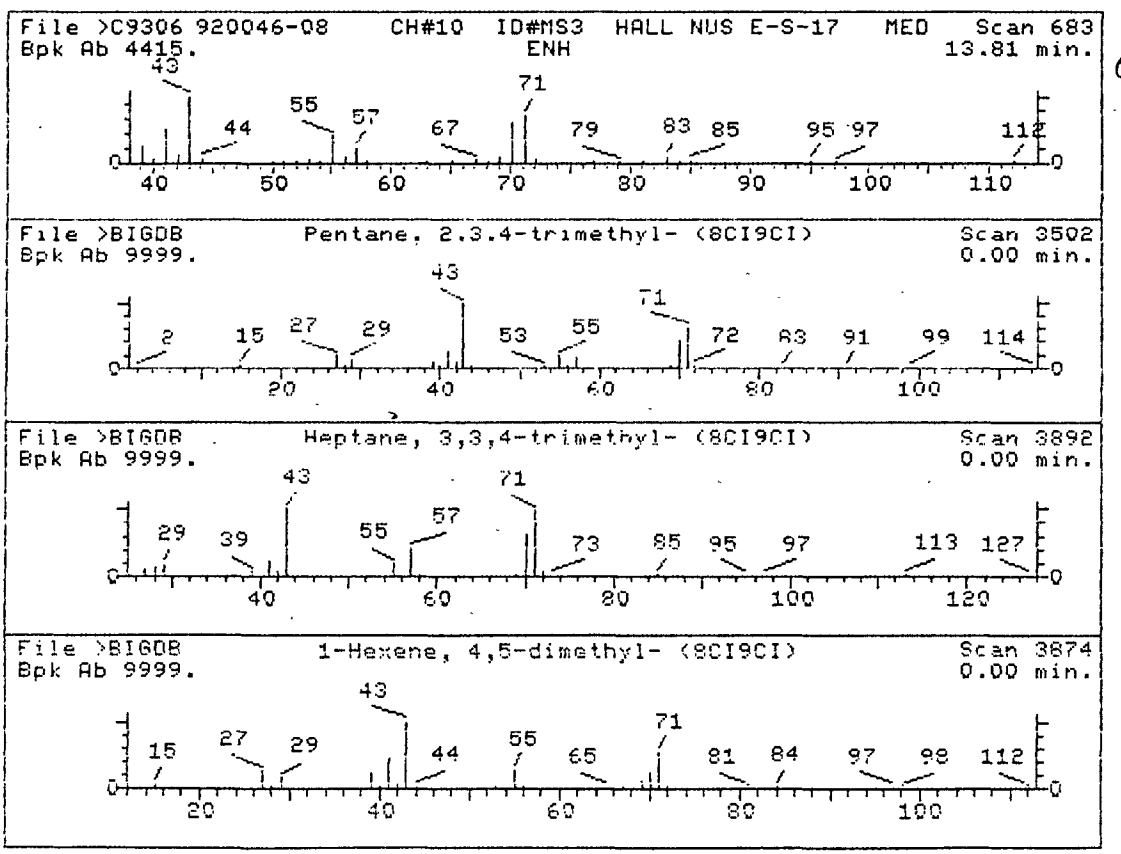
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Pentane, 2,3,4-trimethyl- (8CI9CI) 114 C8H18
2. Heptane, 3,3,4-trimethyl- (8CI9CI) 142 C10H22
3. 1-Hexene, 4,5-dimethyl- (8CI9CI) 112 C8H16
4. 1-Hexene, 3,4,5-trimethyl- (9CI) 126 C9H18
5. Pyrrolidine (DOT)(8CI9CI) 71 C4H9N

Sample file: >C9306 Spectrum #: 683
Search speed: 2 Tilting option: S No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	79*	565753	3502	"BIGDB	34	46	0	0	100	8	48	33
2.	70	20278879	3892	"BIGDB	39	47	2	0	74	8	42	13
3.	70*	16106595	3874	"BIGDB	55	32	1	0	98	18	32	50
4.	52	56728100	3922	"BIGDB	40	45	2	0	100	18	20	14
5.	30*	123751	3498	"BIGDB	22	66	2	0	100	32	12	13



aliphatic hydrocarbon

$$\text{Conc} = \frac{190749}{389918} \times \frac{50}{1}$$

$= 24$ ppb $\times 600$

~~= 14000~~

~~HALL~~

proj #3196

MS data file header from : >C9308::D5

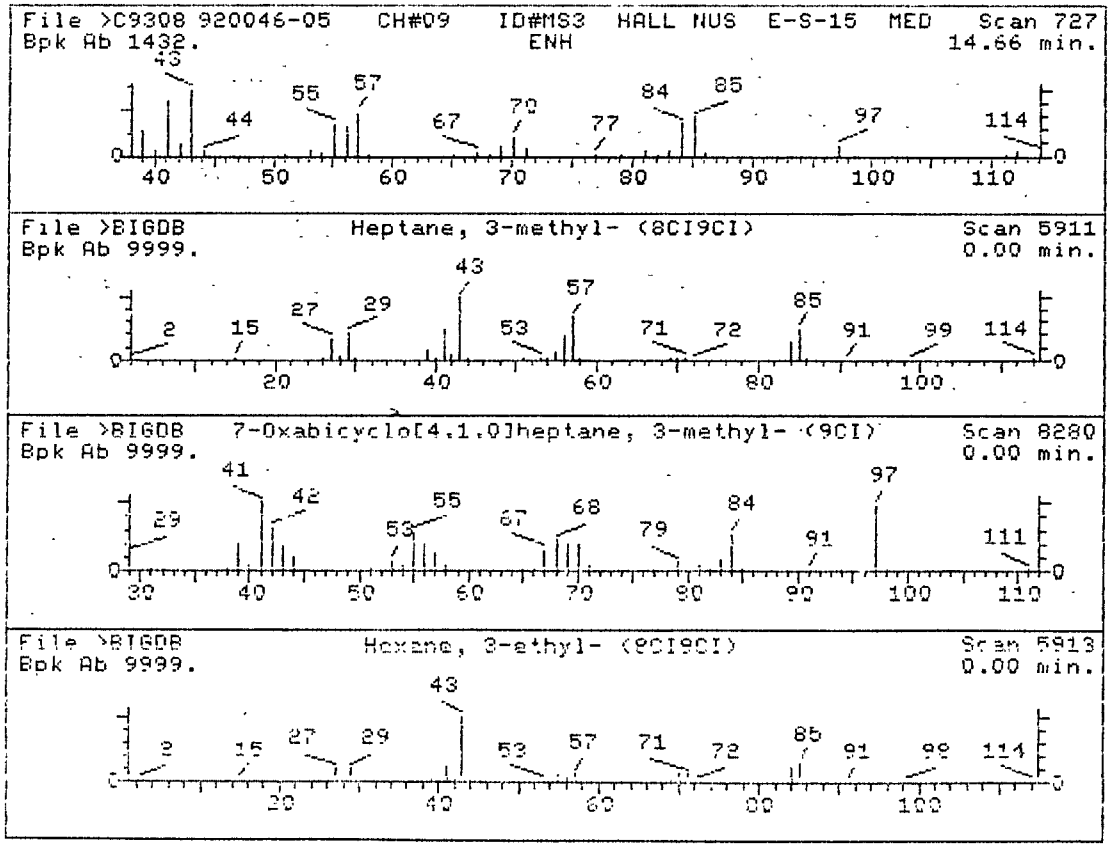
Sample: 920046-05 CH#09 Operator: VOA2 REG. GRP. 2/08/92 18:12
Misc : ID#MS3 HALL NUS E-S-15 MED SOIL 4G/10MLX50UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3-methyl- (8CI9CI) 114 C8H18
2. 7-Oxabicyclo[4.1.0]heptane, 3-methyl- (9CI) 112 C7H12O
3. Hexane, 3-ethyl- (8CI9CI) 114 C8H18
4. Hexane, 3-ethyl-2-methyl- (8CI9CI) 128 C9H20
5. 4-Pentenal, 2-ethyl- (8CI9CI) 112 C7H12O

Sample file: >C9308 Spectrum #: 727
Search speed: 2 Tilting option: S No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	35*	589811	5911	"BIGDB	34	57	0	0	96	47	11	33
2.	30*	36099511	8280	"BIGDB	38	78	3	0	84	33	12	13
3.	28*	619998	5913	"BIGDB	33	57	2	0	211	45	8	16
4.	25	16789461	5930	"BIGDB	48	39	3	0	155	50	7	12
5.	20*	5204808	5697	"BIGDB	41	65	2	0	84	51	5	14



aliphatic hydrocarbon

$$\text{Conc} = \frac{192817}{389918} \times \frac{50}{1}$$

$= 25\ ppb \times 600$

$= 15000$

~~unk aliphatic~~

proj #3196

MS data file header from : >C9305::D5

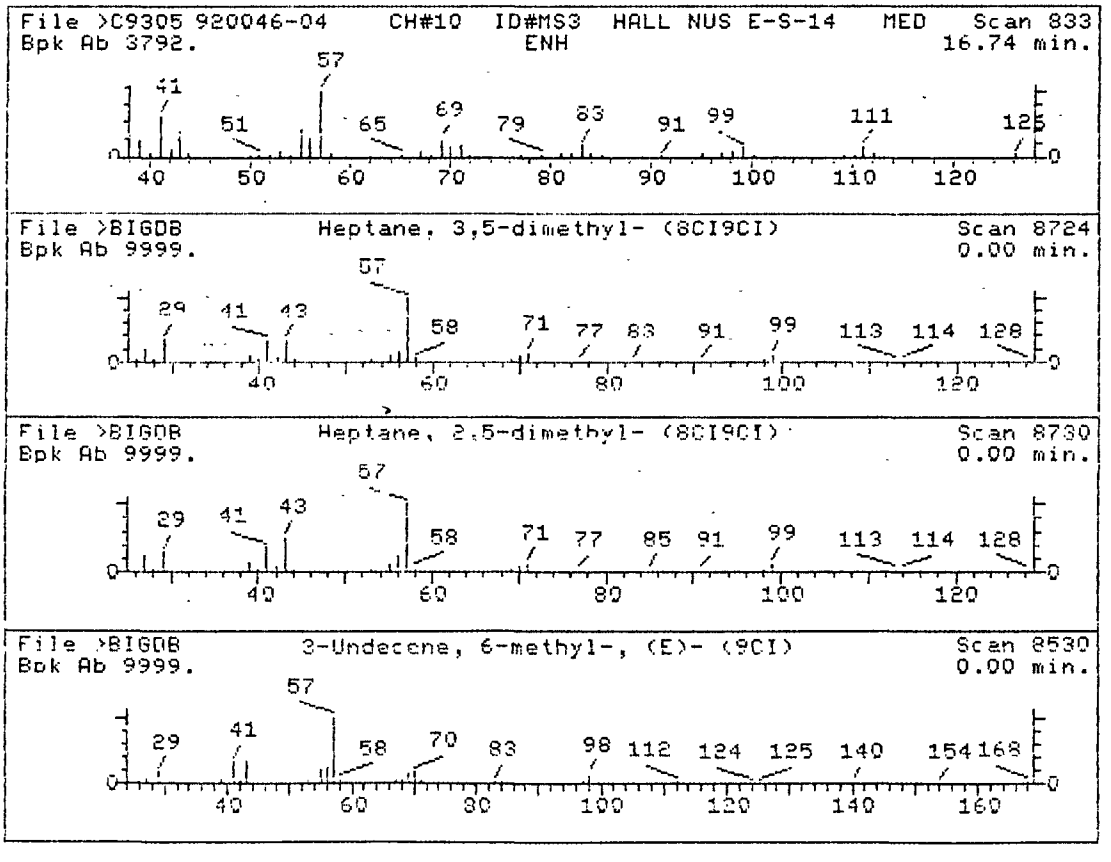
Sample: 920046-04 CH#10 Operator: VOA2 REG. GRP. 2/08/92 14:37
Misc : ID#MS3 HALL NUS E-S-14 MED SOIL 4G/10MLX 20UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Heptane, 3,5-dimethyl- (8CI9CI) 128 C9H20
2. Heptane, 2,5-dimethyl- (8CI9CI) 128 C9H20
3. 3-Undecene, 6-methyl-, (E)- (9CI) 168 C12H24
4. Octane, 3-methyl- (8CI9CI) 128 C9H20
5. Hexane, 4-ethyl-2-methyl- (8CI9CI) 128 C9H20

Sample file: >C9305 Spectrum #: 833
Search speed: 2 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	73*	926829	8724	"BIGDB	46	36	0	0	100	25	32	60
2.	53*	2216300	8730	"BIGDB	34	52	0	0	76	28	24	33
3.	52	74630527	8530	"BIGDB	46	41	2	0	100	18	20	15
4.	49*	2216333	8731	"BIGDB	38	46	1	0	100	21	22	21
5.	47*	3074757	8735	"BIGDB	37	52	2	0	100	25	17	18



aliphatic hydrocarbon

Conc = $\frac{232205}{\cancel{389918}\ 489273} \times \frac{520}{1}$

= ~~324~~ ppb ~~x600~~

= ~~18000~~ ~~14000~~

~~unk aliphatic~~

proj #5196

259

MS data file header from : >C9306::D5

Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

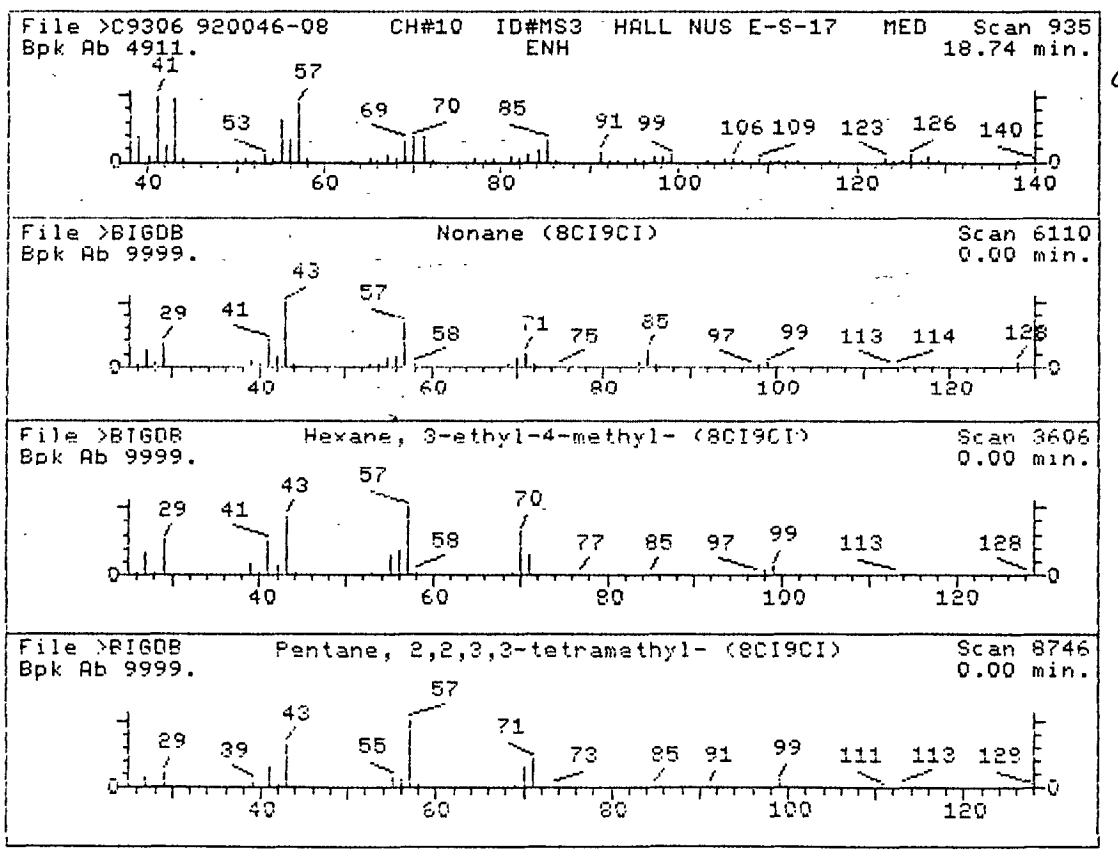
Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Nonane (8CI9CI) 128 C9H20
2. Hexane, 3-ethyl-4-methyl- (8CI9CI) 128 C9H20
3. Pentane, 2,2,3,3-tetramethyl- (8CI9CI) 128 C9H20
4. Heptane, 3,4-dimethyl- (8CI9CI) 128 C9H20
5. Decane, 2,4-dimethyl- (8CI9CI) 170 C12H26

Sample file: >C9306 Spectrum #: 935
Search speed: 2 Tilting option: S No. of ion ranges searched: 70

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	64*	111842	6110	"BIGDB	56	40	1	0	124	25	28	44
2.	41*	3074779	3606	"BIGDB	52	44	2	0	83	42	14	30
3.	38	7154792	8746	"BIGDB	44	45	0	0	85	40	14	25
4.	35*	922281	3604	"BIGDB	33	64	0	0	77	46	11	30
5.	35	2801845	6054	"BIGDB	55	32	1	0	94	39	14	22

C9H20 isomer



$$\text{Conc} = \frac{245171}{487273} \times \frac{50}{1}$$

$= 25\ \text{ppb} \times 600$

$= \cancel{15000}$

unic aliphatic

proj #3196

LH

MS data file header from : >C9306::D5

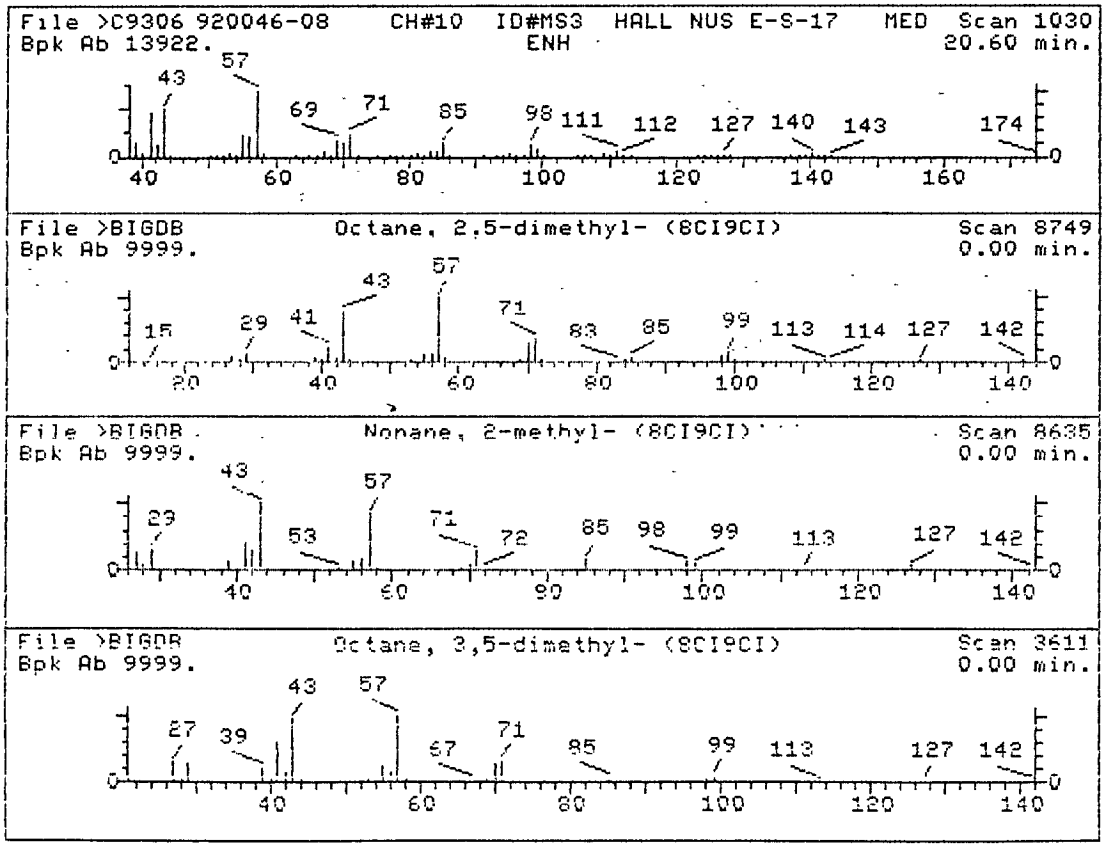
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 2,5-dimethyl- (8CI9CI) 142 C10H22
2. Nonane, 2-methyl- (8CI9CI) 142 C10H22
3. Octane, 3,5-dimethyl- (8CI9CI) 142 C10H22
4. Decane, 2,5,6-trimethyl- (9CI) 184 C13H28
5. Tridecane, 3-methyl- (8CI9CI) 198 C14H30

Sample file: >C9306 Spectrum #: 1030
Search speed: 2 Tilting option: S No. of ion ranges searched: 58

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	75*	15869893	8749	"BIGDB	61	31	0	0	73	27	37	73
2.	60*	871830	8635	"BIGDB	51	45	3	0	118	12	30	19
3.	52*	15869939	3611	"BIGDB	31	62	0	0	76	25	22	24
4.	52	62108230	6005	"BIGDB	52	49	2	0	100	17	20	12
5.	49	6418413	8959	"BIGDB	73	37	2	0	77	22	22	21



aliphatic hydrocarbon

$$\text{Conc} = \frac{524488}{487273} \times \frac{50}{1}$$

$= 54$ ppb ~~x 600~~

~~= 32000~~

~~trace aliphatic~~

proj #3196

LH

MS data file header from : >C9306::D5

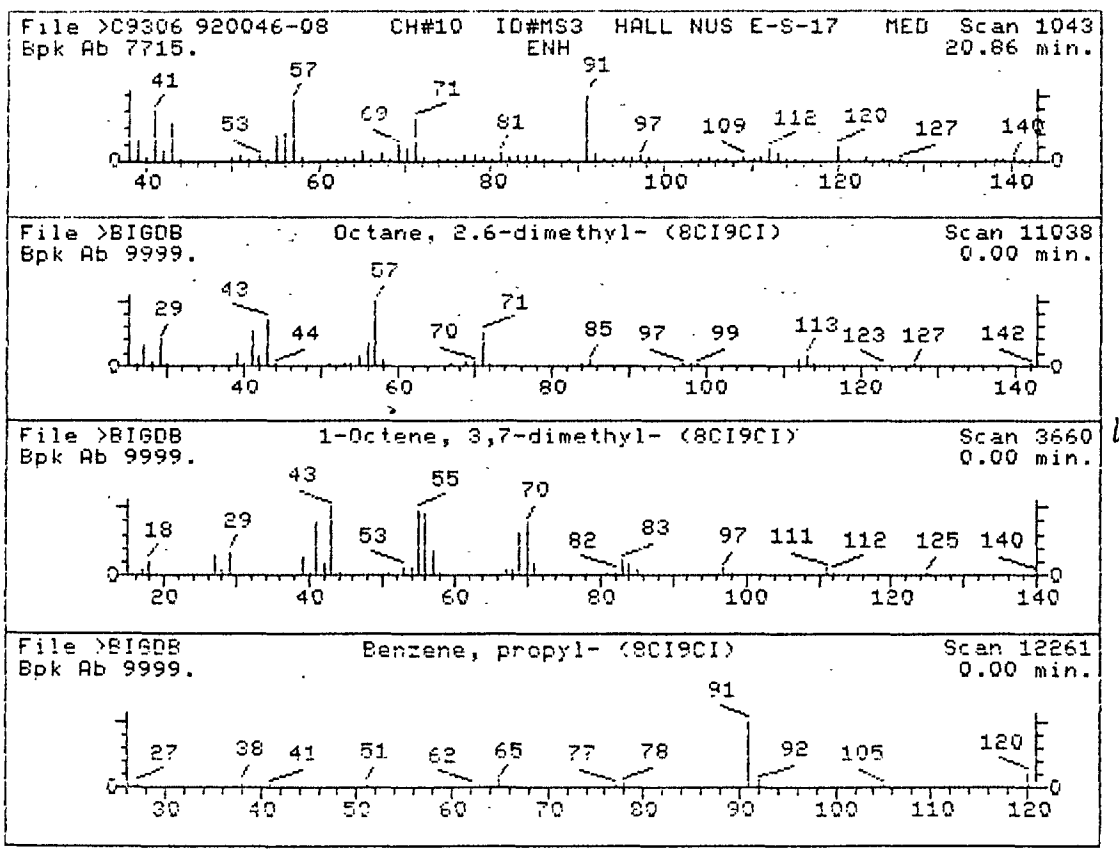
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Octane, 2,6-dimethyl- (8CI9CI) 142 C10H22
2. 1-Octene, 3,7-dimethyl- (8CI9CI) 140 C10H20
3. Benzene, propyl- (8CI9CI) 120 C9H12
4. 3-Octene, (E)- (8CI9CI) 112 C8H16
5. Octane, 4-ethyl- (8CI9CI) 142 C10H22

Sample file: >C9306 Spectrum #: 1043
Search speed: 2 Tilting option: S No. of ion ranges searched: 74

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	56*	2051301	11038	"BIGDB	58	37	2	1	82	27	24	36
2.	30*	4984014	3660	"BIGDB	47	46	2	2	31	48	10	21
3.	28*	103651	12261	"BIGDB	52	33	2	0	100	51	8	35
4.	25*	14919018	10845	"BIGDB	36	55	1	1	27	46	7	12
5.	25*	15869860	10847	"BIGDB	37	56	1	1	53	43	8	13



unknown

$Conc = \frac{310498}{487273} \times \frac{50}{1}$

$= 32$ ppb $\times 600$

$= \cancel{19000}$

~~unsc aliphatic~~

proj #3196

MS data file header from : >C9306::D5

Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9306 Spectrum #: 1056
Search speed: 2 Tilting option: S No. of ion ranges searched: 49

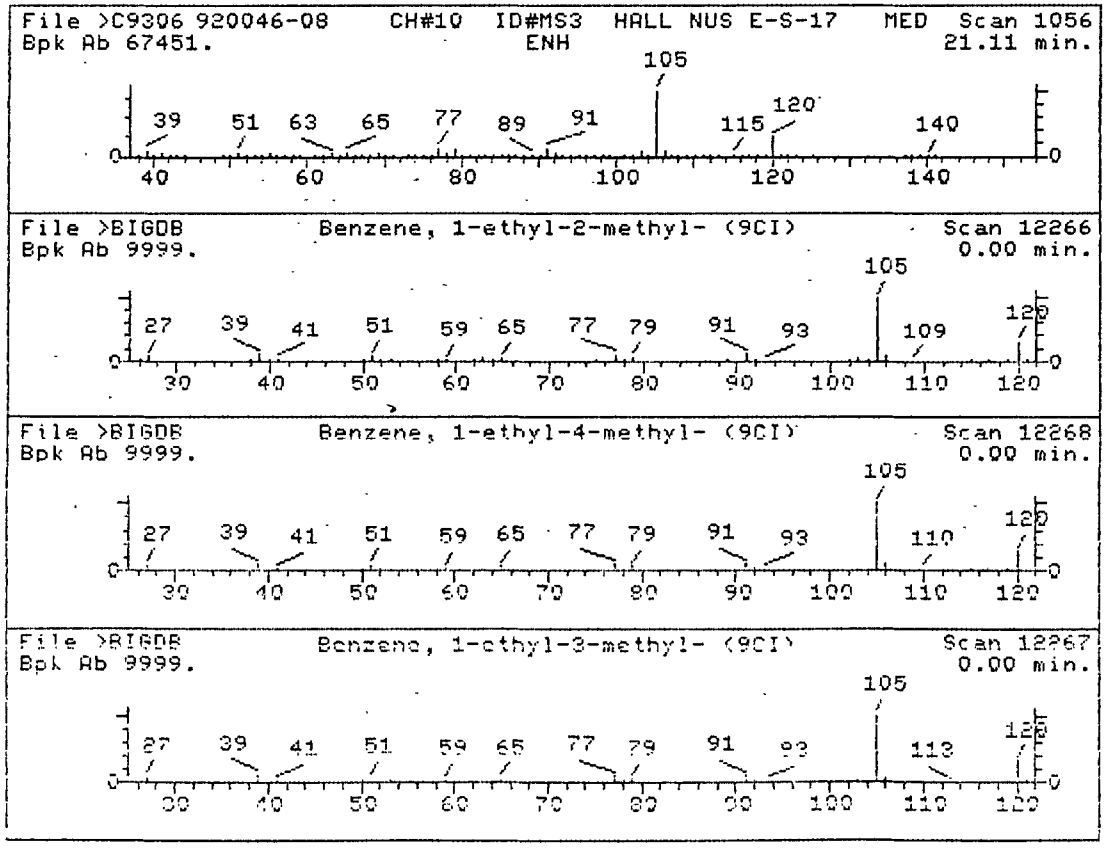
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	611143	12266	"BIGDB	85	0	0	0	98	1	72	97
2.	97*	622968	12268	"BIGDB	84	1	0	0	97	1	72	97
3.	97*	620144	12267	"BIGDB	80	7	0	0	76	5	72	97
4.	84*	98828	12259	"BIGDB	64	23	1	0	87	8	55	67
5.	69*	526738	12280	"BIGDB	60	25	1	0	45	33	26	63

C3 benzen isomer

$$Conc = \frac{1527255}{487273} \times \frac{5g}{1}$$

= 157 ppb ~~x600~~

~~= 94000~~



proj #3186
LH

MS data file header from : >C9306::D5

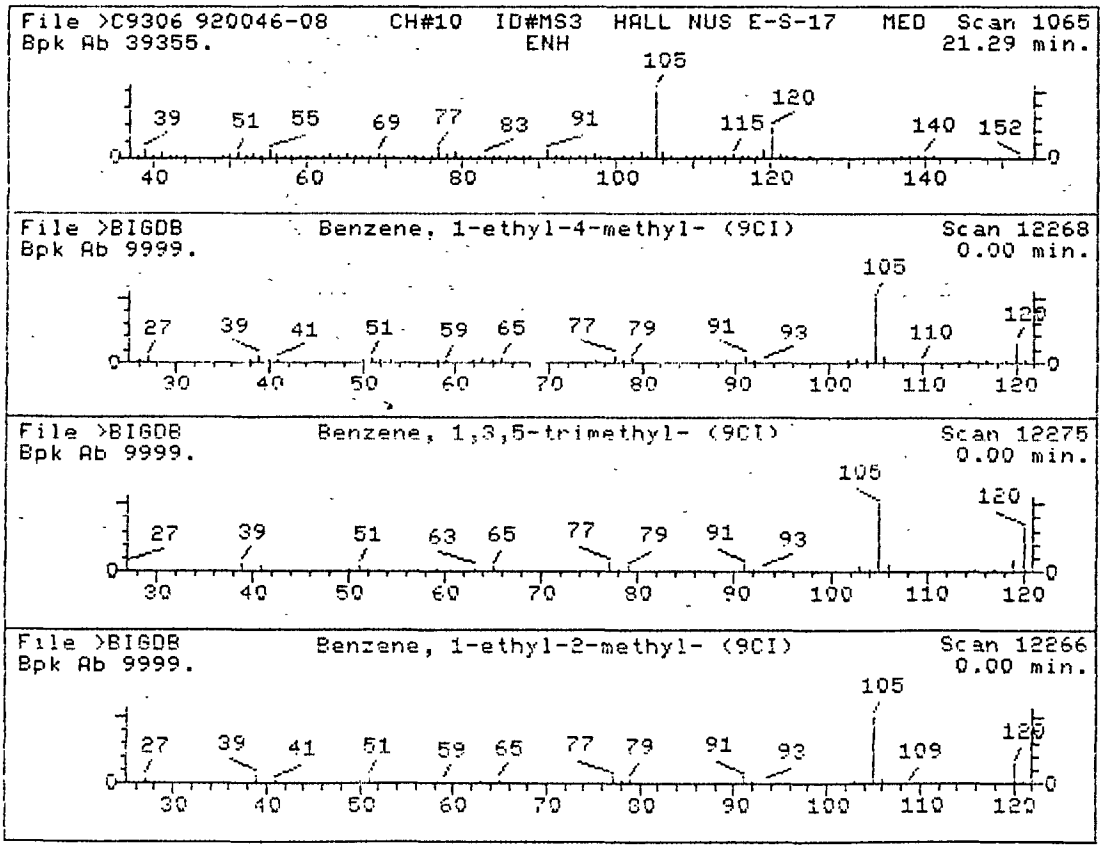
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
2. Benzene, 1,3,5-trimethyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
4. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
5. Benzene, 1,2,4-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9306 Spectrum #: 1065
Search speed: 2 Tilting option: S No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	93*	622968	12268	"BIGDB	69	16	0	0	85	23	53	94
2.	86*	108678	12275	"BIGDB	78	10	2	0	71	6	59	72
3.	80*	611143	12266	"BIGDB	66	19	1	0	90	23	41	76
4.	76*	620144	12267	"BIGDB	66	21	1	0	90	22	41	72
5.	73*	95636	12273	"BIGDB	67	28	0	0	53	44	33	80



C3 benzene isomer

$$Conc = \frac{936351}{487273} \times \frac{50}{1}$$

= 96 ppb ~~x600~~

~~= 58000~~

proj # 3186

LH

264

MS data file header from : >C9306::D5

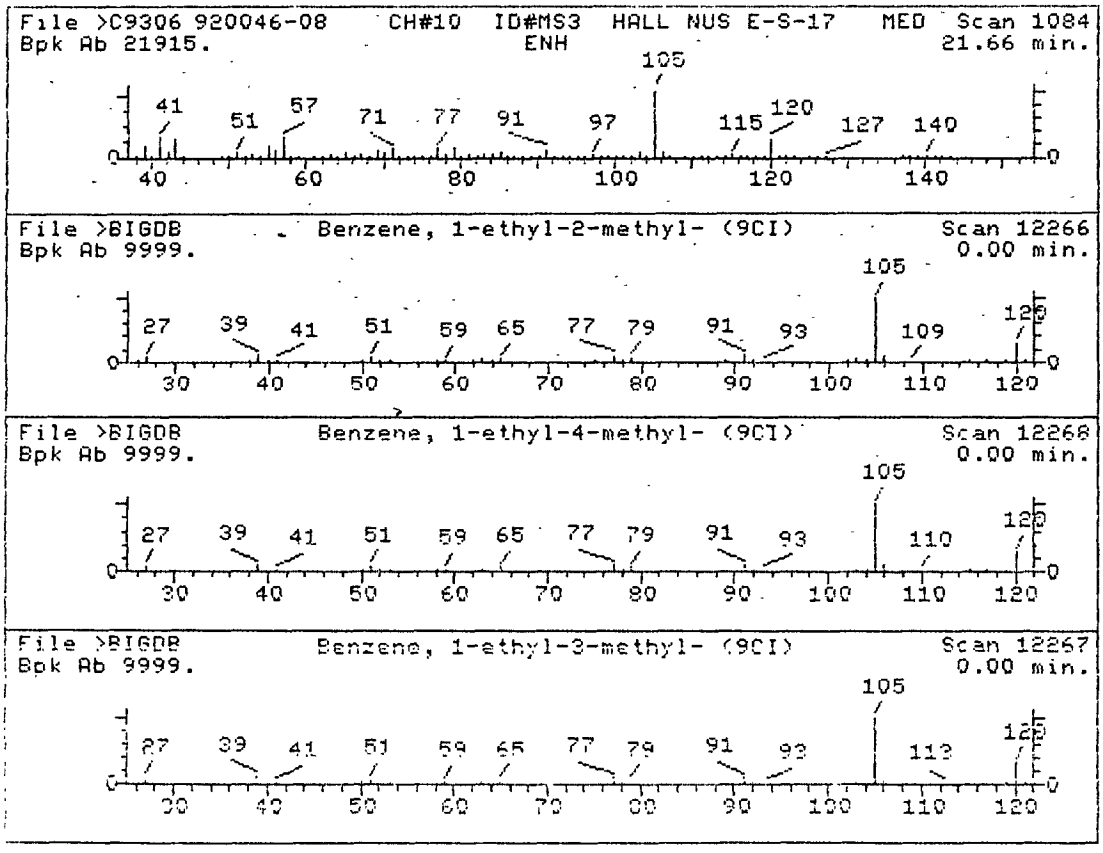
Sample: 920046-08 CH#10 Operator: VOA1 REG. GRP. 2/08/92 15:12
Misc : ID#MS3 HALL NUS E-S-17 MED SOIL 4G/10MLX 25UL LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

1. Benzene, 1-ethyl-2-methyl- (9CI) 120 C9H12
2. Benzene, 1-ethyl-4-methyl- (9CI) 120 C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI) 120 C9H12
4. Benzene, (1-methylethyl)- (9CI) 120 C9H12
5. Benzene, 1,2,3-trimethyl- (8CI9CI) 120 C9H12

Sample file: >C9306 Spectrum #: 1084
Search speed: 2 Tilting option: S No. of ion ranges searched: 61

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	611143	12266	"BIGDB	85	0	0	0	93	14	64	97
2.	94*	622968	12268	"BIGDB	72	13	0	0	68	16	60	95
3.	79*	620144	12267	"BIGDB	70	17	2	0	91	14	43	61
4.	79*	98828	12259	"BIGDB	64	23	1	0	93	12	43	67
5.	47*	526738	12280	"BIGDB	50	35	1	0	48	44	16	41



C_3 benzene isomers

$$\text{Conc} = \frac{710108}{487273} \times \frac{5\,ml}{1}$$

$= 73\,ppb \times 600$

$= \cancel{44000}$

proj #3196

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-S-18

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1590

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. 8 Date Analyzed: 02/08/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	1	BJ
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-S-18

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: 920046-09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1590

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. 8 Date Analyzed: 02/08/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

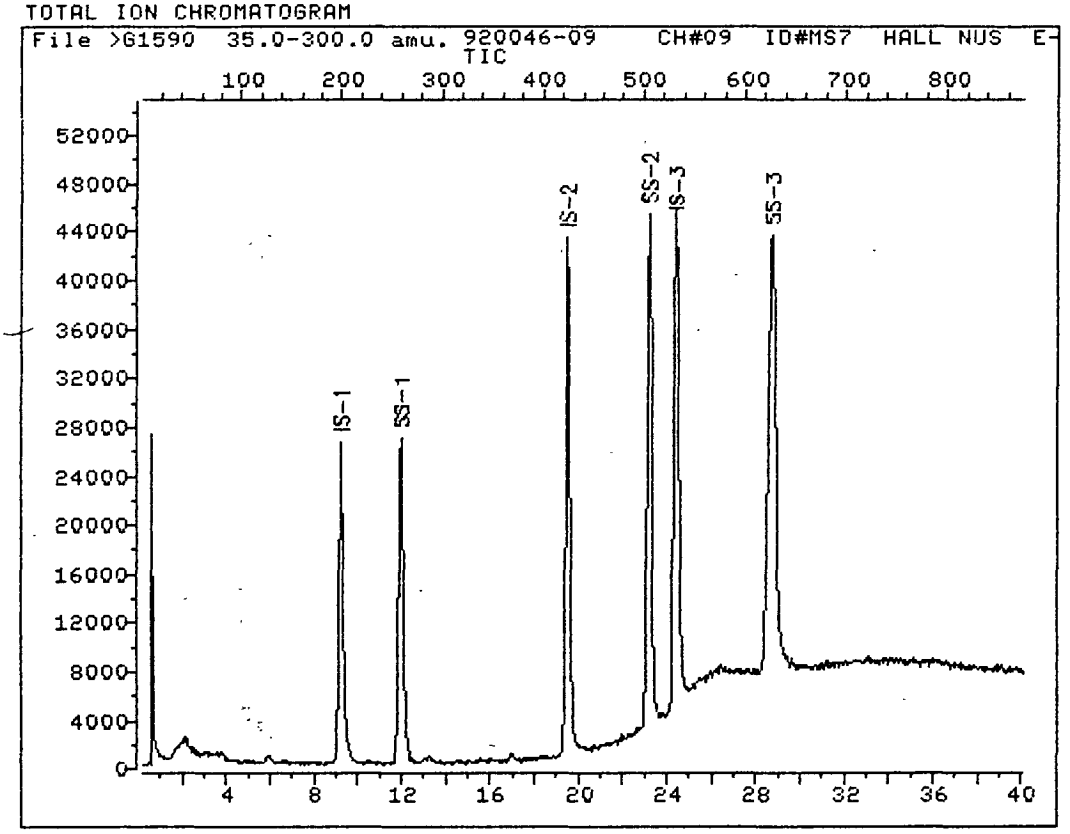
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

267

TOTAL ION CHROMATOGRAM



Data File: >G1590::D7 Quant Output File: ^G1590::QT
Name: 920046-09 CH#09 Instrument ID: MS7
Misc: ID#MS7 HALL NUS E-S-18 LOW SOIL 5.0G+Q1-18 LH

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920208 09:31

Operator ID: VOA7
Quant Time : 920208 13:43
Injected at: 920208 13:02

proj #3196
LH

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920208 13:43
Output File: ^G1590::QT Injected at: 920208 13:02
Data File: >G1590::D7 Dilution Factor: 1.00000
Name: 920046-09 CH#09 Instrument ID: MS7
Misc: ID#MS7 HALL NUS E-S-18 LOW SOIL 5.0G+Q1-18 LH

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920208 09:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	58543	50.00	UG/L	77
6)	C030 Methylene Chloride	5.91	84.0	2406	1.82	UG/L	75
13)	CS15 1,2-Dichloroethane-d4	11.98	65.0	159378	51.50	UG/L 103%	85
16)	*CI10 1,4-Difluorobenzene	19.50	114.0	229768	50.00	UG/L	93
25)	C165 Benzene	16.95	78.0	3220	1.00	UG/L	100
28)	*CI20 Chlorobenzene-d5	24.38	117.0	190903	50.00	UG/L	96
34)	CS05 Toluene d-8	23.20	98.0	217659	51.54	UG/L 103%	97
39)	CS10 Bromofluorobenzene	28.72	95.0	155995	53.11	UG/L 106%	94

* Compound is ISTD

proj # 3186
LH

:RU,FI,>G1590
:RU,EC,,,0:32

reg	type	# pts	scan#	range: amu\r.t.	base	file	ion range
X	GC	699	1	.17- 32.01	46037.0	>G1590	35.00- 300.00

:RU,MSH

MS data file header from : >G1590::D7

Sample: 920046-09 CH#09 Operator: VOA7 REG. GRP. 2/08/92 13:02
Misc : ID#MS7 HALL NUS E-S-18 LOW SOIL 5.0G+Q1-18 LH
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7C Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	3.0	30.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	1.0	0.0

:RU,INT,,5,,-1

>G1590 920046-09 CH#09 ID#MS7 HALL NUS E-S-18 LOW SOIL 5.0

35.0| 300.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 8 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR75 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	.62	8	11	27	26884	205269	179599	21.55	4.788
2	2.08	30	43	58	1793	139976	73561*	8.83	1.961
3	9.20	190	199	216	26233	434035	397474	47.70	10.597
4	11.98	250	260	279	26671	416441	383041	45.97	10.212
5	19.50	416	425	438	42442	666247	604942	72.60	16.129
6	23.20	499	506	516	42123	769724	611663	73.40	16.308
7	24.43	526	533	545	41244	916622	667174	80.06	17.788
8	28.72	617	627	645	35467	1471118	833297	100.00	22.217

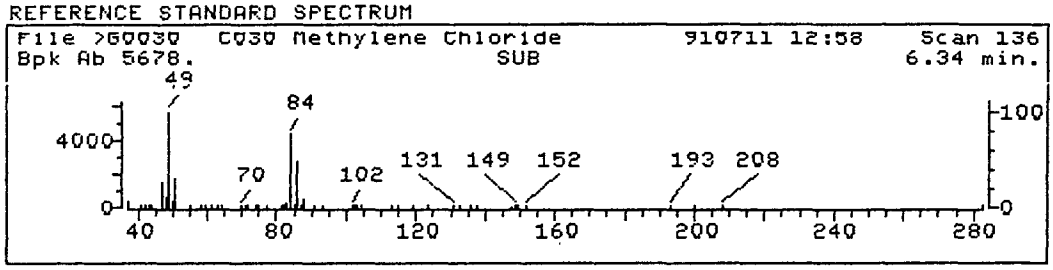
Sum of corrected areas: 3750751.

:RU,AL,,1,1

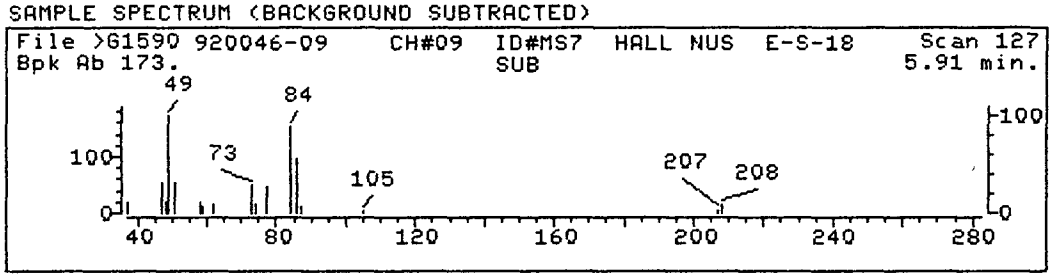
(0) TIC
LH

proj # 3196

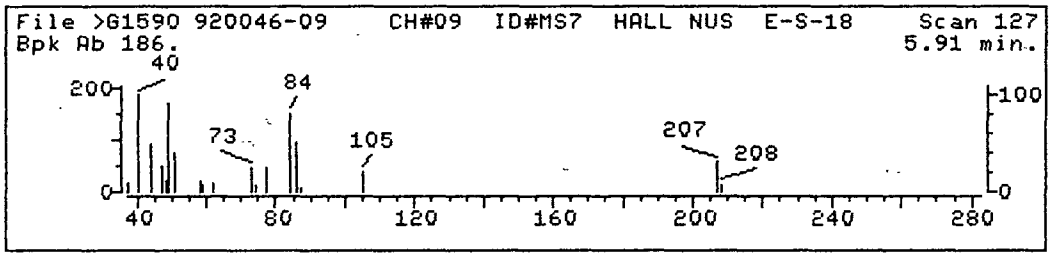
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

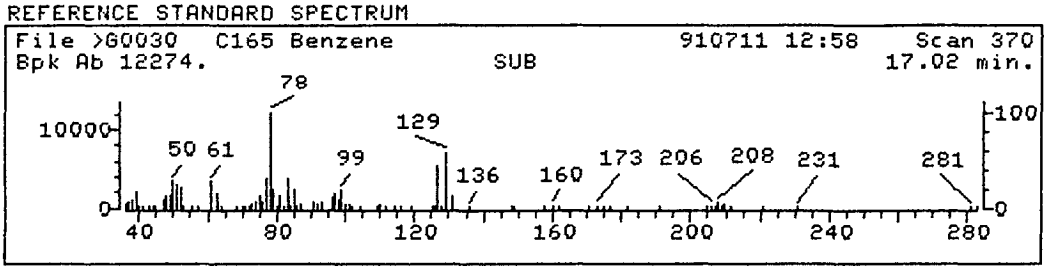


Data File: >G1590::D7 Quant Output File: ^G1590::QT
Name: 920046-09 CH#09 Instrument ID: MS7
Misc: ID#MS7 HALL NUS E-S-18 LOW SOIL 5.0G+Q1-18 LH
Quant Time: 920208 13:43 Quant ID File: V7ID::SC
Injected at: 920208 13:02 Last Calibration: 910703 01:53
Last Qcal Time: 920208 09:31

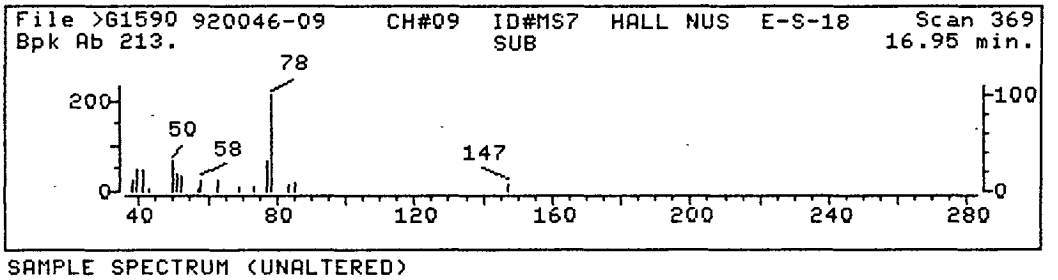
Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 127
Retention Time: 5.91 min.
Quant Ion : 84.0
Area : 2406
Concentration : 1.82 UG/L
q-value : 75

proj #3196

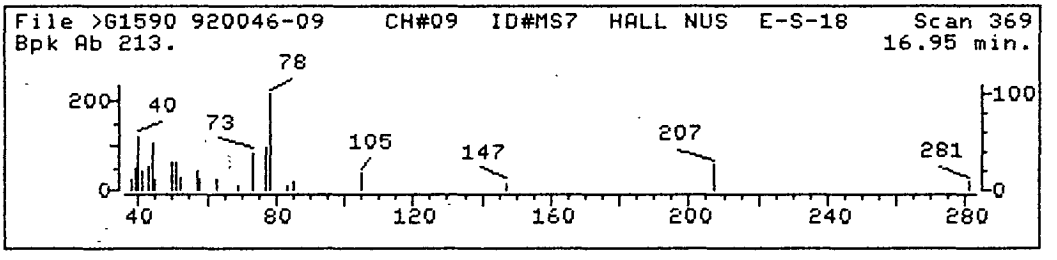
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >G1590::D7
Name: 920046-09 CH#09
Misc: ID#MS7 HALL NUS E-S-18
Quant Time: 920208 13:43
Injected at: 920208 13:02
Last Qcal Time: 920208 09:31

Quant Output File: ^G1590::QT
Instrument ID: MS7
LOW SOIL 5.0G+Q1-18 LH
Quant ID File: V7ID::SC
Last Calibration: 910703 01:53

Compound No : 25
Compound Name : C165 Benzene
Scan Number : 369
Retention Time: 16.95 min.
Quant Ion : 78.0
Area : 3220
Concentration : 1.00 UG/L
q-value : 100

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E-TB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1554

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. ____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E-TB-02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: 920046-12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1554

Level: (low/med) LOW Date Received: 02/04/92

% Moisture: not dec. ____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

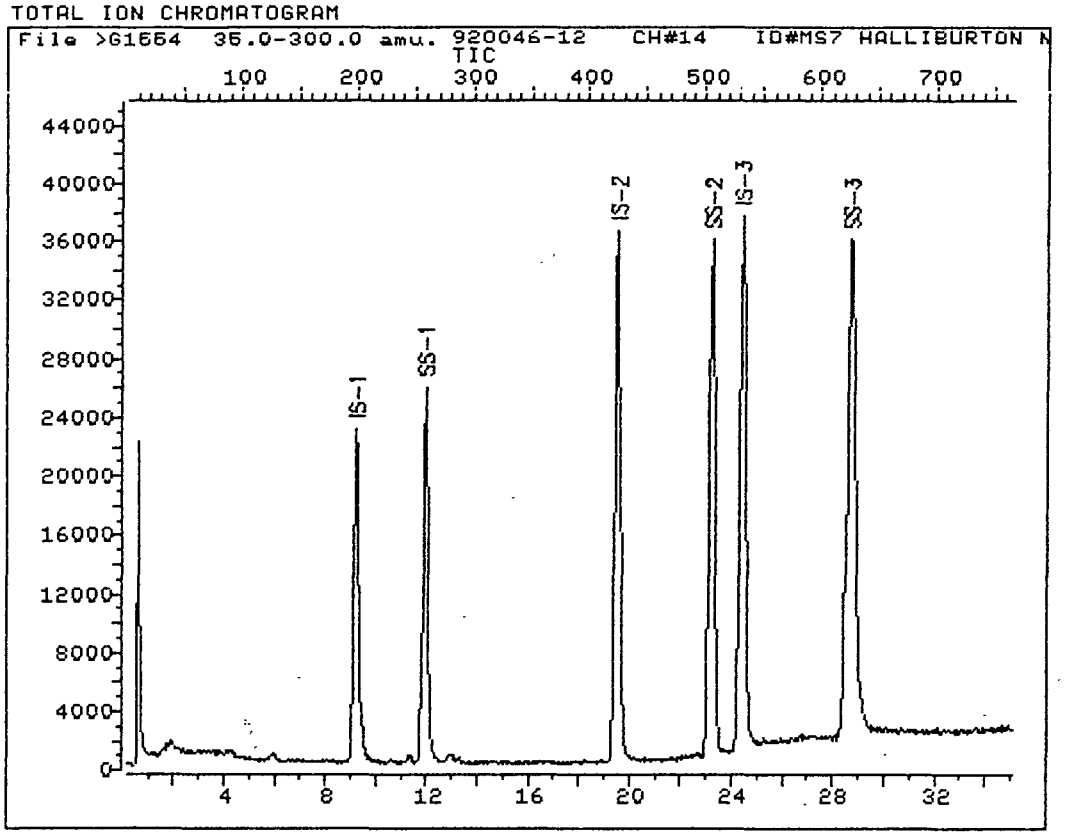
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >G1554::D7 Quant Output File: ^G1554::QT
Name: 920046-12 CH#14 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-TB-02 LOW WATER 5.0ML+QC 1

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920204 09:52

Operator ID: VOA7
Quant Time : 920204 16:00
Injected at: 920204 15:22

proj # 3196

CB

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920204 16:00
Output File: ^G1554::QT Injected at: 920204 15:22
Data File: >G1554::D7 Dilution Factor: 1.00000
Name: 920046-12 CH#14 Instrument ID: MS7
Misc: ID#MS7 HALLIBURTON NUS E-TB-02 LOW WATER 5.0ML+QC 1

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920204 09:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	47648	50.00	UG/L	79
13)	CS15 1,2-Dichloroethane-d4	11.93	65.0	144181	50.42	UG/L 101%	84
16)	*CI10 1,4-Difluorobenzene	19.50	114.0	191371	50.00	UG/L	91
28)	*CI20 Chlorobenzene-d5	24.38	117.0	164118	50.00	UG/L	96
34)	CS05 Toluene d-8	23.19	98.0	179991	49.91	UG/L 100%	99
39)	CS10 Bromofluorobenzene	28.67	95.0	142756	52.32	UG/L 105%	92

* Compound is ISTD

proj # 3126

276

:RU,FI,>G1554
:RU,EC,,,0:32

reg	type	# pts	scan#	range: amu\r.t.	base	file	ion range
X	GC	699	1	.17- 32.00	37819.0	>G1554	35.00- 300.00

:RU,MSH

MS data file header from : >G1554::D7

Sample: 920046-12 CH#14 Operator: VOA7 REG. GRP. 2/04/92 15:22
Misc : ID#MS7 HALLIBURTON NUS E-TB-02 LOW WATER 5.0ML+QC 1
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7B Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	3.0	24.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

:RU,INT,,5,,-1

>G1554 920046-12 CH#14 ID#MS7 HALLIBURTON NUS E-TB-02 LOW WA

35.0| 300.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 7 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR75 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	.58	7	10	20	21992	152355	141511	17.72	4.433
2	9.20	192	199	218	22657	375060	335298	41.98	10.504
3	11.93	251	259	274	25576	366307	334343*	41.86	10.474
4	19.50	418	425	439	36243	535551	502505	62.92	15.742
5	23.19	499	506	521	35160	567286	508036	63.61	15.916
6	24.38	524	532	549	36435	666385	571676	71.58	17.909
7	28.67	616	626	648	33703	1012376	798659	100.00	25.020

Sum of corrected areas: 3192028.

:RU,AL,,1,1

0 TZC
4H

proj # 3196

VOLATILES

c. STANDARDS DATA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Instrument ID: MS3 Calibration Date(s): 02/01/92 02/01/92

Heated Purge: (Y/N): N Calibration Times: 0944 1817

GC Column: DB-624 ID: 0.530(mm)

LAB FILE ID: RRF10 = C9232 RRF20 = C9226
RRF50= C9224 RRF100= C9227 RRF200= C9228

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Chloromethane	0.770	0.664	0.683	0.813	0.836	0.753	10.2
Bromomethane *	1.527	1.559	1.647	1.825	1.825	1.677	8.5*
Vinyl Chloride *	0.932	0.912	0.922	1.056	1.078	0.980	8.2*
Chloroethane	0.533	0.526	0.588	0.649	0.672	0.594	11.1
Methylene Chloride	1.462	1.163	1.266	1.291	1.306	1.298	8.3
Acetone	0.113	0.100	0.164	0.119	0.110	0.121	20.6
Carbon Disulfide	2.596	2.624	3.050	3.060	3.198	2.906	9.5
1,1-Dichloroethene *	1.350	1.324	1.407	1.450	1.468	1.400	4.4*
1,1-Dichloroethane *	2.691	2.502	2.689	2.687	2.678	2.649	3.1*
1,2-Dichloroethene (total)	1.277	1.351	1.553	1.502	1.534	1.443	8.5
Chloroform *	3.923	3.821	4.037	3.919	3.860	3.912	2.1*
1,2-Dichloroethane *	1.893	2.003	2.354	2.194	2.135	2.116	8.4*
2-Butanone	0.211	0.169	0.229	0.171	0.161	0.188	15.9
1,1,1-Trichloroethane *	0.825	0.931	1.083	0.986	0.978	0.961	9.8*
Carbon Tetrachloride *	0.848	0.894	1.106	1.030	1.038	0.983	11.0*
Bromodichloromethane *	0.888	0.986	1.224	1.081	1.072	1.050	11.9*
1,2-Dichloropropane	0.389	0.344	0.366	0.377	0.382	0.372	4.7
cis-1,3-Dichloropropene *	0.517	0.536	0.628	0.603	0.614	0.580	8.6*
Trichloroethene *	0.650	0.603	0.676	0.647	0.645	0.644	4.1*
Dibromochloromethane *	1.039	0.976	1.229	1.090	1.089	1.085	8.6*
1,1,2-Trichloroethane *	0.375	0.326	0.405	0.371	0.364	0.368	7.7*
Benzene *	0.733	0.774	0.855	0.824	0.869	0.811	7.0*
trans-1,3-Dichloropropene *	0.352	0.375	0.453	0.399	0.440	0.404	10.6*
Bromoform *	0.726	0.743	1.074	0.903	0.905	0.870	16.3*
4-Methyl-2-Pentanone	0.187	0.153	0.230	0.191	0.186	0.189	14.5
2-Hexanone	0.099	0.089	0.130	0.113	0.103	0.107	14.5
Tetrachloroethene *	0.789	0.725	0.788	0.775	0.754	0.766	3.5*
1,1,2,2-Tetrachloroethane *	0.493	0.412	0.557	0.514	0.492	0.494	10.7*
Toluene *	1.100	1.078	1.205	1.244	1.231	1.172	6.6*
Chlorobenzene *	1.135	1.028	1.145	1.165	1.132	1.121	4.8*
Ethylbenzene *	0.398	0.402	0.450	0.455	0.455	0.432	6.8*
Styrene *	0.793	0.820	1.001	0.989	1.011	0.923	11.6*
Xylene (total) *	0.521	0.559	0.632	0.596	0.600	0.582	7.3*
Toluene-d8	0.934	1.019	1.196	1.239	1.226	1.123	12.3
Bromofluorobenzene	0.807	0.879	1.022	1.035	1.034	0.955	11.1
1,2-Dichloroethane-d4	1.720	1.987	2.444	2.253	2.213	2.123	13.1

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Instrument ID: MS7 Calibration Date(s): 01/04/92 01/04/92

Heated Purge: (Y/N): N Calibration Times: 1125 1422

GC Column: SP-1000 ID: 2.50(mm)

LAB FILE ID: RRF10 = G1384 RRF20 = G1383
RRF50= G1382 RRF100= G1385 RRF200= G1386

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Chloromethane	0.470	0.432	0.411	0.366	0.332	0.402	13.5
Bromomethane *	1.554	1.643	1.566	1.546	1.730	1.608	4.9*
Vinyl Chloride *	0.818	0.888	0.799	0.759	0.925	0.838	8.1*
Chloroethane	0.541	0.540	0.507	0.455	0.501	0.509	6.9
Methylene Chloride	1.313	1.105	1.033	1.077	1.138	1.133	9.5
Acetone	0.523	0.533	0.489	0.509	0.512	0.513	3.2
Carbon Disulfide	2.623	2.429	2.358	2.306	2.547	2.453	5.4
1,1-Dichloroethene *	1.109	1.067	1.034	0.965	1.048	1.045	5.0*
1,1-Dichloroethane *	2.073	1.884	1.834	1.919	2.008	1.944	5.0*
1,2-Dichloroethene (total)	1.191	1.138	1.076	1.122	1.192	1.144	4.3
Chloroform *	3.755	3.534	3.348	3.540	3.626	3.561	4.2*
1,2-Dichloroethane *	3.305	2.982	2.759	3.144	3.121	3.062	6.7*
2-Butanone	0.947	0.793	0.690	0.788	0.782	0.800	11.6
1,1,1-Trichloroethane *	1.210	1.165	1.062	1.086	1.134	1.131	5.3*
Carbon Tetrachloride *	1.166	1.159	1.092	1.129	1.193	1.148	3.4*
Bromodichloromethane *	1.029	1.009	0.928	1.050	1.074	1.018	5.5*
1,2-Dichloropropane	0.336	0.311	0.278	0.320	0.326	0.314	7.1
cis-1,3-Dichloropropene *	0.655	0.637	0.583	0.680	0.699	0.651	6.9*
Trichloroethene *	0.484	0.485	0.435	0.451	0.477	0.466	4.8*
Dibromochloromethane *	0.965	0.973	0.921	1.078	1.113	1.010	8.1*
1,1,2-Trichloroethane *	0.425	0.410	0.370	0.423	0.428	0.411	5.8*
Benzene *	0.781	0.745	0.665	0.728	0.765	0.737	6.1*
trans-1,3-Dichloropropene *	0.674	0.700	0.627	0.746	0.780	0.705	8.5*
Bromoform *	0.880	0.894	0.825	1.016	1.060	0.935	10.6*
4-Methyl-2-Pentanone	0.595	0.596	0.519	0.559	0.560	0.566	5.6
2-Hexanone	0.500	0.450	0.382	0.408	0.429	0.434	10.3
Tetrachloroethene *	0.532	0.521	0.517	0.481	0.514	0.513	3.7*
1,1,2,2-Tetrachloroethane *	0.738	0.720	0.716	0.785	0.805	0.753	5.3*
Toluene *	1.121	1.079	1.013	1.000	1.043	1.051	4.7*
Chlorobenzene *	0.907	0.868	0.858	0.846	0.878	0.871	2.7*
Ethylbenzene *	0.450	0.417	0.387	0.382	0.406	0.408	6.7*
Styrene *	0.923	0.865	0.811	0.851	0.894	0.869	4.9*
Xylene (total) *	0.587	0.542	0.498	0.501	0.538	0.533	6.8*
Toluene-d8	1.129	1.082	1.110	1.021	1.060	1.080	3.9
Bromofluorobenzene	0.937	0.899	0.891	0.846	0.872	0.889	3.8
1,2-Dichloroethane-d4	3.868	3.507	3.305	3.606	3.612	3.580	5.7

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Instrument ID: MS7 Calibration Date(s): 01/11/92 01/11/92

Heated Purge: (Y/N): N Calibration Times: 1121 1642

GC Column: SP-1000 ID: 2.50(mm)

LAB FILE ID: RRF10 = G1413 RRF20 = G1408
RRF50= G1406 RRF100= G1412 RRF200= G1410

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Chloromethane	0.670	0.620	0.560	0.574	0.597	0.604	7.2
Bromomethane *	1.721	1.634	1.457	1.837	1.763	1.682	8.7*
Vinyl Chloride *	0.940	0.958	0.850	0.943	0.914	0.921	4.6*
Chloroethane	0.641	0.611	0.550	0.623	0.597	0.604	5.7
Methylene Chloride	1.421	1.442	1.102	1.185	1.158	1.262	12.5
Acetone	0.401	0.296	0.235	0.276	0.246	0.291	22.7
Carbon Disulfide	2.833	2.861	2.562	2.733	2.696	2.737	4.4
1,1-Dichloroethene *	1.308	1.400	1.147	1.254	1.214	1.265	7.6*
1,1-Dichloroethane *	2.357	2.354	2.081	2.257	2.260	2.262	5.0*
1,2-Dichloroethene (total)	1.452	1.402	1.224	1.334	1.310	1.344	6.5
Chloroform *	3.834	3.972	3.416	3.760	3.714	3.739	5.5*
1,2-Dichloroethane *	2.928	2.947	2.644	2.895	2.883	2.859	4.3*
2-Butanone	0.429	0.432	0.341	0.408	0.384	0.399	9.4
1,1,1-Trichloroethane *	1.126	1.103	1.274	1.070	1.047	1.124	7.9*
Carbon Tetrachloride *	1.084	1.146	1.042	1.128	1.129	1.106	3.8*
Bromodichloromethane *	1.008	0.991	0.914	0.987	0.989	0.978	3.7*
1,2-Dichloropropane	0.356	0.365	0.315	0.353	0.354	0.349	5.6
cis-1,3-Dichloropropene *	0.755	0.736	0.659	0.734	0.736	0.724	5.2*
Trichloroethene *	0.618	0.611	0.530	0.595	0.591	0.589	5.9*
Dibromochloromethane *	0.984	1.056	0.927	1.079	1.108	1.031	7.2*
1,1,2-Trichloroethane *	0.415	0.407	0.368	0.414	0.416	0.404	5.1*
Benzene *	0.887	0.847	0.760	0.840	0.836	0.834	5.5*
trans-1,3-Dichloropropene *	0.776	0.800	0.704	0.784	0.759	0.765	4.8*
Bromoform *	0.823	0.811	0.775	0.938	0.945	0.858	9.1*
4-Methyl-2-Pentanone	0.264	0.255	0.251	0.338	0.296	0.281	13.0
2-Hexanone	0.176	0.149	0.161	0.212	0.201	0.180	14.7
Tetrachloroethene *	0.705	0.655	0.574	0.637	0.613	0.637	7.6*
1,1,2,2-Tetrachloroethane *	0.578	0.548	0.515	0.644	0.606	0.578	8.7*
Toluene *	1.343	1.258	1.108	1.200	1.183	1.218	7.2*
Chlorobenzene *	1.216	1.114	0.980	1.089	1.065	1.093	7.8*
Ethylbenzene *	0.593	0.502	0.432	0.489	0.471	0.497	12.0*
Styrene *	1.248	1.111	0.936	1.074	1.027	1.079	10.6*
Xylene (total) *	0.758	0.659	0.558	0.649	0.614	0.648	11.3*
Toluene-d8	1.220	1.202	1.149	1.237	1.246	1.211	3.2
Bromofluorobenzene	0.899	0.831	0.778	0.876	0.845	0.846	5.5
1,2-Dichloroethane-d4	2.726	2.930	2.752	3.023	3.086	2.903	5.5

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: ID#MS3

Contractor: CEIMIC CORPORATION Calibration Date: 02/02/92

Contract No: V3COMA

MS 3
V3020292A

Minimum $\overline{RF}$ for SPCC is Maximum % RSD for CCC is %

Laboratory ID:	>C9232	>C9226	>C9224	>C9227	>C9228	>C9229				
	RF	RF	RF	RF	RF	RF				
Compound	10.00	20.00	50.00	100.00	200.00	400.00	$\overline{RF}$	% RSD	CCC	SPCC
C010 Chloromethane	.77012	.66368	.68258	.81303	.83629	.80999	.76261	9.540		
C015 Bromomethane	1.52661	1.55862	1.64744	1.82497	1.82518	1.76194	1.69079	7.821		
C020 Vinyl Chloride	.93158	.91163	.92186	1.05557	1.07814	1.07369	.99541	8.173		
C025 Chloroethane	.53335	.52605	.58850	.64911	.67214	.64310	.60204	10.371		
C030 Methylene Chloride	1.46147	1.16322	1.26617	1.29116	1.30611	1.20738	1.28259	8.012		
C035 Acetone	.11342	.09968	.16444	.11868	.11049	.10790	.11910	19.384		
C040 Carbon Disulfide	2.59563	2.62367	3.04982	3.05953	3.19791	3.11895	2.94092	8.913		
C045 1,1-Dichloroethene	1.34967	1.32362	1.40711	1.45008	1.46822	1.31911	1.38630	4.674		
C050 1,1-Dichloroethane	2.69126	2.50152	2.68927	2.68689	2.67746	2.39425	2.60677	4.901		
C053 1,2-Dichloroethene(total)	1.27714	1.35059	1.55325	1.50245	1.53426	1.48654	1.45071	7.651		
C060 Chloroform	3.92290	3.82079	4.03670	3.91938	3.85977	3.48867	3.84137	4.885		
CS15 1,2-Dichloroethane-d4	1.71972	1.98670	2.44351	2.25315	2.21281	2.09003	2.11766	11.756		
C065 1,2-Dichloroethane	1.89273	2.00330	2.35378	2.19426	2.13492	2.06792	2.10782	7.575		
C110 2-Butanone	.21066	.16911	.22938	.17121	.16127	.16889	.18509	15.077		
C115 1,1,1-Trichloroethane	.82543	.93068	1.08267	.98640	.97781	.95900	.96033	8.716		
C120 Carbon Tetrachloride	.84825	.89439	1.10623	1.02974	1.03781	.97323	.98161	9.821		
C130 Bromodichloromethane	.88756	.98555	1.22373	1.08106	1.07176	1.09976	1.05824	10.710		
C140 1,2-Dichloropropane	.38941	.34376	.36559	.37741	.38202	.36928	.37125	4.302		
C172 Trans-1,3-Dichloropropene	.35214	.37473	.45273	.39859	.44009	.48626	.41742	12.166		
C150 Trichloroethene	.65026	.60269	.67562	.64734	.64522	.60839	.63825	4.335		
C155 Dibromochloromethane	1.03894	.97576	1.22905	1.09044	1.08888	1.06216	1.08087	7.770		
C160 1,1,2-Trichloroethane	.37505	.32586	.40464	.37096	.36377	.36119	.36691	6.932		
C165 Benzene	.73337	.77378	.85532	.82422	.86852	.89524	.82508	7.425		
C143 cis-1,3-Dichloropropene	.51685	.53624	.62765	.60302	.61416	.66274	.59344	9.422		
C180 Bromoform	.72619	.74312	1.07401	.90286	.90503	.97406	.88755	15.090		
C210 2-Hexanone	.09884	.08926	.12957	.11324	.10269	.11159	.10753	12.936		
C205 4-Methyl-2-Pentanone	.18749	.15339	.23002	.19134	.18644	.18786	.18942	12.856		
C220 Tetrachloroethene	.78902	.72522	.78821	.77466	.75384	.70727	.75637	4.504		
C225 1,1,2,2-Tetrachloroethane	.49278	.41184	.55672	.51449	.49159	.54562	.50217	10.299		
C230 Toluene	1.10047	1.07839	1.20494	1.24363	1.23141	1.29094	1.19163	7.067		
CS05 Toluene d-8	.93355	1.01934	1.19643	1.23860	1.22549	1.25050	1.14399	11.696		
C235 Chlorobenzene	1.13498	1.02768	1.14494	1.16540	1.13202	1.10001	1.11751	4.372		

Calfile=V3COMA
low water
operator LH 2/02/9

(Conc=20.0,40.0,100.0,200

(Conc=4.00,8.00,20.0,40.0

(Conc=16.0,32.0,80.0,160.

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial calibration raw data

10 — 400 ug/L per analyte

1200 ug/L per Total Xylene

~~case#~~ 3916

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: ID#MS3

Contractor: CEIMIC CORPORATION Calibration Date: 02/02/92

Contract No: V3COMA

Minimum $\overline{RF}$ for SPCC is Maximum % RSD for CCC is %

Laboratory ID:	>C9232	>C9226	>C9224	>C9227	>C9228	>C9229				
	RF	RF	RF	RF	RF	RF				
Compound	10.00	20.00	50.00	100.00	200.00	400.00	$\overline{RF}$	% RSD	CCC	SPCC
C240 Ethylbenzene	.39796	.40164	.45014	.45486	.45539	.47539	.43923	7.234		
C245 Styrene	.79324	.81959	1.00129	.98859	1.01106	1.03247	.94104	11.221		
C250 Total Xylenes	.52146	.55946	.63224	.59620	.60025	.60062	.58504	6.631		
CS10 Bromofluorobenzene	.80745	.87901	1.02230	1.03514	1.03386	1.01861	.96606	10.145		

RF - Response Factor (Subscript is amount in UG/L)

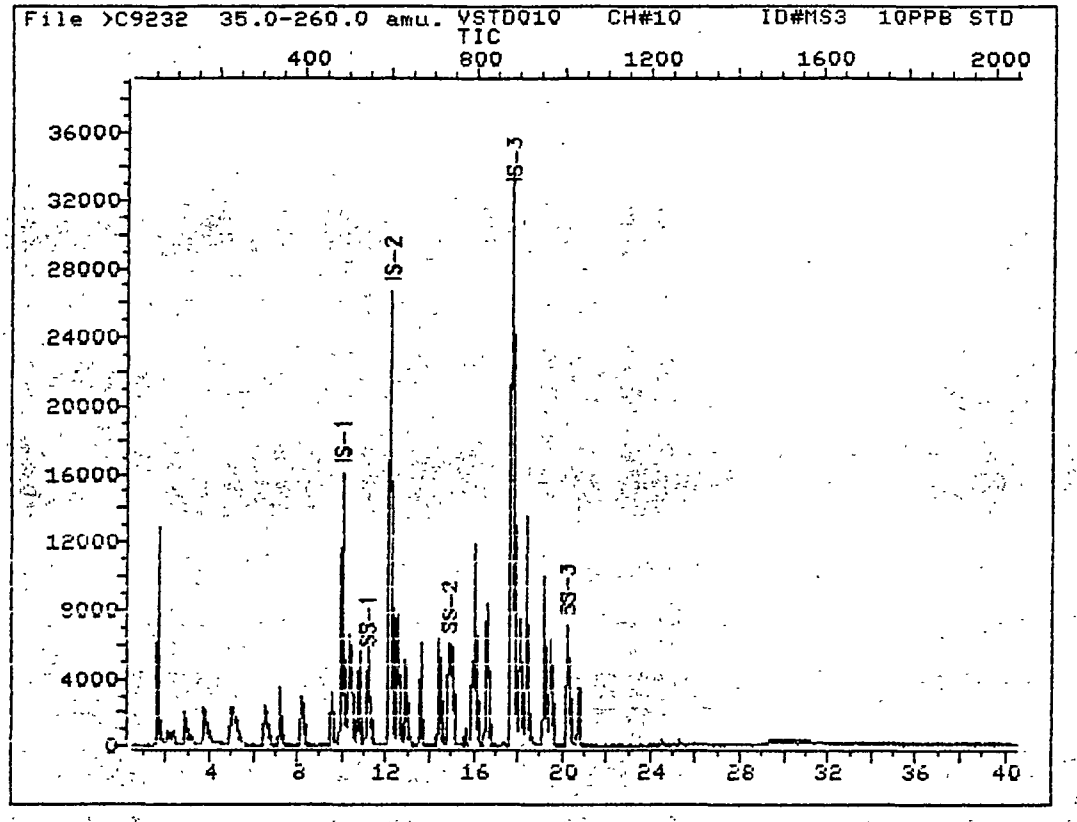
$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Case#

TOTAL ION CHROMATOGRAM



Data File: >C9232::D5 Quant Output File: ^C9232::QT
Name: VSTD010 CH#10 Instrument ID: MS3
Misc: ID#MS3 10PPB STD LOW WATER 5.0ML+IS LH

Id File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

Operator ID: VOA2
Quant Time : 920201 18:58
Injected at: 920201 18:17

3916

case# ~~3196~~ 4

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920201 18:58
Output File: ^C9232::QT Injected at: 920201 18:17
Data File: >C9232::D5 Dilution Factor: 1.00000
Name: VSTD010 CH#10 Instrument ID: MS3
Misc: ID#MS3 10PPB STD LOW WATER 5.0ML+IS LH

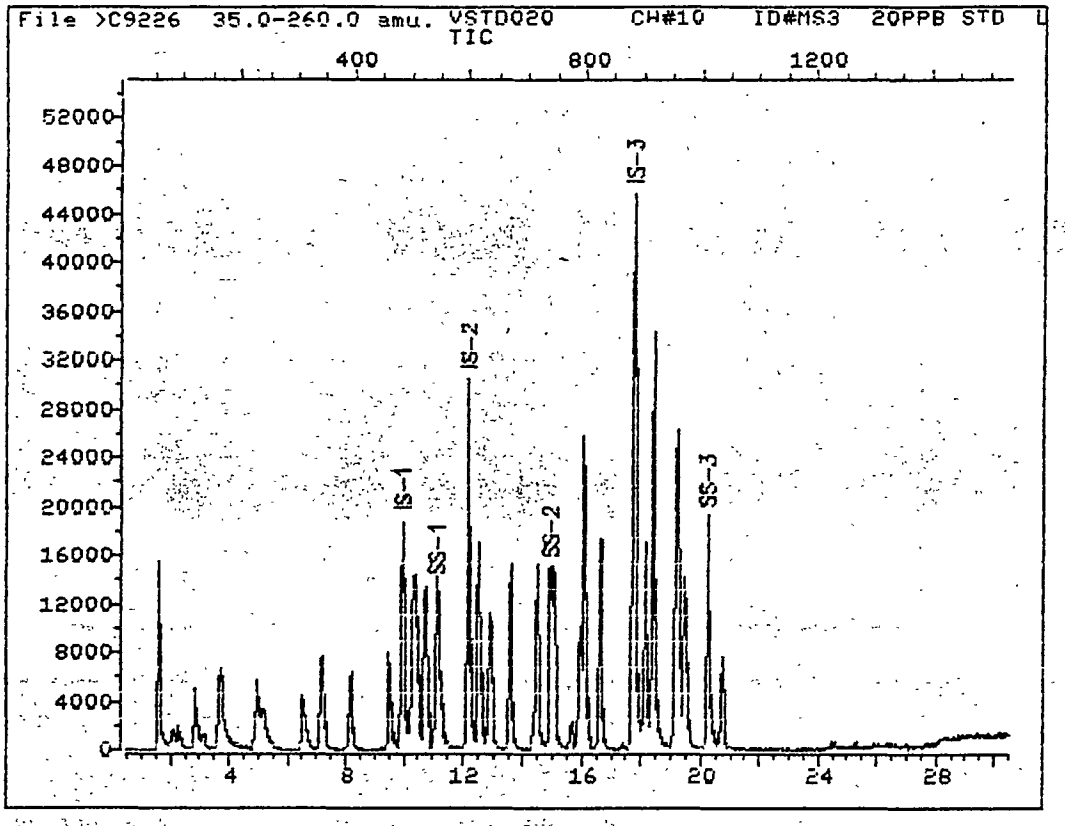
ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.95	128.0	21646	50.00	UG/L	78
2)	C010 Chloromethane	2.10	50.0	3334	11.28	UG/L	99
3)	C015 Bromomethane	2.86	94.0	6609	9.27	UG/L	84
4)	C020 Vinyl Chloride	2.27	62.0	4033	10.11	UG/L	96
5)	C025 Chloroethane	3.11	64.0	2309	9.06	UG/L	96
6)	C030 Methylene Chloride	6.53	84.0	6327	11.54	UG/L	78
7)	C035 Acetone	5.48	43.0	491M	6.90	UG/L	
8)	C040 Carbon Disulfide	5.24	76.0	11237	8.51	UG/L	97
9)	C045 1,1-Dichloroethene	5.01	96.0	5843	9.59	UG/L	91
10)	C050 1,1-Dichloroethane	8.17	63.0	11651	10.01	UG/L	95
11)	C053 1,2-Dichloroethene(total)	9.50	96.0	11058M	32.95	UG/L	91
12)	C060 Chloroform	10.28	83.0	16983	9.72	UG/L	94
13)	CS15 1,2-Dichloroethane-d4	11.10	65.0	7445	7.04	UG/L	92
14)	C065 1,2-Dichloroethane	11.25	62.0	8194	8.04	UG/L	91
15)	C110 2-Butanone	9.71	43.0	912M	9.18	UG/L	
16)	*CI10 1,4-Difluorobenzene	12.15	114.0	82175	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.41	97.0	13566M	14.74	UG/L	
18)	C120 Carbon Tetrachloride	10.71	117.0	13941	7.67	UG/L	87
19)	C130 Bromodichloromethane	13.54	83.0	14587	7.25	UG/L	97
20)	C140 1,2-Dichloropropane	12.88	63.0	6400	10.65	UG/L	93
21)	C172 Trans-1,3-Dichloropropene	15.57	75.0	2315	2.96	UG/L	99
22)	C150 Trichloroethene	12.48	130.0	10687	9.62	UG/L	95
23)	C155 Dibromochloromethane	16.57	129.0	17075	8.45	UG/L	87
24)	C160 1,1,2-Trichloroethane	15.88	97.0	6164	9.27	UG/L	92
25)	C165 Benzene	11.14	78.0	12053	8.57	UG/L	100
26)	C143 cis-1,3-Dichloropropene	14.42	75.0	13591	13.34	UG/L	95
27)	C180 Bromoform	19.42	173.0	11935	6.76	UG/L	94
28)	*CI20 Chlorobenzene-d5	17.68	117.0	74618	50.00	UG/L	93
29)	C210 2-Hexanone	16.55	43.0	1475M	7.63	UG/L	
30)	C205 4-Methyl-2-Pentanone	14.89	43.0	2798M	5.35	UG/L	
31)	C220 Tetrachloroethene	16.02	164.0	11775	10.01	UG/L	97
32)	C225 1,1,2,2-Tetrachloroethane	20.69	83.0	7354	8.85	UG/L	90
33)	C230 Toluene	15.00	91.0	16423	9.13	UG/L	98
34)	CS05 Toluene d-8	14.87	98.0	13932	7.80	UG/L	85
35)	C235 Chlorobenzene	17.74	112.0	16938	9.91	UG/L	99
36)	C240 Ethylbenzene	18.07	106.0	5939	8.84	UG/L	91
37)	C245 Styrene	19.18	104.0	11838	7.92	UG/L	81
38)	C250 Total Xylenes	19.12	106.0	7782	8.25	UG/L	98
39)	CS10 Bromofluorobenzene	20.20	95.0	12050	7.90	UG/L	89

* Compound is ISTD

case# ~~3196~~ 3916

TOTAL ION CHROMATOGRAM



Data File: >C9226::D5 Quant Output File: ^C9226::QT
Name: VSTD020 CH#10 Instrument ID: MS3
Misc: ID#MS3 20PPB STD LOW WATER 5.0ML+IS LH

Id File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

Operator ID: VOA1
Quant Time : 920201 12:07
Injected at: 920201 11:05

case # 3916 ~~3196~~ LH

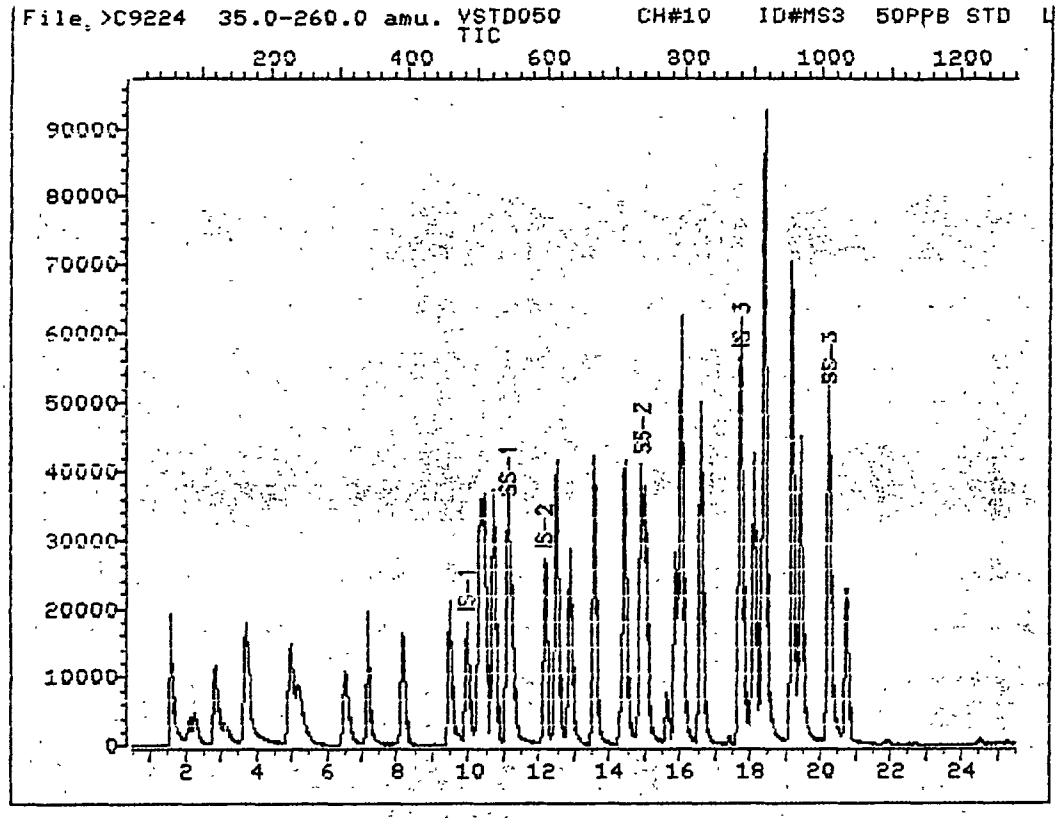
Operator ID: VOA1 Quant Rev: 7 Quant Time: 920201 12:07
Output File: ^C9226::QT Injected at: 920201 11:05
Data File: >C9226::D5 Dilution Factor: 1.00000
Name: VSTD020 CH#10 Instrument ID: MS3
Misc: ID#MS3 20PPB STD LOW WATER 5.0ML+IS LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.93	128.0	24703	50.00	UG/L	81
2)	C010 Chloromethane	2.10	50.0	6558	19.45	UG/L	91
3)	C015 Bromomethane	2.82	94.0	15401	18.92	UG/L	90
4)	C020 Vinyl Chloride	2.26	62.0	9008	19.78	UG/L	98
5)	C025 Chloroethane	3.08	64.0	5198	17.88	UG/L	99
6)	C030 Methylene Chloride	6.49	84.0	11494	18.37	UG/L	76
7)	C035 Acetone	5.42	43.0	985M	12.12	UG/L	
8)	C040 Carbon Disulfide	5.15	76.0	25925	17.21	UG/L	98
9)	C045 1,1-Dichloroethene	4.93	96.0	13079	18.81	UG/L	90
10)	C050 1,1-Dichloroethane	8.13	63.0	24718	18.60	UG/L	92
11)	C053 1,2-Dichloroethene(total)	9.48	96.0	26691M	69.70	UG/L	95
12)	C060 Chloroform	10.26	83.0	37754	18.93	UG/L	94
13)	CS15 1,2-Dichloroethane-d4	11.10	65.0	19631	16.26	UG/L	95
14)	C065 1,2-Dichloroethane	11.24	62.0	19795	17.02	UG/L	94
15)	C110 2-Butanone	9.71	43.0	1671M	14.74	UG/L	
16)	*CI10 1,4-Difluorobenzene	12.14	114.0	92717	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.40	97.0	34516M	33.23	UG/L	
18)	C120 Carbon Tetrachloride	10.73	117.0	33170	16.17	UG/L	85
19)	C130 Bromodichloromethane	13.54	83.0	36551	16.11	UG/L	91
20)	C140 1,2-Dichloropropane	12.88	63.0	12749	18.81	UG/L	92
21)	C172 Trans-1,3-Dichloropropene	15.59	75.0	5559	6.29	UG/L	99
22)	C150 Trichloroethene	12.49	130.0	22352	17.84	UG/L	96
23)	C155 Dibromochloromethane	16.57	129.0	36188	15.88	UG/L	88
24)	C160 1,1,2-Trichloroethane	15.89	97.0	12085	16.11	UG/L	88
25)	C165 Benzene	11.12	78.0	28697	18.09	UG/L	100
26)	C143 cis-1,3-Dichloropropene	14.44	75.0	31820	27.68	UG/L	98
27)	C180 Bromoform	19.42	173.0	27560	13.84	UG/L	96
28)	*CI20 Chlorobenzene-d5	17.70	117.0	87522	50.00	UG/L	98
29)	C210 2-Hexanone	16.57	43.0	3125M	13.78	UG/L	
30)	C205 4-Methyl-2-Pentanone	14.87	43.0	5370M	8.76	UG/L	
31)	C220 Tetrachloroethene	16.04	164.0	25389	18.40	UG/L	93
32)	C225 1,1,2,2-Tetrachloroethane	20.71	83.0	14418	14.80	UG/L	92
33)	C230 Toluene	15.01	91.0	37753	17.90	UG/L	94
34)	CS05 Toluene d-8	14.87	98.0	35686	17.04	UG/L	92
35)	C235 Chlorobenzene	17.74	112.0	35978	17.95	UG/L	98
36)	C240 Ethylbenzene	18.09	106.0	14061	17.85	UG/L	97
37)	C245 Styrene	19.21	104.0	28693	16.37	UG/L	87
38)	C250 Total Xylenes	19.15	106.0	19586	17.70	UG/L	97
39)	CS10 Bromofluorobenzene	20.20	95.0	30773	17.20	UG/L	88

* Compound is ISTD

3916
CMC# ~~3196~~ 44



Data File: >C9224::D5 Quant Output File: ^C9224::QT
Name: VSTD050 CH#10 Instrument ID: MS3
Misc: ID#MS3 50PPB STD LOW WATER 5.0ML+IS LH

Id File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920131 09:36

Operator ID: VOA2
Quant Time : 920201 10:10
Injected at: 920201 09:44

case# ~~3196~~ 3914 CH

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920201 10:10
Output File: ^C9224::QT Injected at: 920201 09:44
Data File: >C9224::D5 Dilution Factor: 1.00000
Name: VSTD050 CH#10 Instrument ID: MS3
Misc: ID#MS3 50PPB STD LOW WATER 5.0ML+IS LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920131 09:36

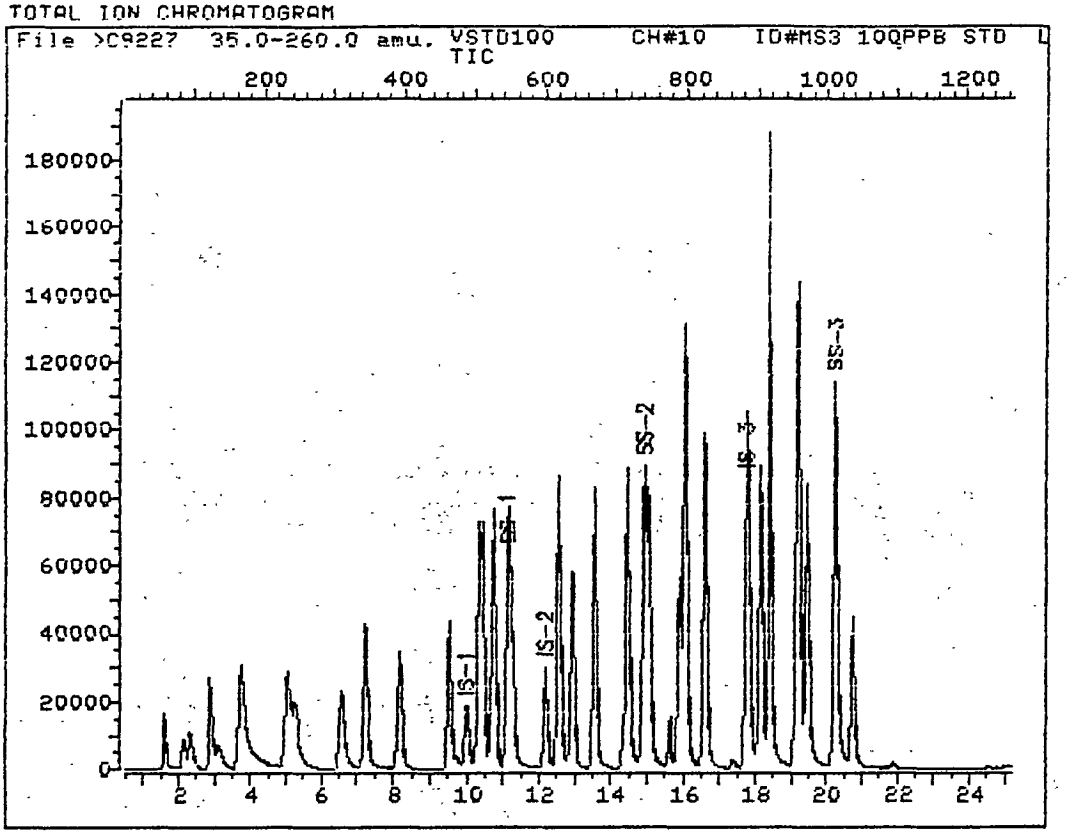
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.93	128.0	23023	50.00	UG/L	93
2)	C010 Chloromethane	2.09	50.0	15715	67.67	UG/L	91
3)	C015 Bromomethane	2.84	94.0	37929	70.81	UG/L	84
4)	C020 Vinyl Chloride	2.27	62.0	21224	70.23	UG/L	96
5)	C025 Chloroethane	3.13	64.0	13549	67.96	UG/L	96
6)	C030 Methylene Chloride	6.51	84.0	29151	69.11	UG/L	81
7)	C035 Acetone	5.51	43.0	3786	30.80	UG/L	66
8)	C040 Carbon Disulfide	5.18	76.0	70216	74.10	UG/L	98
9)	C045 1,1-Dichloroethene	4.94	96.0	32396	61.06	UG/L	93
10)	C050 1,1-Dichloroethane	8.15	63.0	61915	78.79	UG/L	93
11)	C053 1,2-Dichloroethene(total)	9.48	96.0	71521M	155.02	UG/L	93
12)	C060 Chloroform	10.28	83.0	92937	75.71	UG/L	95
13)	CS15 1,2-Dichloroethane-d4	11.10	65.0	56257	63.08	UG/L	92
14)	C065 1,2-Dichloroethane	11.25	62.0	54191	72.53	UG/L	91
15)	C110 2-Butanone	9.71	43.0	5281	32.97	UG/L	89
16)	*CI10 1,4-Difluorobenzene	12.13	114.0	82174	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.39	97.0	88967M	96.65	UG/L	
18)	C120 Carbon Tetrachloride	10.71	117.0	90903	74.05	UG/L	91
19)	C130 Bromodichloromethane	13.54	83.0	100559	73.43	UG/L	94
20)	C140 1,2-Dichloropropane	12.88	63.0	30042	75.98	UG/L	95
21)	C172 Trans-1,3-Dichloropropene	15.59	75.0	14881	34.08	UG/L	98
22)	C150 Trichloroethene	12.50	130.0	55518	73.05	UG/L	96
23)	C155 Dibromochloromethane	16.59	129.0	100996	59.15	UG/L	86
24)	C160 1,1,2-Trichloroethane	15.89	97.0	33251	53.32	UG/L	92
25)	C165 Benzene	11.12	78.0	70285	71.99	UG/L	100
26)	C143 cis-1,3-Dichloropropene	14.44	75.0	82523	132.85	UG/L	95
27)	C180 Bromoform	19.44	173.0	88256	55.28	UG/L	97
28)	*CI20 Chlorobenzene-d5	17.70	117.0	78307	50.00	UG/L	94
29)	C210 2-Hexanone	16.57	43.0	10146	26.82	UG/L	92
30)	C205 4-Methyl-2-Pentanone	14.89	43.0	18012M	32.84	UG/L	
31)	C220 Tetrachloroethene	16.02	164.0	61722	67.36	UG/L	85
32)	C225 1,1,2,2-Tetrachloroethane	20.71	83.0	43595	39.75	UG/L	92
33)	C230 Toluene	15.01	91.0	94355	67.80	UG/L	96
34)	CS05 Toluene d-8	14.89	98.0	93689	58.91	UG/L	93
35)	C235 Chlorobenzene	17.74	112.0	89657	65.86	UG/L	97
36)	C240 Ethylbenzene	18.09	106.0	35249	68.83	UG/L	99
37)	C245 Styrene	19.19	104.0	78408	68.14	UG/L	81
38)	C250 Total Xylenes	19.13	106.0	49509	72.03	UG/L	96
39)	CS10 Bromofluorobenzene	20.22	95.0	80053	58.64	UG/L	97

* Compound is ISTD

289

Case # ~~3196~~ 41
3916

TOTAL ION CHROMATOGRAM



Data File: >C9227::D5 Quant Output File: ^C9227::QT
Name: VSTD100 CH#10 Instrument ID: MS3
Misc: ID#MS3 100PPB STD LOW WATER 5.0ML+IS LH

Id File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

Operator ID: VOA2
Quant Time : 920201 12:12
Injected at: 920201 11:41

case# 3916 ~~3196~~ 44

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920201 12:12
Output File: ^C9227::QT Injected at: 920201 11:41
Data File: >C9227::D5 Dilution Factor: 1.00000
Name: VSTD100 CH#10 Instrument ID: MS3
Misc: ID#MS3 100PPB STD LOW WATER 5.0ML+IS LH

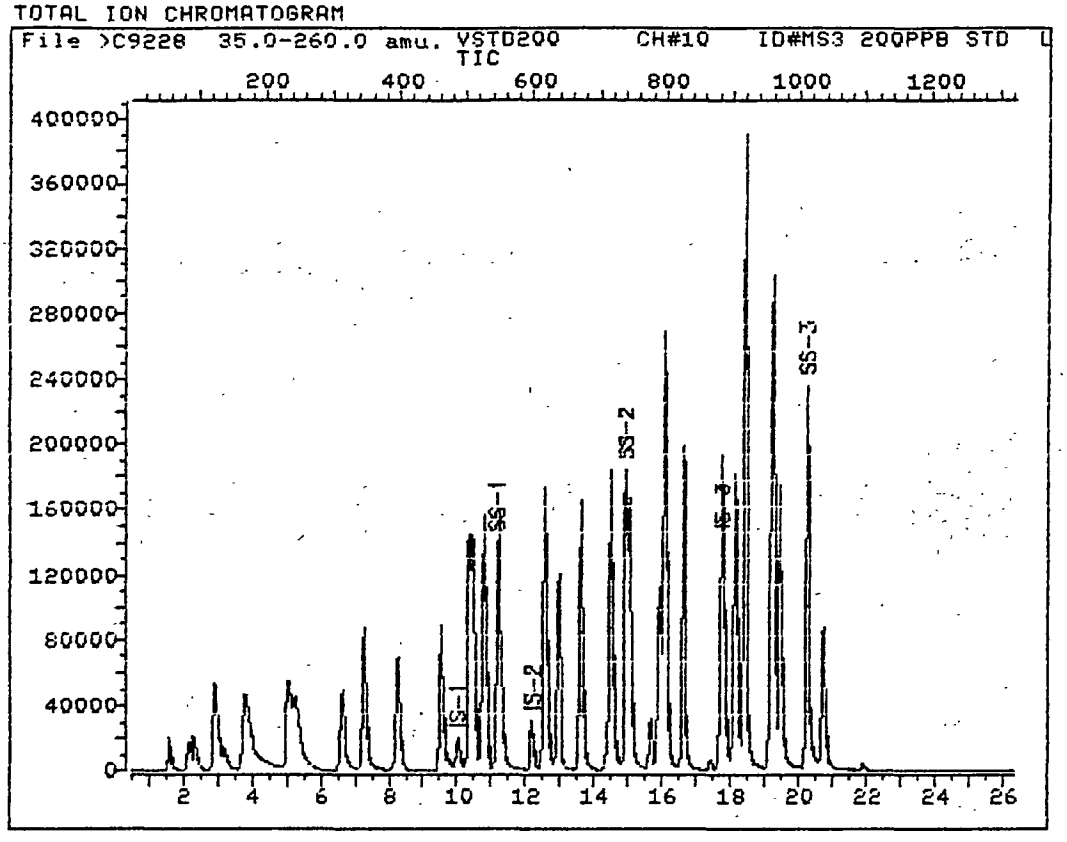
ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01	Bromochloromethane	9.95	128.0	24418	50.00	UG/L	86
2)	C010	Chloromethane	2.10	50.0	39705	119.11	UG/L	91
3)	C015	Bromomethane	2.84	94.0	89124	110.78	UG/L	89
4)	C020	Vinyl Chloride	2.29	62.0	51550	114.50	UG/L	98
5)	C025	Chloroethane	3.13	64.0	31700	110.30	UG/L	94
6)	C030	Methylene Chloride	6.53	84.0	63055	101.97	UG/L	82
7)	C035	Acetone	5.44	43.0	5796	72.17	UG/L	74
8)	C040	Carbon Disulfide	5.22	76.0	149415	100.32	UG/L	96
9)	C045	1,1-Dichloroethene	4.99	96.0	70816	103.05	UG/L	90
10)	C050	1,1-Dichloroethane	8.19	63.0	131217	99.91	UG/L	91
11)	C053	1,2-Dichloroethene(total)	9.50	96.0	146747M	387.68	UG/L	93
12)	C060	Chloroform	10.30	83.0	191407	97.09	UG/L	95
13)	CS15	1,2-Dichloroethane-d4	11.10	65.0	110035	92.21	UG/L	92
14)	C065	1,2-Dichloroethane	11.26	62.0	107159	93.22	UG/L	90
15)	C110	2-Butanone	9.74	43.0	8361	74.64	UG/L	85
16)	*CI10	1,4-Difluorobenzene	12.16	114.0	90862	50.00	UG/L	100
17)	C115	1,1,1-Trichloroethane	10.42	97.0	179252M	176.12	UG/L	
18)	C120	Carbon Tetrachloride	10.73	117.0	187129	93.09	UG/L	90
19)	C130	Bromodichloromethane	13.57	83.0	196454	88.34	UG/L	89
20)	C140	1,2-Dichloropropane	12.90	63.0	68584	103.23	UG/L	94
21)	C172	Trans-1,3-Dichloropropene	15.60	75.0	28973	33.46	UG/L	95
22)	C150	Trichloroethene	12.51	130.0	117638	95.82	UG/L	98
23)	C155	Dibromochloromethane	16.58	129.0	198160	88.72	UG/L	86
24)	C160	1,1,2-Trichloroethane	15.89	97.0	67413	91.68	UG/L	91
25)	C165	Benzene	11.16	78.0	149781	96.36	UG/L	100
26)	C143	cis-1,3-Dichloropropene	14.45	75.0	175333	155.64	UG/L	93
27)	C180	Bromoform	19.43	173.0	164071	84.06	UG/L	98
28)	*CI20	Chlorobenzene-d5	17.71	117.0	82394	50.00	UG/L	96
29)	C210	2-Hexanone	16.58	43.0	18661	87.40	UG/L	90
30)	C205	4-Methyl-2-Pentanone	14.90	43.0	31530M	54.64	UG/L	
31)	C220	Tetrachloroethene	16.05	164.0	127654	98.28	UG/L	94
32)	C225	1,1,2,2-Tetrachloroethane	20.70	83.0	84781	92.41	UG/L	92
33)	C230	Toluene	15.01	91.0	204935	103.21	UG/L	92
34)	CS05	Toluene d-8	14.90	98.0	204107	103.52	UG/L	92
35)	C235	Chlorobenzene	17.75	112.0	192044	101.79	UG/L	95
36)	C240	Ethylbenzene	18.10	106.0	74955	101.05	UG/L	96
37)	C245	Styrene	19.20	104.0	162907	98.73	UG/L	83
38)	C250	Total Xylenes	19.14	106.0	98247	94.30	UG/L	98
39)	CS10	Bromofluorobenzene	20.21	95.0	170579	101.26	UG/L	79

* Compound is ISTD

3916
case# ~~3196~~
4H

TOTAL ION CHROMATOGRAM



Data File: >C9228::D5 Quant Output File: ^C9228::QT
Name: VSTD200 CH#10 Instrument ID: MS3
Misc: ID#MS3 200PPB STD LOW WATER 5.0ML+IS LH

Id File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

Operator ID: VOA1
Quant Time : 920201 12:50
Injected at: 920201 12:22

3916
Case# ~~3196~~
4H

Operator ID: VOA1 Quant Rev: 7 Quant Time: 920201 12:50
Output File: ^C9228::QT Injected at: 920201 12:22
Data File: >C9228::D5 Dilution Factor: 1.00000
Name: VSTD200 CH#10 Instrument ID: MS3
Misc: ID#MS3 200PPB STD LOW WATER 5.0ML+IS LH

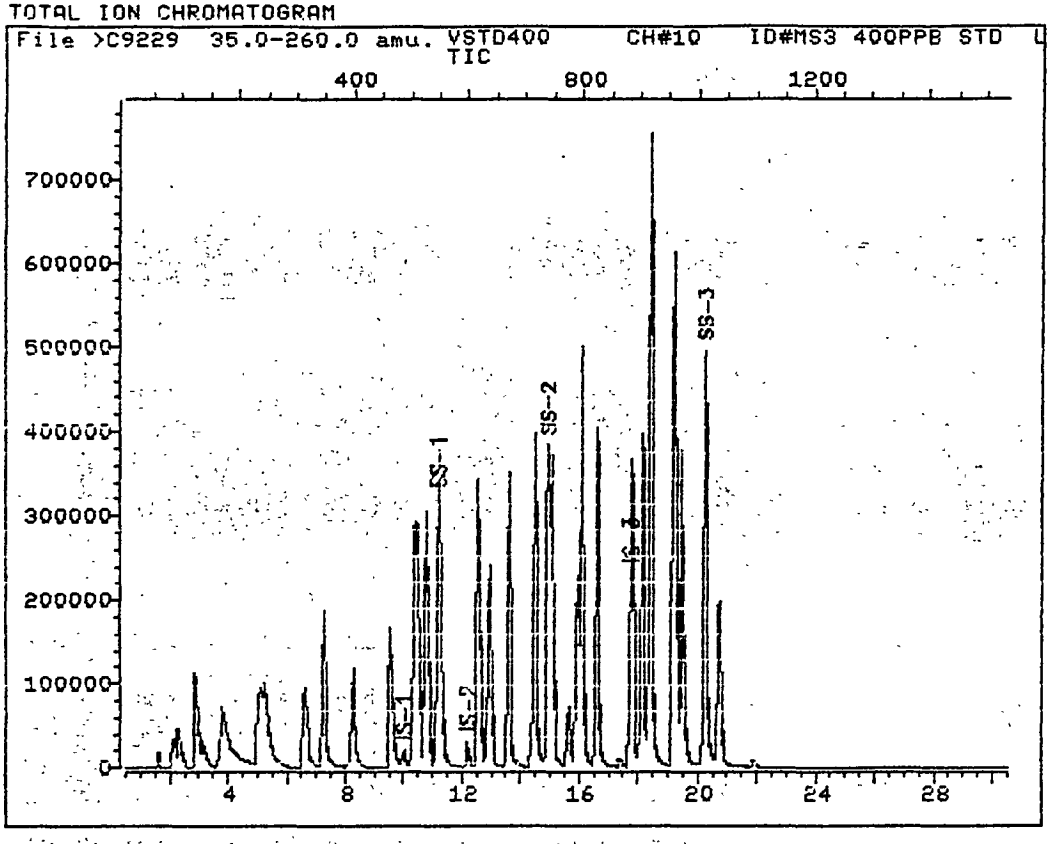
ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01	Bromochloromethane	9.99	128.0	24963	50.00	UG/L	80
2)	C010	Chloromethane	2.11	50.0	83505	245.04	UG/L	93
3)	C015	Bromomethane	2.87	94.0	182248	221.58	UG/L	86
4)	C020	Vinyl Chloride	2.29	62.0	107654	233.90	UG/L	97
5)	C025	Chloroethane	3.15	64.0	67115	228.43	UG/L	71
6)	C030	Methylene Chloride	6.59	84.0	130418	206.31	UG/L	78
7)	C035	Acetone	5.53	43.0	11033	134.38	UG/L	73
8)	C040	Carbon Disulfide	5.26	76.0	319318	209.71	UG/L	99
9)	C045	1,1-Dichloroethene	5.06	96.0	146605	208.69	UG/L	92
10)	C050	1,1-Dichloroethane	8.23	63.0	267350	199.12	UG/L	93
11)	C053	1,2-Dichloroethene(total)	9.54	96.0	306398M	791.78	UG/L	92
12)	C060	Chloroform	10.32	83.0	385406	191.23	UG/L	94
13)	CS15	1,2-Dichloroethane-d4	11.14	65.0	220954	181.12	UG/L	95
14)	C065	1,2-Dichloroethane	11.30	62.0	213176	181.40	UG/L	91
15)	C110	2-Butanone	9.75	43.0	16103	140.61	UG/L	89
16)	*CI10	1,4-Difluorobenzene	12.18	114.0	91764	50.00	UG/L	100
17)	C115	1,1,1-Trichloroethane	10.46	97.0	358912	349.17	UG/L	82
18)	C120	Carbon Tetrachloride	10.77	117.0	380936	187.63	UG/L	90
19)	C130	Bromodichloromethane	13.56	83.0	393396	175.16	UG/L	97
20)	C140	1,2-Dichloropropane	12.92	63.0	140223	208.99	UG/L	91
21)	C172	Trans-1,3-Dichloropropene	15.62	75.0	64615	73.88	UG/L	97
22)	C150	Trichloroethene	12.55	130.0	236833	191.00	UG/L	97
23)	C155	Dibromochloromethane	16.59	129.0	399681	177.19	UG/L	87
24)	C160	1,1,2-Trichloroethane	15.91	97.0	133523	179.80	UG/L	92
25)	C165	Benzene	11.18	78.0	318796	203.09	UG/L	100
26)	C143	cis-1,3-Dichloropropene	14.46	75.0	360688	317.03	UG/L	95
27)	C180	Bromoform	19.45	173.0	332196	168.53	UG/L	96
28)	*CI20	Chlorobenzene-d5	17.73	117.0	85949	50.00	UG/L	95
29)	C210	2-Hexanone	16.59	43.0	35303	158.51	UG/L	91
30)	C205	4-Methyl-2-Pentanone	14.91	43.0	64097M	106.48	UG/L	
31)	C220	Tetrachloroethene	16.07	164.0	259167	191.28	UG/L	81
32)	C225	1,1,2,2-Tetrachloroethane	20.72	83.0	169006	176.60	UG/L	91
33)	C230	Toluene	15.03	91.0	423355	204.39	UG/L	95
34)	CS05	Toluene d-8	14.91	98.0	421317	204.86	UG/L	91
35)	C235	Chlorobenzene	17.77	112.0	389185	197.74	UG/L	98
36)	C240	Ethylbenzene	18.12	106.0	156560	202.33	UG/L	95
37)	C245	Styrene	19.22	104.0	347599	201.95	UG/L	84
38)	C250	Total Xylenes	19.18	106.0	206365	189.88	UG/L	98
39)	CS10	Bromofluorobenzene	20.23	95.0	355436	202.26	UG/L	86

* Compound is ISTD

3914
case # ~~3196~~
4H

TOTAL ION CHROMATOGRAM



Data File: >C9229::D5 Quant Output File: ^C9229::QT
Name: VSTD400 CH#10 Instrument ID: MS3
Misc: ID#MS3 400PPB STD LOW WATER 5.0ML+IS LH

Id File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

Operator ID: VOA1
Quant Time : 920201 13:56
Injected at: 920201 12:57

case #

Operator ID: VOA1 Quant Rev: 7 Quant Time: 920201 13:56
Output File: ^C9229::QT Injected at: 920201 12:57
Data File: >C9229::D5 Dilution Factor: 1.00000
Name: VSTD400 CH#10 Instrument ID: MS3
Misc: ID#MS3 400PPB STD LOW WATER 5.0ML+IS LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920201 09:44

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01	Bromochloromethane	9.99	128.0	26930	50.00	UG/L	91
2)	C010	Chloromethane	2.12	50.0	174504	474.66	UG/L	88
3)	C015	Bromomethane	2.86	94.0	379592	427.80	UG/L	82
4)	C020	Vinyl Chloride	2.29	62.0	231315	465.88	UG/L	97
5)	C025	Chloroethane	3.13	64.0	138549	437.11	UG/L	81
6)	C030	Methylene Chloride	6.59	84.0	260118	381.43	UG/L	80
7)	C035	Acetone	5.56	43.0	23246	262.46	UG/L	71
8)	C040	Carbon Disulfide	5.25	76.0	671946	409.07	UG/L	99
9)	C045	1,1-Dichloroethene	5.09	96.0	284190	374.98	UG/L	90
10)	C050	1,1-Dichloroethane	8.22	63.0	515817	356.12	UG/L	93
11)	C053	1,2-Dichloroethene(total)	9.52	96.0	640519M	1534.30	UG/L	93
12)	C060	Chloroform	10.33	83.0	751599	345.70	UG/L	94
13)	CS15	1,2-Dichloroethane-d4	11.15	65.0	450276	342.14	UG/L	95
14)	C065	1,2-Dichloroethane	11.28	62.0	445513	351.42	UG/L	93
15)	C110	2-Butanone	9.76	43.0	36386	294.52	UG/L	94
16)	*CI10	1,4-Difluorobenzene	12.16	114.0	95709	50.00	UG/L	100
17)	C115	1,1,1-Trichloroethane	10.44	97.0	734278	684.89	UG/L	80
18)	C120	Carbon Tetrachloride	10.76	117.0	745176	351.91	UG/L	84
19)	C130	Bromodichloromethane	13.57	83.0	842053	359.48	UG/L	90
20)	C140	1,2-Dichloropropane	12.91	63.0	282746	404.04	UG/L	93
21)	C172	Trans-1,3-Dichloropropene	15.61	75.0	148927	163.26	UG/L	99
22)	C150	Trichloroethene	12.54	130.0	465826	360.20	UG/L	97
23)	C155	Dibromochloromethane	16.59	129.0	813263	345.68	UG/L	85
24)	C160	1,1,2-Trichloroethane	15.90	97.0	276556	357.05	UG/L	93
25)	C165	Benzene	11.17	78.0	685460	418.67	UG/L	100
26)	C143	cis-1,3-Dichloropropene	14.47	75.0	811902	684.22	UG/L	91
27)	C180	Bromoform	19.44	173.0	745807	362.77	UG/L	98
28)	*CI20	Chlorobenzene-d5	17.72	117.0	88779	50.00	UG/L	97
29)	C210	2-Hexanone	16.59	43.0	79255	344.50	UG/L	92
30)	C205	4-Methyl-2-Pentanone	14.90	43.0	133423M	214.58	UG/L	
31)	C220	Tetrachloroethene	16.06	164.0	502325	358.93	UG/L	75
32)	C225	1,1,2,2-Tetrachloroethane	20.72	83.0	387514	392.02	UG/L	92
33)	C230	Toluene	15.02	91.0	916864	428.55	UG/L	97
34)	CS05	Toluene d-8	14.90	98.0	888144	418.08	UG/L	96
35)	C235	Chlorobenzene	17.76	112.0	781262	384.30	UG/L	95
36)	C240	Ethylbenzene	18.11	106.0	337640	422.44	UG/L	98
37)	C245	Styrene	19.21	104.0	733291	412.45	UG/L	88
38)	C250	Total Xylenes	19.17	106.0	426579	379.99	UG/L	94
39)	CS10	Bromofluorobenzene	20.23	95.0	723447	398.56	UG/L	81

* Compound is ISTD

Chx#

Quant Output File: ^C9224::QT
From ID File: V3ID::SC
Quant Time: 920201 10:10

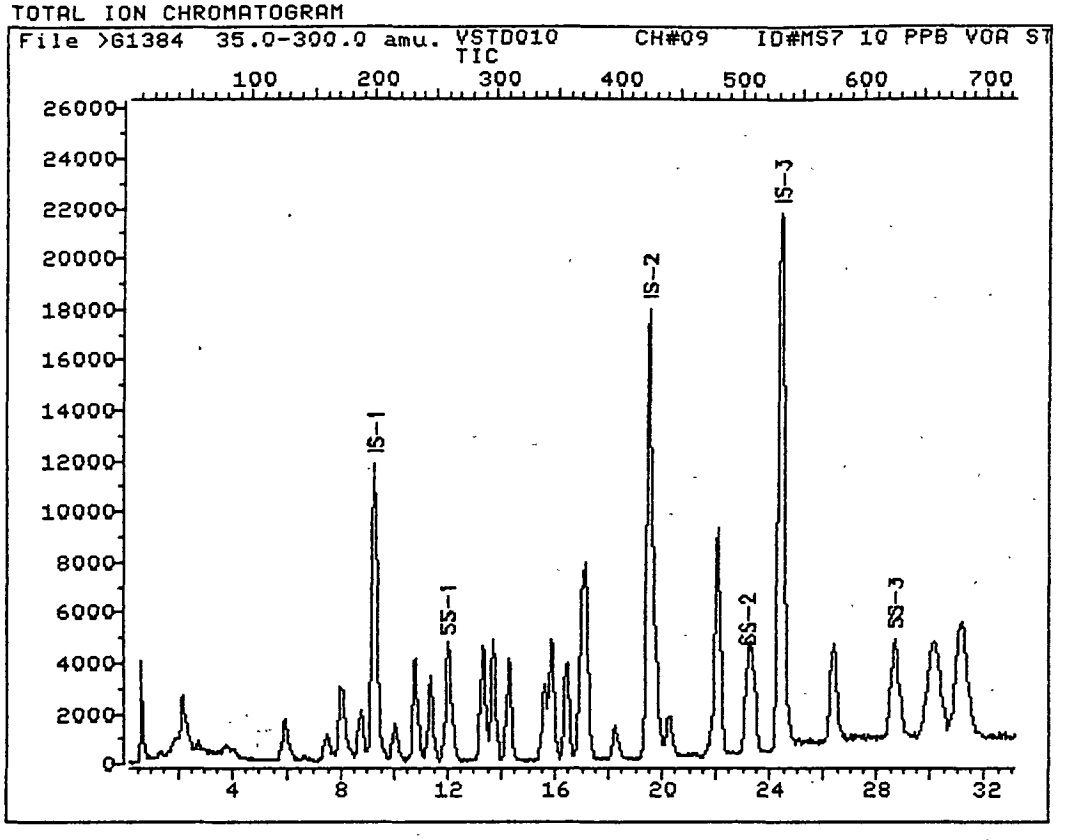
Quant ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3

Recalibrating.....

1)	CI01	Bromochloromethane	RT:	9.93	Scan: 484	(ISTD)
2)	C010	Chloromethane	RT:	2.09	Scan: 83	(New Rf = .68258)
3)	C015	Bromomethane	RT:	2.84	Scan: 121	(New Rf =1.64744)
4)	C020	Vinyl Chloride	RT:	2.27	Scan: 92	(New Rf = .92186)
5)	C025	Chloroethane	RT:	3.13	Scan: 136	(New Rf = .58850)
6)	C030	Methylene Chloride	RT:	6.51	Scan: 309	(New Rf =1.26617)
7)	C035	Acetone	RT:	5.51	Scan: 258	(New Rf = .16444)
8)	C040	Carbon Disulfide	RT:	5.18	Scan: 241	(New Rf =3.04982)
9)	C045	1,1-Dichloroethene	RT:	4.94	Scan: 229	(New Rf =1.40711)
10)	C050	1,1-Dichloroethane	RT:	8.15	Scan: 393	(New Rf =2.68927)
11)	C053	1,2-Dichloroethene(total)	RT:	9.48	Scan: 461	(New Rf = .77509)
12)	C060	Chloroform	RT:	10.28	Scan: 502	(New Rf =4.03670)
13)	CS15	1,2-Dichloroethane-d4	RT:	11.10	Scan: 544	(New Rf =2.44351)
14)	C065	1,2-Dichloroethane	RT:	11.25	Scan: 552	(New Rf =2.35378)
15)	C110	2-Butanone	RT:	9.71	Scan: 473	(New Rf = .22938)
16)	CI10	1,4-Difluorobenzene	RT:	12.13	Scan: 597	(ISTD)
18)	C120	Carbon Tetrachloride	RT:	10.71	Scan: 524	(New Rf =1.10623)
19)	C130	Bromodichloromethane	RT:	13.54	Scan: 669	(New Rf =1.22373)
20)	C140	1,2-Dichloropropane	RT:	12.88	Scan: 635	(New Rf = .36559)
21)	C172	Trans-1,3-Dichloropropene	RT:	15.59	Scan: 774	(New Rf = .47656)
22)	C150	Trichloroethene	RT:	12.50	Scan: 616	(New Rf = .67562)
23)	C155	Dibromochloromethane	RT:	16.59	Scan: 825	(New Rf =1.22905)
24)	C160	1,1,2-Trichloroethane	RT:	15.89	Scan: 789	(New Rf = .40464)
25)	C165	Benzene	RT:	11.12	Scan: 545	(New Rf = .85532)
26)	C143	cis-1,3-Dichloropropene	RT:	14.44	Scan: 715	(New Rf = .61991)
27)	C180	Bromoform	RT:	19.44	Scan: 971	(New Rf =1.07401)
28)	CI20	Chlorobenzene-d5	RT:	17.70	Scan: 882	(ISTD)
29)	C210	2-Hexanone	RT:	16.57	Scan: 824	(New Rf = .12957)
31)	C220	Tetrachloroethene	RT:	16.02	Scan: 796	(New Rf = .78821)
32)	C225	1,1,2,2-Tetrachloroethane	RT:	20.71	Scan: 1036	(New Rf = .55672)
33)	C230	Toluene	RT:	15.01	Scan: 744	(New Rf =1.20494)
34)	CS05	Toluene d-8	RT:	14.89	Scan: 738	(New Rf =1.19643)
35)	C235	Chlorobenzene	RT:	17.74	Scan: 884	(New Rf =1.14494)
36)	C240	Ethylbenzene	RT:	18.09	Scan: 902	(New Rf = .45014)
37)	C245	Styrene	RT:	19.19	Scan: 958	(New Rf =1.00129)
38)	C250	Total Xylenes	RT:	19.13	Scan: 955	(New Rf = .63224)
39)	CS10	Bromofluorobenzene	RT:	20.22	Scan: 1011	(New Rf =1.02230)

Done

TOTAL ION CHROMATOGRAM



Data File: >G1384::D7 Quant Output File: ^G1384::QT
Name: VSTD010 CH#09 Instrument ID: MS7
Misc: ID#MS7 10 PPB VOA STD LOW SOIL 5.0ML+10UL 1-6 JTH

Id File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920104 11:25

Operator ID: VOA7
Quant Time : 920104 13:29
Injected at: 920104 12:46

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297

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Operator ID: VOA7 Quant Rev: 7 Quant Time: 920104 13:29
Output File: ^G1384::QT Injected at: 920104 12:46
Data File: >G1384::D7 Dilution Factor: 1.00000
Name: VSTD010 CH#09 Instrument ID: MS7
Misc: ID#MS7 10 PPB VOA STD LOW SOIL 5.0ML+10UL 1-6 JTH

ID File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920104 11:25

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01	Bromochloromethane	9.24	128.0	22562	50.00	UG/L	86
2)	C010	Chloromethane	1.35	50.0	2119	11.42	UG/L	98
3)	C015	Bromomethane	2.18	94.0	7012	9.92	UG/L	79
4)	C020	Vinyl Chloride	2.72	62.0	3689	10.23	UG/L	89
5)	C025	Chloroethane	3.77	64.0	2439	10.66	UG/L	85
6)	C030	Methylene Chloride	5.91	84.0	5926	12.72	UG/L	91
7)	C035	Acetone	6.64	43.0	2360	10.69	UG/L	82
8)	C040	Carbon Disulfide	7.46	76.0	11834	11.12	UG/L	94
9)	C045	1,1-Dichloroethene	8.74	96.0	5003	10.72	UG/L	87
10)	C050	1,1-Dichloroethane	10.02	63.0	9354	11.30	UG/L	88
11)	C053	1,2-Dichloroethene(TOTAL)	10.75	96.0	10748	22.15	UG/L	98
12)	C060	Chloroform	11.34	83.0	16946	11.22	UG/L	97
13)	CS15	1,2-Dichloroethane-d4	11.98	65.0	17455	11.71	UG/L	80
14)	C065	1,2-Dichloroethane	12.07	62.0	14913	11.98	UG/L	92
15)	C110	2-Butanone	12.02	43.0	4275	13.74	UG/L	83
16)	*CI10	1,4-Difluorobenzene	19.50	114.0	84385	50.00	UG/L	86
17)	C115	1,1,1-Trichloroethane	13.30	97.0	20424M	11.40	UG/L	
18)	C120	Carbon Tetrachloride	13.71	117.0	19678	10.68	UG/L	98
19)	C130	Bromodichloromethane	14.26	83.0	17369	11.10	UG/L	95
20)	C140	1,2-Dichloropropane	15.58	63.0	5668M	12.07	UG/L	
21)	C172	Trans-1,3-Dichloropropene	17.17	75.0	4553M	1.16	UG/L	99
22)	C150	Trichloroethene	16.40	130.0	8173	11.13	UG/L	87
23)	C155	Dibromochloromethane	17.04	129.0	16281	10.48	UG/L	83
24)	C160	1,1,2-Trichloroethane	17.13	97.0	7174	11.49	UG/L	95
25)	C165	Benzene	16.90	78.0	13189	11.75	UG/L	100
26)	C143	cis-1,3-Dichloropropene	15.85	75.0	17690	17.99	UG/L	98
27)	C180	Bromoform	19.73	173.0	14856	10.67	UG/L	96
28)	*CI20	Chlorobenzene-d5	24.38	117.0	77577	50.00	UG/L	99
29)	C210	2-Hexanone	21.82	43.0	7759	13.11	UG/L	82
30)	C205	4-Methyl-2-Pentanone	20.23	43.0	9224	11.45	UG/L	75
31)	C220	Tetrachloroethene	22.05	164.0	8262	10.30	UG/L	88
32)	C225	1,1,2,2-Tetrachloroethane	22.01	83.0	11456M	10.32	UG/L	
33)	C230	Toluene	23.37	91.0	17399	11.07	UG/L	80
34)	CS05	Toluene d-8	23.15	98.0	17522	10.17	UG/L	98
35)	C235	Chlorobenzene	24.51	112.0	14065	10.57	UG/L	97
36)	C240	Ethylbenzene	26.38	106.0	6988	11.62	UG/L	92
37)	C245	Styrene	29.94	104.0	14321	11.38	UG/L	69
38)	C250	Total Xylenes	30.21	106.0	9111M	11.80	UG/L	72
39)	CS10	Bromofluorobenzene	28.66	95.0	14542	10.52	UG/L	73

* Compound is ISTD

3916

case# ~~3196~~ 41

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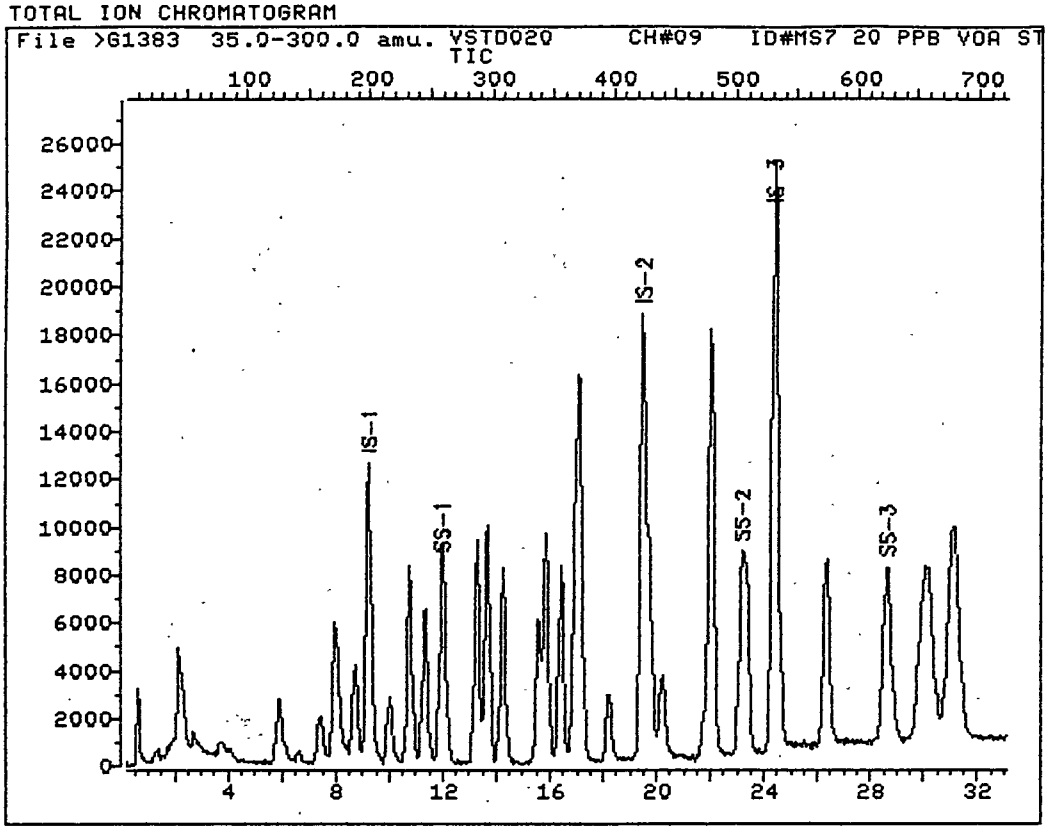
TOTAL ION CHROMATOGRAM



Data File: >G1383::D7 Quant Output File: ^G1383::QT
Name: VSTD020 CH#09 Instrument ID: MS7
Misc: ID#MS7 20 PPB VOA STD LOW SOIL 5.0ML+10UL 1-6 JTH

Id File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920104 11:25

Operator ID: VOA7
Quant Time : 920104 12:47
Injected at: 920104 12:05

3916
Case# ~~3196~~ 41

CB

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920104 12:47
Output File: ^G1383::QT Injected at: 920104 12:05
Data File: >G1383::D7 Dilution Factor: 1.00000
Name: VSTD020 CH#09 Instrument ID: MS7
Misc: ID#MS7 20 PPB VOA STD LOW SOIL 5.0ML+10UL 1-6 JTH

ID File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920104 11:25

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	24112	50.00	UG/L	83
2)	C010 Chloromethane	1.31	50.0	4168	21.02	UG/L	97
3)	C015 Bromomethane	2.13	94.0	15848	20.99	UG/L	83
4)	C020 Vinyl Chloride	2.73	62.0	8567	22.22	UG/L	91
5)	C025 Chloroethane	3.73	64.0	5213	21.31	UG/L	94
6)	C030 Methylene Chloride	5.92	84.0	10656	21.40	UG/L	87
7)	C035 Acetone	6.65	43.0	5142	21.80	UG/L	91
8)	C040 Carbon Disulfide	7.42	76.0	23429	20.60	UG/L	96
9)	C045 1,1-Dichloroethene	8.70	96.0	10294	20.64	UG/L	84
10)	C050 1,1-Dichloroethane	10.02	63.0	18170	20.54	UG/L	94
11)	C053 1,2-Dichloroethene(TOTAL)	10.75	96.0	21946	42.31	UG/L	95
12)	C060 Chloroform	11.34	83.0	34089	21.11	UG/L	99
13)	CS15 1,2-Dichloroethane-d4	11.94	65.0	33820	21.22	UG/L	80
14)	C065 1,2-Dichloroethane	12.07	62.0	28761	21.62	UG/L	91
15)	C110 2-Butanone	11.98	43.0	7651	23.00	UG/L	96
16)	*CI10 1,4-Difluorobenzene	19.47	114.0	86773	50.00	UG/L	89
17)	C115 1,1,1-Trichloroethane	13.27	97.0	40421M	21.94	UG/L	
18)	C120 Carbon Tetrachloride	13.68	117.0	40235	21.24	UG/L	96
19)	C130 Bromodichloromethane	14.22	83.0	35036	21.77	UG/L	99
20)	C140 1,2-Dichloropropane	15.55	63.0	10795M	22.36	UG/L	
21)	C172 Trans-1,3-Dichloropropene	17.14	75.0	9718M	2.40	UG/L	98
22)	C150 Trichloroethene	16.41	130.0	16819	22.27	UG/L	90
23)	C155 Dibromochloromethane	17.00	129.0	33767	21.13	UG/L	84
24)	C160 1,1,2-Trichloroethane	17.14	97.0	14231	22.17	UG/L	94
25)	C165 Benzene	16.91	78.0	25868	22.41	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.86	75.0	35352	34.96	UG/L	99
27)	C180 Bromoform	19.74	173.0	31037	21.68	UG/L	98
28)	*CI20 Chlorobenzene-d5	24.35	117.0	80464	50.00	UG/L	96
29)	C210 2-Hexanone	21.79	43.0	14482	23.59	UG/L	77
30)	C205 4-Methyl-2-Pentanone	20.20	43.0	19190	22.97	UG/L	69
31)	C220 Tetrachloroethene	22.02	164.0	16767	20.14	UG/L	87
32)	C225 1,1,2,2-Tetrachloroethane	22.02	83.0	23180M	20.13	UG/L	
33)	C230 Toluene	23.34	91.0	34726	21.31	UG/L	82
34)	CS05 Toluene d-8	23.16	98.0	34827	19.49	UG/L	94
35)	C235 Chlorobenzene	24.48	112.0	27949	20.25	UG/L	97
36)	C240 Ethylbenzene	26.35	106.0	13421	21.52	UG/L	94
37)	C245 Styrene	29.96	104.0	27830	21.33	UG/L	67
38)	C250 Total Xylenes	30.18	106.0	17450M	21.79	UG/L	70
39)	CS10 Bromofluorobenzene	28.63	95.0	28932	20.18	UG/L	89

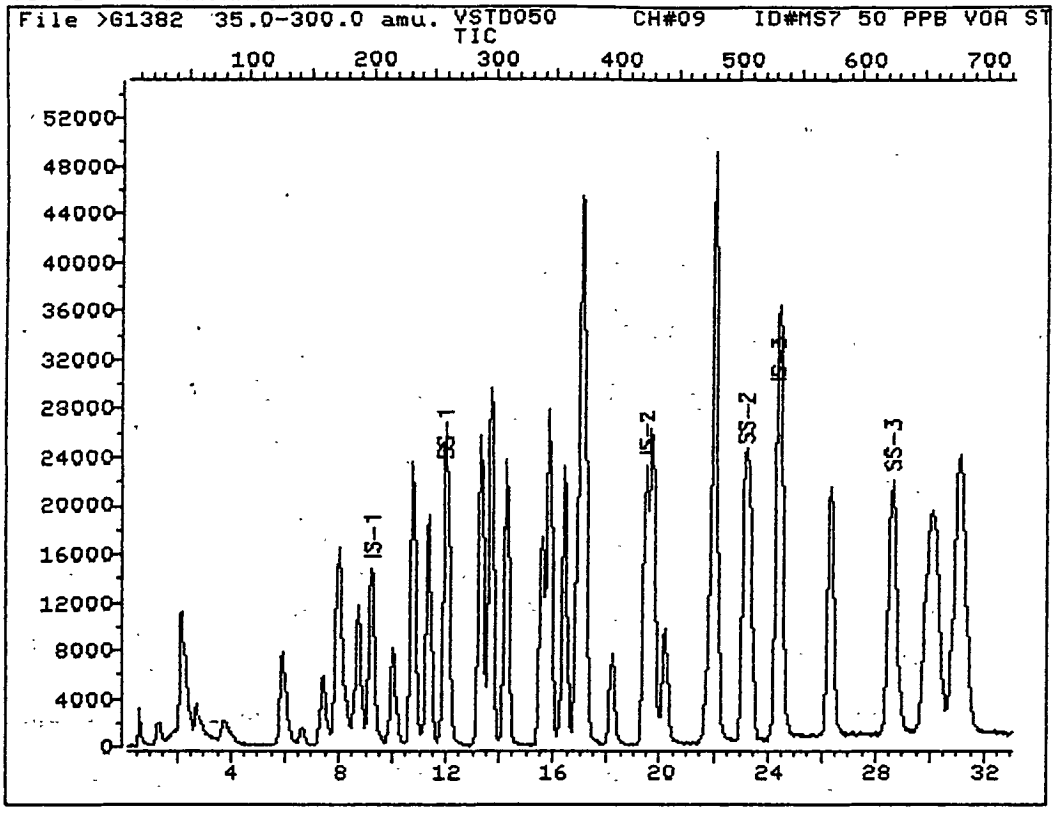
* Compound is ISTD

300

Case# ~~3196~~ 3916 41

CB

TOTAL ION CHROMATOGRAM



Data File: >G1382::D7 Quant Output File: ^G1382::QT
Name: VSTD050 CH#09 Instrument ID: MS7
Misc: ID#MS7 50 PPB VOA STD LOW SOIL 5.0ML+10UL 1-6 JTH

Id File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920103 09:29

Operator ID: VOA7
Quant Time : 920104 12:33
Injected at: 920104 11:25

391b

~~3196~~ LH

Case # CB

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920104 12:33
Output File: ^G1382::QT Injected at: 920104 11:25
Data File: >G1382::D7 Dilution Factor: 1.00000
Name: VSTD050 CH#09 Instrument ID: MS7
Misc: ID#MS7 50 PPB VOA STD LOW SOIL 5.0ML+10UL 1-6 JTH

ID File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920103 09:29

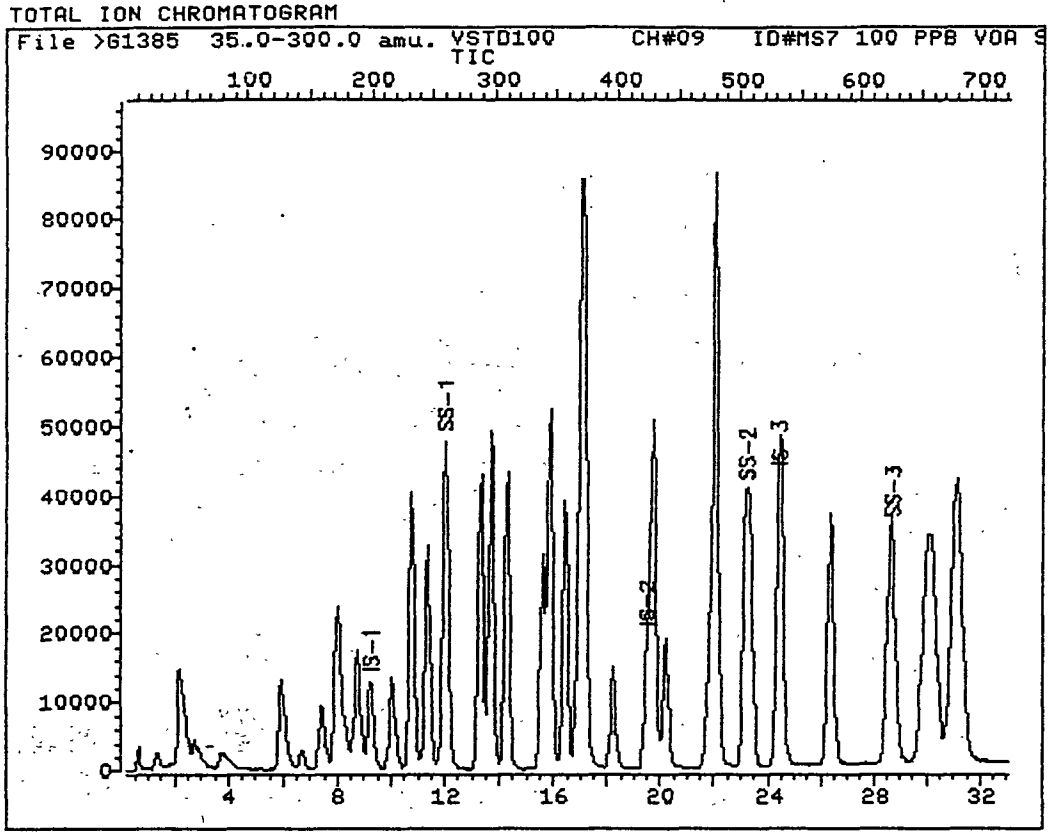
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	29172	50.00	UG/L	80
2)	C010 Chloromethane	1.31	50.0	11996	46.60	UG/L	88
3)	C015 Bromomethane	2.18	94.0	45681	44.75	UG/L	86
4)	C020 Vinyl Chloride	2.72	62.0	23320	46.34	UG/L	98
5)	C025 Chloroethane	3.77	64.0	14795	47.95	UG/L	99
6)	C030 Methylene Chloride	5.91	84.0	30128	42.05	UG/L	87
7)	C035 Acetone	6.64	43.0	14271	45.45	UG/L	98
8)	C040 Carbon Disulfide	7.42	76.0	68786	47.39	UG/L	99
9)	C045 1,1-Dichloroethene	8.74	96.0	30168	48.21	UG/L	85
10)	C050 1,1-Dichloroethane	10.02	63.0	53514	50.54	UG/L	92
11)	C053 1,2-Dichloroethene(TOTAL)	10.75	96.0	62752	94.00	UG/L	98
12)	C060 Chloroform	11.34	83.0	97675	47.88	UG/L	97
13)	CS15 1,2-Dichloroethane-d4	11.93	65.0	96404	52.45	UG/L	83
14)	C065 1,2-Dichloroethane	12.07	62.0	80474	49.54	UG/L	92
15)	C110 2-Butanone	11.98	43.0	20119	55.21	UG/L	95
16)	*CI10 1,4-Difluorobenzene	19.46	114.0	107283	50.00	UG/L	88
17)	C115 1,1,1-Trichloroethane	13.30	97.0	113899	46.58	UG/L	77
18)	C120 Carbon Tetrachloride	13.66	117.0	117098	48.35	UG/L	96
19)	C130 Bromodichloromethane	14.26	83.0	99509	47.51	UG/L	98
20)	C140 1,2-Dichloropropane	15.58	63.0	29845	46.77	UG/L	98
21)	C172 Trans-1,3-Dichloropropene	17.13	75.0	26925M	5.04	UG/L	98
22)	C150 Trichloroethene	16.40	130.0	46682	45.76	UG/L	94
23)	C155 Dibromochloromethane	17.04	129.0	98769	47.49	UG/L	84
24)	C160 1,1,2-Trichloroethane	17.13	97.0	39673	46.69	UG/L	94
25)	C165 Benzene	16.90	78.0	71365	46.55	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.85	75.0	100027	74.85	UG/L	99
27)	C180 Bromoform	19.68	173.0	88481	47.71	UG/L	97
28)	*CI20 Chlorobenzene-d5	24.34	117.0	90394	50.00	UG/L	96
29)	C210 2-Hexanone	21.78	43.0	34487	45.90	UG/L	84
30)	C205 4-Methyl-2-Pentanone	20.19	43.0	46927	49.92	UG/L	73
31)	C220 Tetrachloroethene	22.06	164.0	46755	45.24	UG/L	88
32)	C225 1,1,2,2-Tetrachloroethane	22.01	83.0	64691M	47.60	UG/L	
33)	C230 Toluene	23.33	91.0	91547	46.11	UG/L	79
34)	CS05 Toluene d-8	23.15	98.0	100380	49.62	UG/L	99
35)	C235 Chlorobenzene	24.47	112.0	77531	46.59	UG/L	98
36)	C240 Ethylbenzene	26.34	106.0	35024	45.61	UG/L	93
37)	C245 Styrene	29.95	104.0	73299	45.19	UG/L	64
38)	C250 Total Xylenes	30.22	106.0	44990M	45.10	UG/L	68
39)	CS10 Bromofluorobenzene	28.62	95.0	80549	52.23	UG/L	89

* Compound is ISTD

3916 302

Cal# ~~3196~~ 41 CB

TOTAL ION CHROMATOGRAM



Data File: >G1385::D7 Quant Output File: ^G1385::QT
Name: VSTD100 CH#09 Instrument ID: MS7
Misc: ID#MS7 100 PPB VOA STD LOW SOIL 5.0ML+10UL 11-31 JTH

Id File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920104 11:25

Operator ID: VOA7
Quant Time : 920104 14:05
Injected at: 920104 13:28

391b
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Case#

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Operator ID: VOA7 Quant Rev: 7 Quant Time: 920104 14:05
Output File: ^G1385::QT Injected at: 920104 13:28
Data File: >G1385::D7 Dilution Factor: 1.00000
Name: VSTD100 CH#09 Instrument ID: MS7
Misc: ID#MS7 100 PPB VOA STD LOW SOIL 5.0ML+10UL 11-31 JTH

ID File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920104 11:25

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	23950	50.00	UG/L	80
2)	C010 Chloromethane	1.36	50.0	17529	88.99	UG/L	93
3)	C015 Bromomethane	2.18	94.0	74060	98.74	UG/L	88
4)	C020 Vinyl Chloride	2.73	62.0	36353	94.94	UG/L	94
5)	C025 Chloroethane	3.78	64.0	21775	89.63	UG/L	93
6)	C030 Methylene Chloride	5.92	84.0	51580	104.27	UG/L	86
7)	C035 Acetone	6.69	43.0	24368	103.99	UG/L	95
8)	C040 Carbon Disulfide	7.38	76.0	110446	97.79	UG/L	99
9)	C045 1,1-Dichloroethene	8.70	96.0	46219	93.30	UG/L	83
10)	C050 1,1-Dichloroethane	10.02	63.0	91910	104.60	UG/L	94
11)	C053 1,2-Dichloroethene(TOTAL)	10.75	96.0	107528	208.72	UG/L	98
12)	C060 Chloroform	11.34	83.0	169579	105.74	UG/L	98
13)	CS15 1,2-Dichloroethane-d4	11.98	65.0	172748	109.13	UG/L	80
14)	C065 1,2-Dichloroethane	12.07	62.0	150578	113.96	UG/L	90
15)	C110 2-Butanone	11.98	43.0	37734	114.22	UG/L	94
16)	*CI10 1,4-Difluorobenzene	19.47	114.0	86393	50.00	UG/L	87
17)	C115 1,1,1-Trichloroethane	13.31	97.0	187659	102.30	UG/L	78
18)	C120 Carbon Tetrachloride	13.68	117.0	195031	103.41	UG/L	99
19)	C130 Bromodichloromethane	14.27	83.0	181362	113.16	UG/L	98
20)	C140 1,2-Dichloropropane	15.59	63.0	55328	115.11	UG/L	99
21)	C172 Trans-1,3-Dichloropropene	17.14	75.0	51570M	12.80	UG/L	98
22)	C150 Trichloroethene	16.41	130.0	77969	103.70	UG/L	90
23)	C155 Dibromochloromethane	17.05	129.0	186283	117.10	UG/L	84
24)	C160 1,1,2-Trichloroethane	17.14	97.0	73059	114.34	UG/L	95
25)	C165 Benzene	16.92	78.0	125817	109.47	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.87	75.0	187920	186.64	UG/L	99
27)	C180 Bromoform	19.70	173.0	175463	123.13	UG/L	99
28)	*CI20 Chlorobenzene-d5	24.40	117.0	80873	50.00	UG/L	96
29)	C210 2-Hexanone	21.75	43.0	65944	106.86	UG/L	84
30)	C205 4-Methyl-2-Pentanone	20.20	43.0	90342	107.59	UG/L	71
31)	C220 Tetrachloroethene	22.07	164.0	77783	92.97	UG/L	88
32)	C225 1,1,2,2-Tetrachloroethane	22.02	83.0	126992M	109.71	UG/L	
33)	C230 Toluene	23.35	91.0	161667	98.69	UG/L	83
34)	CS05 Toluene d-8	23.16	98.0	165171	91.96	UG/L	99
35)	C235 Chlorobenzene	24.49	112.0	136843	98.64	UG/L	99
36)	C240 Ethylbenzene	26.36	106.0	61743	98.52	UG/L	90
37)	C245 Styrene	29.96	104.0	137718	105.00	UG/L	63
38)	C250 Total Xylenes	30.23	106.0	81069M	100.70	UG/L	68
39)	CS10 Bromofluorobenzene	28.68	95.0	136900	94.98	UG/L	79

* Compound is ISTD

391b

case# ~~3196~~ 41

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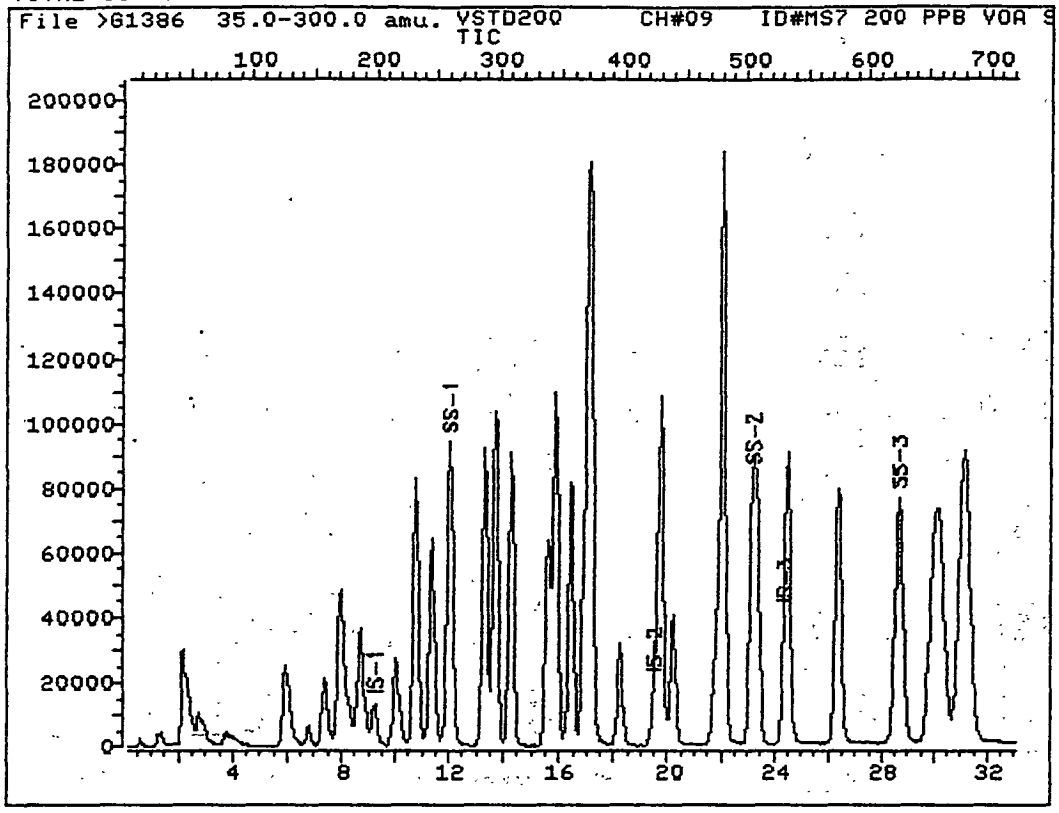
TOTAL ION CHROMATOGRAM



Data File: >G1386::D7 Quant Output File: ^G1386::QT
Name: VSTD200 CH#09 Instrument ID: MS7
Misc: ID#MS7 200 PPB VOA STD LOW SOIL 5.0ML+10UL 11-31 JTH

Id File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920104 11:25

Operator ID: VOA8
Quant Time : 920104 14:59
Injected at: 920104 14:22

3916

CAS# ~~3196~~ 41

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Operator ID: VOA8 Quant Rev: 7 Quant Time: 920104 14:59
Output File: ^G1386::QT Injected at: 920104 14:22
Data File: >G1386::D7 Dilution Factor: 1.00000
Name: VSTD200 CH#09 Instrument ID: MS7
Misc: ID#MS7 200 PPB VOA STD LOW SOIL 5.0ML+10UL 11-31 JTH

ID File: VOAI7N::QT
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920104 11:25

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.24	128.0	24111	50.00	UG/L	79
2)	C010 Chloromethane	1.35	50.0	32038	161.57	UG/L	93
3)	C015 Bromomethane	2.17	94.0	166886	221.01	UG/L	87
4)	C020 Vinyl Chloride	2.72	62.0	89202	231.40	UG/L	95
5)	C025 Chloroethane	3.77	64.0	48352	197.71	UG/L	92
6)	C030 Methylene Chloride	5.91	84.0	109788	220.45	UG/L	85
7)	C035 Acetone	6.78	43.0	49373	209.29	UG/L	89
8)	C040 Carbon Disulfide	7.37	76.0	245630	216.02	UG/L	99
9)	C045 1,1-Dichloroethene	8.70	96.0	101095	202.72	UG/L	84
10)	C050 1,1-Dichloroethane	10.02	63.0	193703	218.97	UG/L	93
11)	C053 1,2-Dichloroethene(TOTAL)	10.75	96.0	229865	443.20	UG/L	99
12)	C060 Chloroform	11.34	83.0	349688	216.58	UG/L	96
13)	CS15 1,2-Dichloroethane-d4	11.98	65.0	348336	218.59	UG/L	80
14)	C065 1,2-Dichloroethane	12.07	62.0	300984	226.26	UG/L	91
15)	C110 2-Butanone	12.02	43.0	75428	226.80	UG/L	93
16)	*CI10 1,4-Difluorobenzene	19.46	114.0	87590	50.00	UG/L	87
17)	C115 1,1,1-Trichloroethane	13.30	97.0	397331	213.64	UG/L	78
18)	C120 Carbon Tetrachloride	13.67	117.0	417824	218.52	UG/L	99
19)	C130 Bromodichloromethane	14.26	83.0	376347	231.62	UG/L	98
20)	C140 1,2-Dichloropropane	15.58	63.0	114208	234.35	UG/L	98
21)	C172 Trans-1,3-Dichloropropene	17.13	75.0	109246M	26.75	UG/L	99
22)	C150 Trichloroethene	16.40	130.0	167093	219.21	UG/L	90
23)	C155 Dibromochloromethane	17.04	129.0	389856	241.73	UG/L	83
24)	C160 1,1,2-Trichloroethane	17.13	97.0	150060	231.64	UG/L	93
25)	C165 Benzene	16.90	78.0	267861	229.86	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.85	75.0	391717	383.73	UG/L	98
27)	C180 Bromoform	19.73	173.0	371375	257.04	UG/L	98
28)	*CI20 Chlorobenzene-d5	24.34	117.0	83811	50.00	UG/L	95
29)	C210 2-Hexanone	21.74	43.0	143926	225.06	UG/L	82
30)	C205 4-Methyl-2-Pentanone	20.19	43.0	187710	215.71	UG/L	72
31)	C220 Tetrachloroethene	22.06	164.0	172480	198.94	UG/L	90
32)	C225 1,1,2,2-Tetrachloroethane	22.01	83.0	269982M	225.06	UG/L	
33)	C230 Toluene	23.34	91.0	349658	205.97	UG/L	81
34)	CS05 Toluene d-8	23.15	98.0	355350	190.91	UG/L	99
35)	C235 Chlorobenzene	24.48	112.0	294326	204.72	UG/L	99
36)	C240 Ethylbenzene	26.35	106.0	136037	209.46	UG/L	92
37)	C245 Styrene	29.95	104.0	299578	220.40	UG/L	62
38)	C250 Total Xylenes	30.22	106.0	180397M	216.23	UG/L	70
39)	CS10 Bromofluorobenzene	28.63	95.0	292436	195.78	UG/L	88

* Compound is ISTD

3916

306

Case# ~~3196~~ 4

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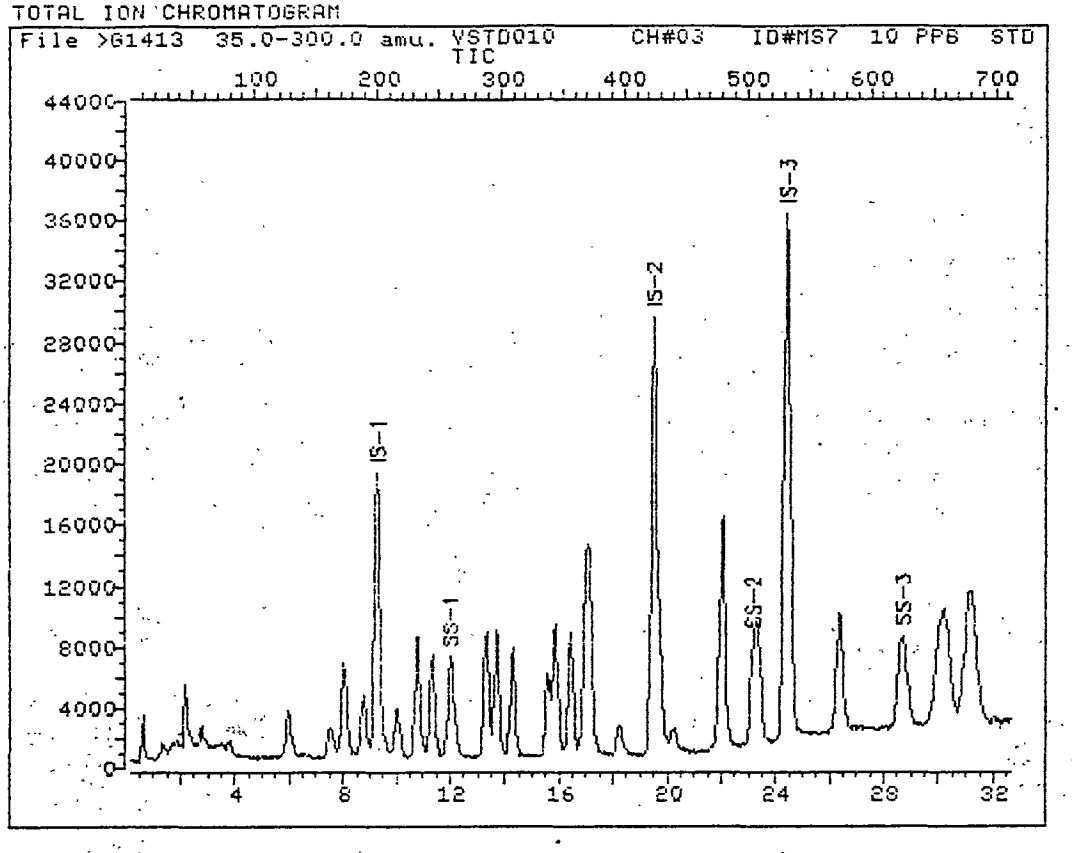
TOTAL ION CHROMATOGRAM



Data File: >G1413::D7 Quant Output File: ^G1413::QT
Name: VSTD010 CH#03 Instrument ID: MS7
Misc: ID#MS7 10 PPB STD LOW WATER NC 5LEVEL 5.0ML+IS LH

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920111 11:21

Operator ID: VOA7
Quant Time : 920111 17:16
Injected at: 920111 16:42

case #1

proj # 5896
GH 3916

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920111 17:16
Output File: ^G1413::QT Injected at: 920111 16:42
Data File: >G1413::D7 Dilution Factor: 1.00000
Name: VSTD010 CH#03 Instrument ID: MS7
Misc: ID#MS7 10 PPB STD LOW WATER NC 5LEVEL 5.0ML+IS LH

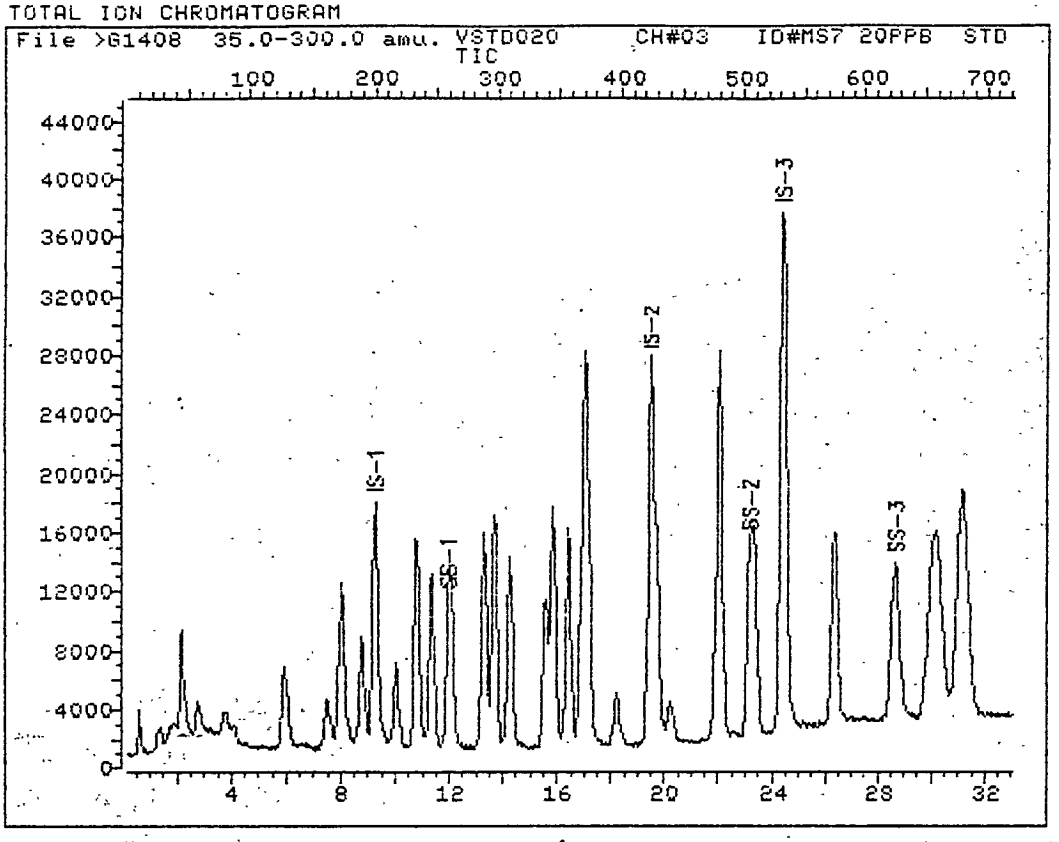
ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920111 11:21

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01	Bromochloromethane	9.24	128.0	42290	50.00	UG/L	72
2)	C010	Chloromethane	1.36	50.0	5668	11.96	UG/L	80
3)	C015	Bromomethane	2.18	94.0	14553	11.81	UG/L	88
4)	C020	Vinyl Chloride	2.77	62.0	7947	11.06	UG/L	92
5)	C025	Chloroethane	3.77	64.0	5419	11.65	UG/L	93
6)	C030	Methylene Chloride	5.96	84.0	12018	12.89	UG/L	80
7)	C035	Acetone	6.60	43.0	3391	17.03	UG/L	88
8)	C040	Carbon Disulfide	7.51	76.0	23961	11.06	UG/L	97
9)	C045	1,1-Dichloroethene	8.74	96.0	11061	11.40	UG/L	92
10)	C050	1,1-Dichloroethane	10.02	63.0	19939	11.33	UG/L	94
11)	C053	1,2-Dichloroethene(TOTAL)	10.75	96.0	24570	23.73	UG/L	93
12)	C060	Chloroform	11.34	83.0	32428	11.22	UG/L	96
13)	CS15	1,2-Dichloroethane-d4	11.98	65.0	23054	9.91	UG/L	85
14)	C065	1,2-Dichloroethane	12.07	62.0	24763	11.08	UG/L	90
15)	C110	2-Butanone	11.98	43.0	3625M	12.56	UG/L	
16)	*CI10	1,4-Difluorobenzene	19.46	114.0	159241	50.00	UG/L	93
17)	C115	1,1,1-Trichloroethane	13.30	97.0	35855M	8.84	UG/L	
18)	C120	Carbon Tetrachloride	13.67	117.0	34538	10.41	UG/L	97
19)	C130	Bromodichloromethane	14.26	83.0	32120	11.03	UG/L	97
20)	C140	1,2-Dichloropropane	15.54	63.0	11337	11.29	UG/L	96
21)	C172	Trans-1,3-Dichloropropene	17.18	75.0	9880M	1.18	UG/L	99
22)	C150	Trichloroethene	16.40	130.0	19682	11.66	UG/L	96
23)	C155	Dibromochloromethane	17.04	129.0	31323	10.61	UG/L	85
24)	C160	1,1,2-Trichloroethane	17.13	97.0	13203	11.26	UG/L	92
25)	C165	Benzene	16.91	78.0	28240	11.67	UG/L	100
26)	C143	cis-1,3-Dichloropropene	15.86	75.0	38460	18.31	UG/L	98
27)	C180	Bromoform	19.69	173.0	26225	10.62	UG/L	98
28)	*CI20	Chlorobenzene-d5	24.39	117.0	143638	50.00	UG/L	96
29)	C210	2-Hexanone	21.83	43.0	5042	10.87	UG/L	80
30)	C205	4-Methyl-2-Pentanone	20.24	43.0	7596	10.52	UG/L	71
31)	C220	Tetrachloroethene	22.06	164.0	20249	12.28	UG/L	91
32)	C225	1,1,2,2-Tetrachloroethane	22.01	83.0	16607M	11.23	UG/L	
33)	C230	Toluene	23.34	91.0	38588	12.12	UG/L	83
34)	CS05	Toluene d-8	23.15	98.0	35048	10.62	UG/L	98
35)	C235	Chlorobenzene	24.48	112.0	34940	12.42	UG/L	97
36)	C240	Ethylbenzene	26.35	106.0	17033	13.71	UG/L	97
37)	C245	Styrene	30.00	104.0	35861	13.34	UG/L	71
38)	C250	Total Xylenes	30.23	106.0	21780M	13.60	UG/L	73
39)	CS10	Bromofluorobenzene	28.68	95.0	25840	11.57	UG/L	93

* Compound is ISTD

case# proj #3996 LH
308 3/10/92

TOTAL ION CHROMATOGRAM



Data File: >G1408::D7 Quant Output File: ^G1408::QT
Name: VSTD020 CH#03 Instrument ID: MS7
Misc: ID#MS7 20PPB STD LOW WATER NC 5LEVEL 5.0ML+IS LH

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920111 11:21

Operator ID: VOA7
Quant Time : 920111 13:30
Injected at: 920111 12:42

Case #1

proj # ~~3187~~ 3916

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920111 13:30
Output File: ^G1408::QT Injected at: 920111 12:42
Data File: >G1408::D7 Dilution Factor: 1.00000
Name: VSTD020 CH#03 Instrument ID: MS7
Misc: ID#MS7 20PPB STD LOW WATER NC 5LEVEL 5.0ML+IS LH

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920111 11:21

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.25	128.0	37928	50.00	UG/L	70
2)	C010 Chloromethane	1.35	50.0	9409	22.13	UG/L	93
3)	C015 Bromomethane	2.18	94.0	24798	22.44	UG/L	86
4)	C020 Vinyl Chloride	2.77	62.0	14536	22.55	UG/L	91
5)	C025 Chloroethane	3.77	64.0	9276	22.23	UG/L	91
6)	C030 Methylene Chloride	5.92	84.0	21883	26.17	UG/L	77
7)	C035 Acetone	6.60	43.0	4489	25.14	UG/L	98
8)	C040 Carbon Disulfide	7.47	76.0	43411	22.34	UG/L	97
9)	C045 1,1-Dichloroethene	8.74	96.0	21235	24.40	UG/L	89
10)	C050 1,1-Dichloroethane	10.02	63.0	35716	22.62	UG/L	93
11)	C053 1,2-Dichloroethene(TOTAL)	10.75	96.0	42534	45.80	UG/L	96
12)	C060 Chloroform	11.34	83.0	60262	23.26	UG/L	96
13)	CS15 1,2-Dichloroethane-d4	11.94	65.0	44453	21.30	UG/L	91
14)	C065 1,2-Dichloroethane	12.07	62.0	44714	22.30	UG/L	89
15)	C110 2-Butanone	11.98	43.0	6558	25.34	UG/L	85
16)	*CI10 1,4-Difluorobenzene	19.46	114.0	145135	50.00	UG/L	95
17)	C115 1,1,1-Trichloroethane	13.30	97.0	64009	17.31	UG/L	80
18)	C120 Carbon Tetrachloride	13.67	117.0	66522	21.99	UG/L	97
19)	C130 Bromodichloromethane	14.26	83.0	57507	21.68	UG/L	98
20)	C140 1,2-Dichloropropane	15.59	63.0	21207	23.18	UG/L	97
21)	C172 Trans-1,3-Dichloropropene	17.14	75.0	18586M	2.43	UG/L	99
22)	C150 Trichloroethene	16.41	130.0	35459	23.06	UG/L	98
23)	C155 Dibromochloromethane	17.00	129.0	61332	22.78	UG/L	85
24)	C160 1,1,2-Trichloroethane	17.14	97.0	23634	22.11	UG/L	91
25)	C165 Benzene	16.91	78.0	49187	22.29	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.86	75.0	68397	35.73	UG/L	98
27)	C180 Bromoform	19.69	173.0	47076	20.92	UG/L	98
28)	*CI20 Chlorobenzene-d5	24.39	117.0	131870	50.00	UG/L	97
29)	C210 2-Hexanone	21.84	43.0	7863	18.47	UG/L	92
30)	C205 4-Methyl-2-Pentanone	20.24	43.0	13439	20.27	UG/L	75
31)	C220 Tetrachloroethene	22.06	164.0	34563	22.83	UG/L	90
32)	C225 1,1,2,2-Tetrachloroethane	22.02	83.0	28918M	21.30	UG/L	
33)	C230 Toluene	23.34	91.0	66328	22.70	UG/L	82
34)	CS05 Toluene d-8	23.16	98.0	63419	20.93	UG/L	98
35)	C235 Chlorobenzene	24.48	112.0	58771	22.75	UG/L	99
36)	C240 Ethylbenzene	26.35	106.0	26457	23.20	UG/L	96
37)	C245 Styrene	30.00	104.0	58598	23.74	UG/L	67
38)	C250 Total Xylenes	30.28	106.0	34758M	23.63	UG/L	73
39)	CS10 Bromofluorobenzene	28.68	95.0	43822	21.37	UG/L	93

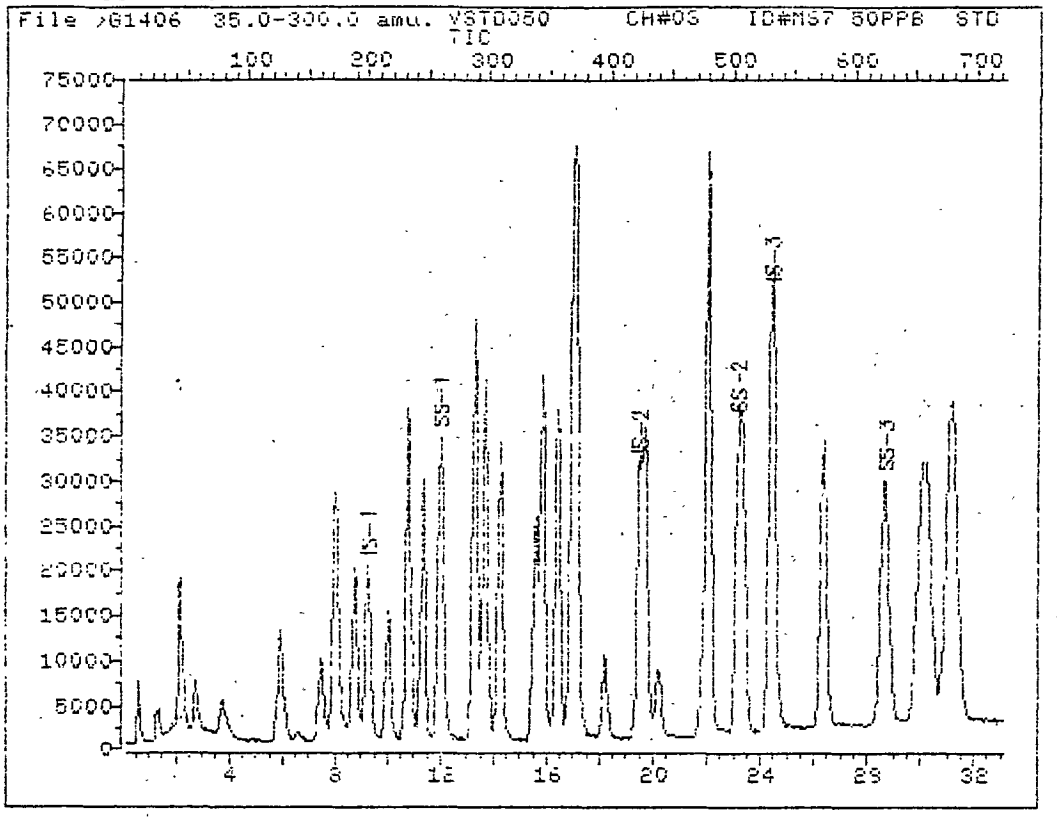
* Compound is ISTD

Case #1 ~~3196~~ 3916

310

LH

TOTAL ION CHROMATOGRAM



Data File: >G1406::D7 Quant Output File: ^G1406::QT
Name: VSTD050 CH#03 Instrument ID: MS7
Misc: ID#MS7 50PPB STD. LOW WATER NC 5LEVEL 5.0ML+IS LH

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920106 11:39

Operator ID: VOA7
Quant Time : 920111 11:56
Injected at: 920111 11:21

Cage #1

3916

LH

QUANT REPORT

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920111 11:56
Output File: ^G1406::QT Injected at: 920111 11:21
Data File: >G1406::D7 Dilution Factor: 1.00000
Name: VSTD050 CH#03 Instrument ID: MS7
Misc: ID#MS7 50PPB STD LOW WATER NC 5LEVEL 5.0ML+IS LH

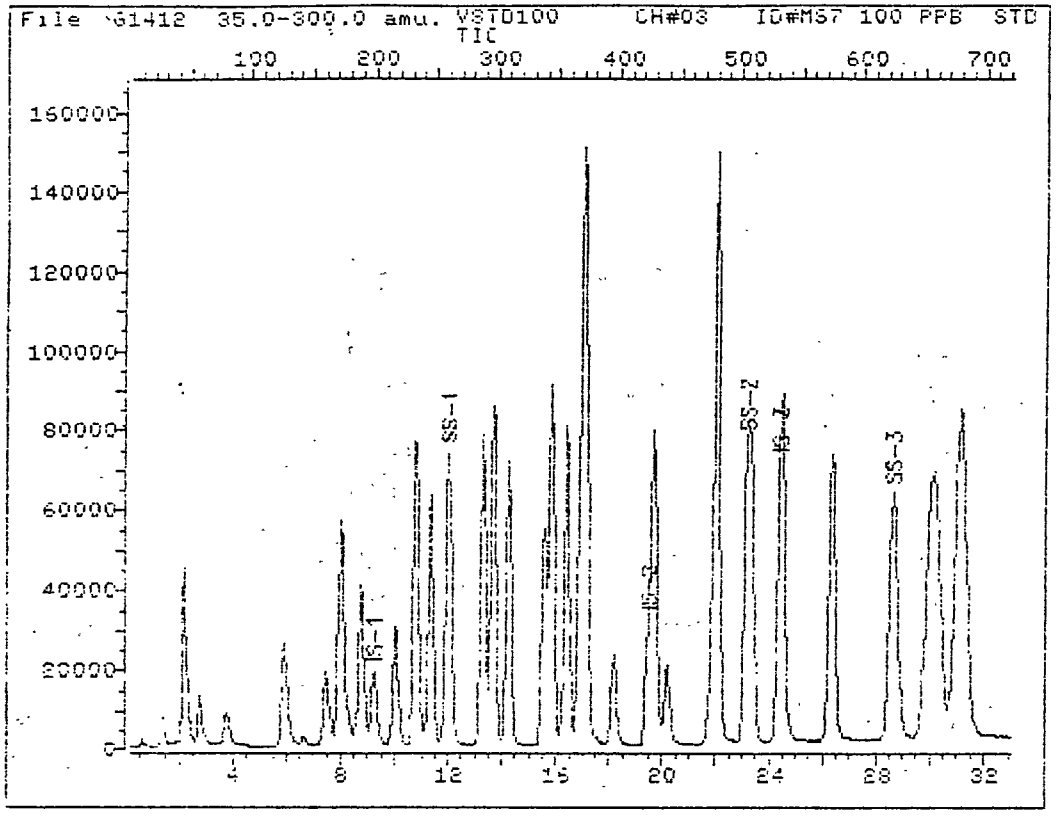
ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920106 11:39

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*C101 Bromochloromethane	9.24	128.0	43405M	50.00	UG/L	
2)	C010 Chloromethane	1.35	50.0	24327	43.68	UG/L	93
3)	C015 Bromomethane	2.18	94.0	63227	35.46	UG/L	84
4)	C020 Vinyl Chloride	2.72	62.0	36879	36.88	UG/L	90
5)	C025 Chloroethane	3.77	64.0	23880	37.32	UG/L	98
6)	C030 Methylene Chloride	5.92	84.0	47843	41.98	UG/L	80
7)	C035 Acetone	6.60	43.0	10218	31.91	UG/L	99
8)	C040 Carbon Disulfide	7.47	76.0	111199	44.12	UG/L	98
9)	C045 1,1-Dichloroethene	8.74	96.0	49805	42.89	UG/L	90
10)	C050 1,1-Dichloroethane	10.02	63.0	90340	45.54	UG/L	93
11)	C053 1,2-Dichloroethene(TOTAL)	10.75	96.0	106285	89.91	UG/L	98
12)	C060 Chloroform	11.34	83.0	148267	40.47	UG/L	94
13)	CS15 1,2-Dichloroethane-d4	11.98	65.0	119433	38.12	UG/L	87
14)	C065 1,2-Dichloroethane	12.07	62.0	114739	41.65	UG/L	90
15)	C110 2-Butanone	11.98	43.0	14807	46.71	UG/L	88
16)	*CI10 1,4-Difluorobenzene	19.46	114.0	160668	50.00	UG/L	94
17)	C115 1,1,1-Trichloroethane	13.30	97.0	204690	34.56	UG/L	80
18)	C120 Carbon Tetrachloride	13.67	117.0	167435	37.95	UG/L	96
19)	C130 Bromodichloromethane	14.26	83.0	146854	40.60	UG/L	97
20)	C140 1,2-Dichloropropane	15.58	63.0	50644	46.04	UG/L	99
21)	C172 Trans-1,3-Dichloropropene	17.14	75.0	45268M	4.93	UG/L	97
22)	C150 Trichloroethene	16.41	130.0	85127	47.65	UG/L	98
23)	C155 Dibromochloromethane	17.00	129.0	149003	44.76	UG/L	85
24)	C160 1,1,2-Trichloroethane	17.14	97.0	59178	47.85	UG/L	94
25)	C165 Benzene	16.91	78.0	122116	43.61	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.86	75.0	169514	73.90	UG/L	99
27)	C180 Bromoform	19.69	173.0	124532	49.47	UG/L	98
28)	*CI20 Chlorobenzene-d5	24.39	117.0	143494	50.00	UG/L	96
29)	C210 2-Hexanone	21.79	43.0	23159	44.25	UG/L	89
30)	C205 4-Methyl-2-Pentanone	20.19	43.0	36073	42.24	UG/L	72
31)	C220 Tetrachloroethene	22.02	164.0	82362	46.06	UG/L	91
32)	C225 1,1,2,2-Tetrachloroethane	21.97	83.0	73882M	46.49	UG/L	
33)	C230 Toluene	23.34	91.0	159004	45.83	UG/L	81
34)	CS05 Toluene d-8	23.16	98.0	164878	47.36	UG/L	99
35)	C235 Chlorobenzene	24.48	112.0	140558	48.95	UG/L	97
36)	C240 Ethylbenzene	26.35	106.0	62049	47.17	UG/L	95
37)	C245 Styrene	29.96	104.0	134278	48.88	UG/L	70
38)	C250 Total Xylenes	30.23	106.0	80019M	47.02	UG/L	71
39)	CS10 Bromofluorobenzene	28.68	95.0	111586	40.47	UG/L	95

* Compound is ISTD

case# 3196 LH 312
39110 JJ

TOTAL ION CHROMATOGRAM



Data File: >G1412::D7 Quant Output File: ^G1412::QT
Name: VSTD100 CH#03 Instrument ID: MS7
Misc: ID#MS7 100 PPB STD LOW WATER NC 5LEVEL 5.0ML+IS LH

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910705 01:55 Last Qcal Time: 920111 11:21

Operator ID: VOA7
Quant Time : 920111 16:29
Injected at: 920111 15:55

Case #

~~3196~~ 4

3916

JJ

QUANT REPORT

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920111 16:29
Output File: ^G1412::QT Injected at: 920111 15:53
Data File: .G1412::D7 Dilution Factor: 1.00000
Name: VSTD100 CH#03 Instrument ID: MS7
Misc: ID#MS7 100 PPB STD LOW WATER NC 5LEVEL 5.0ML+IS LH

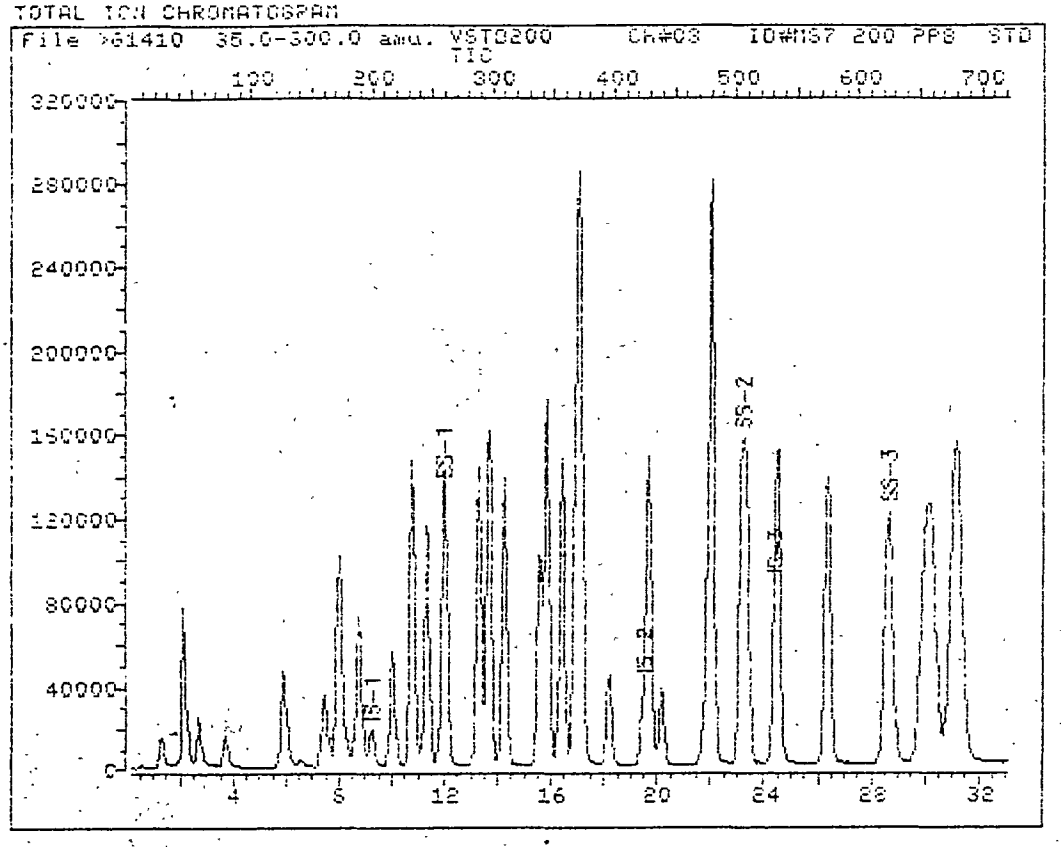
ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920111 11:21

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.24	128.0	43278M	50.00	UG/L	
2)	C010 Chloromethane	1.35	50.0	49672	102.39	UG/L	90
3)	C015 Bromomethane	2.18	94.0	159030	126.13	UG/L	87
4)	C020 Vinyl Chloride	2.77	62.0	81604	110.96	UG/L	92
5)	C025 Chloroethane	3.77	64.0	53903	113.19	UG/L	94
6)	C030 Methylene Chloride	5.91	84.0	102560	107.50	UG/L	79
7)	C035 Acetone	6.64	43.0	23931	117.45	UG/L	89
8)	C040 Carbon Disulfide	7.46	76.0	236540	106.67	UG/L	98
9)	C045 1,1-Dichloroethene	8.74	96.0	108513	109.26	UG/L	89
10)	C050 1,1-Dichloroethane	10.02	63.0	195395	108.46	UG/L	91
11)	C053 1,2-Dichloroethene(TOTAL)	10.75	96.0	230958	217.94	UG/L	94
12)	C060 Chloroform	11.34	83.0	325407	110.06	UG/L	98
13)	CS15 1,2-Dichloroethane-d4	11.98	65.0	261646	109.86	UG/L	89
14)	C065 1,2-Dichloroethane	12.07	62.0	250544	109.50	UG/L	91
15)	C110 2-Butanone	11.98	43.0	35332	119.66	UG/L	91
16)	*CI10 1,4-Difluorobenzene	19.46	114.0	159182	50.00	UG/L	94
17)	C115 1,1,1-Trichloroethane	13.30	97.0	340521	83.96	UG/L	80
18)	C120 Carbon Tetrachloride	13.67	117.0	359251	108.28	UG/L	97
19)	C130 Bromodichloromethane	14.26	83.0	314147	107.96	UG/L	98
20)	C140 1,2-Dichloropropane	15.58	63.0	112349	111.96	UG/L	97
21)	C172 Trans-1,3-Dichloropropene	17.14	75.0	99896M	11.90	UG/L	98
22)	C150 Trichloroethene	16.40	130.0	189445	112.31	UG/L	98
23)	C155 Dibromochloromethane	17.00	129.0	343468	116.33	UG/L	86
24)	C160 1,1,2-Trichloroethane	17.14	97.0	131950	112.53	UG/L	91
25)	C165 Benzene	16.91	78.0	267294	110.46	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.86	75.0	373984	178.14	UG/L	99
27)	C180 Bromoform	19.69	173.0	298697	121.05	UG/L	98
28)	*CI20 Chlorobenzene-d5	24.39	117.0	145893	50.00	UG/L	96
29)	C210 2-Hexanone	21.79	43.0	61770	131.17	UG/L	88
30)	C205 4-Methyl-2-Pentanone	20.19	43.0	98639	134.47	UG/L	74
31)	C220 Tetrachloroethene	22.06	164.0	185995	111.06	UG/L	92
32)	C225 1,1,2,2-Tetrachloroethane	22.02	83.0	187963M	125.11	UG/L	
33)	C230 Toluene	23.34	91.0	350037	108.26	UG/L	80
34)	CS05 Toluene d-8	23.16	98.0	361030	107.68	UG/L	98
35)	C235 Chlorobenzene	24.48	112.0	317657	111.14	UG/L	99
36)	C240 Ethylbenzene	26.35	106.0	142556	112.98	UG/L	95
37)	C245 Styrene	29.96	104.0	313344	114.76	UG/L	69
38)	C250 Total Xylenes	30.23	106.0	189450M	116.43	UG/L	72
39)	CS10 Bromofluorobenzene	28.63	95.0	255658	112.67	UG/L	94

* Compound is ISTD

case # 3196 #4
3916

TOTAL ION CHROMATOGRAM



Data File: >G1410::D7 Quant Output File: ^G1410::QT
Name: VSTD200 CH#03 Instrument ID: MS7
Misc: ID#MS7 200 PPB STD LOW WATER NC 5LEVEL 5.0ML+IS LH

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920111 11:21

Operator ID: VOA7
Quant Time : 920111 14:44
Injected at: 920111 14:03

case # 3196
LH 3916

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920111 14:44
Output File: ^G1410::QT Injected at: 920111 14:03
Data File: >G1410::D7 Dilution Factor: 1.00000
Name: VSTD200 CH#03 Instrument ID: MS7
Misc: ID#MS7 200 PPB STD LOW WATER NC 5LEVEL 5.0ML+IS LH

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920111 11:21

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	40675M	50.00	UG/L	
2)	C010 Chloromethane	1.31	50.0	97195	213.18	UG/L	89
3)	C015 Bromomethane	2.13	94.0	286844	242.06	UG/L	86
4)	C020 Vinyl Chloride	2.68	62.0	148680	215.11	UG/L	92
5)	C025 Chloroethane	3.68	64.0	97085	216.92	UG/L	93
6)	C030 Methylene Chloride	5.87	84.0	188326	210.03	UG/L	78
7)	C035 Acetone	6.55	43.0	39976	208.74	UG/L	94
8)	C040 Carbon Disulfide	7.42	76.0	438565	210.43	UG/L	99
9)	C045 1,1-Dichloroethene	8.70	96.0	197531	211.61	UG/L	90
10)	C050 1,1-Dichloroethane	10.02	63.0	367780	217.22	UG/L	93
11)	C053 1,2-Dichloroethene(TOTAL)	10.75	96.0	426275	427.99	UG/L	97
12)	C060 Chloroform	11.30	83.0	604202	217.43	UG/L	96
13)	CS15 1,2-Dichloroethane-d4	11.94	65.0	502160	224.34	UG/L	86
14)	C065 1,2-Dichloroethane	12.03	62.0	469041	218.11	UG/L	91
15)	C110 2-Butanone	11.94	43.0	62490	225.18	UG/L	87
16)	*CI10 1,4-Difluorobenzene	19.47	114.0	150142	50.00	UG/L	94
17)	C115 1,1,1-Trichloroethane	13.26	97.0	628578	164.31	UG/L	80
18)	C120 Carbon Tetrachloride	13.67	117.0	677926	216.64	UG/L	97
19)	C130 Bromodichloromethane	14.22	83.0	593873	216.37	UG/L	97
20)	C140 1,2-Dichloropropane	15.54	63.0	212353	224.35	UG/L	97
21)	C172 Trans-1,3-Dichloropropene	17.09	75.0	182215M	23.01	UG/L	99
22)	C150 Trichloroethene	16.36	130.0	355160	223.23	UG/L	97
23)	C155 Dibromochloromethane	17.00	129.0	665312	238.91	UG/L	84
24)	C160 1,1,2-Trichloroethane	17.09	97.0	250001	226.04	UG/L	92
25)	C165 Benzene	16.87	78.0	501982	219.94	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.82	75.0	707394	357.25	UG/L	98
27)	C180 Bromoform	19.65	173.0	567756	243.94	UG/L	98
28)	*CI20 Chlorobenzene-d5	24.35	117.0	143068	50.00	UG/L	98
29)	C210 2-Hexanone	21.75	43.0	114834	248.66	UG/L	86
30)	C205 4-Methyl-2-Pentanone	20.15	43.0	169623	235.81	UG/L	74
31)	C220 Tetrachloroethene	22.02	164.0	350529	213.43	UG/L	90
32)	C225 1,1,2,2-Tetrachloroethane	21.98	83.0	346738M	235.36	UG/L	
33)	C230 Toluene	23.35	91.0	676859	213.48	UG/L	81
34)	CS05 Toluene d-8	23.17	98.0	712934	216.84	UG/L	99
35)	C235 Chlorobenzene	24.49	112.0	609492	217.46	UG/L	98
36)	C240 Ethylbenzene	26.36	106.0	269777	218.04	UG/L	94
37)	C245 Styrene	29.97	104.0	587788	219.52	UG/L	69
38)	C250 Total Xylenes	30.24	106.0	351539M	220.31	UG/L	73
39)	CS10 Bromofluorobenzene	28.64	95.0	483612	217.34	UG/L	95

* Compound is ISTD

case # 3916 LH
3916 gg

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Instrument ID: MS3 Calibration date: 02/05/92 Time: 2145

Lab File ID: C9267 Init. Calib. Date(s): 02/01/92 02/01/92

Heated Purge: (Y/N) N Init. Calib. Times: 0944 1817

GC Column: DB-624 ID: 0.530(mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.753	0.731		2.9	
Bromomethane	1.677	1.782	0.100	-6.3	25.0
Vinyl Chloride	0.980	0.974	0.100	0.6	25.0
Chloroethane	0.594	0.623		-4.9	
Methylene Chloride	1.298	1.361		-4.9	
Acetone	0.121	0.072		40.5	
Carbon Disulfide	2.906	2.762		5.0	
1,1-Dichloroethene	1.400	1.619	0.100	-15.6	25.0
1,1-Dichloroethane	2.649	2.772	0.200	-4.6	25.0
1,2-Dichloroethene (total)	1.443	1.599		-10.8	
Chloroform	3.912	4.018	0.200	-2.7	25.0
1,2-Dichloroethane	2.116	1.708	0.100	19.3	25.0
2-Butanone	0.188	0.097		48.4	
1,1,1-Trichloroethane	0.961	0.740	0.100	23.0	25.0
Carbon Tetrachloride	0.983	0.785	0.100	20.1	25.0
Bromodichloromethane	1.050	0.738	0.200	29.7	25.0
1,2-Dichloropropane	0.372	0.276		25.8	
cis-1,3-Dichloropropene	0.580	0.391	0.200	32.6	25.0
Trichloroethene	0.644	0.586	0.300	9.0	25.0
Dibromochloromethane	1.085	0.692	0.100	36.2	25.0
1,1,2-Trichloroethane	0.368	0.235	0.100	36.1	25.0
Benzene	0.811	0.656	0.500	19.1	25.0
trans-1,3-Dichloropropene	0.404	0.278	0.100	31.2	25.0
Bromoform	0.870	0.536	0.100	38.4	25.0
4-Methyl-2-Pentanone	0.189	0.093		50.8	
2-Hexanone	0.107	0.054		49.5	
Tetrachloroethene	0.766	0.823	0.200	-7.4	25.0
1,1,2,2-Tetrachloroethane	0.494	0.306	0.500	38.1	25.0
Toluene	1.172	1.179	0.400	-0.6	25.0
Chlorobenzene	1.121	1.140	0.500	-1.7	25.0
Ethylbenzene	0.432	0.441	0.100	-2.1	25.0
Styrene	0.923	0.790	0.300	14.4	25.0
Xylene (total)	0.582	0.513	0.300	11.9	25.0
Toluene-d8	1.123	1.055		6.1	
Bromofluorobenzene	0.955	0.800	0.200	16.2	25.0
1,2-Dichloroethane-d4	2.123	1.564		26.3	

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Instrument ID: MS3 Calibration date: 02/06/92 Time: 1439

Lab File ID: C9282 Init. Calib. Date(s): 02/01/92 02/01/92

Heated Purge: (Y/N) N Init. Calib. Times: 0944 1817

GC Column: DB-624 ID: 0.530(mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.753	0.615		18.3	
Bromomethane	1.677	1.387	0.100	17.3	25.0
Vinyl Chloride	0.980	0.794	0.100	19.0	25.0
Chloroethane	0.594	0.502		15.5	
Methylene Chloride	1.298	1.050		19.1	
Acetone	0.121	0.091		24.8	
Carbon Disulfide	2.906	2.196		24.4	
1,1-Dichloroethene	1.400	1.137	0.100	18.8	25.0
1,1-Dichloroethane	2.649	2.236	0.200	15.6	25.0
1,2-Dichloroethene (total)	1.443	1.126		22.0	
Chloroform	3.912	3.371	0.200	13.8	25.0
1,2-Dichloroethane	2.116	1.958	0.100	7.5	25.0
2-Butanone	0.188	0.133		29.3	
1,1,1-Trichloroethane	0.961	0.829	0.100	13.7	25.0
Carbon Tetrachloride	0.983	0.760	0.100	22.7	25.0
Bromodichloromethane	1.050	0.875	0.200	16.7	25.0
1,2-Dichloropropane	0.372	0.287		22.8	
cis-1,3-Dichloropropene	0.580	0.461	0.200	20.5	25.0
Trichloroethene	0.644	0.484	0.300	24.8	25.0
Dibromochloromethane	1.085	0.791	0.100	27.1	25.0
1,1,2-Trichloroethane	0.368	0.290	0.100	21.2	25.0
Benzene	0.811	0.624	0.500	23.1	25.0
trans-1,3-Dichloropropene	0.404	0.375	0.100	7.2	25.0
Bromoform	0.870	0.565	0.100	35.1	25.0
4-Methyl-2-Pentanone	0.189	0.161		14.8	
2-Hexanone	0.107	0.089		16.8	
Tetrachloroethene	0.766	0.594	0.200	22.4	25.0
1,1,2,2-Tetrachloroethane	0.494	0.402	0.500	18.6	25.0
Toluene	1.172	0.988	0.400	15.7	25.0
Chlorobenzene	1.121	0.918	0.500	18.1	25.0
Ethylbenzene	0.432	0.358	0.100	17.1	25.0
Styrene	0.923	0.761	0.300	17.6	25.0
Xylene (total)	0.582	0.457	0.300	21.5	25.0
Toluene-d8	1.123	1.068		4.9	
Bromofluorobenzene	0.955	0.922	0.200	3.5	25.0
1,2-Dichloroethane-d4	2.123	2.160		-1.7	

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Instrument ID: MS3 Calibration date: 02/08/92 Time: 0928

Lab File ID: C9300 Init. Calib. Date(s): 02/01/92 02/01/92

Heated Purge: (Y/N) N Init. Calib. Times: 0944 1817

GC Column: DB-624 ID: 0.530(mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.753	0.582		22.7	
Bromomethane	1.677	1.283	0.100	23.5	25.0
Vinyl Chloride	0.980	0.769	0.100	21.5	25.0
Chloroethane	0.594	0.463		22.0	
Methylene Chloride	1.298	1.122		13.6	
Acetone	0.121	0.098		19.0	
Carbon Disulfide	2.906	2.117		27.2	
1,1-Dichloroethene	1.400	1.061	0.100	24.2	25.0
1,1-Dichloroethane	2.649	2.088	0.200	21.2	25.0
1,2-Dichloroethene (total)	1.443	1.092		24.3	
Chloroform	3.912	2.986	0.200	23.7	25.0
1,2-Dichloroethane	2.116	1.730	0.100	18.2	25.0
2-Butanone	0.188	0.132		29.8	
1,1,1-Trichloroethane	0.961	0.726	0.100	24.4	25.0
Carbon Tetrachloride	0.983	0.701	0.100	28.7	25.0
Bromodichloromethane	1.050	0.818	0.200	22.1	25.0
1,2-Dichloropropane	0.372	0.291		21.8	
cis-1,3-Dichloropropene	0.580	0.437	0.200	24.7	25.0
Trichloroethene	0.644	0.568	0.300	11.8	25.0
Dibromochloromethane	1.085	0.807	0.100	25.6	25.0
1,1,2-Trichloroethane	0.368	0.323	0.100	12.2	25.0
Benzene	0.811	0.642	0.500	20.8	25.0
trans-1,3-Dichloropropene	0.404	0.317	0.100	21.5	25.0
Bromoform	0.870	0.571	0.100	34.4	25.0
4-Methyl-2-Pentanone	0.189	0.157		16.9	
2-Hexanone	0.107	0.084		21.5	
Tetrachloroethene	0.766	0.675	0.200	11.9	25.0
1,1,2,2-Tetrachloroethane	0.494	0.294	0.500	40.5	25.0
Toluene	1.172	0.989	0.400	15.6	25.0
Chlorobenzene	1.121	0.980	0.500	12.6	25.0
Ethylbenzene	0.432	0.366	0.100	15.3	25.0
Styrene	0.923	0.778	0.300	15.7	25.0
Xylene (total)	0.582	0.494	0.300	15.1	25.0
Toluene-d8	1.123	1.023		8.9	
Bromofluorobenzene	0.955	0.879	0.200	8.0	25.0
1,2-Dichloroethane-d4	2.123	1.758		17.2	

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Instrument ID: MS7 Calibration date: 02/04/92 Time: 0952

Lab File ID: G1548 Init. Calib. Date(s): 01/11/92 01/11/92

Heated Purge: (Y/N) N Init. Calib. Times: 1121 1642

GC Column: SP-1000 ID: 2.00(mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.604	0.648		-7.3	
Bromomethane	1.682	1.539	0.100	8.5	25.0
Vinyl Chloride	0.921	0.958	0.100	-4.0	25.0
Chloroethane	0.604	0.574		5.0	
Methylene Chloride	1.262	1.301		-3.1	
Acetone	0.291	0.233		19.9	
Carbon Disulfide	2.737	2.412		11.9	
1,1-Dichloroethene	1.265	1.187	0.100	6.2	25.0
1,1-Dichloroethane	2.262	2.225	0.200	1.6	25.0
1,2-Dichloroethene (total)	1.344	1.241		7.7	
Chloroform	3.739	3.875	0.200	-3.6	25.0
1,2-Dichloroethane	2.859	3.062	0.100	-7.1	25.0
2-Butanone	0.399	0.312		21.8	
1,1,1-Trichloroethane	1.124	1.006	0.100	10.5	25.0
Carbon Tetrachloride	1.106	1.059	0.100	4.2	25.0
Bromodichloromethane	0.978	0.896	0.200	8.4	25.0
1,2-Dichloropropane	0.349	0.306		12.3	
cis-1,3-Dichloropropene	0.724	0.636	0.200	12.2	25.0
Trichloroethene	0.589	0.501	0.300	14.9	25.0
Dibromochloromethane	1.031	0.893	0.100	13.4	25.0
1,1,2-Trichloroethane	0.404	0.355	0.100	12.1	25.0
Benzene	0.834	0.712	0.500	14.6	25.0
trans-1,3-Dichloropropene	0.765	0.645	0.100	15.7	25.0
Bromoform	0.858	0.724	0.100	15.6	25.0
4-Methyl-2-Pentanone	0.281	0.224		20.3	
2-Hexanone	0.180	0.146		18.9	
Tetrachloroethene	0.637	0.592	0.200	7.1	25.0
1,1,2,2-Tetrachloroethane	0.578	0.482	0.500	16.6	25.0
Toluene	1.218	1.118	0.400	8.2	25.0
Chlorobenzene	1.093	0.991	0.500	9.3	25.0
Ethylbenzene	0.497	0.435	0.100	12.5	25.0
Styrene	1.079	0.918	0.300	14.9	25.0
Xylene (total)	0.648	0.557	0.300	14.0	25.0
Toluene-d8	1.211	1.099		9.2	
Bromofluorobenzene	0.846	0.831	0.200	1.8	25.0
1,2-Dichloroethane-d4	2.903	3.001		-3.4	

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Instrument ID: MS7 Calibration date: 02/05/92 Time: 1200

Lab File ID: G1563 Init. Calib. Date(s): 01/04/92 01/04/92

Heated Purge: (Y/N) N Init. Calib. Times: 1125 1422

GC Column: SP-1000 ID: 2.00(mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.402	0.593		-47.5	
Bromomethane	1.608	1.793	0.100	-11.5	25.0
Vinyl Chloride	0.838	1.022	0.100	-22.0	25.0
Chloroethane	0.509	0.589		-15.7	
Methylene Chloride	1.133	1.257		-10.9	
Acetone	0.513	0.398		22.4	
Carbon Disulfide	2.453	2.546		-3.8	
1,1-Dichloroethene	1.045	1.272	0.100	-21.7	25.0
1,1-Dichloroethane	1.944	2.009	0.200	-3.3	25.0
1,2-Dichloroethene (total)	1.144	1.303		-13.9	
Chloroform	3.561	3.706	0.200	-4.1	25.0
1,2-Dichloroethane	3.062	2.966	0.100	3.1	25.0
2-Butanone	0.800	0.604		24.5	
1,1,1-Trichloroethane	1.131	1.015	0.100	10.3	25.0
Carbon Tetrachloride	1.148	0.982	0.100	14.5	25.0
Bromodichloromethane	1.018	0.892	0.200	12.4	25.0
1,2-Dichloropropane	0.314	0.305		2.9	
cis-1,3-Dichloropropene	0.651	0.646	0.200	0.8	25.0
Trichloroethene	0.466	0.528	0.300	-13.3	25.0
Dibromochloromethane	1.010	0.912	0.100	9.7	25.0
1,1,2-Trichloroethane	0.411	0.390	0.100	5.1	25.0
Benzene	0.737	0.770	0.500	-4.5	25.0
trans-1,3-Dichloropropene	0.705	0.657	0.100	6.8	25.0
Bromoform	0.935	0.891	0.100	4.7	25.0
4-Methyl-2-Pentanone	0.566	0.423		25.3	
2-Hexanone	0.434	0.305		29.7	
Tetrachloroethene	0.513	0.598	0.200	-16.6	25.0
1,1,2,2-Tetrachloroethane	0.753	0.724	0.500	3.9	25.0
Toluene	1.051	1.184	0.400	-12.6	25.0
Chlorobenzene	0.871	1.007	0.500	-15.6	25.0
Ethylbenzene	0.408	0.465	0.100	-14.0	25.0
Styrene	0.869	0.938	0.300	-7.9	25.0
Xylene (total)	0.533	0.575	0.300	-7.9	25.0
Toluene-d8	1.080	1.062		1.7	
Bromofluorobenzene	0.889	0.811	0.200	8.8	25.0
1,2-Dichloroethane-d4	3.580	2.733		23.7	

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Instrument ID: MS7 Calibration date: 02/08/92 Time: 0931

Lab File ID: G1587 Init. Calib. Date(s): 01/04/92 01/04/92

Heated Purge: (Y/N) N Init. Calib. Times: 1125 1422

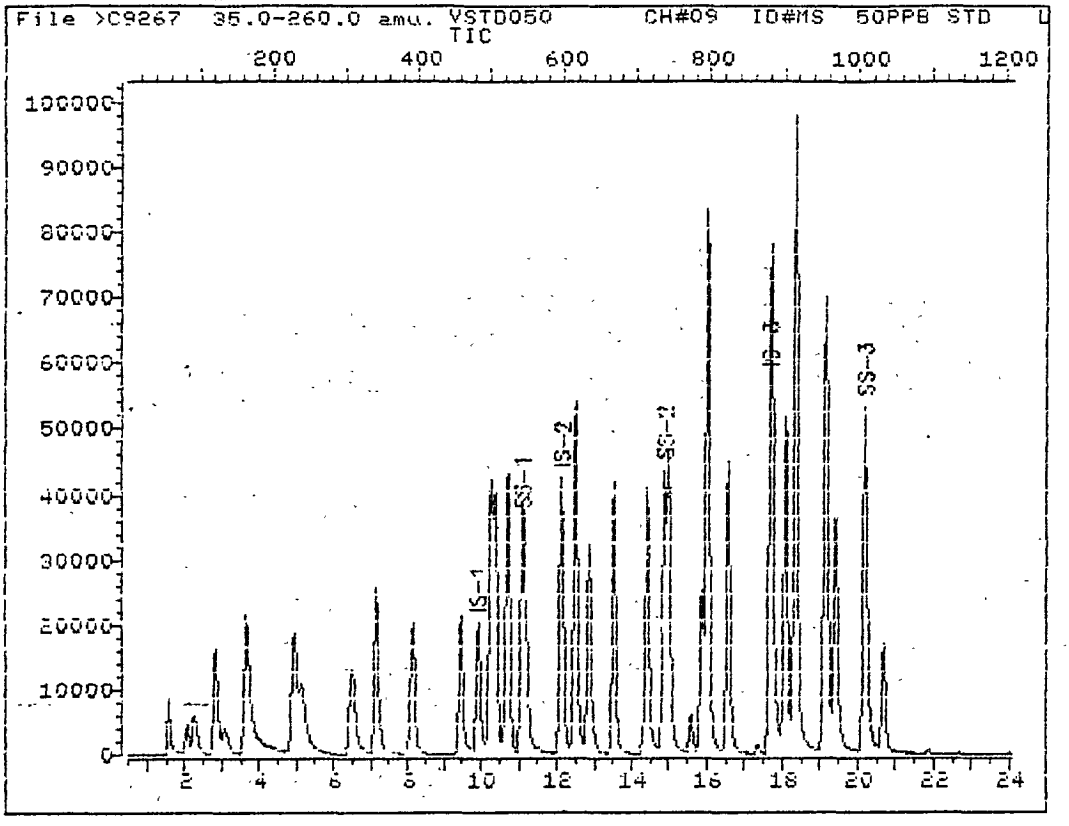
GC Column: SP-1000 ID: 2.00(mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.402	0.444		-10.4	
Bromomethane	1.608	1.544	0.100	4.0	25.0
Vinyl Chloride	0.838	0.869	0.100	-3.7	25.0
Chloroethane	0.509	0.466		8.4	
Methylene Chloride	1.133	1.129		0.4	
Acetone	0.513	0.379		26.1	
Carbon Disulfide	2.453	2.144		12.6	
1,1-Dichloroethene	1.045	1.135	0.100	-8.6	25.0
1,1-Dichloroethane	1.944	1.726	0.200	11.2	25.0
1,2-Dichloroethene (total)	1.144	1.119		2.2	
Chloroform	3.561	2.828	0.200	20.6	25.0
1,2-Dichloroethane	3.062	2.450	0.100	20.0	25.0
2-Butanone	0.800	0.622		22.2	
1,1,1-Trichloroethane	1.131	0.866	0.100	23.4	25.0
Carbon Tetrachloride	1.148	0.898	0.100	21.8	25.0
Bromodichloromethane	1.018	0.776	0.200	23.8	25.0
1,2-Dichloropropane	0.314	0.277		11.8	
cis-1,3-Dichloropropene	0.651	0.561	0.200	13.8	25.0
Trichloroethene	0.466	0.473	0.300	-1.5	25.0
Dibromochloromethane	1.010	0.800	0.100	20.8	25.0
1,1,2-Trichloroethane	0.411	0.345	0.100	16.1	25.0
Benzene	0.737	0.699	0.500	5.2	25.0
trans-1,3-Dichloropropene	0.705	0.538	0.100	23.7	25.0
Bromoform	0.935	0.739	0.100	21.0	25.0
4-Methyl-2-Pentanone	0.566	0.423		25.3	
2-Hexanone	0.434	0.423		2.5	
Tetrachloroethene	0.513	0.566	0.200	-10.3	25.0
1,1,2,2-Tetrachloroethane	0.753	0.639	0.500	15.1	25.0
Toluene	1.051	1.088	0.400	-3.5	25.0
Chlorobenzene	0.871	0.946	0.500	-8.6	25.0
Ethylbenzene	0.408	0.423	0.100	-3.7	25.0
Styrene	0.869	0.868	0.300	0.1	25.0
Xylene (total)	0.533	0.527	0.300	1.1	25.0
Toluene-d8	1.080	1.106		-2.4	
Bromofluorobenzene	0.889	0.769	0.200	13.5	25.0
1,2-Dichloroethane-d4	3.580	2.643		26.2	

All other compounds must meet a minimum RRF of 0.010.

FORM VII VOA 3/90

TOTAL ION CHROMATOGRAM



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Misc: ID#MS 50PPB STD LOW WATER 5.0ML+Q1-33 LH

Id File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920204 12:40

Operator ID: VOA2
Quant Time : 920205 22:09
Injected at: 920205 21:45

Proj #3916
LH 3916

CB

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920205 22:09
Output File: ^C9267::QT Injected at: 920205 21:45
Data File: >C9267::D5 Dilution Factor: 1.00000
Name: VSTD050 CH#09 Instrument ID: MS3
Misc: ID#MS 50PPB STD LOW WATER 5.0ML+Q1-33 LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920204 12:40

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.91	128.0	27991	50.00	UG/L	87
2)	C010 Chloromethane	2.08	50.0	20459	54.79	UG/L	86
3)	C015 Bromomethane	2.82	94.0	49891	51.69	UG/L	86
4)	C020 Vinyl Chloride	2.26	62.0	27266	53.56	UG/L	98
5)	C025 Chloroethane	3.08	64.0	17442	54.33	UG/L	75
6)	C030 Methylene Chloride	6.49	84.0	38089	55.45	UG/L	71
7)	C035 Acetone	5.38	43.0	2004M	29.42	UG/L	
8)	C040 Carbon Disulfide	5.15	76.0	77319	50.16	UG/L	96
9)	C045 1,1-Dichloroethene	4.93	96.0	45318	54.84	UG/L	92
10)	C050 1,1-Dichloroethane	8.13	63.0	77591	50.30	UG/L	92
11)	C053 1,2-Dichloroethene(total)	7.14	96.0	89527M	111.16	UG/L	95
12)	C060 Chloroform	10.24	83.0	112464	46.52	UG/L	93
13)	CS15 1,2-Dichloroethane-d4	11.08	65.0	43793	36.35	UG/L	94
14)	C065 1,2-Dichloroethane	11.22	62.0	47797	36.99	UG/L	92
15)	C110 2-Butanone	9.68	43.0	2720	34.89	UG/L	92
16)	*CI10 1,4-Difluorobenzene	12.12	114.0	134131	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.38	97.0	99275M	39.03	UG/L	
18)	C120 Carbon Tetrachloride	10.71	117.0	105268	37.61	UG/L	86
19)	C130 Bromodichloromethane	13.55	83.0	98930	37.05	UG/L	94
20)	C140 1,2-Dichloropropane	12.86	63.0	37050	43.50	UG/L	94
21)	C172 Trans-1,3-Dichloropropene	15.58	75.0	14931M	13.64	UG/L	98
22)	C150 Trichloroethene	12.49	130.0	78594	49.79	UG/L	97
23)	C155 Dibromochloromethane	16.55	129.0	92818	34.73	UG/L	86
24)	C160 1,1,2-Trichloroethane	15.87	97.0	31501	37.52	UG/L	91
25)	C165 Benzene	11.12	78.0	88021	47.15	UG/L	100
26)	C143 cis-1,3-Dichloropropene	14.42	75.0	84015	65.56	UG/L	96
27)	C180 Bromoform	19.43	173.0	71913	38.83	UG/L	97
28)	*CI20 Chlorobenzene-d5	17.67	117.0	103340	50.00	UG/L	94
29)	C210 2-Hexanone	16.55	43.0	5594	34.09	UG/L	95
30)	C205 4-Methyl-2-Pentanone	14.87	43.0	9576M	33.52	UG/L	
31)	C220 Tetrachloroethene	16.03	164.0	85083	55.40	UG/L	95
32)	C225 1,1,2,2-Tetrachloroethane	20.68	83.0	31641	36.45	UG/L	87
33)	C230 Toluene	14.97	91.0	121811	53.31	UG/L	97
34)	CS05 Toluene d-8	14.87	98.0	109004	52.15	UG/L	93
35)	C235 Chlorobenzene	17.73	112.0	117808	52.34	UG/L	97
36)	C240 Ethylbenzene	18.08	106.0	45559	53.52	UG/L	95
37)	C245 Styrene	19.17	104.0	81686	46.85	UG/L	84
38)	C250 Total Xylenes	19.12	106.0	53003	50.57	UG/L	97
39)	CS10 Bromofluorobenzene	20.19	95.0	82662	44.66	UG/L	81

* Compound is ISTD

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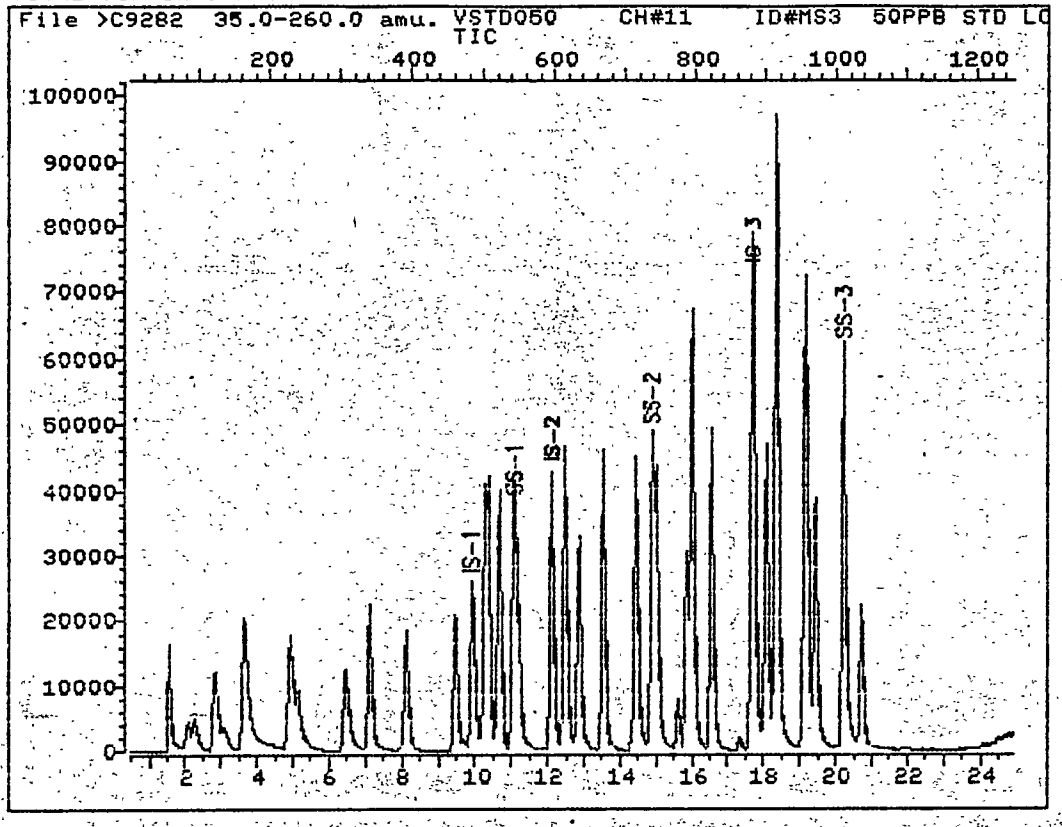
LH 3964
324

TOTAL ION CHROMATOGRAM



Data File: >C9282::D5 Quant Output File: ^C9282::QT
Name: VSTD050 CH#11 Instrument ID: MS3
Misc: ID#MS3 50PPB STD LOW WATER 5.0ML+10UL Q1-18 YY

Id File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920205 21:45

Operator ID: VOA1
Quant Time : 920206 15:04
Injected at: 920206 14:39

proj #3196
24 3916

Operator ID: VOA1 Quant Rev: 7 Quant Time: 920206 15:04
Output File: ^C9282::QT Injected at: 920206 14:39
Data File: >C9282::D5 Dilution Factor: 1.00000
Name: VSTD050 CH#11 Instrument ID: MS3
Misc: ID#MS3 50PPB STD LOW WATER 5.0ML+10UL Q1-18 YY

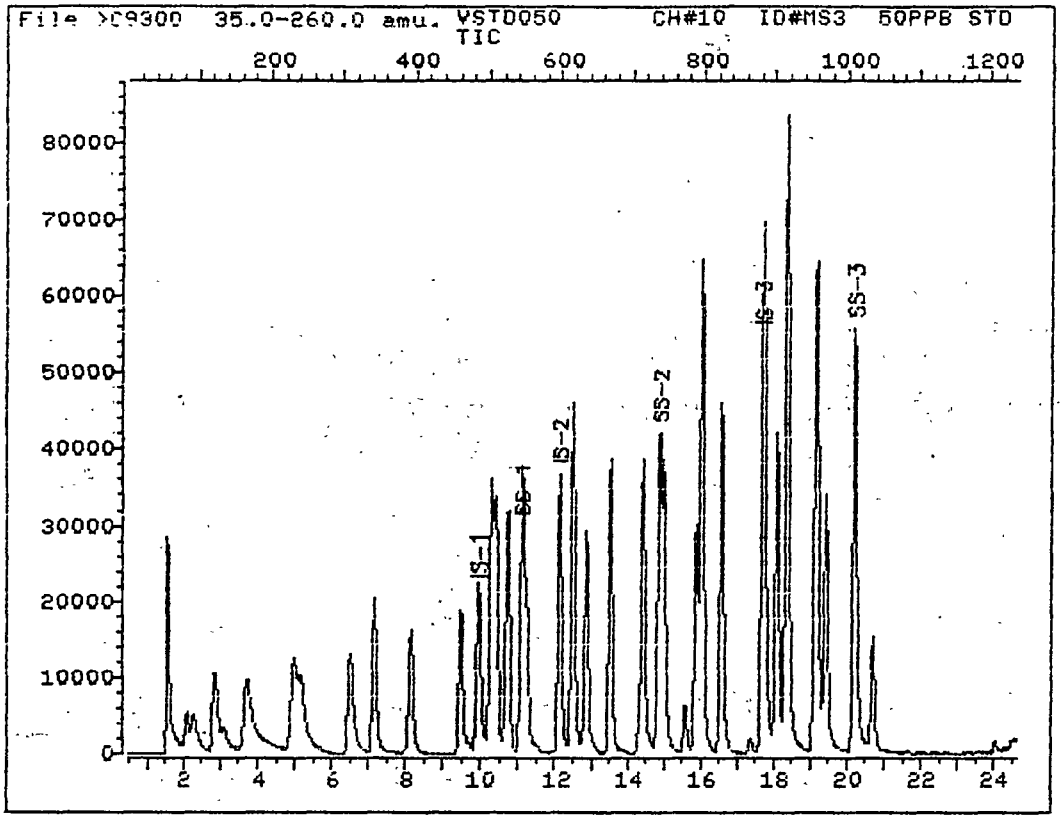
ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920205 21:45

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.87	128.0	31914	50.00	UG/L	80
2)	C010 Chloromethane	2.08	50.0	19628	42.07	UG/L	87
3)	C015 Bromomethane	2.82	94.0	44254	38.90	UG/L	87
4)	C020 Vinyl Chloride	2.24	62.0	25346	40.77	UG/L	96
5)	C025 Chloroethane	3.06	64.0	16010M	40.25	UG/L	
6)	C030 Methylene Chloride	6.44	84.0	33520	38.59	UG/L	84
7)	C035 Acetone	5.38	43.0	2904	63.55	UG/L	77
8)	C040 Carbon Disulfide	5.11	76.0	70081	39.75	UG/L	99
9)	C045 1,1-Dichloroethene	4.89	96.0	36284	35.11	UG/L	94
10)	C050 1,1-Dichloroethane	8.12	63.0	71370	40.34	UG/L	94
11)	C053 1,2-Dichloroethene(total)	9.42	96.0	71849M	70.39	UG/L	90
12)	C060 Chloroform	10.22	83.0	107581	41.95	UG/L	96
13)	CS15 1,2-Dichloroethane-d4	11.05	65.0	68923	69.02	UG/L	89
14)	C065 1,2-Dichloroethane	11.20	62.0	62489	57.33	UG/L	91
15)	C110 2-Butanone	9.66	43.0	4240	68.36	UG/L	86
16)	*CI10 1,4-Difluorobenzene	12.10	114.0	124539	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.36	97.0	103203M	55.98	UG/L	
18)	C120 Carbon Tetrachloride	10.67	117.0	94708	48.45	UG/L	86
19)	C130 Bromodichloromethane	13.51	83.0	109020	59.34	UG/L	96
20)	C140 1,2-Dichloropropane	12.84	63.0	35774	52.00	UG/L	93
21)	C172 Trans-1,3-Dichloropropene	15.56	75.0	18662	25.58	UG/L	92
22)	C150 Trichloroethene	12.45	130.0	60231	41.27	UG/L	96
23)	C155 Dibromochloromethane	16.54	129.0	98482	57.14	UG/L	84
24)	C160 1,1,2-Trichloroethane	15.85	97.0	36151	61.80	UG/L	92
25)	C165 Benzene	11.08	78.0	77691	47.53	UG/L	100
26)	C143 cis-1,3-Dichloropropene	14.41	75.0	91950	95.48	UG/L	96
27)	C180 Bromoform	19.39	173.0	70353	52.68	UG/L	96
28)	*CI20 Chlorobenzene-d5	17.67	117.0	105503	50.00	UG/L	96
29)	C210 2-Hexanone	16.54	43.0	9381	82.13	UG/L	95
30)	C205 4-Methyl-2-Pentanone	14.86	43.0	17032M	87.11	UG/L	
31)	C220 Tetrachloroethene	16.01	164.0	62664	36.07	UG/L	91
32)	C225 1,1,2,2-Tetrachloroethane	20.68	83.0	42429	65.67	UG/L	95
33)	C230 Toluene	14.95	91.0	104231	41.91	UG/L	97
34)	CS05 Toluene d-8	14.84	98.0	112663	50.62	UG/L	94
35)	C235 Chlorobenzene	17.71	112.0	96817	40.25	UG/L	94
36)	C240 Ethylbenzene	18.06	106.0	37798	40.63	UG/L	98
37)	C245 Styrene	19.16	104.0	80261	48.12	UG/L	80
38)	C250 Total Xylenes	19.12	106.0	48208	44.54	UG/L	88
39)	CS10 Bromofluorobenzene	20.19	95.0	97222	57.60	UG/L	98

* Compound is ISTD

proj#3963916
326

TOTAL ION CHROMATOGRAM



Data File: >C9300::D5 Quant Output File: ^C9300::QT
Name: VSTD050 CH#10 Instrument ID: MS3
Misc: ID#MS3 50PPB STD LOW WATER 5.0ML+Q1-18 LH

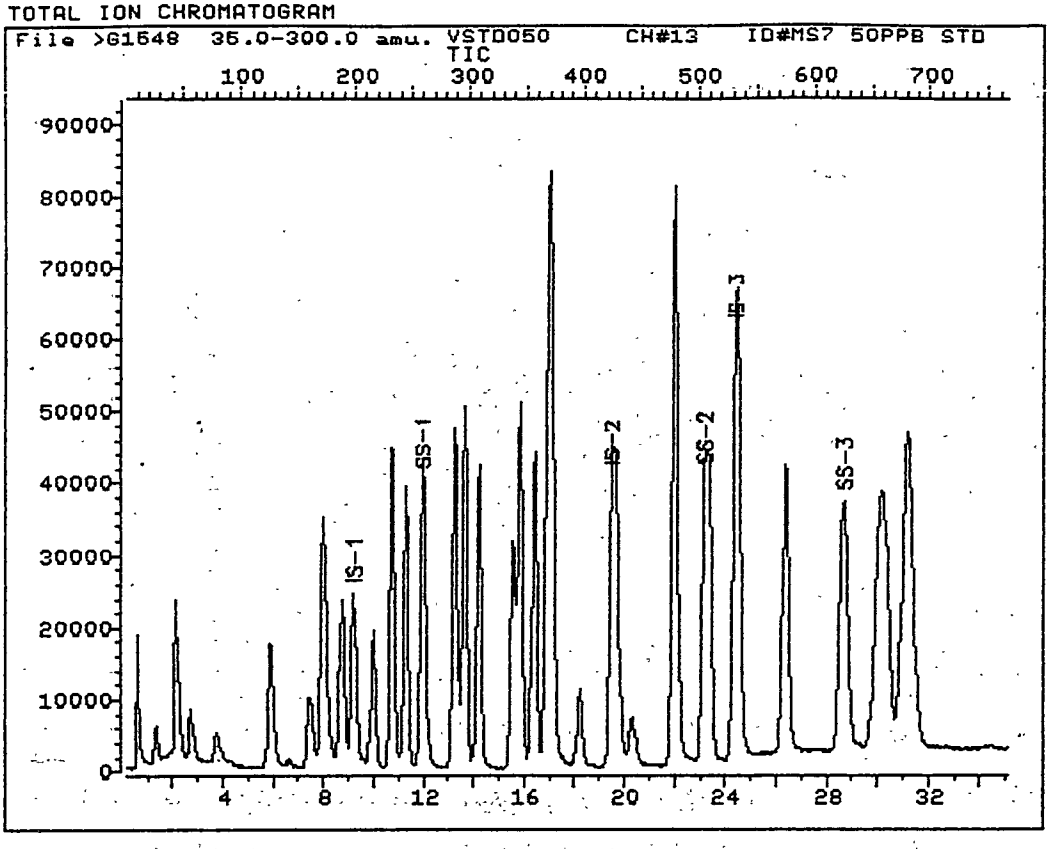
Id File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920207 15:06

Operator ID: VOA1
Quant Time : 920208 09:53
Injected at: 920208 09:28

Proj #~~3496~~
3916

case#

TOTAL ION CHROMATOGRAM



Data File: >G1548::D7 Quant Output File: ^G1548::QT
Name: VSTD050 CH#13 Instrument ID: MS7
Misc: ID#MS7 50PPB STD LOW WATER 5.0ML+QC 1-33 RW

Id Fil : V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920203 20:41

Op rator ID: VOA7
Quant Time : 920204 10:31
Injected at: 920204 09:52

proj# ~~3196~~ 3916
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Operator ID: VOA1 Quant Rev: 7 Quant Time: 920208 09:53
Output File: ^C9300::QT Injected at: 920208 09:28
Data File: >C9300::D5 Dilution Factor: 1.00000
Name: VSTD050 CH#10 Instrument ID: MS3
Misc: ID#MS3 50PPB STD LOW WATER 5.0ML+Q1-18 LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920207 15:06

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.92	128.0	31469	50.00	UG/L	85
2)	C010 Chloromethane	2.11	50.0	18320	55.09	UG/L	91
3)	C015 Bromomethane	2.87	94.0	40384	47.36	UG/L	82
4)	C020 Vinyl Chloride	2.31	62.0	24214	56.84	UG/L	94
5)	C025 Chloroethane	3.13	64.0	14584	50.09	UG/L	97
6)	C030 Methylene Chloride	6.52	84.0	35291	43.84	UG/L	81
7)	C035 Acetone	5.49	43.0	3075	41.98	UG/L	75
8)	C040 Carbon Disulfide	5.20	76.0	66633	54.32	UG/L	99
9)	C045 1,1-Dichloroethene	5.00	96.0	33391	53.88	UG/L	95
10)	C050 1,1-Dichloroethane	8.15	63.0	65691	50.33	UG/L	93
11)	C053 1,2-Dichloroethene(total)	7.17	96.0	68705M	99.88	UG/L	90
12)	C060 Chloroform	10.27	83.0	93957	44.87	UG/L	97
13)	CS15 1,2-Dichloroethane-d4	11.08	65.0	55318	41.69	UG/L	96
14)	C065 1,2-Dichloroethane	11.23	62.0	54430	39.66	UG/L	93
15)	C110 2-Butanone	9.71	43.0	4155	38.18	UG/L	91
16)	*CI10 1,4-Difluorobenzene	12.13	114.0	112941	50.00	UG/L	100
17)	C115 1,1,1-Trichloroethane	10.39	97.0	81993M	43.36	UG/L	
18)	C120 Carbon Tetrachloride	10.72	117.0	79164	49.74	UG/L	92
19)	C130 Bromodichloromethane	13.54	83.0	92333	43.83	UG/L	93
20)	C140 1,2-Dichloropropane	12.87	63.0	32819	50.89	UG/L	98
21)	C172 Trans-1,3-Dichloropropene	15.59	75.0	14324	16.13	UG/L	99
22)	C150 Trichloroethene	12.48	130.0	64146	52.33	UG/L	95
23)	C155 Dibromochloromethane	16.57	129.0	91161	44.67	UG/L	88
24)	C160 1,1,2-Trichloroethane	15.88	97.0	36445	49.54	UG/L	93
25)	C165 Benzene	11.11	78.0	72553	50.07	UG/L	100
26)	C143 cis-1,3-Dichloropropene	14.42	75.0	78925	74.12	UG/L	98
27)	C180 Bromoform	19.42	173.0	64473	44.05	UG/L	95
28)	*CI20 Chlorobenzene-d5	17.68	117.0	96472	50.00	UG/L	98
29)	C210 2-Hexanone	16.57	43.0	8133	36.77	UG/L	88
30)	C205 4-Methyl-2-Pentanone	14.89	43.0	15158M	39.27	UG/L	
31)	C220 Tetrachloroethene	16.02	164.0	65112	50.44	UG/L	96
32)	C225 1,1,2,2-Tetrachloroethane	20.69	83.0	28347	36.21	UG/L	87
33)	C230 Toluene	14.98	91.0	95396	47.84	UG/L	99
34)	CS05 Toluene d-8	14.89	98.0	98649	50.17	UG/L	95
35)	C235 Chlorobenzene	17.74	112.0	94503	49.94	UG/L	96
36)	C240 Ethylbenzene	18.09	106.0	35277	47.71	UG/L	98
37)	C245 Styrene	19.19	104.0	75075	46.03	UG/L	81
38)	C250 Total Xylenes	19.13	106.0	47705	48.99	UG/L	97
39)	CS10 Bromofluorobenzene	20.20	95.0	84827	47.03	UG/L	80

* Compound is ISTD

case# proj # 3916

QUANT REPORT

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920204 10:31
Output File: ^G1548::D1 Injected at: 920204 09:52
Data File: >G1548::D7 Dilution Factor: 1.00000
Name: VSTD050 CH#13 Instrument ID: MS7
Misc: ID#MS7 50PPB STD LOW WATER 5.0ML+QC 1-33 RW

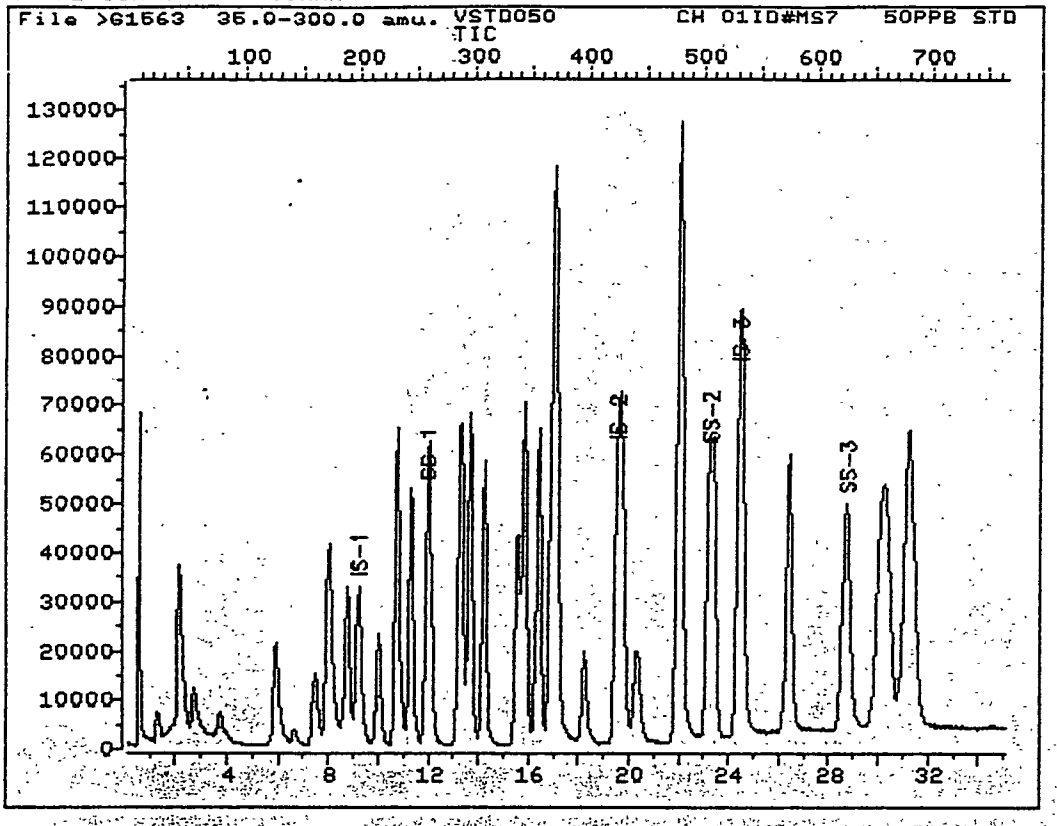
ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Date: 920203 20:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	49583	50.00	UG/L	77
2)	C010 Chloromethane	1.35	50.0	32116	39.77	UG/L	90
3)	C015 Bromomethane	2.13	94.0	76294	45.45	UG/L	85
4)	C020 Vinyl Chloride	2.72	62.0	47521	42.38	UG/L	92
5)	C025 Chloroethane	3.77	64.0	28457	41.97	UG/L	98
6)	C030 Methylene Chloride	5.87	84.0	64496	52.75	UG/L	82
7)	C035 Acetone	6.64	43.0	11534	49.36	UG/L	96
8)	C040 Carbon Disulfide	7.42	76.0	119605	46.18	UG/L	98
9)	C045 1,1-Dichloroethene	8.74	96.0	58870	48.20	UG/L	88
10)	C050 1,1-Dichloroethane	9.97	63.0	110310	46.23	UG/L	93
11)	C053 1,2-Dichloroethene(TOTAL)	10.70	96.0	123108	97.53	UG/L	98
12)	C060 Chloroform	11.30	83.0	192126	49.61	UG/L	98
13)	CS15 1,2-Dichloroethane-d4	11.93	65.0	148789	52.50	UG/L	84
14)	C065 1,2-Dichloroethane	12.03	62.0	151801	49.99	UG/L	90
15)	C110 2-Butanone	11.98	43.0	15480	42.19	UG/L	92
16)	*CI10 1,4-Difluorobenzene	19.46	114.0	202004	50.00	UG/L	92
17)	C115 1,1,1-Trichloroethane	13.26	97.0	203112	48.28	UG/L	80
18)	C120 Carbon Tetrachloride	13.62	117.0	213971	47.35	UG/L	99
19)	C130 Bromodichloromethane	14.21	83.0	180915	47.77	UG/L	98
20)	C140 1,2-Dichloropropane	15.54	63.0	61776	45.00	UG/L	98
21)	C172 Trans-1,3-Dichloropropene	17.09	75.0	52139M	18.81	UG/L	
22)	C150 Trichloroethene	16.40	130.0	101203	45.49	UG/L	92
23)	C155 Dibromochloromethane	17.00	129.0	180443	45.96	UG/L	85
24)	C160 1,1,2-Trichloroethane	17.09	97.0	71673	45.45	UG/L	93
25)	C165 Benzene	16.91	78.0	143752	45.56	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.81	75.0	205538	73.85	UG/L	99
27)	C180 Bromoform	19.69	173.0	146336	45.68	UG/L	99
28)	*CI20 Chlorobenzene-d5	24.39	117.0	172321	50.00	UG/L	97
29)	C210 2-Hexanone	21.92	43.0	25108	39.41	UG/L	85
30)	C205 4-Methyl-2-Pentanone	20.33	43.0	38558	37.22	UG/L	74
31)	C220 Tetrachloroethene	22.01	164.0	102095	47.02	UG/L	92
32)	C225 1,1,2,2-Tetrachloroethane	21.97	83.0	83060M	43.16	UG/L	
33)	C230 Toluene	23.34	91.0	192696	46.86	UG/L	83
34)	CS05 Toluene d-8	23.16	98.0	189331	48.59	UG/L	99
35)	C235 Chlorobenzene	24.48	112.0	170698	46.19	UG/L	97
36)	C240 Ethylbenzene	26.35	106.0	75013	45.42	UG/L	94
37)	C245 Styrene	30.00	104.0	158125	47.09	UG/L	68
38)	C250 Total Xylenes	30.27	106.0	96006M	45.73	UG/L	69
39)	CS10 Bromofluorobenzene	28.68	95.0	143253	50.71	UG/L	93

* Compound is ISTD

Case # 3916
GR

TOTAL ION CHROMATOGRAM



Data File: >G1563::D7 Quant Output File: ^G1563::QT
Name: VSTD050 CH#01 Instrument ID: MS7
Misc: ID#MS7 50PPB STD LOW SOIL 5.0ML CLB

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920204 09:52

Operator ID: VOA7
Quant Time : 920205 12:36
Injected at: 920205 12:00

proj #~~3196~~
LH 3916

CB

QUANT REPORT

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920205 12:36
Output File: ^G1563::D1 Injected at: 920205 12:00
Data File: >G1563::D7 Dilution Factor: 1.00000
Name: VSTD050 CH#01 Instrument ID: MS7
Misc: ID#MS7 50PPB STD LOW SOIL 5.0ML CLB

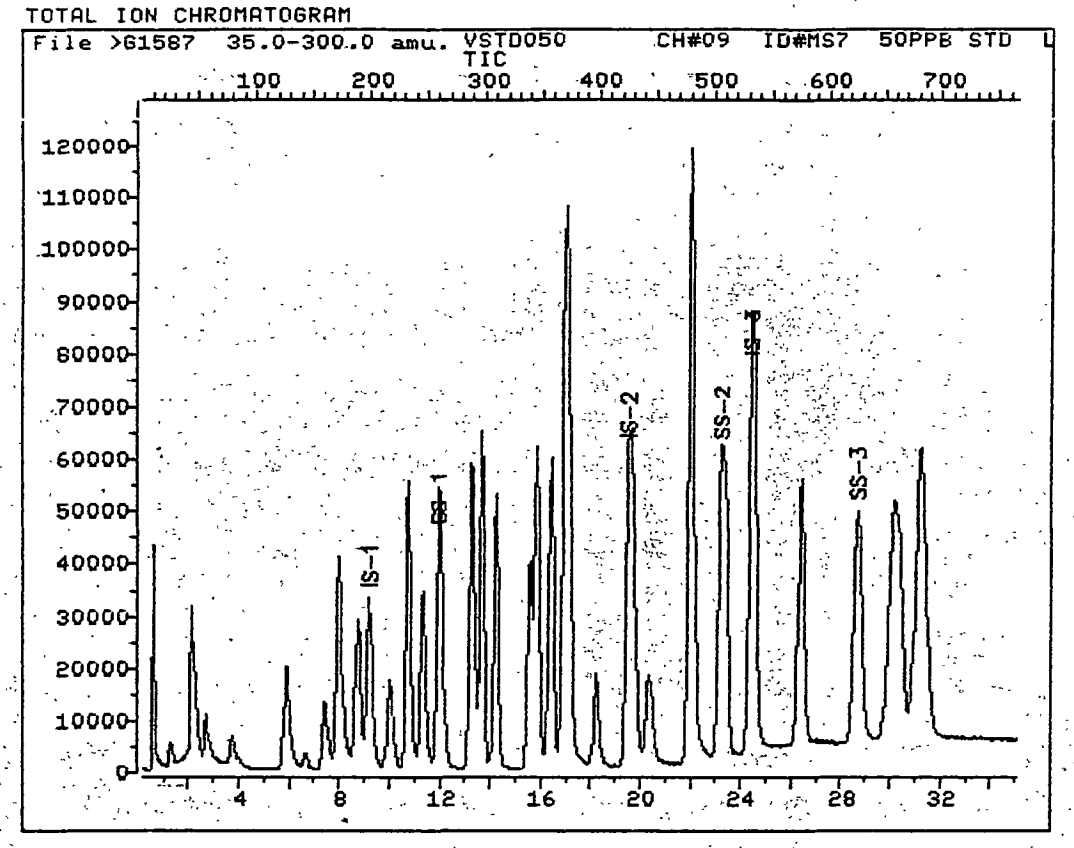
ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Date: 920204 09:52

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01	Bromochloromethane	9.21	128.0	71620M	50.00	UG/L	
2)	C010	Chloromethane	1.31	50.0	42478	45.78	UG/L	93
3)	C015	Bromomethane	2.14	94.0	128385	58.25	UG/L	85
4)	C020	Vinyl Chloride	2.73	62.0	73168	53.30	UG/L	86
5)	C025	Chloroethane	3.73	64.0	42208	51.34	UG/L	95
6)	C030	Methylene Chloride	5.92	84.0	90040	48.32	UG/L	74
7)	C035	Acetone	6.65	43.0	28497	85.52	UG/L	97
8)	C040	Carbon Disulfide	7.43	76.0	182369	52.78	UG/L	98
9)	C045	1,1-Dichloroethene	8.75	96.0	91102	53.57	UG/L	92
10)	C050	1,1-Dichloroethane	10.03	63.0	143894	45.15	UG/L	93
11)	C053	1,2-Dichloroethene(TOTAL)	10.76	96.0	186652	104.97	UG/L	92
12)	C060	Chloroform	11.30	83.0	265427	47.82	UG/L	96
13)	CS15	1,2-Dichloroethane-d4	11.94	65.0	195712	45.53	UG/L	87
14)	C065	1,2-Dichloroethane	12.03	62.0	212448	48.44	UG/L	92
15)	C110	2-Butanone	11.99	43.0	43294	96.81	UG/L	91
16)	*CI10	1,4-Difluorobenzene	19.52	114.0	284855	50.00	UG/L	93
17)	C115	1,1,1-Trichloroethane	13.31	97.0	289030	50.46	UG/L	78
18)	C120	Carbon Tetrachloride	13.68	117.0	279746	46.36	UG/L	98
19)	C130	Bromodichloromethane	14.22	83.0	254056	49.79	UG/L	97
20)	C140	1,2-Dichloropropane	15.55	63.0	86926	49.89	UG/L	99
21)	C172	Trans-1,3-Dichloropropene	17.14	75.0	74836M	20.36	UG/L	
22)	C150	Trichloroethene	16.41	130.0	150294	52.66	UG/L	97
23)	C155	Dibromochloromethane	17.01	129.0	259651	51.02	UG/L	85
24)	C160	1,1,2-Trichloroethane	17.10	97.0	111017	54.92	UG/L	92
25)	C165	Benzene	16.92	78.0	219410	54.12	UG/L	100
26)	C143	cis-1,3-Dichloropropene	15.82	75.0	294275	81.22	UG/L	99
27)	C180	Bromoform	19.70	173.0	253928	61.53	UG/L	99
28)	*CI20	Chlorobenzene-d5	24.40	117.0	244133	50.00	UG/L	97
29)	C210	2-Hexanone	21.98	43.0	74406	104.59	UG/L	85
30)	C205	4-Methyl-2-Pentanone	20.34	43.0	103204	94.46	UG/L	73
31)	C220	Tetrachloroethene	22.07	164.0	145974	50.46	UG/L	93
32)	C225	1,1,2,2-Tetrachloroethane	21.98	83.0	176820M	75.13	UG/L	
33)	C230	Toluene	23.39	91.0	289085	52.95	UG/L	80
34)	CS05	Toluene d-8	23.21	98.0	259171	48.31	UG/L	97
35)	C235	Chlorobenzene	24.54	112.0	245763	50.81	UG/L	98
36)	C240	Ethylbenzene	26.41	106.0	113473	53.39	UG/L	93
37)	C245	Styrene	30.06	104.0	229086	51.13	UG/L	67
38)	C250	Total Xylenes	30.33	106.0	140389M	51.61	UG/L	71
39)	CS10	Bromofluorobenzene	28.73	95.0	198081	48.80	UG/L	92

* Compound is ISTD

Case# 3916
01/2

TOTAL ION CHROMATOGRAM



Data File: >G1587::D7 Quant Output File: ^G1587::QT
Name: VSTD050 CH#09 Instrument ID: MS7
Misc: ID#MS7 50PPB STD LOW SOIL 5.0ML+Q1-18 LH

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920206 14:48

Operator ID: VOA7
Quant Time : 920208 10:08
Inj cted at: 920208 09:31

proj #~~3196~~ 3916
LP

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920208 10:08
Output File: ^G1587::QT Injected at: 920208 09:31
Data File: >G1587::D7 Dilution Factor: 1.00000
Name: VSTD050 CH#09 Instrument ID: MS7
Misc: ID#MS7 50PPB STD LOW SOIL 5.0ML+Q1-18 LH

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920206 14:48

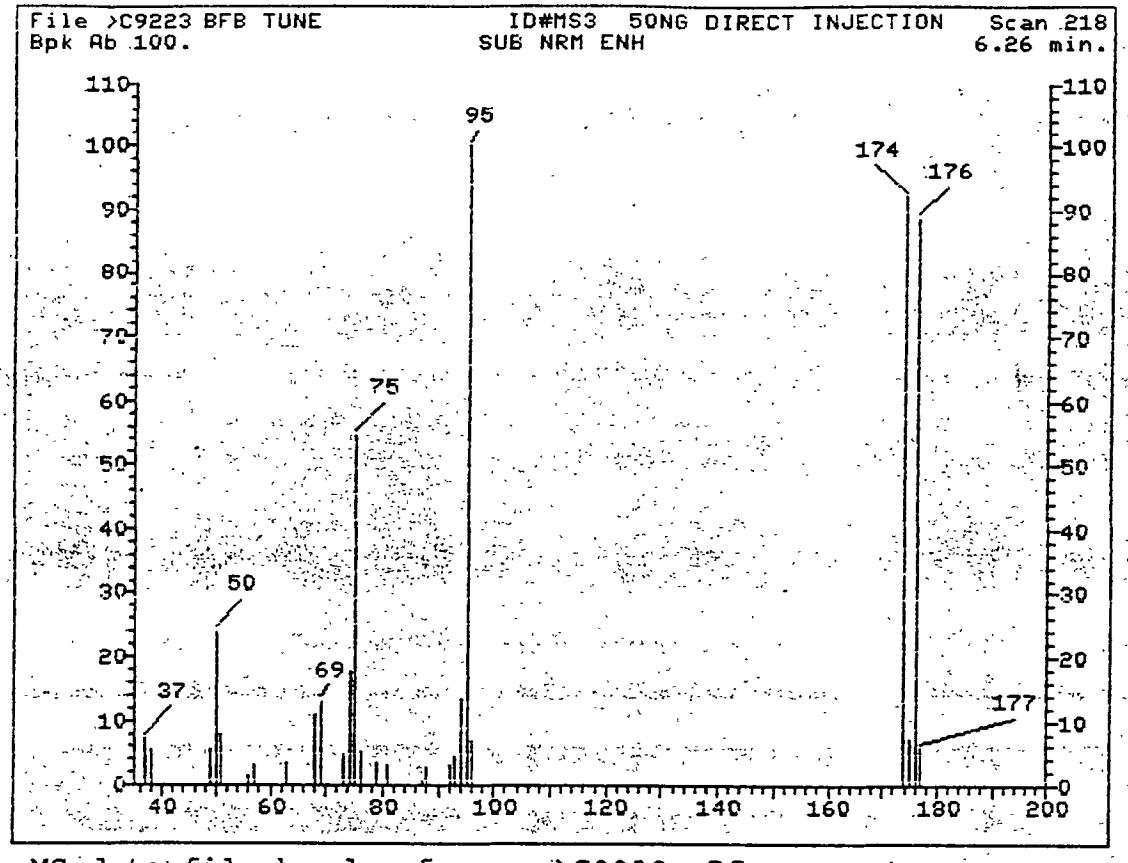
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	74162	50.00	UG/L	70
2)	C010 Chloromethane	1.26	50.0	32910	43.51	UG/L	90
3)	C015 Bromomethane	2.13	94.0	114546	56.62	UG/L	87
4)	C020 Vinyl Chloride	2.72	62.0	64434	48.78	UG/L	96
5)	C025 Chloroethane	3.73	64.0	34580	51.50	UG/L	92
6)	C030 Methylene Chloride	5.87	84.0	83754	53.21	UG/L	73
7)	C035 Acetone	6.65	43.0	28133	41.99	UG/L	95
8)	C040 Carbon Disulfide	7.42	76.0	159033	50.27	UG/L	97
9)	C045 1,1-Dichloroethene	8.74	96.0	84149	53.18	UG/L	91
10)	C050 1,1-Dichloroethane	10.02	63.0	127992	52.79	UG/L	93
11)	C053 1,2-Dichloroethene(TOTAL)	10.75	96.0	165904	100.53	UG/L	93
12)	C060 Chloroform	11.34	83.0	209755	48.90	UG/L	95
13)	CS15 1,2-Dichloroethane-d4	11.94	65.0	196004	45.99	UG/L	87
14)	C065 1,2-Dichloroethane	12.07	62.0	181666	45.16	UG/L	92
15)	C110 2-Butanone	12.03	43.0	46095	53.51	UG/L	91
16)	*CI10 1,4-Difluorobenzene	19.51	114.0	297673	50.00	UG/L	94
17)	C115 1,1,1-Trichloroethane	13.26	97.0	257681	41.50	UG/L	79
18)	C120 Carbon Tetrachloride	13.67	117.0	267253	47.69	UG/L	97
19)	C130 Bromodichloromethane	14.22	83.0	230881	46.90	UG/L	98
20)	C140 1,2-Dichloropropane	15.58	63.0	82583	49.72	UG/L	98
21)	C172 Trans-1,3-Dichloropropene	17.14	75.0	64005M	18.16	UG/L	
22)	C150 Trichloroethene	16.41	130.0	140681	47.97	UG/L	96
23)	C155 Dibromochloromethane	17.00	129.0	238043	47.46	UG/L	85
24)	C160 1,1,2-Trichloroethane	17.09	97.0	102775	49.28	UG/L	92
25)	C165 Benzene	16.91	78.0	208160	51.38	UG/L	100
26)	C143 cis-1,3-Dichloropropene	15.81	75.0	267233	75.83	UG/L	96
27)	C180 Bromoform	19.69	173.0	220090	45.40	UG/L	98
28)	*CI20 Chlorobenzene-d5	24.39	117.0	244904	50.00	UG/L	97
29)	C210 2-Hexanone	20.38	43.0	103630	49.40	UG/L	73
30)	C205 4-Methyl-2-Pentanone	20.38	43.0	103630	49.29	UG/L	74
31)	C220 Tetrachloroethene	22.06	164.0	138532	52.21	UG/L	93
32)	C225 1,1,2,2-Tetrachloroethane	21.97	83.0	156430M	53.18	UG/L	
33)	C230 Toluene	23.39	91.0	266502	50.62	UG/L	81
34)	CS05 Toluene d-8	23.21	98.0	270895	49.94	UG/L	97
35)	C235 Chlorobenzene	24.53	112.0	231732	50.61	UG/L	99
36)	C240 Ethylbenzene	26.40	106.0	103480	51.75	UG/L	96
37)	C245 Styrene	30.06	104.0	212469	51.85	UG/L	71
38)	C250 Total Xylenes	30.33	106.0	129176M	50.83	UG/L	72
39)	CS10 Bromofluorobenzene	28.68	95.0	188392	50.16	UG/L	93

* Compound is IS

proj #3916

VOLATILES

d. RAW QC DATA



MS data file header from : >C9223::D5

Sample: BFB TUNE Operator: VOA2 REG. GRP. 2/01/92 9:15
Misc : ID#MS3 50NG DIRECT INJECTION LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3A Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	80.	160.	0.	0.	0.
Chromatographic times, min. :	5.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	4.0	0.0	0.0	1.5	0.0

case # ~~3196~~ 3916 LH

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relativ Base Peak	Abundance Appropriate Peak	Status
50	8-40% of mass 95	23.90	23.90	Ok
75	30-66% of mass 95	54.65	54.65	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.89	6.89	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	50-120% of mass 95	92.25	92.25	Ok
175	4-9% of mass 174	7.19	7.80	Ok
176	93-101% of mass 174	88.66	96.11	Ok
177	5-9% of mass 176	5.68	6.40	Ok

Injection Date: 02/01/92
Injection Time: 09:15
Data File: >C9223
Scan: 218

>C9223 BFB TUNE ID#MS3 50NG DIRECT INJECTION LH

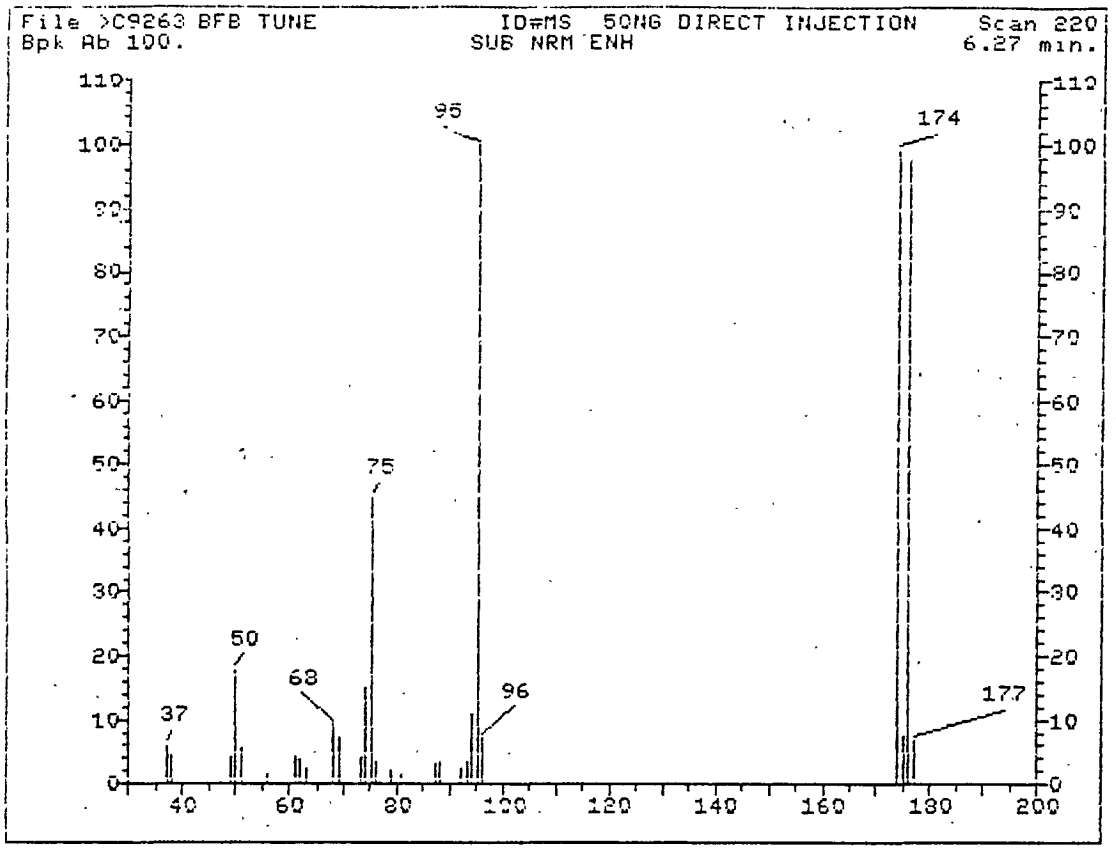
218 SUB NRM ENH

File: >C9223 Scan #: 218 Retn. time: 6.26

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	7.040	56.90	3.204	75.05	54.652	87.95	2.705	96.05	6.887
38.10	5.429	63.05	3.319	76.05	5.179	92.05	3.088	173.95	92.250
49.00	5.659	68.05	11.030	78.95	3.434	93.05	4.450	174.95	7.194
50.00	23.902	69.05	13.083	80.85	3.280	94.05	13.121	175.95	88.663
51.00	7.731	72.95	4.796	86.95	.710	95.05	100.000	176.90	5.678
55.90	1.477	74.05	17.571						

3916

case # ~~3196~~ 41



MS data file header from : >C9263::D5

Sample: BFB TUNE Operator: VOA2 REG. GRP. 2/05/92 15:34
Misc : ID#MS 50NG DIRECT INJECTION LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3A Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	80.	160.	0.	0.	0.
Chromatographic times, min. :	5.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	4.0	0.0	0.0	1.5	0.0

proj # ~~3186~~ 3916
LH

CB

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	17.82	17.82	Ok
75	30-66% of mass 95	44.58	44.58	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.14	7.14	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	50-120% of mass 95	99.24	99.24	Ok
175	4-9% of mass 174	7.63	7.69	Ok
176	93-101% of mass 174	97.80	98.55	Ok
177	5-9% of mass 176	6.68	6.83	Ok

Injection Date: 02/05/92
Injection Time: 15:34
Data File: >C9263
Scan: 220

::

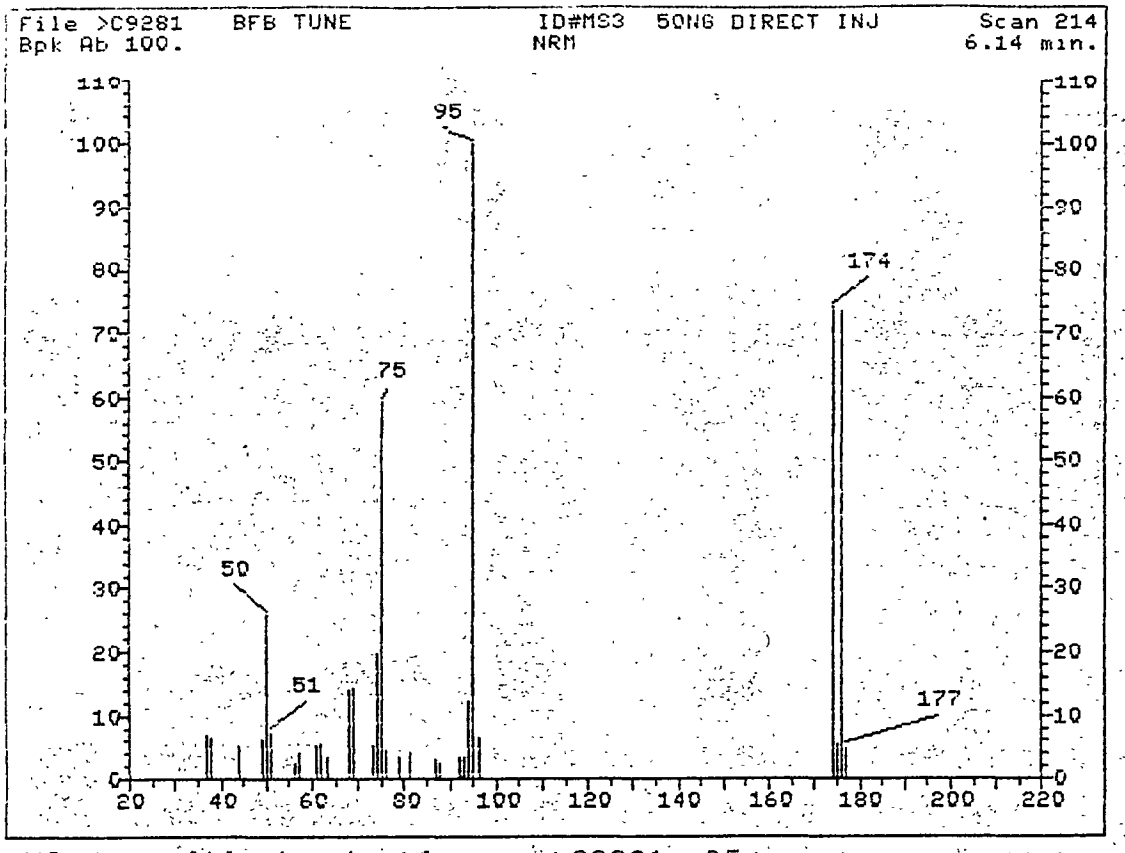
>C9263 BFB TUNE ID#MS 50NG DIRECT INJECTION LH
220 SUB NRM ENH

File: >C9263 Scan #: 220 Retn. time: 6.27

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	5.931	51.00	5.460	69.05	7.306	80.95	1.322	95.05	100.000
38.00	4.609	56.00	1.584	73.05	4.072	87.05	3.037	96.05	7.135
39.00	.628	57.00	.157	74.05	14.821	88.05	3.417	173.95	99.241
44.90	.314	61.05	4.242	75.05	44.580	92.05	2.540	174.95	7.633
47.10	.314	62.05	3.758	76.05	3.561	93.05	3.627	175.95	97.800
49.00	4.124	63.05	2.592	76.95	.753	94.05	10.814	177.00	6.677
50.00	17.819	68.05	9.191	78.95	2.160				

proj# ~~3986~~
LH 3916

CB



MS data file header from : >C9281::D5

Sample: BFB TUNE Operator: VOA1 REG. GRP. 2/06/92 11:52
Misc : ID#MS3 50NG DIRECT INJ YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3A Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp.: 0

Chromatographic temperatures :	80.	160.	0.	0.	0.
Chromatographic times, min. :	5.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	4.0	0.0	0.0	1.5	0.0

proj # ~~3986~~ 3916
44

340

case #

CB

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	25.76	25.76	Ok
75	30-60% of mass 95	59.18	59.18	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.61	6.61	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	73.92	73.92	Ok
175	5-9% of mass 174	5.61	7.59	Ok
176	95-101% of mass 174	73.45	99.36	Ok
177	5-9% of mass 176	4.93	6.71	Ok

Injection Date: 02/06/92
Injection Time: 11:52
Data File: >C9281
Scan: 214

::

>C9281 BFB TUNE ID#MS3 50NG DIRECT INJ
214 NRM

File: >C9281 Scan #: 214 Retn. time: 6.14

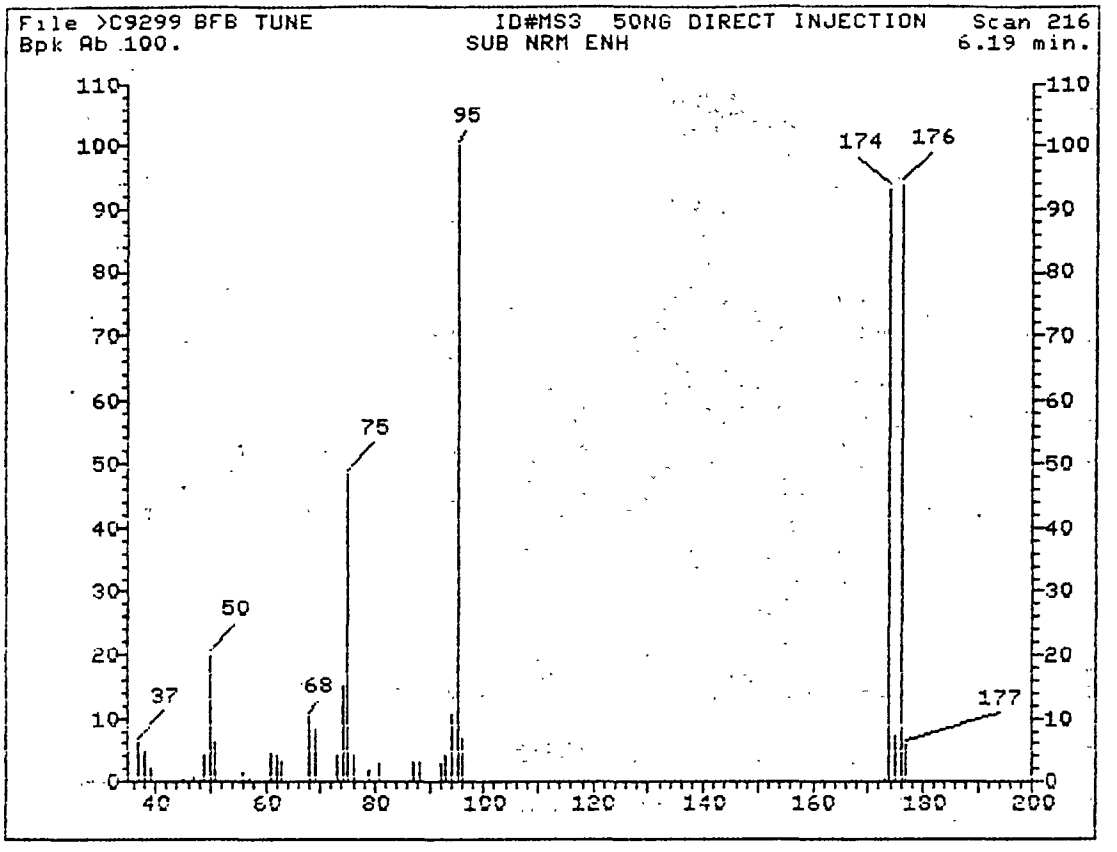
m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	6.873	56.10	2.308	69.05	14.166	81.05	4.040	95.05	100.000
38.00	6.401	57.00	4.092	73.05	5.142	86.95	3.043	96.05	6.611
43.90	5.299	61.05	5.194	74.05	19.517	87.95	2.518	173.95	73.924
49.00	6.034	62.05	5.561	75.05	59.182	91.95	3.568	174.85	5.614
50.00	25.761	63.15	3.620	76.15	4.512	93.05	3.620	175.95	73.452
51.00	7.293	68.05	13.799	79.05	3.515	94.05	12.329	177.00	4.932

proj # ~~3196~~ 3916

UA

case#

CB



MS data file header from : >C9299::D5

Sample: BFB TUNE Operator: VOA2 REG. GRP. 2/08/92 9:01
Misc : ID#MS3 50NG DIRECT INJECTION LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3A Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	80.	160.	0.	0.	0.
Chromatographic times, min. :	5.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	4.0	0.0	0.0	1.5	0.0

proj # ~~3186~~ 3916
LH

case H

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	19.73	19.73	Ok
75	30-66% of mass 95	48.29	48.29	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.98	6.98	Ok
173	Less than 2% of mass 174	.46	.49	Ok
174	50-120% of mass 95	93.10	93.10	Ok
175	4-9% of mass 174	7.32	7.86	Ok
176	93-101% of mass 174	93.73	100.68	Ok
177	5-9% of mass 176	5.75	6.13	Ok

Injection Date: 02/08/92
Injection Time: 09:01
Data File: >C9299
Scan: 216

::

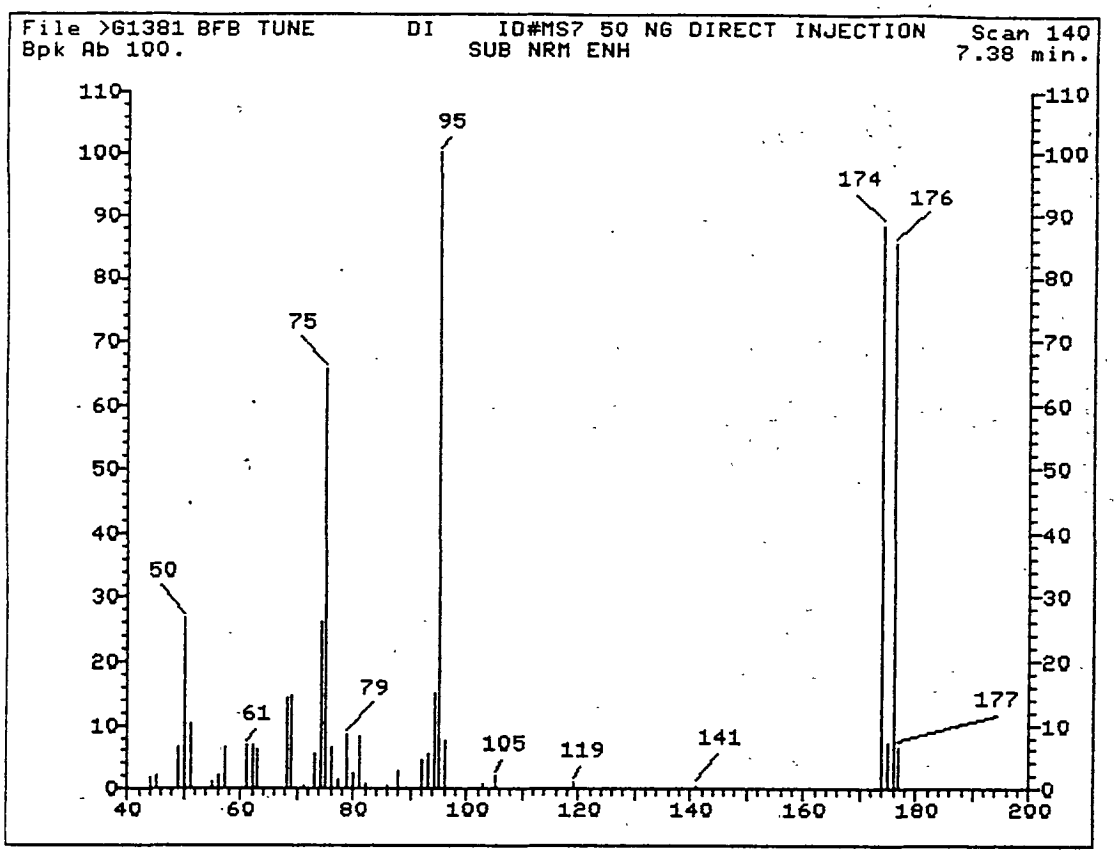
>C9299 BFB TUNE ID#MS3 50NG DIRECT INJECTION LH
216 SUB NRM ENH

File: >C9299 Scan #: 216 Retn. time: 6.19

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	6.020	51.00	6.131	69.05	8.331	87.05	2.979	96.05	6.984
38.10	4.660	55.90	1.372	73.05	3.993	88.05	3.078	172.85	.457
39.00	1.953	57.10	.692	74.05	14.994	92.05	2.682	173.85	93.103
44.90	.445	60.95	4.598	75.05	48.294	93.05	4.116	174.95	7.318
46.90	.618	62.05	4.178	76.05	3.980	94.05	10.593	175.95	93.733
49.00	4.203	63.05	3.028	78.85	1.693	95.05	100.000	177.00	5.748
50.00	19.728	68.05	10.087	80.95	2.831				

proj # 3916
LH 3916

Case #



MS data file header from : >G1381::D7

Sample: BFB TUNE DI Operator: VOA7 REG. GRP. 1/04/92 10:47
Misc : ID#MS7 50 NG DIRECT INJECTION JTH
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7A Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	220.	220.	0.	0.	0.
Chromatographic times, min. :	10.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	1.0	0.0	0.0	.5	0.0

3916

CLX# ~~3196~~ 4H

CB

:RU,TUNER,=BFB::DB

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	26.73	26.73	Ok
75	30-66% of mass 95	65.63	65.63	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.44	7.44	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	50-120% of mass 95	88.39	88.39	Ok
175	4-9% of mass 174	7.05	7.97	Ok
176	93-101% of mass 174	85.51	96.75	Ok
177	5-9% of mass 176	6.54	7.64	Ok

Injection Date: 01/04/92
Injection Time: 10:47
Data File: >G1381
Scan: 140

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>G1381 BFB TUNE DI ID#MS7 50 NG DIRECT INJECTION JTH
140 SUB NRM ENH

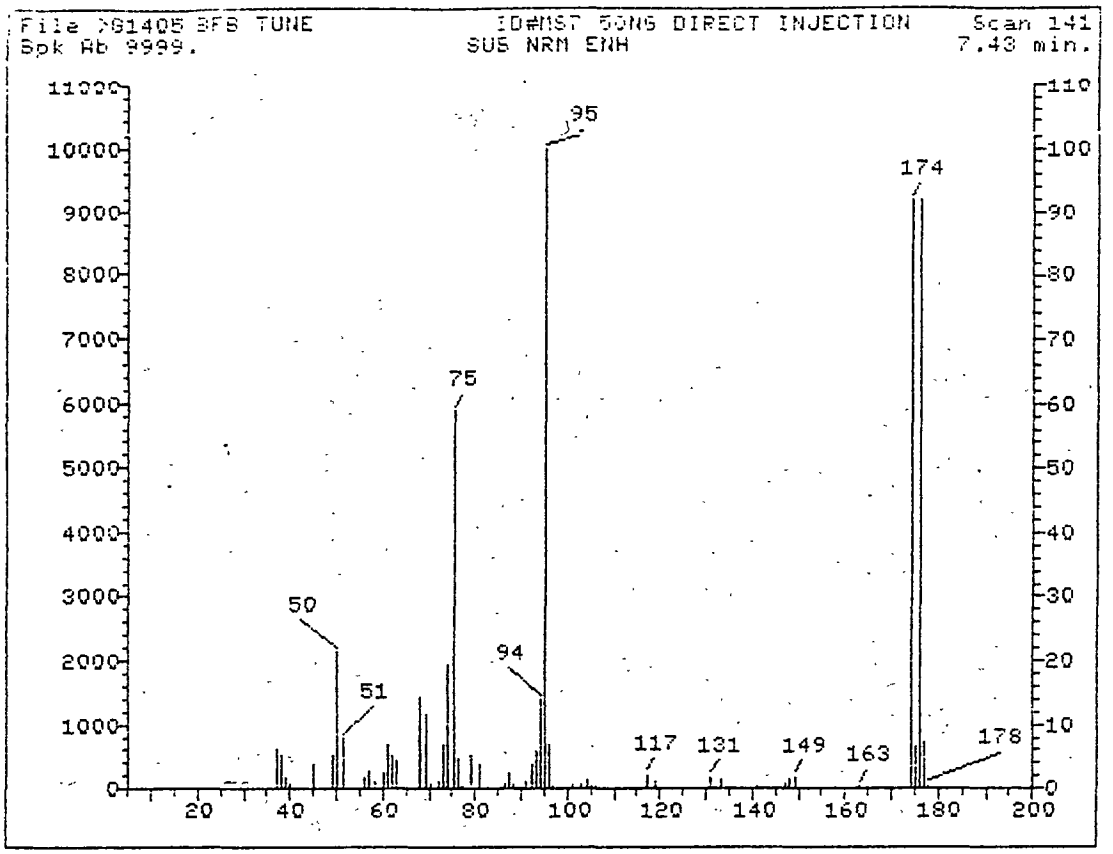
File: >G1381 Scan #: 140 Retn. time: 7.38

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	8.740	55.10	1.181	73.10	5.551	86.00	.433	105.00	2.008
38.10	7.441	56.00	2.047	74.10	26.260	88.00	2.874	119.00	1.063
39.10	2.480	57.10	6.496	75.10	65.630	92.00	4.528	141.05	.591
40.00	1.772	61.10	6.811	76.10	6.496	93.10	5.512	173.95	88.386
44.10	1.772	62.10	6.732	77.10	1.378	94.10	14.803	174.95	7.047
45.10	2.165	63.10	6.024	78.90	8.465	95.10	100.000	175.95	85.512
49.00	6.417	68.10	14.409	80.00	2.559	96.10	7.441	177.05	6.535
50.10	26.732	69.10	14.764	81.00	8.189	103.10	.709	280.95	.748
51.10	10.276	71.10	.315	82.00	.748				

3916

case # ~~3196~~ 41

CB



MS data file header from : >G1405::D7

Sample: BFB TUNE Operator: VOA7 REG. GRP. 1/11/92 10:43
Misc : ID#MS7 50NG DIRECT INJECTION LH
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7A Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	220.	220.	0.	0.	0.
Chromatographic times, min. :	10.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	1.0	0.0	0.0	.5	0.0

proj # 3786
LH 3916

case #

346 JJ

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	21.27	21.27	Ok
75	30-66% of mass 95	58.77	58.77	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.85	6.85	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	50-120% of mass 95	91.92	91.92	Ok
175	4-9% of mass 174	6.40	6.96	Ok
176	93-101% of mass 174	91.92	100.00	Ok
177	5-9% of mass 176	7.13	7.76	Ok

Injection Date: 01/11/92
Injection Time: 10:43
Data File: >G1405
Scan: 141

::

>G1405 BFB TUNE ID#MS7 50NG DIRECT INJECTION LH
141 SUB NRM ENH

File: >G1405 Scan #: 141 Retn. time: 7.43

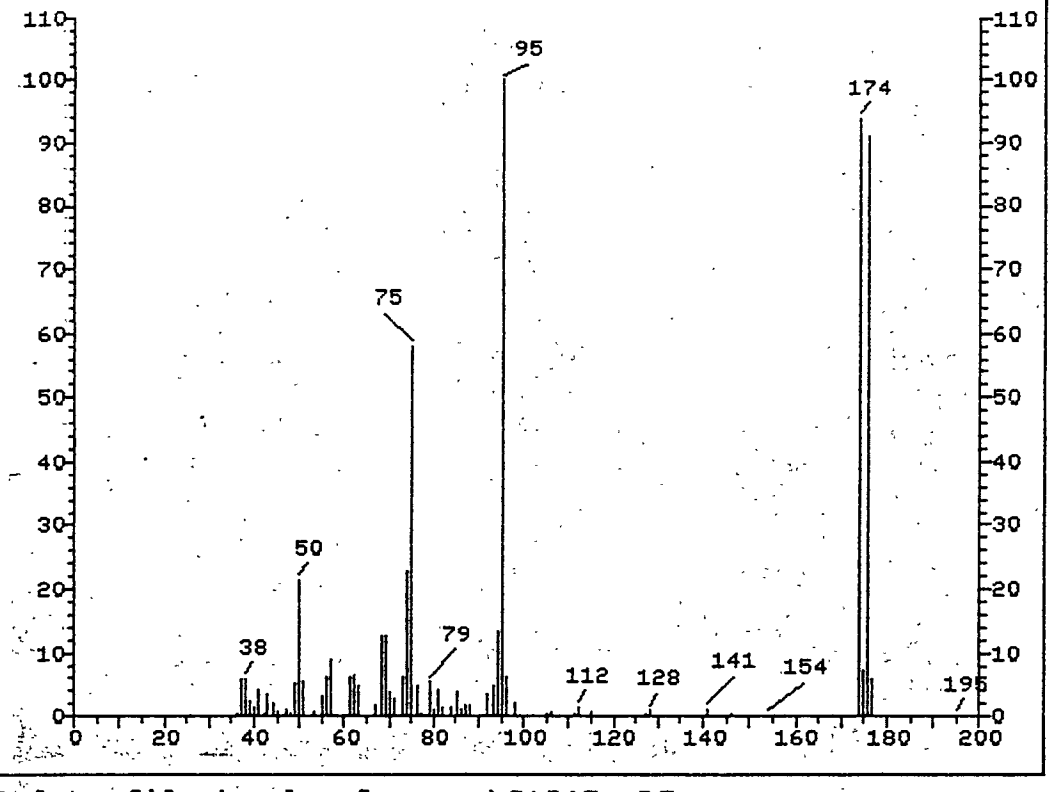
m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	603.14	58.00	118.01	76.05	498.25	96.05	684.43	147.05	89.16
38.00	503.49	60.00	259.61	77.05	55.07	97.05	49.82	148.05	141.61
39.00	173.07	61.00	687.05	78.95	532.34	101.05	89.16	149.05	186.19
40.00	89.16	62.05	511.36	80.95	385.48	103.05	73.43	162.95	28.85
41.00	7.87	63.05	432.69	86.05	73.43	104.05	144.23	173.95	9191.32
42.00	13.11	68.05	1423.93	87.05	233.39	105.05	47.20	174.95	639.85
43.00	15.73	69.05	1161.70	88.05	73.43	106.05	55.07	175.95	9191.32
45.00	372.37	70.05	89.16	91.05	115.38	117.05	217.65	176.95	713.28
49.10	511.36	72.05	94.40	92.05	390.73	119.05	102.27	177.95	49.82
50.00	2126.72	73.05	681.81	93.05	592.65	131.05	186.19	207.10	249.12
51.10	770.97	74.05	1940.54	94.05	1384.60	133.05	131.12	209.00	44.58
56.00	188.81	75.05	5876.67	95.05	9999.00	140.85	36.71	266.90	55.07
57.00	280.59								

proj #3916

case #

347

Bpk Ab 100. SUB NRM ENH 7.43 min.



MS data file header from : >G1547::D7

Sample: BFB TUNE Operator: VOA7 REG. GRP. 2/04/92 9:11
Misc : ID#MS7 50NG DIRECT INJECTION RW
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7A Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	220.	220.	0.	0.	0.
Chromatographic times, min. :	10.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	1.0	0.0	0.0	.5	0.0

proj# ~~3496~~ 3916

348 CB

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	21.53	21.53	Ok
75	30-66% of mass 95	58.02	58.02	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.28	6.28	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	50-120% of mass 95	93.70	93.70	Ok
175	4-9% of mass 174	7.05	7.52	Ok
176	93-101% of mass 174	90.85	96.96	Ok
177	5-9% of mass 176	5.74	6.32	Ok

Injection Date: 02/04/92
Injection Time: 09:11
Data File: >G1547
Scan: 141

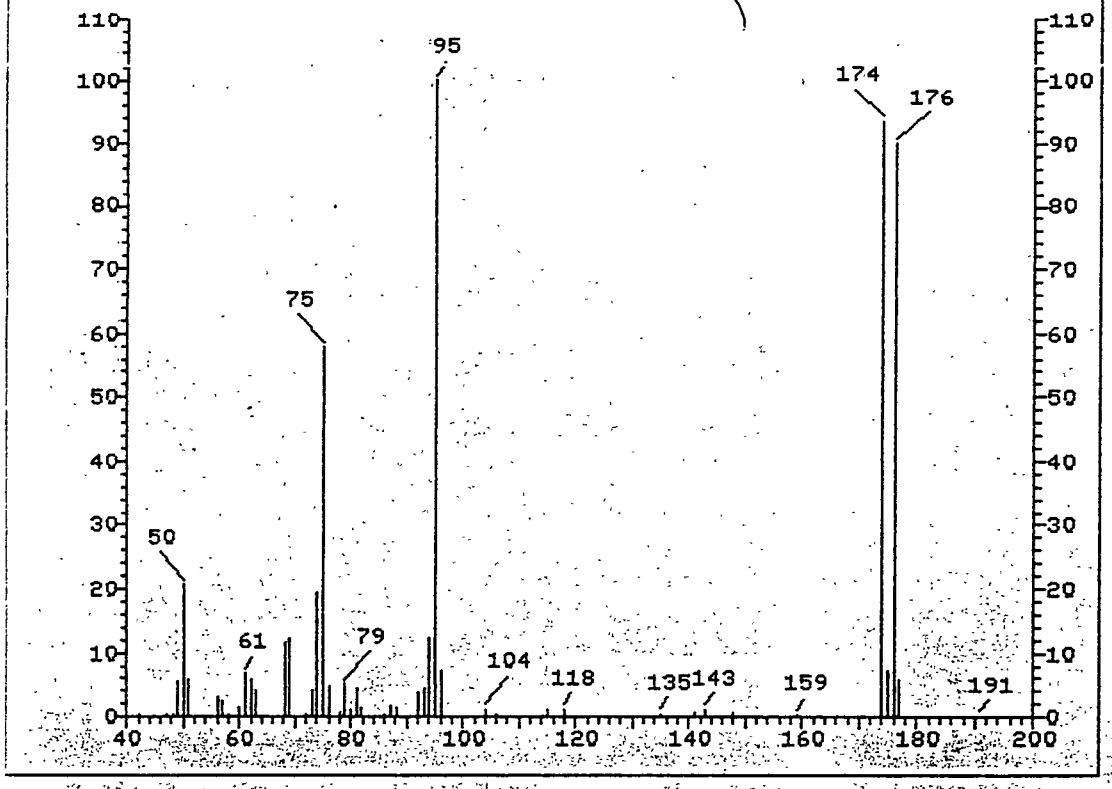
File: >G1547 Scan #: 141 Retn. time: 7.43

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	.517	50.00	21.529	71.15	2.934	87.05	1.632	127.05	.496
37.00	5.785	51.00	5.579	73.05	6.054	87.95	1.694	127.95	1.095
38.00	5.992	53.00	.661	74.05	22.727	92.05	3.450	140.95	1.136
39.00	2.562	55.00	2.975	75.05	58.017	93.05	4.669	145.95	.269
40.00	1.570	56.00	6.116	76.05	4.979	94.05	13.202	147.05	.062
41.10	4.194	57.10	9.008	77.05	.455	95.05	100.000	153.95	.207
42.10	.351	61.00	6.157	78.95	5.475	96.05	6.281	173.95	93.698
43.00	3.533	62.05	6.653	79.85	.930	98.05	2.190	174.95	7.045
44.00	2.169	63.05	4.731	81.05	4.091	105.05	.537	175.95	90.847
45.00	.702	67.05	1.921	82.05	1.343	105.95	.764	176.95	5.744
47.10	1.074	68.05	12.562	84.05	1.488	111.15	.393	195.00	.248
48.00	.517	69.05	12.562	85.15	3.781	112.15	1.570	221.10	.950
49.00	5.207	70.15	3.967	86.05	1.054	115.05	.640	281.00	.021

proj# ~~3196~~ 3916
4H

CB

File >G1562 BFB TUNE ID#MS7 50NG DIRECT INJECTI Scan 142
Bpk Ab 100. SUB NRM ENH 7.48 min.



MS data file header from : >G1562::D7

Sample: BFB TUNE Operator: VOA7 REG. GRP. 2/05/92 11:00
Misc : ID#MS7 50NG DIRECT INJECTION CLB
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7A Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp.: 0

Chromatographic temperatures :	220.	220.	0.	0.	0.
Chromatographic times, min. :	10.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	1.0	0.0	0.0	.5	0.0

proj #~~3196~~
4 3916

CB

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relativ Base P ak	Abundance Appropriate Peak	Status
50	8-40% of mass 95	20.57	20.57	Ok
75	30-66% of mass 95	57.73	57.73	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.28	7.28	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	50-120% of mass 95	93.46	93.46	Ok
175	4-9% of mass 174	7.22	7.72	Ok
176	93-101% of mass 174	89.83	96.12	Ok
177	5-9% of mass 176	5.73	6.38	Ok

Injection Date: 02/05/92
Injection Time: 11:00
Data File: >G1562
Scan: 142

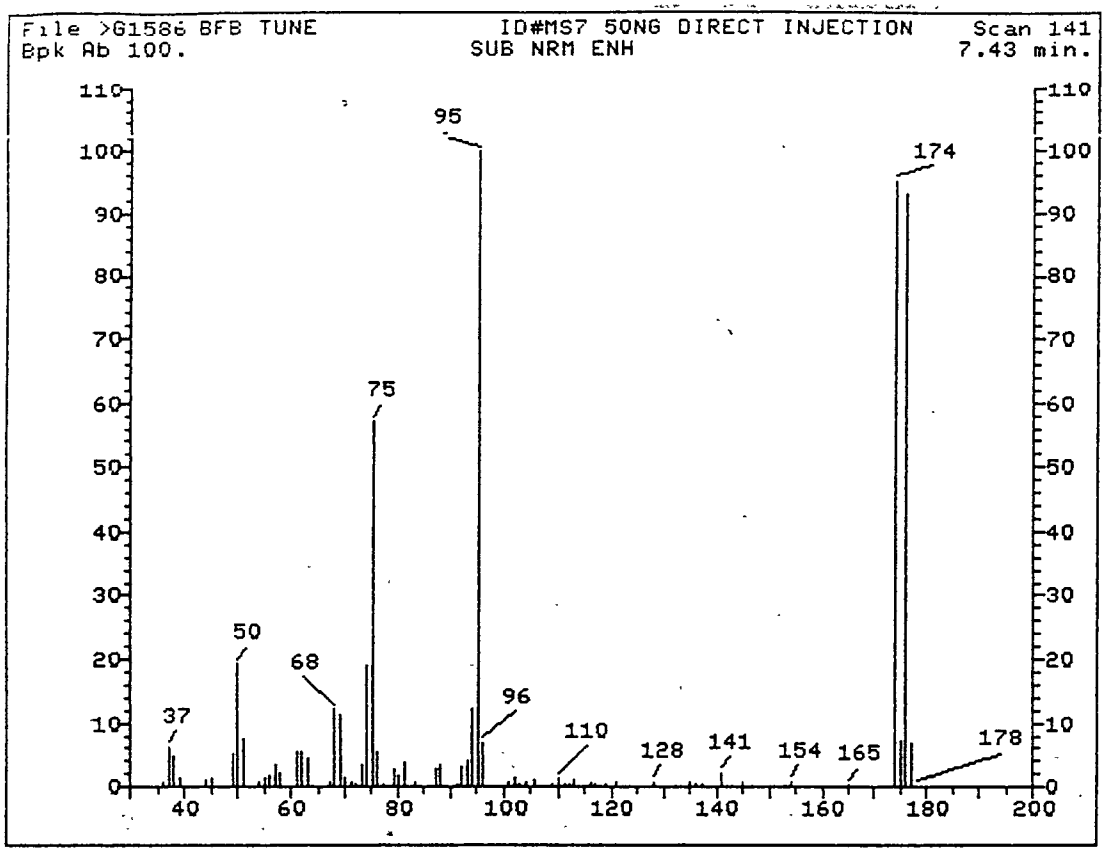
>G1562 BFB TUNE ID#MS7 50NG DIRECT INJECTION
142 SUB NRM ENH

File: >G1562 Scan #: 142 Retn. time: 7.48

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	1.289	57.00	2.551	77.95	.638	96.05	7.282	142.05	.173
37.00	6.485	58.00	.425	78.95	5.010	97.15	.226	142.95	1.169
38.00	4.013	60.00	1.395	79.95	1.223	103.95	1.156	147.95	.837
40.00	.691	61.00	6.817	80.95	4.439	105.95	.478	159.05	.385
42.00	.385	62.05	5.794	81.95	1.342	113.05	.173	173.95	93.462
45.90	.186	63.05	4.146	85.15	.133	114.95	1.103	174.95	7.216
47.00	.399	68.05	11.588	86.05	.332	117.05	.066	175.95	89.834
48.10	.571	69.05	12.306	87.05	1.927	117.95	1.130	176.85	5.728
49.00	5.409	72.05	.558	88.05	1.276	131.05	.066	177.95	.173
50.00	20.571	73.05	3.987	92.05	3.654	132.05	.027	191.00	.239
51.00	5.953	74.05	19.349	93.05	4.625	133.05	.027	207.00	.173
55.10	.106	75.05	57.728	94.05	12.346	134.95	.465	267.00	.811
56.00	3.123	76.05	4.877	95.05	100.000	140.95	.797		

Proj #3916
LH

CB



MS data file header from : >G1586::D7

Sample: BFB TUNE Operator: VOA7 REG. GRP. 2/08/92 9:00
Misc : ID#MS7 50NG DIRECT INJECTION LH
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7A Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	220.	220.	0.	0.	0.
Chromatographic times, min. :	10.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	1.0	0.0	0.0	.5	0.0

proj #~~3486~~
4H3916

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	19.22	19.22	Ok
75	30-66% of mass 95	57.18	57.18	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.85	6.85	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	50-120% of mass 95	95.08	95.08	Ok
175	4-9% of mass 174	7.06	7.43	Ok
176	93-101% of mass 174	93.11	97.93	Ok
177	5-9% of mass 176	6.81	7.31	Ok

Injection Date: 02/08/92
Injection Time: 09:00
Data File: >G1586
Scan: 141

>G1586 BFB TUNE ID#MS7 50NG DIRECT INJECTION LH
141 SUB NRM ENH

File: >G1586 Scan #: 141 Retn. time: 7.43

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	.828	59.00	.014	78.05	.128	103.05	.357	129.95	.157
37.00	6.179	61.00	5.380	79.05	2.897	104.05	.799	135.05	.899
38.00	4.966	62.05	5.494	79.95	1.641	105.85	1.199	136.05	.528
39.00	1.341	63.05	4.324	81.05	3.667	109.05	.257	137.15	.471
42.00	.243	66.05	.214	83.15	.870	110.05	1.299	141.05	2.212
43.90	.970	67.05	.728	87.05	2.954	111.15	.328	145.05	.656
45.00	1.498	68.05	12.129	88.05	3.410	112.05	.371	154.05	.928
49.00	5.137	69.05	11.401	89.05	.128	113.05	1.027	155.05	.086
50.00	19.221	70.05	1.299	91.05	.300	114.95	.186	165.15	.314
51.00	7.634	71.15	.828	92.05	3.225	116.05	.870	170.05	.228
53.00	.243	72.05	.585	93.05	4.167	117.05	.514	173.95	95.077
54.10	.756	73.05	3.410	94.05	12.414	119.05	.385	174.95	7.063
55.00	1.570	74.05	18.921	95.05	100.000	121.05	.699	175.95	93.108
56.10	1.727	75.05	57.178	96.05	6.849	121.95	.243	176.95	6.807
57.00	3.396	76.05	5.608	101.05	.842	125.15	.014	178.05	.157
58.00	1.983	77.15	.485	102.05	1.270	128.05	.856		

pro) # ~~3916~~ 3916
CH

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: V70204-B1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1549

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) WATER Lab Sample ID: V70204-B1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G1549

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/04/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

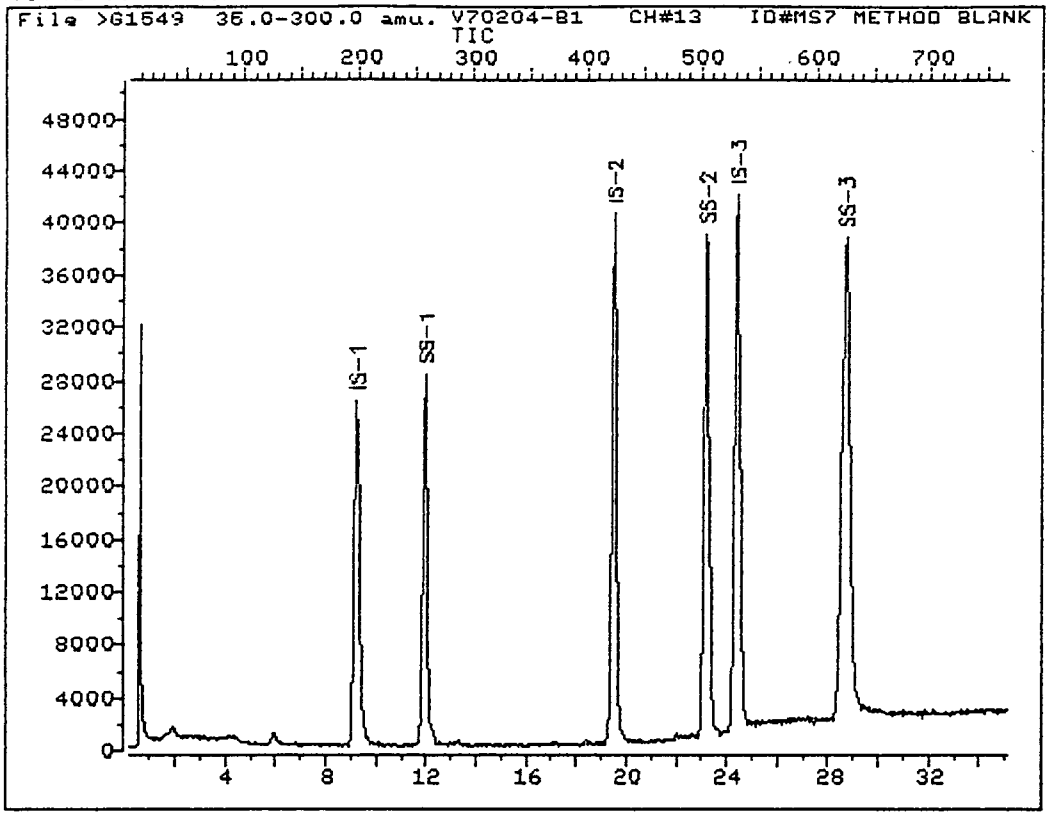
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >G1549::D7 Quant Output File: ^G1549::QT
Name: V70204-B1 CH#13 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW WATER 5.0ML+QC 1-33 RW

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920204 09:52

Operator ID: VOA7
Quant Time : 920204 11:50
Injected at: 920204 11:13

VBLK01

proj# 3196

CB

QUANT REPORT

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920204 11:50
Output File: ^G1549::QT Injected at: 920204 11:13
Data File: >G1549::D7 Dilution Factor: 1.00000
Name: V70204-B1 CH#13 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW WATER 5.0ML+QC 1-33 RW

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920204 09:52

	Compound	R.T.	Q ion	Area	Conc	Units		q
1)	*CI01 Bromochloromethane	9.22	128.0	52920	50.00	UG/L		80
6)	C030 Methylene Chloride	5.93	84.0	3626	2.63	UG/L		72
13)	CS15 1,2-Dichloroethane-d4	11.95	65.0	158040	49.76	UG/L	100%	84
16)	*CI10 1,4-Difluorobenzene	19.47	114.0	213936	50.00	UG/L		91
28)	*CI20 Chlorobenzene-d5	24.40	117.0	181169	50.00	UG/L		97
34)	CS05 Toluene d-8	23.17	98.0	198125	49.77	UG/L	100%	98
39)	CS10 Bromofluorobenzene	28.69	95.0	150961	50.12	UG/L	100%	91

* Compound is ISTD

VBLK01

proj 3196

CB

:RU,FI,>G1549
:RU,EC,,,0:32

reg	type	# pts	scan#	range: amu\r.t.	base	file	ion range
X	GC	699	1	.19- 32.02	42225.0	>G1549	35.00- 300.00

:RU,MSH

MS data file header from : >G1549::D7

Sample: V70204-B1 CH#13 Operator: VOA7 REG. GRP. 2/04/92 11:13
Misc : ID#MS7 METHOD BLANK LOW WATER 5.0ML+QC 1-33 RW
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7B Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	3.0	24.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

:RU,INT,,5,,-1

>G1549 V70204-B1 CH#13 ID#MS7 METHOD BLANK LOW WATER 5.0ML+QC 1

35.0| 300.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 7 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR75 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	.60	5	10	21	31737	154668	137922	16.39	4.007
2	9.22	192	199	216	26048	405628	376864	44.77	10.950
3	11.95	250	259	271	27934	391123	365154	43.38	10.610
4	19.47	416	424	437	40099	589471	556656	66.13	16.174
5	23.17	498	505	518	38087	610798	553041	65.70	16.069
6	24.40	524	532	542	40676	686563	610227	72.49	17.731
7	28.69	615	626	640	36479	1005134	841757	100.00	24.458

Sum of corrected areas: 3441621.

:RU,AL,,1,1

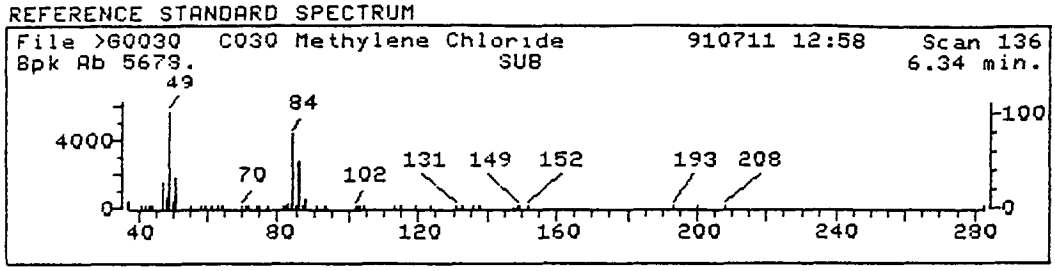
(0) TIC

LH

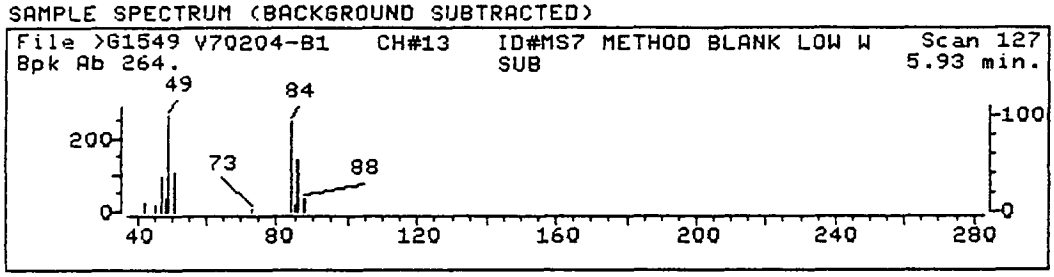
proje # 3196

CB

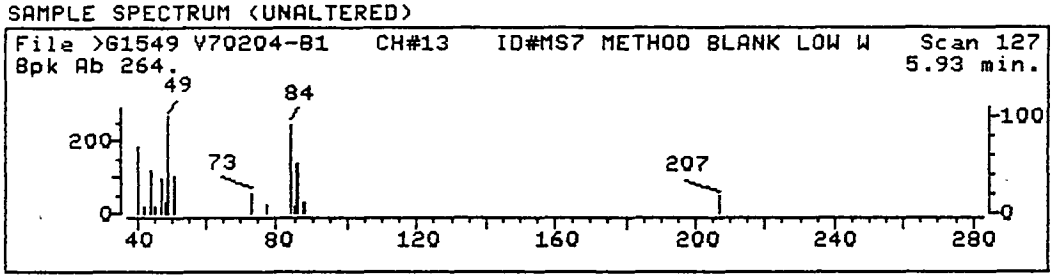
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >G1549::D7 Quant Output File: ^G1549::QT
Name: V70204-B1 CH#13 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW WATER 5.0ML+QC 1-33 RW
Quant Time: 920204 11:50 Quant ID File: V7ID::SC
Injected at: 920204 11:13 Last Calibration: 910703 01:53
Last Qcal Time: 920204 09:52

Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 127
Retention Time: 5.93 min.
Quant Ion : 84.0
Area : 3626
Concentration : 2.63 UG/L
q-value : 72

VBLK01

proj # 3196

CB

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V70205-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1564

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 02/05/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V70205-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1564

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/05/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

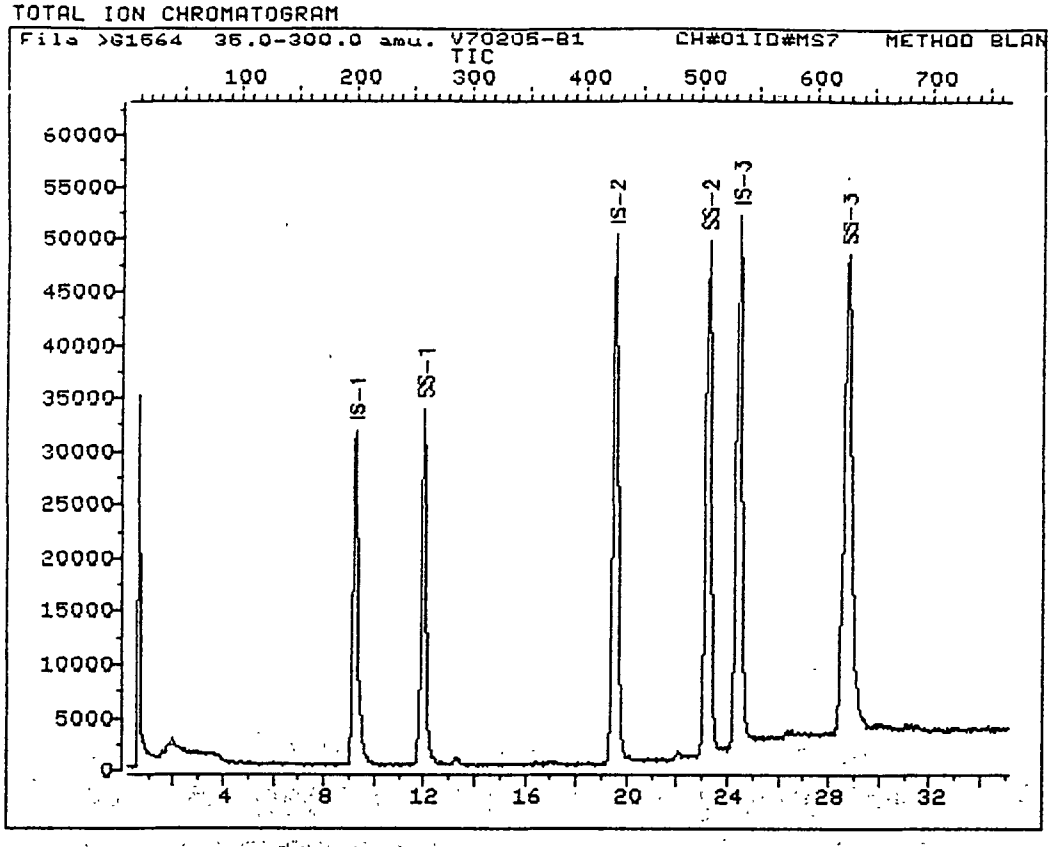
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >G1564::D7 Quant Output File: ^G1564::QT
Name: V70205-B1 CH#01 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW SOIL 5.0ML CLB

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920205 12:00

Operator ID: VOA7
Quant Time : 920205 13:55
Injected at: 920205 13:01

VBLK03

proj #3196

CB

QUANT REPORT

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920205 13:55
Output File: ^G1564::QT Injected at: 920205 13:01
Data File: >G1564::D7 Dilution Factor: 1.00000
Name: V70205-B1 CH#01 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW SOIL 5.0ML CLB

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920205 12:00

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.24	128.0	69195	50.00	UG/L	74
13)	CS15 1,2-Dichloroethane-d4	11.98	65.0	192970	51.03	UG/L 102%	86
16)	*CI10 1,4-Difluorobenzene	19.50	114.0	280078	50.00	UG/L	93
17)	C115 1,1,1-Trichloroethane	13.35	97.0	2957	~~520~~	UG/L	89
28)	*CI20 Chlorobenzene-d5	24.43	117.0	238244	50.00	UG/L	97
33)	C230 Toluene	23.38	91.0	2486	~~441~~	UG/L	69
34)	CS05 Toluene d-8	23.19	98.0	255497	50.51	UG/L 101%	96
39)	CS10 Bromofluorobenzene	28.72	95.0	194926	50.42	UG/L 101%	95

* Compound is ISTD

VBLK03

proj #3196

362

CB

:RU,FI,>G1564
:RU,EC,,,0:32

reg	type	# pts	scan#	range: amu\r.t.	base	file	ion range
X	GC	699	1	.17- 32.00	52349.0	>G1564	35.00- 300.00

:RU,MSH

MS data file header from : >G1564::D7

Sample: V70205-B1 CH#01 Operator: VOA7 REG. GRP. 2/05/92 13:01
Misc : ID#MS7 METHOD BLANK LOW SOIL 5.0ML CLB
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7B Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	3.0	24.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

:RU,INT,,5,,-1

>G1564 V70205-B1 CH#01ID#MS7 METHOD BLANK LOW SOIL 5.0ML
35.0| 300.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 8 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR75 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	.63	6	11	26	34972	276938	257604	24.28	5.699
2	1.95	28	40	49	1886	125529	60317*	5.68	1.334
3	9.24	193	200	220	31472	506960	470468*	44.34	10.409
4	11.98	249	260	272	33465	487144	454674	42.85	10.059
5	19.50	417	425	436	49814	737519	701477	66.11	15.519
6	23.19	497	506	516	48523	781323	713283	67.22	15.781
7	24.43	524	533	548	50378	930681	801146	75.51	17.724
8	28.72	616	627	645	44995	1347202	1061041	100.00	23.474

Sum of corrected areas: 4520010.

:RU,AL,,1,1

(0) TIC
LH

proj # 3196

CB

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30205-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9268

Level: (low/med) MED Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/05/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	1200	U
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30205-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9268

Level: (low/med) MED Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 02/05/92

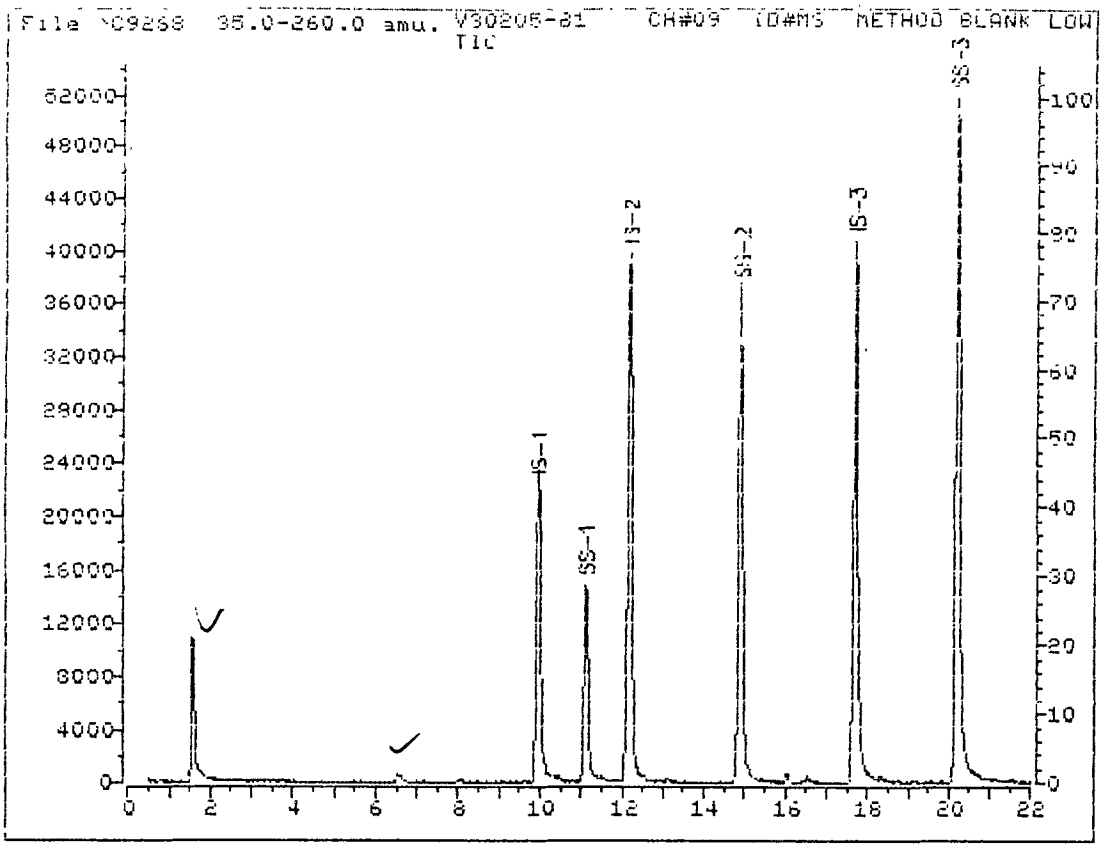
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



MS data file header from : >C9268::D5

Sample: V30205-B1 CH#09 Operator: VOA2 REG. GRP. 2/05/92 22:30
Misc : ID#MS METHOD BLANK LOW WATER 5.0ML+Q1-33 LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

VBLK02

proj # 3196

QUANT REPORT

Operator ID: VOH2 Quant Rev: 7 Quant Time: 920205 22:54
Output File: `C9268::QT Injected at: 920205 22:30
Data File: >C9268::D5 Dilution Factor: 1.00000
Name: V50205-B1 CH#09 Instrument ID: MS5
Misc: ID#MS METHOD BLANK LOW WATER 5.0ML*Q1-33 LH

ID File: V31D::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53ID x3uM ID#MS5
Last Calibration: 910429 11:21 Last Qcal Time: 920205 21:45

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.94	128.0	28535	50.00	UG/L	85
13)	CS15 1,2-Dichloroethane-d4	11.11	65.0	44227	49.53	UG/L 99%	97
16)	*CI10 1,4-Difluorobenzene	12.17	114.0	124454	50.00	UG/L	100
28)	*CI20 Chlorobenzene-d5	17.69	117.0	98756	50.00	UG/L	96
34)	CS05 Toluene d-8	14.90	98.0	104526	50.17	UG/L 100%	99
39)	CS10 Bromofluorobenzene	20.19	95.0	80643	51.04	UG/L 102%	86

* Compound is ISTD

VBLK02

proj #3196

367

CB

MS data file header from : >C9268::D5

Sample: V30205-B1 CH#09 Operator: VOA2 REG. GRP. 2/05/92 22:30
Misc : ID#MS METHOD BLANK LOW WATER 5.0ML+Q1-33 LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

>C9268 V30205-B1 CH#09 ID#MS METHOD BLANK LOW WATER 5.0ML+Q1-

35.0| 260.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 7 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	1.57	48	55	89	10874	67854	66654	16.97	4.169
2	9.96	476	485	503	23537	172726	169499	43.15	10.602
3	11.11	535	544	561	14690	111382	107696	27.41	6.736
4	12.17	589	598	613	39646	285644	281395	71.63	17.600
5	14.88	728	737	762	37472	278931	275902	70.23	17.257
6	17.69	872	881	911	40647	307513	304816	77.59	19.065
7	20.19	1000	1009	1033	51761	395198	392838	100.00	24.571

Sum of corrected areas: 1598800.

(0) TIC

LH

proj # 3196

CB

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30206-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9283

Level: (low/med) MED Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/06/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30206-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9283

Level: (low/med) MED Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/06/92

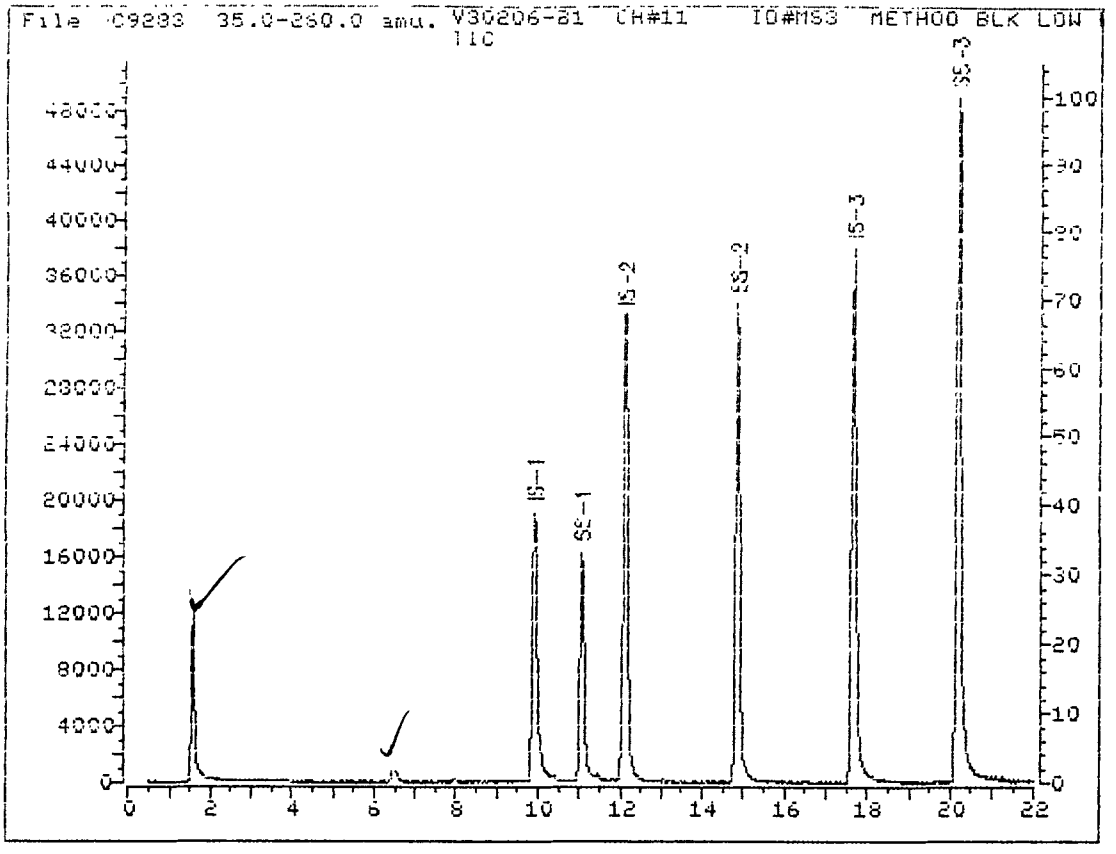
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



MS data file header from : >C9283::D5

Sample: V30206-B1 CH#11 Operator: VOA1 REG. GRP. 2/06/92 16:08
Misc : ID#MS3 METHOD BLK LOW WATER 5.0ML+10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

VBLK04

proj # 3196

case #

370

CB

QUANT REPORT

Operator ID: VOA1 Quant Rev: 7 Quant Time: 920206 16:33
Output File: ^C9283::QT Injected at: 920206 16:08
Data File: >C9283::D5 Dilution Factor: 1.00000
Name: V30206-B1 CH#11 Instrument ID: MS3
Misc: ID#MS3 METHOD BLK LOW WATER 5.0ML+10UL Q1-18 YY

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920206 14:39

	Compound	R.T.	Q ion	Area	Conc	Units		q
1)	*CI01 Bromochloromethane	9.91	128.0	23984	50.00	UG/L		73
6)	C030 Methylene Chloride	6.45	84.0	2073	4.11	UG/L		73
13)	CS15 1,2-Dichloroethane-d4	11.06	65.0	51271	49.49	UG/L	99%	89
16)	*CI10 1,4-Difluorobenzene	12.09	114.0	97536	50.00	UG/L		100
28)	*CI20 Chlorobenzene-d5	17.66	117.0	83237	50.00	UG/L		95
34)	CS05 Toluene d-8	14.85	98.0	89435	50.31	UG/L	101%	98
39)	CS10 Bromofluorobenzene	20.18	95.0	78456	51.14	UG/L	102%	94

* Compound is ISTD

VB4C04

proj # 3196

371

Oeusa

CB

MS data file header from : >C9283::D5

Sample: V30206-B1 CH#11 Operator: VOA1 REG. GRP. 2/06/92 16:08
Misc : ID#MS3 METHOD BLK LOW WATER 5.0ML+10UL Q1-18 YY
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

>C9283 V30206-B1 CH#11 ID#MS3 METHOD BLK LOW WATER 5.0ML+10UL

35.0| 260.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 7 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	1.57	50	57	82	12197	72196	68786	18.13	4.538
2	9.91	476	484	506	19042	169544	164446	43.34	10.849
3	11.06	535	543	560	16211	126468	121255	31.96	8.000
4	12.11	587	597	627	33214	255429	247133	65.13	16.305
5	14.85	727	737	767	33958	252570	248866	65.59	16.419
6	17.66	872	881	908	37978	288524	285823	75.33	18.857
7	20.18	1000	1010	1040	49065	384629	379423	100.00	25.032

Sum of corrected areas: 1515732.

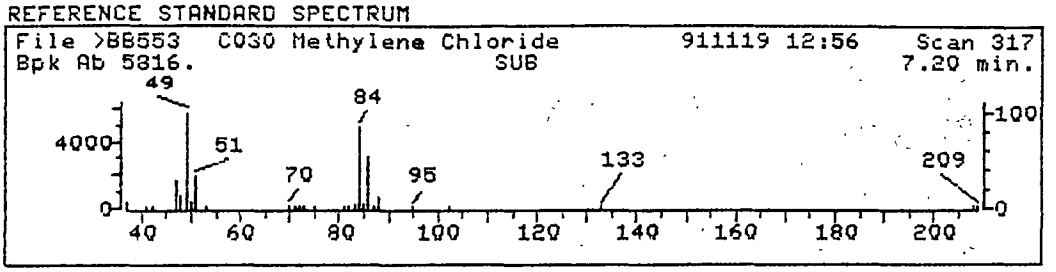
(0) TIC

LH

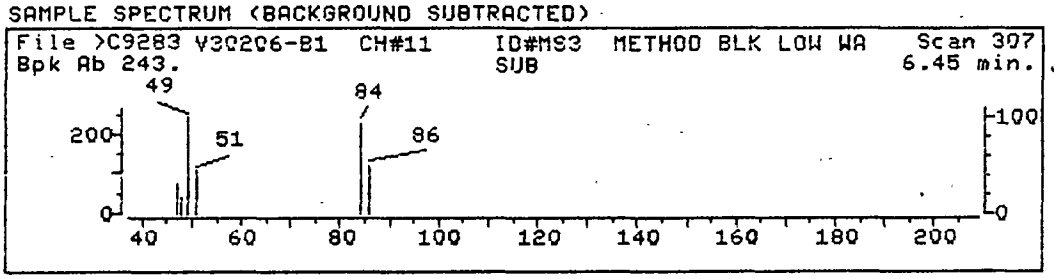
proj # 3196

CB

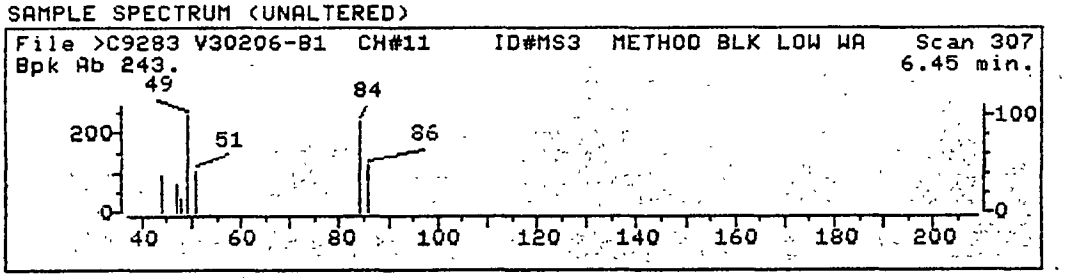
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9283::D5 Quant Output File: ^C9283::QT
Name: V30206-B1 CH#11 Instrument ID: MS3
Misc: ID#MS3 METHOD BLK LOW WATER 5.0ML+10UL Q1-18 YY
Quant Time: 920206 16:33 Quant ID File: V3ID::SC
Injected at: 920206 16:08 Last Calibration: 910429 11:21
Last Qcal Time: 920206 14:39

Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 307
Retention Time: 6.45 min.
Quant Ion : 84.0
Area : 2073
Concentration : 4.11 UG/L
q-value : 73

VB4604 proj # 3196

Case ✗ CB

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK05

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V70208-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1588

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/08/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	1	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK05

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V70208-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: G1588

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/08/92

GC Column: SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

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

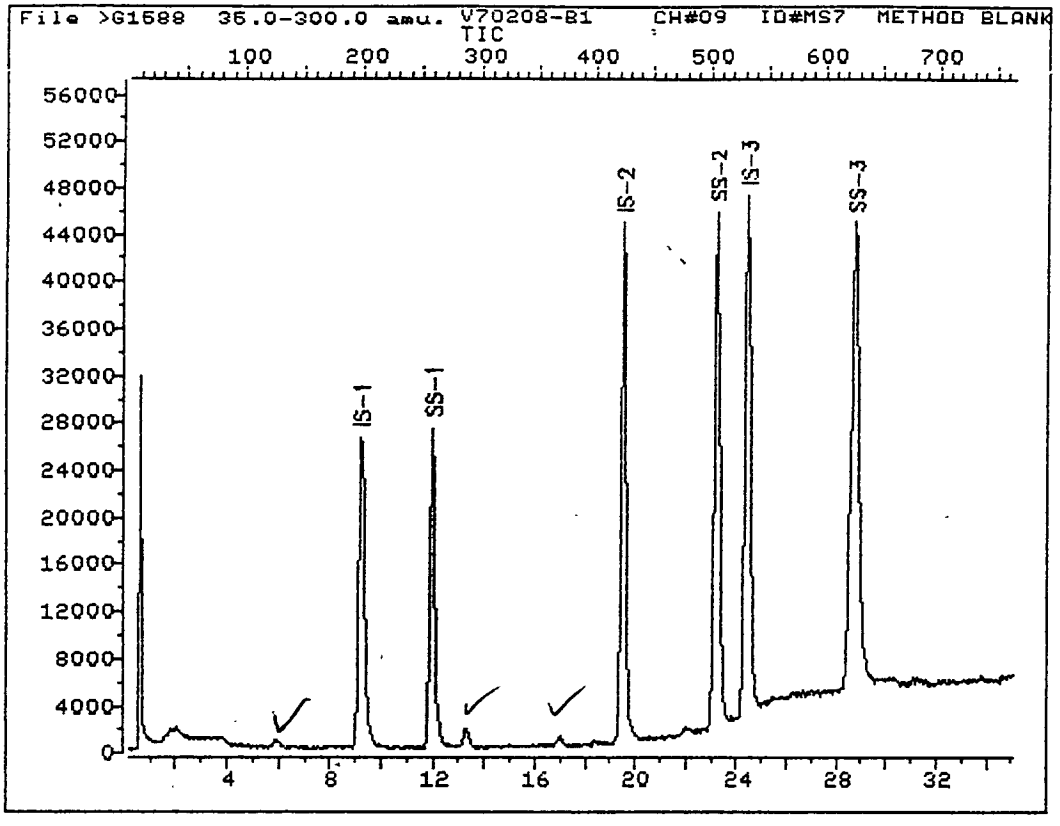
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

375

TOTAL ION CHROMATOGRAM



Data File: >G1588::D7 Quant Output File: ^G1588::QT
Name: V70208-B1 CH#09 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW SOIL 5.0ML+Q1-18 LH

Id File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920208 09:31

Operator ID: VOA7
Quant Time : 920208 11:35
Injected at: 920208 10:54

VBL1C05

proj #3196

Operator ID: VOA7 Quant Rev: 7 Quant Time: 920208 11:35
Output File: ^G1588::QT Injected at: 920208 10:54
Data File: >G1588::D7 Dilution Factor: 1.00000
Name: V70208-B1 CH#09 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW SOIL 5.0ML+Q1-18 LH

ID File: V7ID::SC
Title: VOLATILE ANALYSIS 45(3)-220(15) 8 FT SP1000 ID=MS7
Last Calibration: 910703 01:53 Last Qcal Time: 920208 09:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.20	128.0	60622	50.00	UG/L	71
6)	C030 Methylene Chloride	5.91	84.0	2901	2.12	UG/L	90
13)	CS15 1,2-Dichloroethane-d4	11.98	65.0	159892	49.90	UG/L 100%	87
16)	*CI10 1,4-Difluorobenzene	19.50	114.0	242299	50.00	UG/L	94
17)	C115 1,1,1-Trichloroethane	13.30	97.0	7209	1.72	UG/L	84
25)	C165 Benzene	16.95	78.0	4300	1.27	UG/L	100
28)	*CI20 Chlorobenzene-d5	24.43	117.0	207358	50.00	UG/L	94
34)	CS05 Toluene d-8	23.19	98.0	228716	49.86	UG/L 100%	97
39)	CS10 Bromofluorobenzene	28.72	95.0	170096	53.32	UG/L 107%	90

* Compound is ISTD

VBLK05

proj # 3196

377

:RU,FI,>G1588
:RU,EC,,,0:32

reg	type	# pts	scan#	range: amu\r.t.	base	file	ion range
X	GC	699	1	.17- 32.01	47467.0	>G1588	35.00- 300.00

:RU,MSH

MS data file header from : >G1588::D7

Sample: V70208-B1 CH#09 Operator: VOA7 REG. GRP. 2/08/92 10:54
Misc : ID#MS7 METHOD BLANK LOW SOIL 5.0ML+Q1-18 LH
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS7
Method file: MS7B Tuning file: TUNEG No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	3.0	24.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

:RU,INT,,5,,-1

>G1588 V70208-B1 CH#09 ID#MS7 METHOD BLANK LOW SOIL 5.0ML+Q

35.0| 300.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 7 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR75 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	.62	5	11	25	31531	226285	204650	22.19	5.249
2	9.20	193	199	216	26252	433892	402365	43.62	10.320
3	11.98	252	260	280	27160	417538	384751	41.71	9.869
4	19.50	418	425	441	44199	674781	625111	67.77	16.034
5	23.19	498	506	518	44051	759603	652097	70.70	16.726
6	24.43	525	533	546	44436	881685	707350	76.69	18.143
7	28.72	617	627	645	39620	1346669	922380	100.00	23.659

Sum of corrected areas: 3898704.

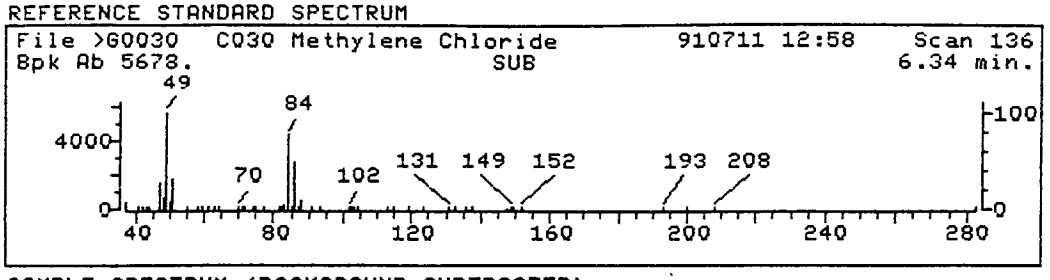
:RU,AL,,1,1

(2) TIC
LH

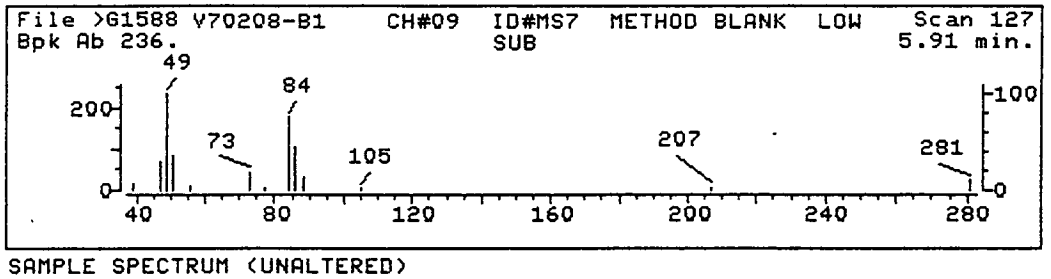
proj #3196

CB

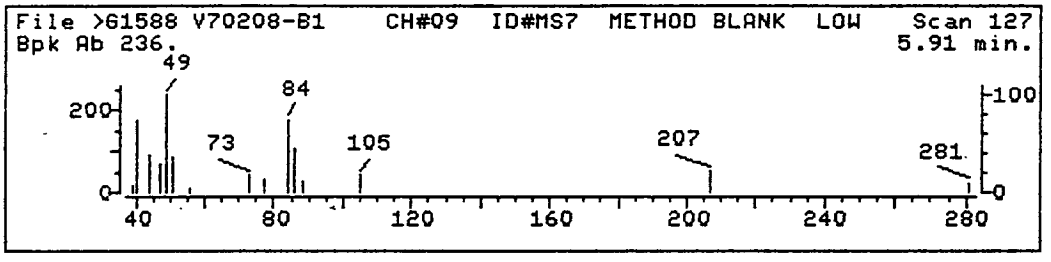
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



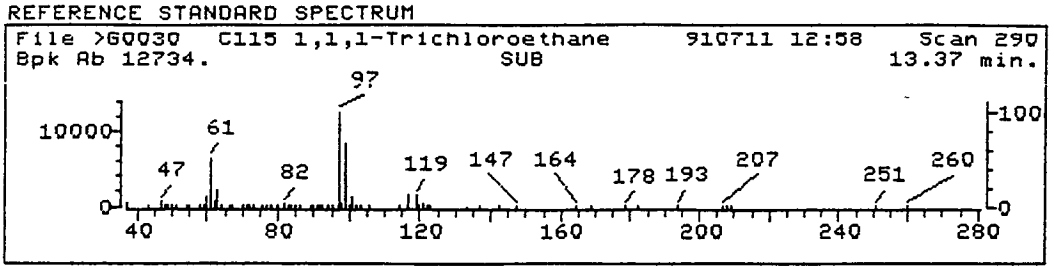
Data File: >G1588::D7 Quant Output File: ^G1588::QT
Name: V70208-B1 CH#09 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW SOIL 5.0ML+Q1-18 LH
Quant Time: 920208 11:35 Quant ID File: V7ID::SC
Inj cted at: 920208 10:54 Last Calibration: 910703 01:53
Last Qcal Time: 920208 09:31

Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 127
Retention Time: 5.91 min.
Quant Ion : 84.0
Area : 2901
Concentration : 2.12 UG/L
q-value : 90

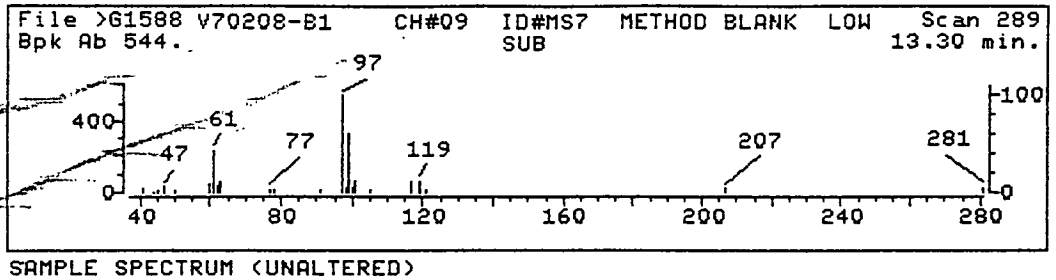
VBLK05

proj #3186

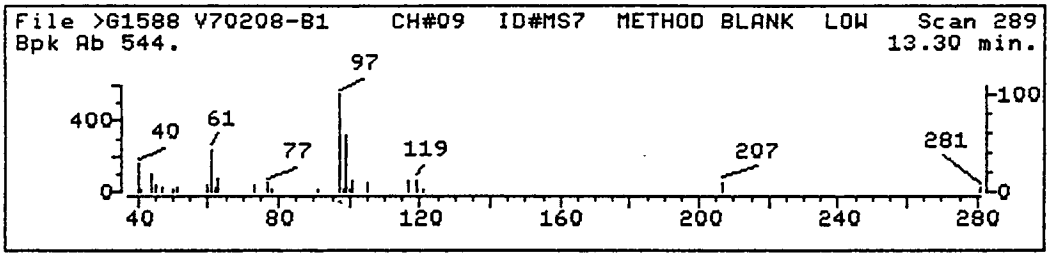
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

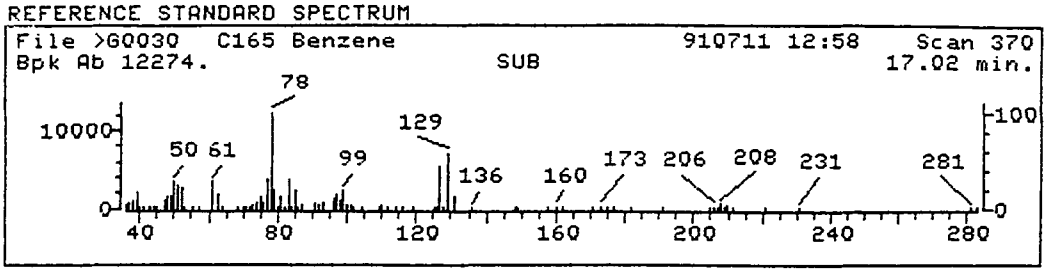


Data File: >G1588::D7 Quant Output File: ^G1588::QT
Name: V70208-B1 CH#09 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW SOIL 5.0ML+Q1-18 LH
Quant Time: 920208 11:35 Quant ID File: V7ID::SC
Injected at: 920208 10:54 Last Calibration: 910703 01:53
Last Qcal Time: 920208 09:31

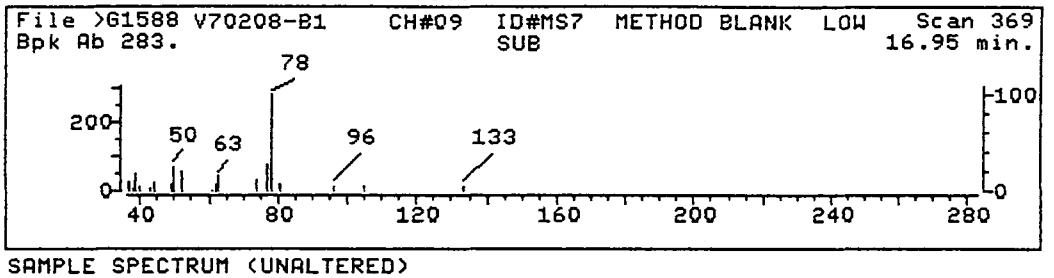
Compound No : 17
Compound Name : C115 1,1,1-Trichloroethane
Scan Number : 289
Retention Time: 13.30 min.
Quant Ion : 97.0
Area : 7209
Concentration : 1.72 UG/L
q-value : 84

proj# 3196

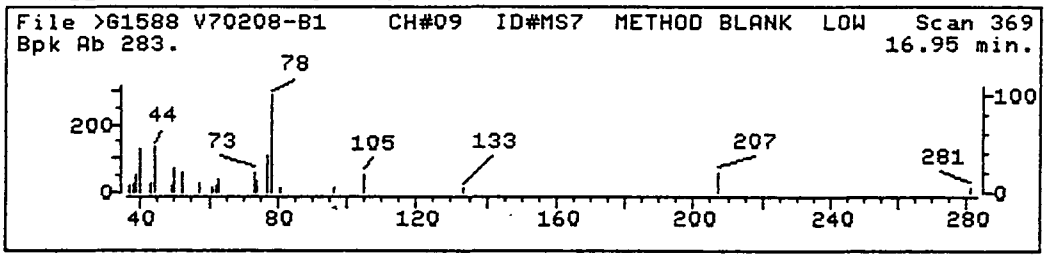
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >G1588::D7 Quant Output File: ^G1588::QT
Name: V70208-B1 CH#09 Instrument ID: MS7
Misc: ID#MS7 METHOD BLANK LOW SOIL 5.0ML+Q1-18 LH
Quant Time: 920208 11:35 Quant ID File: V7ID::SC
Injected at: 920208 10:54 Last Calibration: 910703 01:53
Last Qcal Time: 920208 09:31

Compound No : 25
Compound Name : C165 Benzene
Scan Number : 369
Retention Time: 16.95 min.
Quant Ion : 78.0
Area : 4300
Concentration : 1.27 UG/L
q-value : 100

VBL1C05

proj # 3196

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK06

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30208-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9301

Level: (low/med) MED Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 02/08/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK06

Lab Name: CEIMIC CORP Contract: NUS

Lab Code: CEIMIC Case No.: 3916 SAS No.: _____ SDG No.: E-S-10

Matrix: (soil/water) SOIL Lab Sample ID: V30208-B1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C9301

Level: (low/med) MED Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 02/08/92

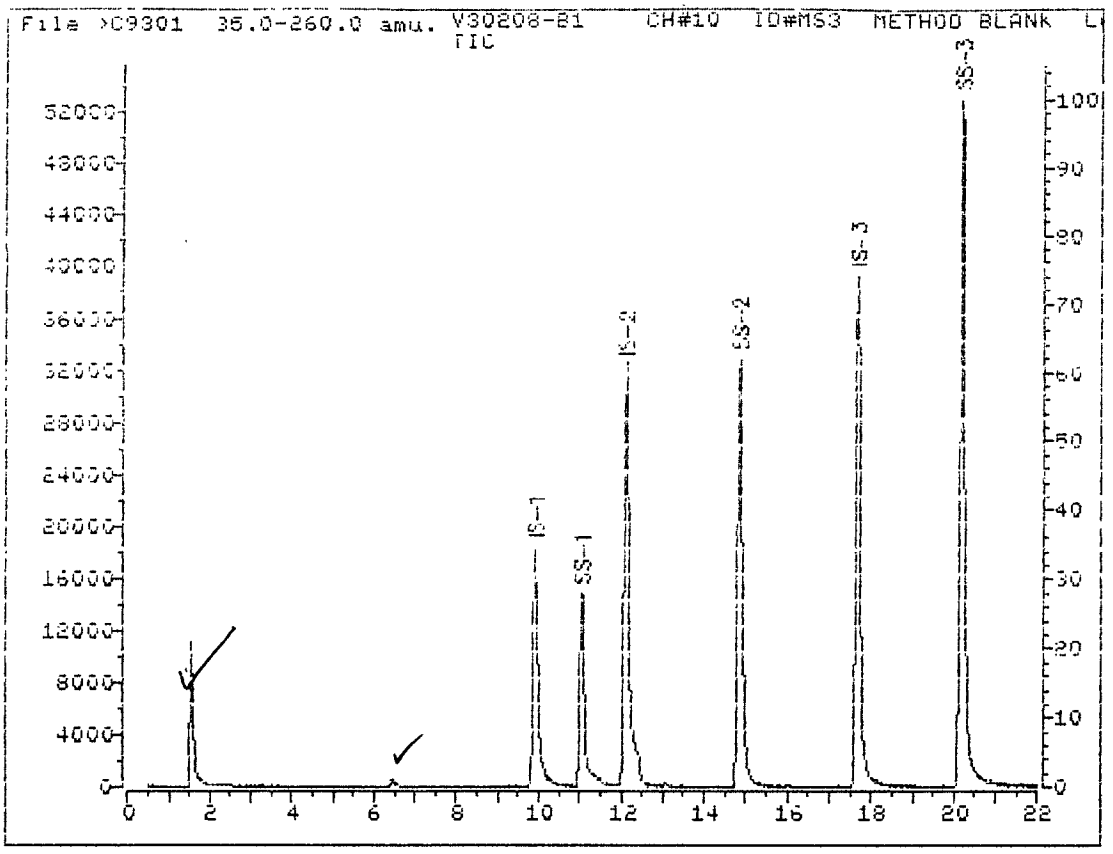
GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



MS data file header from : >C9301::D5

Sample: V30208-B1 CH#10 Operator: VOA2 REG. GRP. 2/08/92 11:16
Misc : ID#MS3 METHOD BLANK LOW WATER5.0ML+Q1-18 LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

VBL1C06

case# proj# 3196 LH

384

CB

QUANT REPORT

Operator ID: VOA2 Quant Rev: 7 Quant Time: 920208 11:50
Output File: ^C9301::QT Injected at: 920208 11:16
Data File: >C9301::D5 Dilution Factor: 1.00000
Name: V30208-B1 CH#10 Instrument ID: MS3
Misc: ID#MS3 METHOD BLANK LOW WATER5.0ML+Q1-18 LH

ID File: V3ID::SC
Title: VOLATILE ANALYSIS CLP-TCL DB624 30Mx0.53IDx3uM ID#MS3
Last Calibration: 910429 11:21 Last Qcal Time: 920208 09:28

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 Bromochloromethane	9.90	128.0	26349	50.00	UG/L	82
6)	C030 Methylene Chloride	6.44	84.0	1245	2.11	UG/L	54
13)	CS15 1,2-Dichloroethane-d4	11.05	65.0	50160	54.15	UG/L 108%	96
16)	*CI10 1,4-Difluorobenzene	12.10	114.0	118321	50.00	UG/L	100
28)	*CI20 Chlorobenzene-d5	17.67	117.0	96751	50.00	UG/L	98
34)	CS05 Toluene d-8	14.86	98.0	95842	48.44	UG/L 97%	96
39)	CS10 Bromofluorobenzene	20.19	95.0	83873	49.30	UG/L 99%	81

* Compound is ISTD

VBL1006

385

case# proj# 3196 VM

MS data file header from : >C9301::D5

Sample: V30208-B1 CH#10 Operator: VOA2 REG. GRP. 2/08/92 11:16
Misc : ID#MS3 METHOD BLANK LOW WATER5.0ML+Q1-18 LH
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: MS3
Method file: MS3B Tuning file: TUNEC No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	110.	170.	0.	0.
Chromatographic times, min. :	5.0	0.0	15.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	50.0	0.0	1.5	0.0

>C9301 V30208-B1 CH#10 ID#MS3 METHOD BLANK LOW WATER5.0ML+Q1-

35.0| 260.0 TIC
Upslope: .2000 Area Reject: 5.00 % Max Peaks: 7 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File VDIR87 Sorted by Time/Area INT

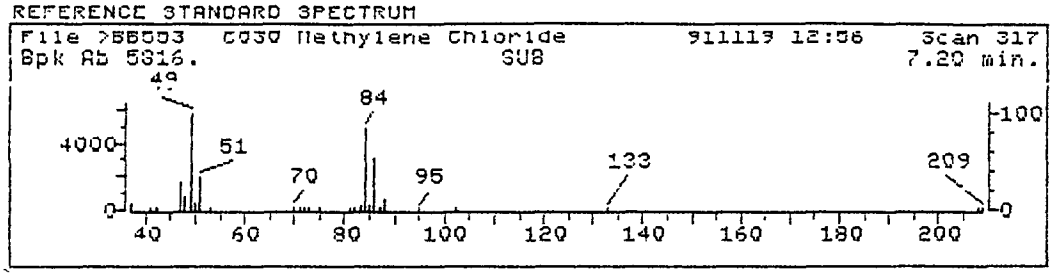
Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	1.54	47	55	86	11185	68113	68113	16.30	4.217
2	9.90	471	483	511	18141	165572	161916	38.74	10.025
3	11.05	533	542	579	14653	129776	123740	29.61	7.661
4	12.12	588	597	625	32428	283022	278641	66.67	17.251
5	14.86	726	737	768	32779	261760	261760	62.63	16.206
6	17.67	872	881	904	39261	303075	303075	72.51	18.764
7	20.19	1000	1010	1041	52997	421701	417952	100.00	25.876

Sum of corrected areas: 1615197.

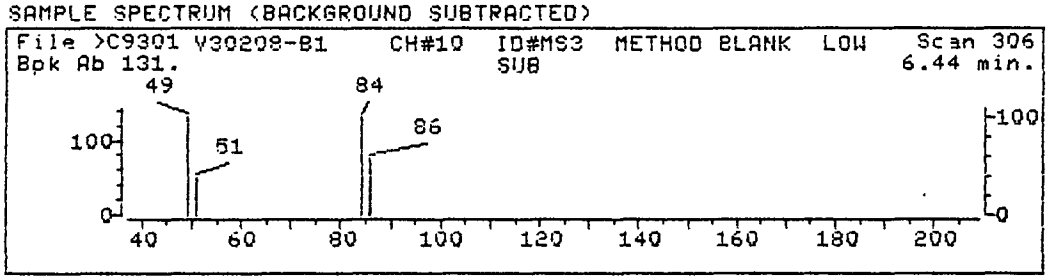
0 TZC
LH

proj #3196
LH

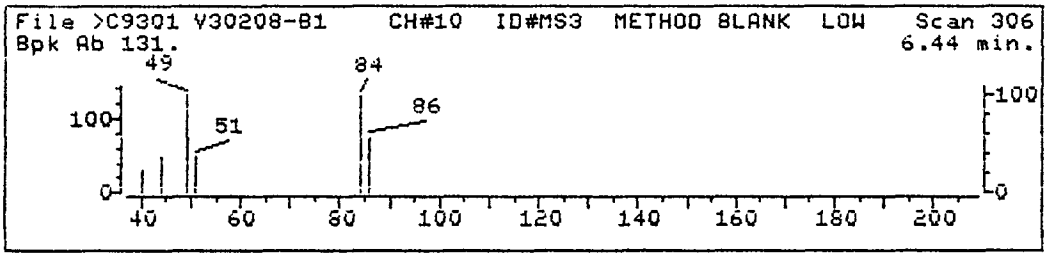
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >C9301::D5 Quant Output File: ^C9301::QT
Name: V30208-B1 CH#10 Instrument ID: MS3
Misc: ID#MS3 METHOD BLANK LOW WATER5.0ML+Q1-18 LH
Quant Time: 920208 11:50 Quant ID File: V3ID::SC
Injected at: 920208 11:16 Last Calibration: 910429 11:21
Last Qcal Time: 920208 09:28

Compound No : 6
Compound Name : C030 Methylene Chloride
Scan Number : 306
Retention Time: 6.44 min.
Quant Ion : 84.0
Area : 1245
Conc ntration : 2.11 UG/L
q-value : 54

VBL1006

pg# 3196
LH

Case#

TPH ANALYSES

TOTAL PETROLEUM HYDROCARBON

BY IR

EPA Method 418.1

Client: Halliburton NUS Environmental Corp.

Project: 920046

Date Samples Received: 2/04/92

Concentration in: mg/kg (ppm)+

Client ID	Laboratory ID	Sample Concentration	Method Reporting Limit
E-S-10	920046-01	670	310
E-S-11	920046-02	5,400	3,300
E-S-13	920046-03	ND	33
E-S-14	920046-04	3,600	1,700
E-S-15	920046-05	570	320
E-S-15D	920046-06	380	180
E-S-16	920046-07	670	180
E-S-17	920046-08	4,100	3,500
E-S-18	920046-09	38	33
<u>QA/QC</u>			
Method Blank	I920205-B1	ND	33
Laboratory Control Spike	I920205-LCS1	71 %	
Independent Calibration Standard	I920210-ICS2	94 %	

ND = Not detected

+ Dry weight basis

Reported by: _____ Approved by: _____

TOTAL PETROLEUM HYDROCARBON

BY IR

EPA Method 418.1

Client: Halliburton NUS Environmental Corp.

Project: 920046

Date Samples Received: 2/04/92

Concentration in: mg/L (ppm)

Client ID	Laboratory ID	Sample Concentration	Method Reporting Limit
E-FB-02	920046-10	ND	5
E-RB-02	920046-11	ND	5
<u>QA/QC</u>			
Method Blank	I0204-B1	ND	1
Laboratory Control Spike	I0204-LCS1	104 %	
Independent Calibration Standard	I0209-ICS1	99 %	

ND = Not detected

Reported by: D.F.H.

Approved by: Henry Fil

TOTAL METALS

TOTAL LEAD
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

SOW No.: 7/88

SAMPLE ID	Lab Sample ID.
E-FB-02	00046-10S
E-RB-02	00046-11S
E-S-10	00046-01S
E-S-11	00046-02S
E-S-13	00046-03S
E-S-14	00046-04S
E-S-15	00046-05S
E-S-15-D	00046-06S
E-S-16	00046-07S
E-S-17	00046-08S
E-S-18	00046-09S

Were ICP interelement corrections applied? Yes/No NO
Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

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 floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Phyllis Shiller Name: Phyllis Shiller

Date: 8/5/92 Title: Inorganic Manager

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-FB-02

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): WATER Lab Sample ID: 00046-10S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	1.00	U		F

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-RB-02

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): WATER Lab Sample ID: 00046-11S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	1.00	U	W	F

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

FORM I - IN

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-S-10

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): SOIL Lab Sample ID: 00046-01S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 93.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	2.20			F

Color Before: BROWN Clarity Before: Texture: MED

Color After: YELLOW Clarity After: Artifacts:

Comments:

FORM I - IN

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-S-11

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): SOIL Lab Sample ID: 00046-02S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 90.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	3.00			F

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-S-13

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): SOIL Lab Sample ID: 00046-03S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 95.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	1.30			F

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

FORM I - IN

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-S-14

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): SOIL Lab Sample ID: 00046-04S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 85.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	6.10			F

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-S-15

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): SOIL Lab Sample ID: 00046-05S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 92.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	2.80			F

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-S-15-D

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): SOIL Lab Sample ID: 00046-06S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 92.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	9.30			F

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-S-16

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): SOIL Lab Sample ID: 00046-07S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 88.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	76.70			F

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-S-17

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): SOIL Lab Sample ID: 00046-08S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 82.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	195.00			F

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

TOTAL LEAD

1
INORGANIC ANALYSIS DATA SHEET

SAMPLE ID

E-S-18

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Matrix (soil/water): SOIL Lab Sample ID: 00046-09S

Level (low/med): LOW Date Received: 02/04/92

% Solids: 94.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	2.20			F

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

TOTAL LEAD

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Lead	98.4	103.00	104.7	98.4	103.95	105.6	107.55	109.3	F

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

TOTAL LEAD

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Lead	98.4	103.80	105.5	98.4	101.20	102.8	101.30	102.9	F

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

TOTAL LEAD

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Lead				98.4	104.70	106.4			F

(1) Control limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

TOTAL LEAD

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

AA CRDL Standard Source: INORG VENTURES

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Lead	3.0	2.60	86.7					

TOTAL LEAD

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

AA CRDL Standard Source: INORG VENTURES

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Lead	3.0	2.75	91.7					

TOTAL LEAD

3
BLANKS

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Lead	1.0	U	1.0	U	1.0	U			-0.210	B	F

408

TOTAL LEAD

3
BLANKS

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Lead	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	F

TOTAL LEAD

7
LABORATORY CONTROL SAMPLE

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Solid LCS Source: ICF LCS (0287)

Aqueous LCS Source: EPA-LV

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Lead	97.9	96.40	98.5	236.0	261.8		188.0	285.0	110.9

TOTAL LEAD

8
STANDARD ADDITION RESULTS

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q

FORM VIII - IN 7/88

TOTAL LEAD

10
Instrument Detection Limits (Quarterly)

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

ICP ID Number: Date: 01/01/92

Flame AA ID Number:

Furnace AA ID Number: Z1

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Lead	283.30	BZ	3	1.0	F

Comments:
Z1: PERKIN ELMER ZEEMAN 5100PC

TOTAL LEAD

13
PREPARATION LOG

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
E-FB-02	02/06/92		100
E-RB-02	02/06/92		100
E-S-10	02/06/92	1.12	200
E-S-11	02/06/92	1.33	200
E-S-13	02/06/92	1.30	200
E-S-14	02/06/92	1.01	200
E-S-15	02/06/92	1.25	200
E-S-15-D	02/06/92	1.02	200
E-S-16	02/06/92	1.31	200
E-S-17	02/06/92	1.02	200
E-S-18	02/06/92	1.27	200
LCSS	02/06/92	1.00	200
LCSW	02/06/92		100
PBS	02/06/92	1.00	200
PBW	02/06/92		100

TOTAL LEAD

14
ANALYSIS RUN LOG

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Instrument ID Number: Z1 Method: F

Start date: 02/29/92 End date: 02/29/92

EPA Sample No.	D/F	Time	% R	P B	Analytes
S0	1.00	1814		X	
S3	1.00	1821		X	
S50	1.00	1828		X	
S100	1.00	1835		X	
S200	1.00	1842		X	
ICV	1.00	1849		X	
ICB	1.00	1856		X	
CRA	1.00	1904		X	
PBW	1.00	1911	113.3	X	
PBWA	1.00	1918	~~9999.9~~	X	
LCSW	1.00	1925	91.3	X	
LCSWA	1.00	1932	~~9999.9~~	X	
E-FB-02	1.00	1939	110.5	X	
E-FB-02A	1.00	1947	~~9999.9~~	X	
CCV	1.00	1954		X	
CCB	1.00	2001		X	
ZZZZZ	1.00	2008			
E-RB-02	1.00	2015	116.5	X	
E-RB-02A	1.00	2023	~~9999.9~~	X	
PBS	1.00	2030	112.3	X	
PBSA	1.00	2038	~~9999.9~~	X	
LCSS	20.00	2045	108.8	X	
LCSSA	20.00	2052	~~9999.9~~	X	
CCV	1.00	2100		X	
CCB	1.00	2107		X	

PS
3/5/92

FORM XIV - IN 7/88

TOTAL LEAD

14
ANALYSIS RUN LOG

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Instrument ID Number: Z1 Method: F

Start date: 03/01/92 End date: 03/01/92

EPA Sample No.	D/F	Time	% R	P B	Analytes
S0	1.00	0904		X	
S3	1.00	0911		X	
S50	1.00	0918		X	
S100	1.00	0925		X	
S200	1.00	0932		X	
ICV	1.00	0939		X	
ICB	1.00	0946		X	
CRA	1.00	0953		X	
E-S-10	1.00	1001	110.5	X	
E-S-10A	1.00	1008	~~9999.9~~	X	
E-S-11	1.00	1015	98.8	X	
E-S-11A	1.00	1023	~~9999.9~~	X	
E-S-13	1.00	1030	101.8	X	
E-S-13A	1.00	1037	~~9999.9~~	X	
E-S-14	1.00	1044	105.6	X	
E-S-14A	1.00	1052	~~9999.9~~	X	
CCV	1.00	1059		X	
CCB	1.00	1106		X	
E-S-15	1.00	1113	102.0	X	
E-S-15A	1.00	1120	~~9999.9~~	X	
E-S-15-D	1.00	1127	107.8	X	
E-S-15-DA	1.00	1134	~~9999.9~~	X	
E-S-16	1.00	1141			
E-S-16	4.00	1145	95.3	X	
E-S-16A	4.00	1152	~~9999.9~~	X	
E-S-17	1.00	1159			
ZZZZZ	1.00	1203			
CCV	1.00	1209		X	
CCB	1.00	1216		X	
E-S-17	10.00	1224	109.5	X	
E-S-17A	10.00	1231	~~9999.9~~	X	
ZZZZZ	1.00	1238			

PS 3/5/92

TOTAL LEAD

14
ANALYSIS RUN LOG

Lab Name: CEIMIC Contract: NUS

Lab Code: CEIMIC Case No.: NUS SAS No.: SDG No.: E-S-10

Instrument ID Number: Z1 Method: F

Start date: 03/01/92 End date: 03/01/92

EPA Sample No.	D/F	Time	% R	P B	Analytes
ZZZZZ	1.00	1245			
ZZZZZ	1.00	1251			
E-S-18	1.00	1255	107.0	X	
E-S-18A	1.00	1302	~~9999.0~~	X	
CCV	1.00	1310		X	
CCB	1.00	1317		X	

FORM XIV - IN 7/88

Multi. File: JABSC.HMU Analyst: JAS
Date: 02/29/92 Time: 18:09
Data File: 0229PB1.DAT ID/Wt File: BLANK.IDW

30

Pb: 046

PBW, LCSW, #10-11
PBS, LCSS

Element File: PB_CLP2.GEL Element: Pb Wavelength: 283.3
Date: 02/29/92 Time: 19:14 Slit: 0.70
Data File: 0229PB1.DAT ID/Wt File: BLANK.IDW Lamp Current: 6
Technique: HGA Calib. Type: Nonlinear Energy: 60
Remark 1: Analyst: JAS
Remark 2: Instrument: Z1 Integration Time: 4.0s BKG:BZ
Remark 3: ICV: ICV-4(1290) EPA-LV TV = 98.4 Prep Date:
Remark 4: Standards and Spikes: Inorganic Ventures Prep Date: 02/29/92
Remark 5: Software Version 5.0 Loaded 07/30/90

Pb ID: Blank Seq. No.: 00001 A/S Pos.: 0 Date: 02/29/92

Replicate 1 Time: 18:14
Peak Area (A-s): 0.014 Peak Height (A): 0.033
Background Pk Area (A-s): 0.053 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.014

Replicate 2 Time: 18:18
Peak Area (A-s): 0.013 Peak Height (A): 0.033
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.013

Mean Pk Area (A-s): 0.014 SD: 0.0009 RSD(%): 6.72

Auto-zero performed.

Pb ID: Standard 1 Seq. No.: 00002 A/S Pos.: 4 Date: 02/29/92

Replicate 1 Time: 18:21
Peak Area (A-s): 0.028 Peak Height (A): 0.060
Background Pk Area (A-s): 0.070 Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): 0.014

Replicate 2 Time: 18:25
Peak Area (A-s): 0.028 Peak Height (A): 0.064
Background Pk Area (A-s): 0.071 Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): 0.014

Mean Pk Area (A-s): 0.014 SD: 0.0002 RSD(%): 1.10

Standard number 1 applied. [3.0]
Correlation coefficient: 1.00000 Slope: 0.0047

Pb ID: Standard 2 Seq. No.: 00003 A/S Pos.: 2 Date: 02/29/92

Replicate 1 Time: 18:28
Peak Area (A-s): 0.271 Peak Height (A): 0.608
Background Pk Area (A-s): 0.134 Background Pk Height (A): 0.186
Blank Corrected Pk Area (A-s): 0.258
Concentration (ug/L): 55.1

Replicate 2 Time: 18:32
Peak Area (A-s): 0.273 Peak Height (A): 0.613
Background Pk Area (A-s): 0.134 Background Pk Height (A): 0.188
Blank Corrected Pk Area (A-s): 0.139
Concentration (ug/L): 55.4

Mean Conc (ug/L): 55.2 SD: 0.17 RSD(%): 0.31

Standard number 2 applied. [50.0]
Correlation coefficient: 1.00000 Slope: 0.0046

****

Pb ID: Standard 3 Seq. No.: 00004 A/S Pos.: 1 Date: 02/29/92

Replicate 1 Time: 18:35
Peak Area (A-s): 0.455 Peak Height (A): 0.902
Background Pk Area (A-s): 0.215 Background Pk Height (A): 0.340
Blank Corrected Pk Area (A-s): 0.442
Concentration (ug/L): 79.8

Replicate 2 Time: 18:39
Peak Area (A-s): 0.465 Peak Height (A): 0.918
Background Pk Area (A-s): 0.222 Background Pk Height (A): 0.353
Blank Corrected Pk Area (A-s): 0.451
Concentration (ug/L): 81.3

Mean Conc (ug/L): 80.6 SD: 1.04 RSD(%): 1.29

S-shaped calibration curve detected. 2-coef. equation used.
Standard number 3 applied. [100.0]
Correlation coefficient: 0.99594 Slope: 0.0049

****

Pb ID: Standard 4 Seq. No.: 00005 A/S Pos.: 1 Date: 02/29/92

Replicate 1 Time: 18:42
Peak Area (A-s): 0.705 Peak Height (A): 1.170
Background Pk Area (A-s): 0.340 Background Pk Height (A): 0.634
Blank Corrected Pk Area (A-s): 0.692
Concentration (ug/L): 151.6

Replicate 2 Time: 18:46
Peak Area (A-s): 0.707 Peak Height (A): 1.165
Background Pk Area (A-s): 0.351 Background Pk Height (A): 0.625
Blank Corrected Pk Area (A-s): 0.693
Concentration (ug/L): 152.0

Mean Conc (ug/L): 151.8 SD: 0.29 RSD(%): 0.19

S-shaped calibration curve detected. 2-coef. equation used.
Standard number 4 applied. [200.0]
Correlation coefficient: 0.99301 Slope: 0.0052

****

Pb ID: ZEEMANICV Seq. No.: 00006 A/S Pos.: 3 Date: 02/29/92 ICV=98.4

Replicate 1 Time: 18:49
Peak Area (A-s): 0.454 Peak Height (A): 0.932
Background Pk Area (A-s): 0.203 Background Pk Height (A): 0.342

Blank Corrected Pk Area (A-s): 0.440
Concentration (ug/L): 102.7

Replicate 2 Time: 18:53
Peak Area (A-s): 0.456 Peak Height (A): 0.926
Background Pk Area (A-s): 0.215 Background Pk Height (A): 0.342
Blank Corrected Pk Area (A-s): 0.443
Concentration (ug/L): 103.3

Mean Conc (ug/L): 103.0 SD: 0.41 RSD(%): 0.40

Check sample is within range 88.6 - 109.2

****

Pb ID: ~~CCB~~ ICB Seq. No.: 00007 A/S Pos.: 0 Date: 02/29/92 ICB

Replicate 1 Time: 18:56
Peak Area (A-s): 0.015 Peak Height (A): 0.036
Background Pk Area (A-s): 0.060 Background Pk Height (A): 0.056
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.2

Replicate 2 Time: 19:00
Peak Area (A-s): 0.015 Peak Height (A): 0.035
Background Pk Area (A-s): 0.069 Background Pk Height (A): 0.065
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.3

Mean Conc (ug/L): 0.3 SD: 0.06 RSD(%): 24.15

Check sample is within range -3.0 - 3.0

****

Pb ID: CRDL Seq. No.: 00008 A/S Pos.: 4 Date: 02/29/92 CRA

Replicate 1 Time: 19:04
Peak Area (A-s): 0.027 Peak Height (A): 0.065
Background Pk Area (A-s): 0.067 Background Pk Height (A): 0.060
Blank Corrected Pk Area (A-s): 0.013
Concentration (ug/L): 2.6

Replicate 2 Time: 19:07
Peak Area (A-s): 0.027 Peak Height (A): 0.064
Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.071
Blank Corrected Pk Area (A-s): 0.014
Concentration (ug/L): 2.6

Mean Conc (ug/L): 2.6 SD: 0.04 RSD(%): 1.47

****

Pb ID: PREP BLANKW Seq. No.: 00009 A/S Pos.: 5 Date: 02/29/92

Replicate 1 Time: 19:11
Peak Area (A-s): 0.014 Peak Height (A): 0.030
Background Pk Area (A-s): 0.074 Background Pk Height (A): 0.073
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.0

Replicate 2 Time: 19:14

Peak Area (A-s): 0.013 Peak Height (A): 0.030
Background Pk Area (A-s): 0.069 Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): -0.031
Concentration (ug/L): -0.2

Mean Conc (ug/L): -0.1 SD: 0.17 RSD(%): 144.84

****

Pb ID: PREP BLANKW A Seq. No.: 00010 A/S Pos.: 5 Date: 02/29/92

Replicate 1 Time: 19:18
Peak Area (A-s): 0.127 Peak Height (A): 0.305
Background Pk Area (A-s): 0.088 Background Pk Height (A): 0.084
Blank Corrected Pk Area (A-s): 0.113
Concentration (ug/L): 22.7

Replicate 2 Time: 19:21
Peak Area (A-s): 0.126 Peak Height (A): 0.309
Background Pk Area (A-s): 0.091 Background Pk Height (A): 0.097
Blank Corrected Pk Area (A-s): 0.112
Concentration (ug/L): 22.6

Mean Conc (ug/L): 22.7 SD: 0.09 RSD(%): 0.40

Recovery is 113.9%

****

Pb ID: ZEEMANLCSW Seq. No.: 00011 A/S Pos.: 6 Date: 02/29/92

Replicate 1 Time: 19:25
Peak Area (A-s): 0.434 Peak Height (A): 0.902
Background Pk Area (A-s): 0.204 Background Pk Height (A): 0.328
Blank Corrected Pk Area (A-s): 0.420
Concentration (ug/L): 97.0

Replicate 2 Time: 19:29
Peak Area (A-s): 0.429 Peak Height (A): 0.884
Background Pk Area (A-s): 0.190 Background Pk Height (A): 0.317
Blank Corrected Pk Area (A-s): 0.416
Concentration (ug/L): 95.8

Mean Conc (ug/L): 96.4 SD: 0.88 RSD(%): 0.91

****

Pb ID: ZEEMANLCSW A Seq. No.: 00012 A/S Pos.: 6 Date: 02/29/92

Replicate 1 Time: 19:32
Peak Area (A-s): 0.492 Peak Height (A): 0.984
Background Pk Area (A-s): 0.216 Background Pk Height (A): 0.390
Blank Corrected Pk Area (A-s): 0.479
Concentration (ug/L): 113.7

Replicate 2 Time: 19:36
Peak Area (A-s): 0.499 Peak Height (A): 0.984
Background Pk Area (A-s): 0.221 Background Pk Height (A): 0.395
Blank Corrected Pk Area (A-s): 0.485
Concentration (ug/L): 115.6

Mean Conc (ug/L): 114.6 SD: 1.29 RSD(%): 1.13

Recovery is 51.7%

****

Pb ID: 9200046-10 Seq. No.: 00013 A/S Pos.: 7 Date: 02/29/92 E-FB-02

Replicate 1 Time: 19:39
Peak Area (A-s): 0.012 Peak Height (A): 0.030
Background Pk Area (A-s): 0.067 Background Pk Height (A): 0.070
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.4

Replicate 2 Time: 19:43
Peak Area (A-s): 0.013 Peak Height (A): 0.030
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.064
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.2

Mean Conc (ug/L): -0.3 SD: 0.13 RSD(%): 44.41

****

Pb ID: 9200046-10A Seq. No.: 00014 A/S Pos.: 7 Date: 02/29/92 E-FB-02A

Replicate 1 Time: 19:47
Peak Area (A-s): 0.123 Peak Height (A): 0.291
Background Pk Area (A-s): 0.082 Background Pk Height (A): 0.083
Blank Corrected Pk Area (A-s): 0.110
Concentration (ug/L): 22.0

Replicate 2 Time: 19:50
Peak Area (A-s): 0.125 Peak Height (A): 0.298
Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.083
Blank Corrected Pk Area (A-s): 0.111
Concentration (ug/L): 22.2

Mean Conc (ug/L): 22.1 SD: 0.16 RSD(%): 0.74

Recovery is 112.1%

****

Pb ID: ZEEMANICV Seq. No.: 00015 A/S Pos.: 3 Date: 02/29/92 Cu-98.4

Replicate 1 Time: 19:54
Peak Area (A-s): 0.458 Peak Height (A): 0.942
Background Pk Area (A-s): 0.208 Background Pk Height (A): 0.354
Blank Corrected Pk Area (A-s): 0.444
Concentration (ug/L): 103.8

Replicate 2 Time: 19:57
Peak Area (A-s): 0.459 Peak Height (A): 0.947
Background Pk Area (A-s): 0.215 Background Pk Height (A): 0.357
Blank Corrected Pk Area (A-s): 0.445
Concentration (ug/L): 104.1

Mean Conc (ug/L): 104.0 SD: 0.22 RSD(%): 0.21

Check sample is within range 88.6 - 108.2

****

Pb ID: CCB Seq. No.: 00016 A/S Pos.: 0 Date: 02/29/92

Replicate 1 Time: 20:01
Peak Area (A-s): 0.015 Peak Height (A): 0.038
Background Pk Area (A-s): 0.067 Background Pk Height (A): 0.064
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.2

Replicate 2 Time: 20:05
Peak Area (A-s): 0.017 Peak Height (A): 0.039
Background Pk Area (A-s): 0.069 Background Pk Height (A): 0.064
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.6

Mean Conc (ug/L): 0.4 SD: 0.28 RSD(%): 63.37

Check sample is within range -3.0 - 3.0

****

Pb ID: CRDL Seq. No.: 00017 A/S Pos.: 8 Date: 02/29/92

Replicate 1 Time: 20:08
Peak Area (A-s): 0.029 Peak Height (A): 0.065
Background Pk Area (A-s): 0.064 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.015
Concentration (ug/L): 2.8

Replicate 2 Time: 20:12
Peak Area (A-s): 0.028 Peak Height (A): 0.068
Background Pk Area (A-s): 0.060 Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.015
Concentration (ug/L): 2.8

3/9/92

Mean Conc (ug/L): 2.8 SD: 0.02 RSD(%): 0.76

****

Pb ID: 9200046-11 Seq. No.: 00018 A/S Pos.: 9 Date: 02/29/92 E-RB02

Replicate 1 Time: 20:15
Peak Area (A-s): 0.013 Peak Height (A): 0.031
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.061
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.1

Replicate 2 Time: 20:19
Peak Area (A-s): 0.014 Peak Height (A): 0.031
Background Pk Area (A-s): 0.063 Background Pk Height (A): 0.069
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.1

Mean Conc (ug/L): 0.0 SD: 0.12 RSD(%): 7452.71

****

Pb ID: 9200046-11A Seq. No.: 00019 A/S Pos.: 9 Date: 02/29/92 E-RB-02A

Replicate 1 Time: 20:23
Peak Area (A-s): 0.133 Peak Height (A): 0.314
Background Pk Area (A-s): 0.073 Background Pk Height (A): 0.084
Blank Corrected Pk Area (A-s): 0.119
Concentration (ug/L): 24.0

Replicate 2 Time: 20:26
Peak Area (A-s): 0.126 Peak Height (A): 0.300
Background Pk Area (A-s): 0.079 Background Pk Height (A): 0.082
Blank Corrected Pk Area (A-s): 0.112
Concentration (ug/L): 22.6

Mean Conc (ug/L): 23.3 SD: 0.98 RSD(%): 4.21

Recovery is 116.3%

****

Pb ID: PREP BLANKS Seq. No.: 00020 A/S Pos.: 10 Date: 02/29/92

Replicate 1 Time: 20:30
Peak Area (A-s): 0.008 Peak Height (A): 0.019
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.061
Blank Corrected Pk Area (A-s): -0.006
Concentration (ug/L): -1.1

Replicate 2 Time: 20:34
Peak Area (A-s): 0.009 Peak Height (A): 0.022
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.062
Blank Corrected Pk Area (A-s): -0.005
Concentration (ug/L): -1.0

Mean Conc (ug/L): -1.1 SD: 0.11 RSD(%): 10.44

****

Pb ID: PREP BLANKS A Seq. No.: 00021 A/S Pos.: 10 Date: 02/29/92

Replicate 1 Time: 20:38
Peak Area (A-s): 0.125 Peak Height (A): 0.307
Background Pk Area (A-s): 0.081 Background Pk Height (A): 0.084
Blank Corrected Pk Area (A-s): 0.111
Concentration (ug/L): 22.4

Replicate 2 Time: 20:41
Peak Area (A-s): 0.126 Peak Height (A): 0.304
Background Pk Area (A-s): 0.085 Background Pk Height (A): 0.083
Blank Corrected Pk Area (A-s): 0.112
Concentration (ug/L): 22.5

Mean Conc (ug/L): 22.4 SD: 0.09 RSD(%): 0.39

Recovery is 117.4%

****

Pb ID: LCSS X20 Seq. No.: 00022 A/S Pos.: 11 Date: 02/29/92 1.00g

Replicate 1 Time: 20:45
Peak Area (A-s): 0.316 Peak Height (A): 0.686
Background Pk Area (A-s): 0.268 Background Pk Height (A): 0.223
Blank Corrected Pk Area (A-s): 0.302
Concentration (ug/L): 65.9

Replicate 2 Time: 20:49
Peak Area (A-s): 0.312 Peak Height (A): 0.694
Background Pk Area (A-s): 0.253 Background Pk Height (A): 0.225
Blank Corrected Pk Area (A-s): 0.298

Concentration (ug/L): 65.0

Mean Conc (ug/L): 65.3 SD: 0.62 RSD(%): 0.95

~~~~~~

Pb ID: LCS3 A X 20 Seq. No.: 00023 A/S Pos.: 11 Date: 02/29/92

Replicate 1 Time: 20:52
Peak Area (A-s): 0.402 Peak Height (A): 0.936
Background Pk Area (A-s): 0.289 Background Pk Height (A): 0.295
Blank Corrected Pk Area (A-s): 0.388
Concentration (ug/L): 88.3

Replicate 2 Time: 20:56
Peak Area (A-s): 0.394 Peak Height (A): 0.842
Background Pk Area (A-s): 0.289 Background Pk Height (A): 0.299
Blank Corrected Pk Area (A-s): 0.380
Concentration (ug/L): 86.1

Mean Conc (ug/L): 87.2 SD: 1.52 RSD(%): 1.74

Recovery is 108.6%

~~~~~~

Pb ID: ZEEMANICV Seq. No.: 00024 A/S Pos.: 3 Date: 02/29/92 Ccv=98%

Replicate 1 Time: 21:00
Peak Area (A-s): 0.474 Peak Height (A): 0.946
Background Pk Area (A-s): 0.218 Background Pk Height (A): 0.358
Blank Corrected Pk Area (A-s): 0.460
Concentration (ug/L): 108.4

Replicate 2 Time: 21:03
Peak Area (A-s): 0.468 Peak Height (A): 0.944
Background Pk Area (A-s): 0.214 Background Pk Height (A): 0.350
Blank Corrected Pk Area (A-s): 0.454
Concentration (ug/L): 106.7

Mean Conc (ug/L): 107.6 SD: 1.20 RSD(%): 1.11

Check sample is within range 88.6 - 108.2

~~~~~~

Pb ID: CCB Seq. No.: 00025 A/S Pos.: 0 Date: 02/29/92

Replicate 1 Time: 21:07
Peak Area (A-s): 0.015 Peak Height (A): 0.036
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.059
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.2

Replicate 2 Time: 21:10
Peak Area (A-s): 0.016 Peak Height (A): 0.036
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.056
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.4

Mean Conc (ug/L): 0.3 SD: 0.12 RSD(%): 41.39
~~~~~~

Check sample is within range -3.0 - 3.0

~~~~~~ — EOR

Pb ID: CRDL Seq. No.: 00026 A/S Pos.: 12 Date: 02/29/92

Replicate 1 Time: 21:14
Peak Area (A-s): 0.028 Peak Height (A): 0.067
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.014
Concentration (ug/L): 2.6

Replicate 2 Time: 21:18
Peak Area (A-s): 0.028 Peak Height (A): 0.066
Background Pk Area (A-s): 0.056 Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.014
Concentration (ug/L): 2.8

Mean Conc (ug/L): 2.7 SD: 0.09 RSD(%): 3.37

~~~~~~

Pb ID: 9200046-01 Seq. No.: 00027 A/S Pos.: 13 Date: 02/29/92

Replicate 1 Time: 21:21
Peak Area (A-s): 0.070 Peak Height (A): 0.169
Background Pk Area (A-s): 0.101 Background Pk Height (A): 0.075
Blank Corrected Pk Area (A-s): 0.056
Concentration (ug/L): 11.1

Replicate 2 Time: 21:25
Peak Area (A-s): 0.071 Peak Height (A): 0.174
Background Pk Area (A-s): 0.104 Background Pk Height (A): 0.078
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 11.2

Mean Conc (ug/L): 11.1 SD: 0.12 RSD(%): 1.08

~~~~~~

Pb ID: 9200046-01 Seq. No.: 00028 A/S Pos.: 13 Date: 02/29/92

Replicate 1 Time: 21:29
Peak Area (A-s): 0.183 Peak Height (A): 0.424
Background Pk Area (A-s): 0.119 Background Pk Height (A): 0.122
Blank Corrected Pk Area (A-s): 0.170
Concentration (ug/L): 34.9

Replicate 2 Time: 21:32
Peak Area (A-s): 0.181 Peak Height (A): 0.426
Background Pk Area (A-s): 0.113 Background Pk Height (A): 0.121
Blank Corrected Pk Area (A-s): 0.167
Concentration (ug/L): 34.5

Mean Conc (ug/L): 34.7 SD: 0.35 RSD(%): 1.02

Recovery is 117.8%

3/4/92

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Pb ID: 9200046-02 Seq. No.: 00029 A/S Pos.: 14 Date: 02/29/92

Replicate 1 Time: 21:36

JDS

046: Pb #1-9

31

Element File: PB_CLP2.SEL Element: Pb Wavelength: 283.3
Date: 03/01/92 Time: 09:01 Slit: 0.70
Data File: 0301FB1.DAT ID/Wt File: 006.IDW Lamp Current: 6
Technique: HGA Calib. Type: Nonlinear Energy: 59
Remark 1: Analyst: JMS
Remark 2: Instrument: Z1 Integration Time: 4.0s BKG:BZ
Remark 3: ICV: ICV-4(1290) EPA-LV TV = 98.4 Prep Date: 3/1/92
Remark 4: Standards and Spikes: Inorganic Ventures Prep Date:
Remark 5: Software Version 5.0 Loaded 07/30/90

Pb ID: Blank Seq. No.: 00001 A/S Pos.: 0 Date: 03/01/92

Replicate 1 Time: 09:04
Peak Area (A-s): 0.018 Peak Height (A): 0.042
Background Pk Area (A-s): 0.069 Background Pk Height (A): 0.080
Blank Corrected Pk Area (A-s): 0.018

Replicate 2 Time: 09:07
Peak Area (A-s): 0.019 Peak Height (A): 0.043
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): 0.019

Mean Pk Area (A-s): 0.019 SD: 0.0010 RSD(%): 5.34

Auto-zero performed.

Pb ID: Standard 1 Seq. No.: 00002 A/S Pos.: 4 Date: 03/01/92

Replicate 1 Time: 09:11
Peak Area (A-s): 0.035 Peak Height (A): 0.077
Background Pk Area (A-s): 0.061 Background Pk Height (A): 0.060
Blank Corrected Pk Area (A-s): 0.017

Replicate 2 Time: 09:15
Peak Area (A-s): 0.035 Peak Height (A): 0.079
Background Pk Area (A-s): 0.056 Background Pk Height (A): 0.056
Blank Corrected Pk Area (A-s): 0.016

Mean Pk Area (A-s): 0.016 SD: 0.0002 RSD(%): 1.33

Standard number 1 applied. [3.0]
Correlation coefficient: 1.00000 Slope: 0.0055

Pb ID: Standard 2 Seq. No.: 00003 A/S Pos.: 2 Date: 03/01/92

Replicate 1 Time: 09:18
Peak Area (A-s): 0.349 Peak Height (A): 0.682
Background Pk Area (A-s): 0.160 Background Pk Height (A): 0.231
Blank Corrected Pk Area (A-s): 0.331
Concentration (ug/L): 60.2

Replicate 2 Time: 09:22
Peak Area (A-s): 0.345 Peak Height (A): 0.702
Background Pk Area (A-s): 0.155 Background Pk Height (A): 0.238
Blank Corrected Pk Area (A-s): 0.327

Concentration (ug/L): 59.4

Mean Conc (ug/L): 59.9 SD: 0.55 RSD(%): 0.92

Standard number 2 applied. [50.0]
Correlation coefficient: 1.00000 Slope: 0.0054

****

Pb ID: Standard 3 Seq. No.: 00004 A/S Pos.: 1 Date: 03/01/92

Replicate 1 Time: 09:25
Peak Area (A-s): 0.562 Peak Height (A): 0.990
Background Pk Area (A-s): 0.263 Background Pk Height (A): 0.432
Blank Corrected Pk Area (A-s): 0.544
Concentration (ug/L): 74.3

Replicate 2 Time: 09:29
Peak Area (A-s): 0.567 Peak Height (A): 1.002
Background Pk Area (A-s): 0.255 Background Pk Height (A): 0.450
Blank Corrected Pk Area (A-s): 0.548
Concentration (ug/L): 74.8

Mean Conc (ug/L): 74.5 SD: 0.34 RSD(%): 0.46

S-shaped calibration curve detected. 2-coef. equation used.
Standard number 3 applied. [100.0]
Correlation coefficient: 0.99132 Slope: 0.0059

****

Pb ID: Standard 4 Seq. No.: 00005 A/S Pos.: 1 Date: 03/01/92

Replicate 1 Time: 09:32
Peak Area (A-s): 0.817 Peak Height (A): 1.189
Background Pk Area (A-s): 0.433 Background Pk Height (A): 0.815
Blank Corrected Pk Area (A-s): 0.799
Concentration (ug/L): 136.9

Replicate 2 Time: 09:36
Peak Area (A-s): 0.823 Peak Height (A): 1.177
Background Pk Area (A-s): 0.423 Background Pk Height (A): 0.763
Blank Corrected Pk Area (A-s): 0.804
Concentration (ug/L): 137.8

Mean Conc (ug/L): 137.4 SD: 0.68 RSD(%): 0.49

S-shaped calibration curve detected. 2-coef. equation used.
Standard number 4 applied. [200.0]
Correlation coefficient: 0.98440 Slope: 0.0065

****

Pb ID: ZEEMANICV Seq. No.: 00006 A/S Pos.: 3 Date: 03/01/92 ICV

TV = 98.4ppb

Replicate 1 Time: 09:39
Peak Area (A-s): 0.559 Peak Height (A): 0.991
Background Pk Area (A-s): 0.246 Background Pk Height (A): 0.436
Blank Corrected Pk Area (A-s): 0.540
Concentration (ug/L): 104.3

Replicate 2 Time: 09:43

Peak Area (A-s): 0.555 Peak Height (A): 0.998
Background Pk Area (A-s): 0.242 Background Pk Height (A): 0.428
Blank Corrected Pk Area (A-s): 0.536
Concentration (ug/L): 103.3

Mean Conc (ug/L): 103.8 SD: 0.71 RSD(%): 0.68

Check sample is within range 88.6 - 108.2

****

Pb ID: ~~CSB~~ ICB 003 Seq. No.: 00007 A/S Pos.: 0 Date: 03/01/92 103

Replicate 1 Time: 09:46
Peak Area (A-s): 0.020 Peak Height (A): 0.043
Background Pk Area (A-s): 0.053 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.2

Replicate 2 Time: 09:50
Peak Area (A-s): 0.018 Peak Height (A): 0.042
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.065
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.0

Mean Conc (ug/L): 0.1 SD: 0.16 RSD(%): 145.40

Check sample is within range -3.0 - 3.0

****

Pb ID: CRDL Seq. No.: 00008 A/S Pos.: 4 Date: 03/01/92 CRA CRDL

Replicate 1 Time: 09:53
Peak Area (A-s): 0.036 Peak Height (A): 0.079
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.017
Concentration (ug/L): 2.7

Replicate 2 Time: 09:57
Peak Area (A-s): 0.037 Peak Height (A): 0.079
Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.018
Concentration (ug/L): 2.8

Mean Conc (ug/L): 2.8 SD: 0.08 RSD(%): 3.03

****

Pb ID: 9200046-01 Seq. No.: 00009 A/S Pos.: 13 Date: 03/01/92 E-S-10 1.12g

Replicate 1 Time: 10:01
Peak Area (A-s): 0.091 Peak Height (A): 0.202
Background Pk Area (A-s): 0.122 Background Pk Height (A): 0.101
Blank Corrected Pk Area (A-s): 0.073
Concentration (ug/L): 11.5

Replicate 2 Time: 10:04
Peak Area (A-s): 0.090 Peak Height (A): 0.194
Background Pk Area (A-s): 0.129 Background Pk Height (A): 0.110
Blank Corrected Pk Area (A-s): 0.071
Concentration (ug/L): 11.3

Mean Conc (ug/L): 11.4 SD: 0.13 RSD(%): 1.15

Pb ID: 9200046-01A Seq. No.: 00010 A/S Pos.: 13 Date: 03/01/92 E-S-10A

Replicate 1 Time: 10:08
Peak Area (A-s): 0.230 Peak Height (A): 0.485
Background Pk Area (A-s): 0.142 Background Pk Height (A): 0.152
Blank Corrected Pk Area (A-s): 0.211
Concentration (ug/L): 35.3

Replicate 2 Time: 10:12
Peak Area (A-s): 0.210 Peak Height (A): 0.446
Background Pk Area (A-s): 0.172 Background Pk Height (A): 0.136
Blank Corrected Pk Area (A-s): 0.191
Concentration (ug/L): 31.7

Mean Conc (ug/L): 33.5 SD: 2.53 RSD(%): 7.54

Recovery is 110.5%

Pb ID: 9200046-02 Seq. No.: 00011 A/S Pos.: 14 Date: 03/01/92 E-S-11 1.33g

Replicate 1 Time: 10:15
Peak Area (A-s): 0.131 Peak Height (A): 0.291
Background Pk Area (A-s): 0.172 Background Pk Height (A): 0.124
Blank Corrected Pk Area (A-s): 0.113
Concentration (ug/L): 18.2

Replicate 2 Time: 10:19
Peak Area (A-s): 0.130 Peak Height (A): 0.286
Background Pk Area (A-s): 0.174 Background Pk Height (A): 0.127
Blank Corrected Pk Area (A-s): 0.111
Concentration (ug/L): 17.9

Mean Conc (ug/L): 18.0 SD: 0.18 RSD(%): 1.00

Pb ID: 9200046-02A Seq. No.: 00012 A/S Pos.: 14 Date: 03/01/92 E-S-11A

Replicate 1 Time: 10:23
Peak Area (A-s): 0.241 Peak Height (A): 0.510
Background Pk Area (A-s): 0.187 Background Pk Height (A): 0.165
Blank Corrected Pk Area (A-s): 0.223
Concentration (ug/L): 37.5

Replicate 2 Time: 10:26
Peak Area (A-s): 0.245 Peak Height (A): 0.514
Background Pk Area (A-s): 0.175 Background Pk Height (A): 0.165
Blank Corrected Pk Area (A-s): 0.226
Concentration (ug/L): 38.1

Mean Conc (ug/L): 37.8 SD: 0.42 RSD(%): 1.11

Recovery is 98.8%

Pb ID: 9200046-03 Seq. No.: 00013 A/S Pos.: 15 Date: 03/01/92 E-S-13 1.30g

Replicate 1 Time: 10:30
Peak Area (A-s): 0.072 Peak Height (A): 0.160
Background Pk Area (A-s): 0.127 Background Pk Height (A): 0.109
Blank Corrected Pk Area (A-s): 0.054
Concentration (ug/L): 8.5

Replicate 2 Time: 10:34
Peak Area (A-s): 0.070 Peak Height (A): 0.153
Background Pk Area (A-s): 0.125 Background Pk Height (A): 0.104
Blank Corrected Pk Area (A-s): 0.052
Concentration (ug/L): 8.2

Mean Conc (ug/L): 8.3 SD: 0.21 RSD(%): 2.54

~~~~~~ E-S-13A

Pb ID: 9200046-03A Seq. No.: 00014 A/S Pos.: 15 Date: 03/01/92

Replicate 1 Time: 10:37
Peak Area (A-s): 0.195 Peak Height (A): 0.419
Background Pk Area (A-s): 0.146 Background Pk Height (A): 0.128
Blank Corrected Pk Area (A-s): 0.177
Concentration (ug/L): 29.1

Replicate 2 Time: 10:41
Peak Area (A-s): 0.190 Peak Height (A): 0.409
Background Pk Area (A-s): 0.141 Background Pk Height (A): 0.125
Blank Corrected Pk Area (A-s): 0.172
Concentration (ug/L): 28.3

Mean Conc (ug/L): 28.7 SD: 0.59 RSD(%): 2.06

Recovery is 102.1%

~~~~~~ E-S-14

Pb ID: 9200046-04 Seq. No.: 00015 A/S Pos.: 17 Date: 03/01/92

1.01g

Replicate 1 Time: 10:44
Peak Area (A-s): 0.181 Peak Height (A): 0.398
Background Pk Area (A-s): 0.166 Background Pk Height (A): 0.121
Blank Corrected Pk Area (A-s): 0.163
Concentration (ug/L): 26.7

Replicate 2 Time: 10:48
Peak Area (A-s): 0.180 Peak Height (A): 0.399
Background Pk Area (A-s): 0.158 Background Pk Height (A): 0.121
Blank Corrected Pk Area (A-s): 0.161
Concentration (ug/L): 26.5

Mean Conc (ug/L): 26.6 SD: 0.18 RSD(%): 0.68

~~~~~~ E-S-14A

Pb ID: 9200046-04A Seq. No.: 00016 A/S Pos.: 17 Date: 03/01/92

Replicate 1 Time: 10:52
Peak Area (A-s): 0.294 Peak Height (A): 0.607
Background Pk Area (A-s): 0.178 Background Pk Height (A): 0.199
Blank Corrected Pk Area (A-s): 0.276
Concentration (ug/L): 47.4
~~~~~~

Replicate 2 Time: 10:55
Peak Area (A-s): 0.299 Peak Height (A): 0.515
Background Pk Area (A-s): 0.179 Background Pk Height (A): 0.202
Blank Corrected Pk Area (A-s): 0.290
Concentration (ug/L): 48.1

Mean Conc (ug/L): 47.7 SD: 0.52 RSD(%): 1.09

Recovery is 105.8%

****

Pb ID: ZEEMANICV Seq. No.: 00017 A/S Pos.: 3 Date: 03/01/92

CCV

Replicate 1 Time: 10:59
Peak Area (A-s): 0.539 Peak Height (A): 0.984
Background Pk Area (A-s): 0.245 Background Pk Height (A): 0.413
Blank Corrected Pk Area (A-s): 0.521
Concentration (ug/L): 99.6

TV = 98.4ppb

Replicate 2 Time: 11:02
Peak Area (A-s): 0.553 Peak Height (A): 1.011
Background Pk Area (A-s): 0.251 Background Pk Height (A): 0.433
Blank Corrected Pk Area (A-s): 0.534
Concentration (ug/L): 102.8

Mean Conc (ug/L): 101.2 SD: 2.26 RSD(%): 2.24

Check sample is within range 88.6 - 108.2

****

Pb ID: CCB Seq. No.: 00018 A/S Pos.: 0 Date: 03/01/92

CCB

Replicate 1 Time: 11:06
Peak Area (A-s): 0.019 Peak Height (A): 0.042
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.056
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.1

Replicate 2 Time: 11:09
Peak Area (A-s): 0.019 Peak Height (A): 0.044
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.1

Mean Conc (ug/L): 0.1 SD: 0.02 RSD(%): 18.02

Check sample is within range -3.0 - 3.0

****

Pb ID: 9200046-05 Seq. No.: 00019 A/S Pos.: 18 Date: 03/01/92

E-S-15
1.25g

Replicate 1 Time: 11:13
Peak Area (A-s): 0.115 Peak Height (A): 0.249
Background Pk Area (A-s): 0.139 Background Pk Height (A): 0.111
Blank Corrected Pk Area (A-s): 0.097
Concentration (ug/L): 15.5

Replicate 2 Time: 11:17
Peak Area (A-s): 0.121 Peak Height (A): 0.260

Background Pk Area (A-s): 0.157 Background Pk Height (A): 0.105
Blank Corrected Pk Area (A-s): 0.103
Concentration (ug/L): 16.5

Mean Conc (ug/L): 16.0 SD: 0.69 RSD(%): 4.30

****

Pb ID: 9200046-05A Seq. No.: 00020 A/S Pos.: 18 Date: 03/01/92 E-S-15A

Replicate 1 Time: 11:20
Peak Area (A-s): 0.236 Peak Height (A): 0.501
Background Pk Area (A-s): 0.152 Background Pk Height (A): 0.154
Blank Corrected Pk Area (A-s): 0.217
Concentration (ug/L): 36.5

Replicate 2 Time: 11:24
Peak Area (A-s): 0.235 Peak Height (A): 0.488
Background Pk Area (A-s): 0.149 Background Pk Height (A): 0.151
Blank Corrected Pk Area (A-s): 0.217
Concentration (ug/L): 36.3

Mean Conc (ug/L): 36.4 SD: 0.11 RSD(%): 0.30

Recovery is 102.1%

****

Pb ID: 9200046-06 Seq. No.: 00021 A/S Pos.: 19 Date: 03/01/92 E-S-15D

1.02g

Replicate 1 Time: 11:27
Peak Area (A-s): 0.278 Peak Height (A): 0.590
Background Pk Area (A-s): 0.189 Background Pk Height (A): 0.188
Blank Corrected Pk Area (A-s): 0.260
Concentration (ug/L): 44.3

Replicate 2 Time: 11:31
Peak Area (A-s): 0.271 Peak Height (A): 0.570
Background Pk Area (A-s): 0.189 Background Pk Height (A): 0.181
Blank Corrected Pk Area (A-s): 0.253
Concentration (ug/L): 43.0

Mean Conc (ug/L): 43.7 SD: 0.92 RSD(%): 2.11

****

Pb ID: 9200046-06A Seq. No.: 00022 A/S Pos.: 19 Date: 03/01/92 E-S-15D A

Replicate 1 Time: 11:34
Peak Area (A-s): 0.366 Peak Height (A): 0.708
Background Pk Area (A-s): 0.211 Background Pk Height (A): 0.242
Blank Corrected Pk Area (A-s): 0.348
Concentration (ug/L): 61.6

Replicate 2 Time: 11:38
Peak Area (A-s): 0.401 Peak Height (A): 0.777
Background Pk Area (A-s): 0.217 Background Pk Height (A): 0.270
Blank Corrected Pk Area (A-s): 0.383
Concentration (ug/L): 68.8

Mean Conc (ug/L): 65.2 SD: 5.07 RSD(%): 7.77

Recovery is 107.5%

****

Pb ID: 9200046-07 Seq. No.: 00023 A/S Pos.: 21 Date: 03/01/92

E-S-16
1.31g

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 11:41
Peak Area (A-s): 1.017 Peak Height (A): 1.192
Background Pk Area (A-s): 0.890 Background Pk Height (A): 1.367
Blank Corrected Pk Area (A-s): 0.998
Concentration (ug/L): 245.1

****

Pb ID: 9200046-07 X4 Seq. No.: 00024 A/S Pos.: 21 Date: 03/01/92

E-S-16 x4

Replicate 1 Time: 11:45
Peak Area (A-s): 0.587 Peak Height (A): 1.040
Background Pk Area (A-s): 0.329 Background Pk Height (A): 0.473
Blank Corrected Pk Area (A-s): 0.568
Concentration (ug/L): 111.1 Corrected Conc (ug/L): 444.5

Replicate 2 Time: 11:49
Peak Area (A-s): 0.591 Peak Height (A): 1.040
Background Pk Area (A-s): 0.325 Background Pk Height (A): 0.474
Blank Corrected Pk Area (A-s): 0.572
Concentration (ug/L): 112.1 Corrected Conc (ug/L): 448.4

Mean Conc (ug/L): 111.6 SD: 0.70 RSD(%): 0.62
Corrected Conc (ug/L): 446.5

****

Pb ID: 9200046-07A X4 Seq. No.: 00025 A/S Pos.: 21 Date: 03/01/92

E-S-16 A x4

Replicate 1 Time: 11:52
Peak Area (A-s): 0.660 Peak Height (A): 1.097
Background Pk Area (A-s): 0.379 Background Pk Height (A): 0.557
Blank Corrected Pk Area (A-s): 0.642
Concentration (ug/L): 130.0 Corrected Conc (ug/L): 520.0

Replicate 2 Time: 11:56
Peak Area (A-s): 0.665 Peak Height (A): 1.111
Background Pk Area (A-s): 0.373 Background Pk Height (A): 0.577
Blank Corrected Pk Area (A-s): 0.647
Concentration (ug/L): 131.3 Corrected Conc (ug/L): 525.3

Mean Conc (ug/L): 130.7 SD: 0.93 RSD(%): 0.71
Corrected Conc (ug/L): 522.6

Recovery is 95.2%

****

Pb ID: 9200046-08 Seq. No.: 00026 A/S Pos.: 22 Date: 03/01/92

E-S-17
1.02g

Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 11:59
Peak Area (A-s): 0.976 Peak Height (A): 1.152
Background Pk Area (A-s): 1.380 Background Pk Height (A): 2.130
Blank Corrected Pk Area (A-s): 0.957
Concentration (ug/L): 229.5

D/R x 10

Pb ID: 9200046-08 X4 Seq. No.: 00027 A/S Pos.: 22 Date: 03/01/92

Replicate 1 Time: 12:03
Peak Area (A-s): 0.844 Peak Height (A): 1.202
Background Pk Area (A-s): 0.513 Background Pk Height (A): 0.869
Blank Corrected Pk Area (A-s): 0.825
Concentration (ug/L): 183.8 Corrected Conc (ug/L): 735.2

Replicate 2 Time: 12:06
Peak Area (A-s): 0.847 Peak Height (A): 1.218
Background Pk Area (A-s): 0.496 Background Pk Height (A): 0.834
Blank Corrected Pk Area (A-s): 0.828
Concentration (ug/L): 184.6 Corrected Conc (ug/L): 738.6

Mean Conc (ug/L): 184.2 SD: 0.60 RSD(%): 0.32
Corrected Conc (ug/L): 736.9

Pb ID: ZEEMANICV Seq. No.: 00029 A/S Pos.: 3 Date: 03/01/92

CCV
TV = 98.4ppb

Replicate 1 Time: 12:09
Peak Area (A-s): 0.548 Peak Height (A): 0.993
Background Pk Area (A-s): 0.235 Background Pk Height (A): 0.408
Blank Corrected Pk Area (A-s): 0.529
Concentration (ug/L): 101.6

Replicate 2 Time: 12:13
Peak Area (A-s): 0.545 Peak Height (A): 0.987
Background Pk Area (A-s): 0.235 Background Pk Height (A): 0.411
Blank Corrected Pk Area (A-s): 0.526
Concentration (ug/L): 101.0

Mean Conc (ug/L): 101.3 SD: 0.48 RSD(%): 0.47

Check sample is within range 88.6 - 108.2

Pb ID: CCB Seq. No.: 00030 A/S Pos.: 0 Date: 03/01/92

CCB

Replicate 1 Time: 12:16
Peak Area (A-s): 0.019 Peak Height (A): 0.043
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.1

Replicate 2 Time: 12:20
Peak Area (A-s): 0.019 Peak Height (A): 0.042
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.1

Mean Conc (ug/L): 0.1 SD: 0.02 RSD(%): 15.84

Check sample is within range -3.0 - 3.0

Pb ID: 9200046-08 X10 Seq. No.: 00031 A/S Pos.: 22 Date: 03/01/92

E-S-17 x10
1.025

Replicate 1 Time: 12:24
Peak Area (A-s): 0.459 Peak Height (A): 0.884
Background Pk Area (A-s): 0.225 Background Pk Height (A): 0.334
Blank Corrected Pk Area (A-s): 0.440
Concentration (ug/L): 91.0

Replicate 2 Time: 12:27
Peak Area (A-s): 0.468 Peak Height (A): 0.897
Background Pk Area (A-s): 0.222 Background Pk Height (A): 0.338
Blank Corrected Pk Area (A-s): 0.449
Concentration (ug/L): 93.1

Mean Conc (ug/L): 82.1 SD: 1.49 RSD(%): 1.81

****

Pb ID: 9200046-08 AX10 Seq. No.: 00032 A/S Pos.: 22 Date: 03/01/92 E-S-17 A x 10

Replicate 1 Time: 12:31
Peak Area (A-s): 0.553 Peak Height (A): 1.006
Background Pk Area (A-s): 0.248 Background Pk Height (A): 0.424
Blank Corrected Pk Area (A-s): 0.534
Concentration (ug/L): 102.8

Replicate 2 Time: 12:34
Peak Area (A-s): 0.562 Peak Height (A): 1.012
Background Pk Area (A-s): 0.255 Background Pk Height (A): 0.430
Blank Corrected Pk Area (A-s): 0.544
Concentration (ug/L): 105.1

Mean Conc (ug/L): 103.9 SD: 1.59 RSD(%): 1.53

Recovery is 109.3%

****

Pb ID: 9200046-09 Seq. No.: 00033 A/S Pos.: 23 Date: 03/01/92

Replicate 1 Time: 12:38
Peak Area (A-s): 0.105 Peak Height (A): 0.228
Background Pk Area (A-s): 0.141 Background Pk Height (A): 0.104
Blank Corrected Pk Area (A-s): 0.086
Concentration (ug/L): 13.7

Replicate 2 Time: 12:41
Peak Area (A-s): 0.106 Peak Height (A): 0.232
Background Pk Area (A-s): 0.139 Background Pk Height (A): 0.099
Blank Corrected Pk Area (A-s): 0.088
Concentration (ug/L): 14.0

Mean Conc (ug/L): 13.9 SD: 0.22 RSD(%): 1.57

****

Pb ID: 9200046-09 Seq. No.: 00034 A/S Pos.: 23 Date: 03/01/92

Replicate 1 Time: 12:45
Peak Area (A-s): 0.250 Peak Height (A): 0.519
Background Pk Area (A-s): 0.152 Background Pk Height (A): 0.160
Blank Corrected Pk Area (A-s): 0.231
Concentration (ug/L): 39.0

3/1/92

FDS

Replicate 2 Time: 12:48
Peak Area (A-s): 0.240 Peak Height (A): 0.508
Background Pk Area (A-s): 0.162 Background Pk Height (A): 0.154
Blank Corrected Pk Area (A-s): 0.222
Concentration (ug/L): 37.3

Mean Conc (ug/L): 38.2 SD: 1.23 RSD(%): 3.24

Recovery is 121.5%

****

Pb ID: 9200046-09 Seq. No.: 00036 A/S Pos.: 24 Date: 03/01/92

3/1/92

Replicate 1 Time: 12:51
Peak Area (A-s): 0.015 Peak Height (A): 0.052
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.063
Blank Corrected Pk Area (A-s): -0.004
Concentration (ug/L): -0.6

****

Pb ID: 9200046-09 Seq. No.: 00037 A/S Pos.: 24 Date: 03/01/92

E-S-18
1.279

Replicate 1 Time: 12:55
Peak Area (A-s): 0.104 Peak Height (A): 0.228
Background Pk Area (A-s): 0.134 Background Pk Height (A): 0.094
Blank Corrected Pk Area (A-s): 0.085
Concentration (ug/L): 13.5

Replicate 2 Time: 12:59
Peak Area (A-s): 0.103 Peak Height (A): 0.228
Background Pk Area (A-s): 0.141 Background Pk Height (A): 0.102
Blank Corrected Pk Area (A-s): 0.084
Concentration (ug/L): 13.4

Mean Conc (ug/L): 13.5 SD: 0.10 RSD(%): 0.72

****

Pb ID: 9200046-09A Seq. No.: 00038 A/S Pos.: 24 Date: 03/01/92

E-S-18A

Replicate 1 Time: 13:02
Peak Area (A-s): 0.226 Peak Height (A): 0.471
Background Pk Area (A-s): 0.141 Background Pk Height (A): 0.143
Blank Corrected Pk Area (A-s): 0.207
Concentration (ug/L): 34.6

Replicate 2 Time: 13:06
Peak Area (A-s): 0.228 Peak Height (A): 0.471
Background Pk Area (A-s): 0.143 Background Pk Height (A): 0.144
Blank Corrected Pk Area (A-s): 0.210
Concentration (ug/L): 35.1

Mean Conc (ug/L): 34.8 SD: 0.34 RSD(%): 0.96

Recovery is 106.9%

****

Pb ID: ZEEMANICV Seq. No.: 00039 A/S Pos.: 3 Date: 03/01/92

CCV

Replicate 1 Time: 13:10

TV: 98.4ppb

Peak Area (A-s): 0.556 Peak Height (A): 0.798
Background Pk Area (A-s): 0.230 Background Pk Height (A): 0.414
Blank Corrected Pk Area (A-s): 0.538
Concentration (ug/L): 103.6

Replicate 2 Time: 13:13
Peak Area (A-s): 0.565 Peak Height (A): 1.013
Background Pk Area (A-s): 0.236 Background Pk Height (A): 0.425
Blank Corrected Pk Area (A-s): 0.546
Concentration (ug/L): 105.8

Mean Conc (ug/L): 104.7 SD: 1.52 RSD(%): 1.45

Check sample is within range 88.6 - 108.2

****

Pb ID: CCB Seq. No.: 00040 A/S Pos.: 9 Date: 03/01/92

Replicate 1 Time: 13:17
Peak Area (A-s): 0.020 Peak Height (A): 0.044
Background Pk Area (A-s): 0.048 Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.2

Replicate 2 Time: 13:21
Peak Area (A-s): 0.020 Peak Height (A): 0.043
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.055
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.2

Mean Conc (ug/L): 0.2 SD: 0.01 RSD(%): 6.20

Check sample is within range -3.0 - 3.0

Date: Feb 6 1992

CEIMIC Corporation
METAL PREP LOGBOOK

Analyst: [illegible]

CEIMIC ID	CLIENT ID	PREP LCS ID	TYPE	pH	SPL WGT/VOL	SPIKE ID	FINAL VOL	COLOR BEF/AFT	CLARITY BEF/AFT	TEXTURE BEF/AFT	ARTIFACTS Y/N	COMMENTS
Z0206PBW.			Z		100	NA						
Z0206LCSW.		A79										
046-10	EFB02			2								
-11	ERB02			"								
Z0206PBS		~~A~~					200					
Z0206LCSS.		A4			1.00g							
046-01	ES10			NA	1.12g			Brown yell.		med Liq.		
-02	ES11				1.33			"		"		
-03	ES13				1.30			"		"		
-04	ES14				1.01			"		"		all have
-05	ES15				1.25			"		"		gasoline
-06	ES15D				1.02			"		"		odor
-07	ES16				1.31			"		"		
-08	ES17				1.02			"		"		
-09	ES18				1.27			"		"		

438

(5)

Color = red, blue, yellow, green, orange, violet, white, brown, grey, black, colorless
Clarity = clear, cloudy, opaque
Texture = fine (powdery), medium (sand), coarse (large crystals or rocks)
Comments = artifacts and changes (ex. emulsion formation)
* LCS ID includes volume taken, ICV#, and Ceimic ID (ex. I891121B)

*PREP TYPE: ICAP(I) digestion or Zeeman(Z) digestion
*pH: less than or greater than 2 for waters
*SPIKE ID: includes volume taken and Ceimic ID
*SPIKE WITNESS:

CEIMIC CORPORATION
INORGANIC LABORATORY
%Solids Determination

Date	Time in	Time out	Ceimic ID	Batch #	Tare wt	Gross wet	Net wet	Gross dry	Net dry	%Solids	Int
1/29/92			037-01		1.549	9.159	7.61	9.0164	7.467	98.1	LL
			-02		1.541	9.968	8.427	9.6299	8.0889	96.0	1
2/6/92			410 -	01	1.53	9.84	8.31	9.31	7.78	93.6	LL
			-	02	1.53	10.26	8.73	9.45	7.92	90.7	
			-	03	1.53	10.98	9.45	10.53	9.00	95.2	
			-	04	1.54	9.67	8.13	8.51	6.79	85.7	
			-	05	1.54	7.45	6.00	7.01	5.47	91.2	
			-	06	1.54	7.33	5.79	6.86	5.34	92.2	
			-	07	1.54	12.93	11.39	11.67	10.13	88.9	
			-	08	1.54	8.49	6.95	7.29 ~~6.56~~	5.75	82.7	
			-	09	1.54	6.84	5.30	6.56	5.02	94.7	

%Solids = Net Dry / Net Wet X 100 Time = 12-24hrs