SDMS Document
98451

THE WHITMAN COMPANIES, INC.

Setting the Standard in Environmental Engineering & Management

FINAL REMEDIAL INVESTIGATION REPORT

FOR

ROCKAWAY BOROUGH WELL FIELD SITE
OPERABLE UNIT #3
FOR PROPERTY OF
KLOCKNER & KLOCKNER
ROCKAWAY BOROUGH, NEW JERSEY

VOLUME 6
LABORATORY QA/QC DATA PACKAGE
10/7/98 - JOB #H950

SUBMITTED TO
USEPA-REGION II
EMERGENCY & REMEDIAL RESPONSE DIVISION
NEW YORK, NEW YORK

SUBMITTED BY
THE WHITMAN COMPANIES, INC.
ON BEHALF OF KLOCKNER & KLOCKNER

IN ACCORDANCE WITH
ADMINISTRATIVE ORDER ON CONSENT
INDEX NO. II-CERCLA-95-0104

MAY 2004

304655

116 Tices Lane, Unit B-1, East Brunswick, NJ 08816
www.whitmanco.com

ENVIROTECH RESEARCH, INC.

777 New Durham Road
Edison, New Jersey 08817
Tel: (732) 549-3900
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www.enviro-lab.com

November 5, 1998

RECEIVED
NOV 18 1998
The Whitman Companies, Inc.

The Whitman Companies, Inc.
44 West Ferris Street
East Brunswick, NJ 08816

Attention: Dr. Ira Whitman

Re: Job No. H950 - Klockner & Klockner

Dear Dr. Whitman:

Enclosed are the results you requested for the following sample(s) received at our laboratory on October 07, 1998:

Lab No.	Client ID	Analysis Required
88662	Trip_Blank	TCL VOA+10
88663	FB-2	TCL VOA+10
88664	SSAW-7_5-5.5	Purgeable Halocarbons
88665	SSAW-7_12-12.5	Purgeable Halocarbons
88666	SSSP-1_4-4.5	TCL VOA+10, TAL Metals, PHC
88667	SSAW-9_1-1.5	Purgeable Halocarbons
88668	SSAW-10_1-1.5	Purgeable Halocarbons
88669	SSAW-9_11.5-12	Purgeable Halocarbons
88670	SSGC-2_1-3	TOC
88671	SSAW-2_1.5-2	Purgeable Halocarbons
88672	SSAW-2_7.5-8	Purgeable Halocarbons
88673	SSGC-3_1-4	TOC
88674	SSSR-2_0-0.5	Purgeable Halocarbons
88675	SSSR-3_0-0.5	Purgeable Halocarbons
88677	SSFS-2_0-0.5	TCL BN+10, TAL Metals, PHC
88678	SSAW-4_4-4.5	Purgeable Halocarbons
88679	SSAW-4_9.5-10	Purgeable Halocarbons
88680	SSGC-4_4-7	TOC
88681	SSSR-1_4-4.5	Purgeable Halocarbons

304656

Lab No.	Client ID	Analysis Required
88682	SSSR-4_4-4.5	Purgeable Halocarbons
88683	SSLP-1_12-12.5	TAL Metals
88684	SSGT-2_7-7.5	TCL VOA+10, Pb
88685	SSGT-1_7-7.5	TCL VOA+10, Pb
88686	SSGT-3_7-7.5	TCL VOA+10

An invoice for our services is also enclosed. If you have any questions please contact your Project Manager, Robert McGrady, at (732) 549-3900.

Very truly yours,

Michael J. Urban
Laboratory Manager

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ENVIROTECH RESEARCH, INC.

Client ID: **Trip_Blank**
Site: Klockner & Klockner

Lab Sample No: **88662**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4657.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg	Quantitation Limit Units: ug/kg
Chloromethane	ND	620
Bromomethane	ND	620
Vinyl Chloride	ND	620
Chloroethane	ND	620
Methylene Chloride	ND	380
Acetone	ND	620
Carbon Disulfide	ND	620
1,1-Dichloroethene	ND	250
1,1-Dichloroethane	ND	620
trans-1,2-Dichloroethene	ND	620
cis-1,2-Dichloroethene	ND	620
Chloroform	ND	620
1,2-Dichloroethane	ND	250
2-Butanone	ND	620
1,1,1-Trichloroethane	ND	620
Carbon Tetrachloride	ND	250
Bromodichloromethane	ND	120
1,2-Dichloropropane	ND	120
cis-1,3-Dichloropropene	ND	620
Trichloroethene	ND	120
Dibromochloromethane	ND	620
1,1,2-Trichloroethane	ND	380
Benzene	ND	120
trans-1,3-Dichloropropene	ND	620
Bromoform	ND	500
4-Methyl-2-Pentanone	ND	620
2-Hexanone	ND	620
Tetrachloroethene	ND	120
1,1,2,2-Tetrachloroethane	ND	120
Toluene	ND	620
Chlorobenzene	ND	620
Ethylbenzene	ND	500
Styrene	ND	620
Xylene (Total)	ND	620

304660

ENVIROTECH RESEARCH, INC.

Client ID: **Trip_Blank**
Site: Klockner & Klockner

Lab Sample No: **88662**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4657.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0.0

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
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25.			
26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304661

ENVIROTECH RESEARCH, INC.

Client ID: **FB-2**
Site: Klockner & Klockner

Lab Sample No: **88663**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c2236.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Chloromethane	ND	5.0
Bromomethane	ND J	5.0
Vinyl Chloride	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND J	3.0
Acetone	ND	5.0
Carbon Disulfide	ND	5.0
1,1-Dichloroethene	ND	2.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
1,2-Dichloroethane	ND	2.0
2-Butanone	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	1.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	3.0
Benzene	ND	1.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	4.0
4-Methyl-2-Pentanone	ND	5.0
2-Hexanone	ND	5.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	4.0
Styrene	ND	5.0
Xylene (Total)	ND	5.0

304662

ENVIROTECH RESEARCH, INC.

Client ID: FB-2
Site: Klockner & Klockner

Lab Sample No: 88663
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c2236.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/l	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
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27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION	0.0

304663

ENVIROTECH RESEARCH, INC.

Client ID: **SSAW-7_5-5.5**
Site: Klockner & Klockner

Lab Sample No: **88664**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9565.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 13.9

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	140
Chloromethane	ND	140
Vinyl Chloride	ND	140
Bromomethane	ND	140
Chloroethane	ND	140
Trichlorofluoromethane	ND	140
1,1-Dichloroethene	ND	140
Methylene Chloride	ND	140
trans-1,2-Dichloroethene	ND	140
1,1-Dichloroethane	ND	140
cis-1,2-Dichloroethene	ND	140
Chloroform	ND	140
1,1,1-Trichloroethane	ND	140
Carbon Tetrachloride	ND	140
1,2-Dichloroethane	ND	140
Trichloroethene	283	140
1,2-Dichloropropane	ND	140
Bromodichloromethane	ND	140
2-Chloroethyl Vinyl Ether	ND	140
cis-1,3-Dichloropropene	ND	140
trans-1,3-Dichloropropene	ND	140
1,1,2-Trichloroethane	ND	140
Tetrachloroethene	ND	140
Dibromochloromethane	ND	140
Chlorobenzene	ND	140
Bromoform	ND	140
1,1,2,2-Tetrachloroethane	ND	140
1,3-Dichlorobenzene	ND	140
1,4-Dichlorobenzene	ND	140
1,2-Dichlorobenzene	ND	140

304664

ENVIROTECH RESEARCH, INC.

Client ID: **SSAW-7_12-12.5**
Site: Klockner & Klockner

Lab Sample No: **88665**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9566.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 5.5

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND J	128
Chloromethane	ND	128
Vinyl Chloride	ND	128
Bromomethane	ND	128
Chloroethane	ND	128
Trichlorofluoromethane	ND	128
1,1-Dichloroethene	ND	128
Methylene Chloride	ND J	128
trans-1,2-Dichloroethene	ND	128
1,1-Dichloroethane	ND	128
cis-1,2-Dichloroethene	ND	128
Chloroform	ND	128
1,1,1-Trichloroethane	ND	128
Carbon Tetrachloride	ND	128
1,2-Dichloroethane	ND	128
Trichloroethene	648	128
1,2-Dichloropropane	ND	128
Bromodichloromethane	ND	128
2-Chloroethyl Vinyl Ether	ND J	128
cis-1,3-Dichloropropene	ND	128
trans-1,3-Dichloropropene	ND	128
1,1,2-Trichloroethane	ND	128
Tetrachloroethene	ND	128
Dibromochloromethane	ND	128
Chlorobenzene	ND	128
Bromoform	ND	128
1,1,2,2-Tetrachloroethane	ND	128
1,3-Dichlorobenzene	ND	128
1,4-Dichlorobenzene	ND	128
1,2-Dichlorobenzene	ND	128

304665

ENVIROTECH RESEARCH, INC.

Client ID: SSSP-1_4-4.5
Site: Klockner & Klockner

Lab Sample No: 88666
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6484.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.8 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 250.0
% Moisture: 10

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	3200
Bromomethane	ND J	3200
Vinyl Chloride	ND	3200
Chloroethane	ND	3200
Methylene Chloride	ND	1900
Acetone	ND	3200
Carbon Disulfide	ND	3200
1,1-Dichloroethene	ND	1300
1,1-Dichloroethane	ND	3200
trans-1,2-Dichloroethene	ND	3200
cis-1,2-Dichloroethene	790 J	3200
Chloroform	ND	3200
1,2-Dichloroethane	ND	1300
2-Butanone	ND	3200
1,1,1-Trichloroethane	ND	3200
Carbon Tetrachloride	ND	1300
Bromodichloromethane	ND	640
1,2-Dichloropropane	ND	640
cis-1,3-Dichloropropene	ND	3200
Trichloroethene	37000	640
Dibromochloromethane	ND	3200
1,1,2-Trichloroethane	ND	1900
Benzene	ND	640
trans-1,3-Dichloropropene	ND	3200
Bromoform	ND	2600
4-Methyl-2-Pentanone	ND	3200
2-Hexanone	ND	3200
Tetrachloroethene	2100	640
1,1,2,2-Tetrachloroethane	ND	640
Toluene	ND	3200
Chlorobenzene	ND	3200
Ethylbenzene	ND	2600
Styrene	ND	3200
Xylene (Total)	ND	3200

304666

ENVIROTECH RESEARCH, INC.

Client ID: SSSP-1_4-4.5
Site: Klockner & Klockner

Lab Sample No: 88666
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6484.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.8 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 250.0
% Moisture: 10.0

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
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30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304667

ENVIROTECH RESEARCH, INC.

Client ID: **SSSP-1 4-4.5**
Site: **Klockner & Klockner**

Lab Sample No: 88666
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 10.0

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Aluminum	8480	12.9		P
Antimony	ND	1.0	N	P
Arsenic	21.1	0.84		P
Barium	202	0.31		P
Beryllium	0.52	0.044		P
Cadmium	0.80	0.089	B	P
Calcium	11400	9.4		P
Chromium	14.6	0.22	*	P
Cobalt	4.9	0.27	B	P
Copper	50.4	0.78		P
Iron	14400	9.2		P
Lead	315	0.56		P
Magnesium	2200	9.0		P
Manganese	251	0.24	*	P
Mercury	1.9	0.037		CV
Nickel	10.1	0.47		P
Potassium	818	66.7	B	P
Selenium	ND	1.1		P
Silver	ND	0.31		P
Sodium	257	94.7	B	P
Thallium	ND	1.1		P
Vanadium	21.4	0.42		P
Zinc	294	1.0	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

304668

ENVIROTECH RESEARCH, INC.

Client ID: SSAW-9_1-1.5
Site: Klockner & Klockner

Lab Sample No: 88667
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/21/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9602.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 500.0
% Moisture: 17.0

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	1460
Chloromethane	ND	1460
Vinyl Chloride	ND	1460
Bromomethane	ND	1460
Chloroethane	ND	1460
Trichlorofluoromethane	ND	1460
1,1-Dichloroethene	ND	1460
Methylene Chloride	ND	1460
trans-1,2-Dichloroethene	ND	1460
1,1-Dichloroethane	ND	1460
cis-1,2-Dichloroethene	ND	1460
Chloroform	ND	1460
1,1,1-Trichloroethane	ND	1460
Carbon Tetrachloride	ND	1460
1,2-Dichloroethane	ND	1460
Trichloroethene	23300	1460
1,2-Dichloropropane	ND	1460
Bromodichloromethane	ND	1460
2-Chloroethyl Vinyl Ether	ND	1460
cis-1,3-Dichloropropene	ND	1460
trans-1,3-Dichloropropene	ND	1460
1,1,2-Trichloroethane	ND	1460
Tetrachloroethene	ND	1460
Dibromochloromethane	ND	1460
Chlorobenzene	ND	1460
Bromoform	ND	1460
1,1,2,2-Tetrachloroethane	ND	1460
1,3-Dichlorobenzene	ND	1460
1,4-Dichlorobenzene	ND	1460
1,2-Dichlorobenzene	ND	1460

304669

ENVIROTECH RESEARCH, INC.

Client ID: SSAW-10_1-1.5
Site: Klockner & Klockner

Lab Sample No: 88668
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9568.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 500.0
% Moisture: 17.2

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	1510
Chloromethane	ND	1510
Vinyl Chloride	ND	1510
Bromomethane	ND	1510
Chloroethane	ND	1510
Trichlorofluoromethane	ND	1510
1,1-Dichloroethene	ND	1510
Methylene Chloride	ND	1510
trans-1,2-Dichloroethene	ND	1510
1,1-Dichloroethane	ND	1510
cis-1,2-Dichloroethene	ND	1510
Chloroform	ND	1510
1,1,1-Trichloroethane	ND	1510
Carbon Tetrachloride	ND	1510
1,2-Dichloroethane	ND	1510
Trichloroethene	21200	1510
1,2-Dichloropropane	ND	1510
Bromodichloromethane	ND	1510
2-Chloroethyl Vinyl Ether	ND	1510
cis-1,3-Dichloropropene	ND	1510
trans-1,3-Dichloropropene	ND	1510
1,1,2-Trichloroethane	ND	1510
Tetrachloroethene	ND	1510
Dibromochloromethane	ND	1510
Chlorobenzene	ND	1510
Bromoform	ND	1510
1,1,2,2-Tetrachloroethane	ND	1510
1,3-Dichlorobenzene	ND	1510
1,4-Dichlorobenzene	ND	1510
1,2-Dichlorobenzene	ND	1510

304670

ENVIROTECH RESEARCH, INC.

Client ID: SSAW-9_11.5-12
Site: Klockner & Klockner

Lab Sample No: 88669
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9569.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 3.8

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	120
Chloromethane	ND	120
Vinyl Chloride	ND	120
Bromomethane	ND	120
Chloroethane	ND	120
Trichlorofluoromethane	ND	120
1,1-Dichloroethene	ND	120
Methylene Chloride	ND	120
trans-1,2-Dichloroethene	ND	120
1,1-Dichloroethane	ND	120
cis-1,2-Dichloroethene	ND	120
Chloroform	ND	120
1,1,1-Trichloroethane	ND	120
Carbon Tetrachloride	ND	120
1,2-Dichloroethane	ND	120
Trichloroethene	ND	120
1,2-Dichloropropane	ND	120
Bromodichloromethane	ND	120
2-Chloroethyl Vinyl Ether	ND	120
cis-1,3-Dichloropropene	ND	120
trans-1,3-Dichloropropene	ND	120
1,1,2-Trichloroethane	ND	120
Tetrachloroethene	ND	120
Dibromochloromethane	ND	120
Chlorobenzene	ND	120
Bromoform	ND	120
1,1,2,2-Tetrachloroethane	ND	120
1,3-Dichlorobenzene	ND	120
1,4-Dichlorobenzene	ND	120
1,2-Dichlorobenzene	ND	120

304671

ENVIROTECH RESEARCH, INC.

Client ID: **SSAW-2_1.5-2**
Site: Klockner & Klockner

Lab Sample No: **88671**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9570.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 1000.0
% Moisture: 21.6

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	3070
Chloromethane	ND	3070
Vinyl Chloride	ND	3070
Bromomethane	ND	3070
Chloroethane	ND	3070
Trichlorofluoromethane	ND	3070
1,1-Dichloroethene	ND	3070
Methylene Chloride	ND	3070
trans-1,2-Dichloroethene	ND	3070
1,1-Dichloroethane	ND	3070
cis-1,2-Dichloroethene	ND	3070
Chloroform	ND	3070
1,1,1-Trichloroethane	ND	3070
Carbon Tetrachloride	ND	3070
1,2-Dichloroethane	ND	3070
Trichloroethene	23100	3070
1,2-Dichloropropane	ND	3070
Bromodichloromethane	ND	3070
2-Chloroethyl Vinyl Ether	ND	3070
cis-1,3-Dichloropropene	ND	3070
trans-1,3-Dichloropropene	ND	3070
1,1,2-Trichloroethane	ND	3070
Tetrachloroethene	ND	3070
Dibromochloromethane	ND	3070
Chlorobenzene	ND	3070
Bromoform	ND	3070
1,1,2,2-Tetrachloroethane	ND	3070
1,3-Dichlorobenzene	ND	3070
1,4-Dichlorobenzene	ND	3070
1,2-Dichlorobenzene	ND	3070

304672

ENVIROTECH RESEARCH, INC.

Client ID: SSAW-2_7.5-8
Site: Klockner & Klockner

Lab Sample No: 88672
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9564.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 4.6

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND J	118
Chloromethane	ND	118
Vinyl Chloride	ND	118
Bromomethane	ND	118
Chloroethane	ND	118
Trichlorofluoromethane	ND	118
1,1-Dichloroethene	ND	118
Methylene Chloride	ND J	118
trans-1,2-Dichloroethene	ND	118
1,1-Dichloroethane	ND	118
cis-1,2-Dichloroethene	ND	118
Chloroform	ND	118
1,1,1-Trichloroethane	ND	118
Carbon Tetrachloride	ND	118
1,2-Dichloroethane	ND	118
Trichloroethene	144	118
1,2-Dichloropropane	ND	118
Bromodichloromethane	ND	118
2-Chloroethyl Vinyl Ether	ND J	118
cis-1,3-Dichloropropene	ND	118
trans-1,3-Dichloropropene	ND	118
1,1,2-Trichloroethane	ND	118
Tetrachloroethene	ND	118
Dibromochloromethane	ND	118
Chlorobenzene	ND	118
Bromoform	ND	118
1,1,2,2-Tetrachloroethane	ND	118
1,3-Dichlorobenzene	ND	118
1,4-Dichlorobenzene	ND	118
1,2-Dichlorobenzene	ND	118

304673

ENVIROTECH RESEARCH, INC.

Client ID: SSSR-2_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88674
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9593.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 1000.0
% Moisture: 7.5

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	2620
Chloromethane	ND	2620
Vinyl Chloride	ND	2620
Bromomethane	ND	2620
Chloroethane	ND	2620
Trichlorofluoromethane	ND	2620
1,1-Dichloroethene	ND	2620
Methylene Chloride	ND	2620
trans-1,2-Dichloroethene	ND	2620
1,1-Dichloroethane	ND	2620
cis-1,2-Dichloroethene	ND	2620
Chloroform	ND	2620
1,1,1-Trichloroethane	ND	2620
Carbon Tetrachloride	ND	2620
1,2-Dichloroethane	ND	2620
Trichloroethene	43900	2620
1,2-Dichloropropane	ND	2620
Bromodichloromethane	ND	2620
2-Chloroethyl Vinyl Ether	ND	2620
cis-1,3-Dichloropropene	ND	2620
trans-1,3-Dichloropropene	ND	2620
1,1,2-Trichloroethane	ND	2620
Tetrachloroethene	ND	2620
Dibromochloromethane	ND	2620
Chlorobenzene	ND	2620
Bromoform	ND	2620
1,1,2,2-Tetrachloroethane	ND	2620
1,3-Dichlorobenzene	ND	2620
1,4-Dichlorobenzene	ND	2620
1,2-Dichlorobenzene	ND	2620

304674

ENVIROTECH RESEARCH, INC.

Client ID: SSSR-3_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88675
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9572.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 1000.0
% Moisture: 7.5

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND J	2620
Chloromethane	ND	2620
Vinyl Chloride	ND	2620
Bromomethane	ND	2620
Chloroethane	ND	2620
Trichlorofluoromethane	ND	2620
1,1-Dichloroethene	ND	2620
Methylene Chloride	ND J	2620
trans-1,2-Dichloroethene	ND	2620
1,1-Dichloroethane	ND	2620
cis-1,2-Dichloroethene	ND	2620
Chloroform	ND	2620
1,1,1-Trichloroethane	ND	2620
Carbon Tetrachloride	ND	2620
1,2-Dichloroethane	ND	2620
Trichloroethene	19700	2620
1,2-Dichloropropane	ND	2620
Bromodichloromethane	ND	2620
2-Chloroethyl Vinyl Ether	ND J	2620
cis-1,3-Dichloropropene	ND	2620
trans-1,3-Dichloropropene	ND	2620
1,1,2-Trichloroethane	ND	2620
Tetrachloroethene	ND	2620
Dibromochloromethane	ND	2620
Chlorobenzene	ND	2620
Bromoform	ND	2620
1,1,2,2-Tetrachloroethane	ND	2620
1,3-Dichlorobenzene	ND	2620
1,4-Dichlorobenzene	ND	2620
1,2-Dichlorobenzene	ND	2620

304675

ENVIROTECH RESEARCH, INC.

Client ID: SSFS-2_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88677
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8328.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 5.0 ml
Dilution Factor: 1.0
% Moisture: 4

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
bis(2-Chloroethyl)ether	ND	87
1,3-Dichlorobenzene	ND	870
1,4-Dichlorobenzene	ND	870
1,2-Dichlorobenzene	ND	870
bis(2-chloroisopropyl)ether	ND	870
N-Nitroso-di-n-propylamine	ND	87
Hexachloroethane	ND	87
Nitrobenzene	ND	87
Isophorone	ND	870
bis(2-Chloroethoxy)methane	ND	870
1,2,4-Trichlorobenzene	ND	87
Naphthalene	ND	870
4-Chloroaniline	ND	870
Hexachlorobutadiene	ND	170
2-Methylnaphthalene	ND	870
Hexachlorocyclopentadiene	ND	870
2-Chloronaphthalene	ND	870
2-Nitroaniline	ND	1700
Dimethylphthalate	ND	870
Acenaphthylene	ND	870
2,6-Dinitrotoluene	ND	170
3-Nitroaniline	ND	1700
Acenaphthene	ND	870
Dibenzofuran	ND	870
2,4-Dinitrotoluene	ND	170
Diethylphthalate	ND	870
4-Chlorophenyl-phenylether	ND	870
Fluorene	ND	870
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	870
4-Bromophenyl-phenylether	ND	870
Hexachlorobenzene	ND	87
Phenanthrene	78 J	870
Anthracene	ND	870

304676

ENVIROTECH RESEARCH, INC.

Client ID: SSFS-2_0-0.5 Lab Sample No: 88677
Site: Klockner & Klockner Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8328.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 5.0 ml
Dilution Factor: 1.0
% Moisture: 4

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Carbazole	ND	870
Di-n-butylphthalate	ND	870
Fluoranthene	120 J	870
Pyrene	130 J	870
Butylbenzylphthalate	ND	870
3,3'-Dichlorobenzidine	ND	1700
Benzo(a)anthracene	55 J	87
Chrysene	120 J	870
bis(2-Ethylhexyl)phthalate	13000	870
Di-n-octylphthalate	ND	870
Benzo(b)fluoranthene	100	87
Benzo(k)fluoranthene	39 J	87
Benzo(a)pyrene	81 J	87
Indeno(1,2,3-cd)pyrene	36 J	87
Dibenz(a,h)anthracene	ND	87
Benzo(g,h,i)perylene	46 J	870

304677

ENVIROTECH RESEARCH, INC.

Client ID: SSFS-2_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88677
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8328.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 5.0 ml
Dilution Factor: 1.0
% Moisture: 4.5

SEMI-VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8270C

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. Unknown Alkane	27.03	1200	
2. Unknown Alkane	29.20	3900	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 5100

304678

ENVIROTECH RESEARCH, INC.

Client ID: **SSFS-2 0-0.5**
Site: **Klockner & Klockner**

Lab Sample No: 88677
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 4.5

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Aluminum	5550	12.2		P
Antimony	ND	0.96	N	P
Arsenic	2.7	0.80		P
Barium	71.4	0.29		P
Beryllium	0.39	0.042	B	P
Cadmium	1.0	0.084	B	P
Calcium	4230	8.8		P
Chromium	40.3	0.21	*	P
Cobalt	15.6	0.25		P
Copper	63.6	0.73		P
Iron	25000	8.7		P
Lead	70.2	0.52		P
Magnesium	3420	8.4		P
Manganese	217	0.23	*	P
Mercury	0.05	0.017		CV
Nickel	27.1	0.44		P
Potassium	1660 J	62.9		P
Selenium	ND	1.0		P
Silver	ND	0.29		P
Sodium	ND	89.2		P
Thallium	ND	1.0		P
Vanadium	53.0	0.40		P
Zinc	334	0.94	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

304679

Site: Klockner & Klockner

Lab Job No: H950

Date Sampled: 10/7/98
Date Received: 10/7/98
Matrix: SOIL

Date Extracted: 10/12/98
Date Analyzed: 10/12/98
QA Batch: 4638

TOTAL PETROLEUM HYDROCARBONS (418.1)

Envirotech Sample #	Client ID	% Moisture	Dilution Factor	Analytical Result mg/kg (Dry Wt.)
88666	SSSP-1_4-4.5	10.0	1.0	89.0
88677	SSFS-2_0-0.5	4.5	5.0	1490

Quantitation Limit for Total Petroleum Hydrocarbons (418.1) is 25.0 mg/kg for an undiluted sample.

304680

ENVIROTECH RESEARCH, INC.

Client ID: SSAW-4_4-4.5
Site: Klockner & Klockner

Lab Sample No: 88678
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9594.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 1000.0
% Moisture: 21.8

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND J	3070
Chloromethane	ND	3070
Vinyl Chloride	ND	3070
Bromomethane	ND	3070
Chloroethane	ND	3070
Trichlorofluoromethane	ND	3070
1,1-Dichloroethene	ND	3070
Methylene Chloride	ND J	3070
trans-1,2-Dichloroethene	ND	3070
1,1-Dichloroethane	ND	3070
cis-1,2-Dichloroethene	ND	3070
Chloroform	ND	3070
1,1,1-Trichloroethane	ND	3070
Carbon Tetrachloride	ND	3070
1,2-Dichloroethane	ND	3070
Trichloroethene	23200	3070
1,2-Dichloropropane	ND	3070
Bromodichloromethane	ND	3070
2-Chloroethyl Vinyl Ether	ND J	3070
cis-1,3-Dichloropropene	ND	3070
trans-1,3-Dichloropropene	ND	3070
1,1,2-Trichloroethane	ND	3070
Tetrachloroethene	ND	3070
Dibromochloromethane	ND	3070
Chlorobenzene	ND	3070
Bromoform	ND	3070
1,1,2,2-Tetrachloroethane	ND	3070
1,3-Dichlorobenzene	ND	3070
1,4-Dichlorobenzene	ND	3070
1,2-Dichlorobenzene	ND	3070

304681

ENVIROTECH RESEARCH, INC.

Client ID: SSAW-4_9.5-10
Site: Klockner & Klockner

Lab Sample No: 88679
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9595.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 100.0
% Moisture: 4.0

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	260
Chloromethane	ND	260
Vinyl Chloride	ND	260
Bromomethane	ND	260
Chloroethane	ND	260
Trichlorofluoromethane	ND	260
1,1-Dichloroethene	ND	260
Methylene Chloride	ND	260
trans-1,2-Dichloroethene	ND	260
1,1-Dichloroethane	ND	260
cis-1,2-Dichloroethene	ND	260
Chloroform	ND	260
1,1,1-Trichloroethane	ND	260
Carbon Tetrachloride	ND	260
1,2-Dichloroethane	ND	260
Trichloroethene	ND	260
1,2-Dichloropropane	ND	260
Bromodichloromethane	ND	260
2-Chloroethyl Vinyl Ether	ND	260
cis-1,3-Dichloropropene	ND	260
trans-1,3-Dichloropropene	ND	260
1,1,2-Trichloroethane	ND	260
Tetrachloroethene	ND	260
Dibromochloromethane	ND	260
Chlorobenzene	ND	260
Bromoform	ND	260
1,1,2,2-Tetrachloroethane	ND	260
1,3-Dichlorobenzene	ND	260
1,4-Dichlorobenzene	ND	260
1,2-Dichlorobenzene	ND	260

304682

Site: Klockner & Klockner

Lab Job No: H950

Date Sampled: 10/7/98
Date Received: 10/7/98
Matrix: SOIL

Date Analyzed: 10/14/98
QA Batch: 1402

TOTAL ORGANIC CARBON

Envirotech Sample #	Client ID	% Moisture	Dilution Factor	Analytical Result mg/kg (Dry Wt.)
88670	SSGC-2_1-3	17.4	4.0	14900
88673	SSGC-3_1-4	18.5	4.0	6660
88680	SSGC-4_4-7	3.7	2.0	390

Quantitation Limit for Total Organic Carbon is 100 mg/kg for an undiluted sample.

304683

ENVIROTECH RESEARCH, INC.

Client ID: SSSR-1_4-4.5
Site: Klockner & Klockner

Lab Sample No: 88681
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9579.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 11.5

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	138
Chloromethane	ND	138
Vinyl Chloride	ND	138
Bromomethane	ND	138
Chloroethane	ND	138
Trichlorofluoromethane	ND	138
1,1-Dichloroethene	ND	138
Methylene Chloride	ND	138
trans-1,2-Dichloroethene	ND	138
1,1-Dichloroethane	ND	138
cis-1,2-Dichloroethene	ND	138
Chloroform	ND	138
1,1,1-Trichloroethane	ND	138
Carbon Tetrachloride	ND	138
1,2-Dichloroethane	ND	138
Trichloroethene	159	138
1,2-Dichloropropane	ND	138
Bromodichloromethane	ND	138
2-Chloroethyl Vinyl Ether	ND	138
cis-1,3-Dichloropropene	ND	138
trans-1,3-Dichloropropene	ND	138
1,1,2-Trichloroethane	ND	138
Tetrachloroethene	ND	138
Dibromochloromethane	ND	138
Chlorobenzene	ND	138
Bromoform	ND	138
1,1,2,2-Tetrachloroethane	ND	138
1,3-Dichlorobenzene	ND	138
1,4-Dichlorobenzene	ND	138
1,2-Dichlorobenzene	ND	138

304684

ENVIROTECH RESEARCH, INC.

Client ID: SSSR-4_4-4.5
Site: Klockner & Klockner

Lab Sample No: 88682
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9586.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 12.1

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	138
Chloromethane	ND	138
Vinyl Chloride	ND	138
Bromomethane	ND	138
Chloroethane	ND	138
Trichlorofluoromethane	ND	138
1,1-Dichloroethene	ND	138
Methylene Chloride	ND	138
trans-1,2-Dichloroethene	ND	138
1,1-Dichloroethane	ND	138
cis-1,2-Dichloroethene	ND	138
Chloroform	ND	138
1,1,1-Trichloroethane	ND	138
Carbon Tetrachloride	ND	138
1,2-Dichloroethane	ND	138
Trichloroethene	712	138
1,2-Dichloropropane	ND	138
Bromodichloromethane	ND	138
2-Chloroethyl Vinyl Ether	ND	138
cis-1,3-Dichloropropene	ND	138
trans-1,3-Dichloropropene	ND	138
1,1,2-Trichloroethane	ND	138
Tetrachloroethene	ND	138
Dibromochloromethane	ND	138
Chlorobenzene	ND	138
Bromoform	ND	138
1,1,2,2-Tetrachloroethane	ND	138
1,3-Dichlorobenzene	ND	138
1,4-Dichlorobenzene	ND	138
1,2-Dichlorobenzene	ND	138

304685

ENVIROTECH RESEARCH, INC.

Client ID: **SSLP-1 12-12.5**
Site: **Klockner & Klockner**

Lab Sample No: 88683
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 4.1

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Aluminum	3040	12.1		P
Antimony	ND	0.96	N	P
Arsenic	4.5	0.79		P
Barium	15.7	0.29	B	P
Beryllium	0.52	0.042		P
Cadmium	ND	0.083		P
Calcium	102000	44.0		P
Chromium	6.1	0.21	*	P
Cobalt	5.3	0.25	B	P
Copper	12.0	0.73		P
Iron	14200	8.7		P
Lead	6.6	0.52		P
Magnesium	58000	42.0		P
Manganese	276	0.23	*	P
Mercury	ND	0.017		CV
Nickel	9.7	0.44		P
Potassium	876	62.6	B	P
Selenium	ND	1.0		P
Silver	ND	0.29		P
Sodium	138	88.8	B	P
Thallium	ND	1.0		P
Vanadium	9.9	0.40	B	P
Zinc	38.2	0.94	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

304686

ENVIROTECH RESEARCH, INC.

Client ID: SSGT-2_7-7.5
Site: Klockner & Klockner

Lab Sample No: 88684
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4658.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.7 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 7

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	620
Bromomethane	ND	620
Vinyl Chloride	ND	620
Chloroethane	ND	620
Methylene Chloride	ND	380
Acetone	ND	620
Carbon Disulfide	ND	620
1,1-Dichloroethene	ND	250
1,1-Dichloroethane	ND	620
trans-1,2-Dichloroethene	ND	620
cis-1,2-Dichloroethene	ND	620
Chloroform	ND	620
1,2-Dichloroethane	ND	250
2-Butanone	ND	620
1,1,1-Trichloroethane	ND	620
Carbon Tetrachloride	ND	250
Bromodichloromethane	ND	120
1,2-Dichloropropane	ND	120
cis-1,3-Dichloropropene	ND	620
Trichloroethene	ND	120
Dibromochloromethane	ND	620
1,1,2-Trichloroethane	ND	380
Benzene	ND	120
trans-1,3-Dichloropropene	ND	620
Bromoform	ND	500
4-Methyl-2-Pentanone	ND	620
2-Hexanone	ND	620
Tetrachloroethene	ND	120
1,1,2,2-Tetrachloroethane	ND	120
Toluene	ND	620
Chlorobenzene	ND	620
Ethylbenzene	ND	500
Styrene	ND	620
Xylene (Total)	ND	620

304687

ENVIROTECH RESEARCH, INC.

Client ID: SSGT-2_7-7.5
Site: Klockner & Klockner

Lab Sample No: 88684
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4658.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.7 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 6.6

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
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30.			

TOTAL ESTIMATED CONCENTRATION	0.0

304688

Client ID: SSGT-2 7-7.5
Site: Klockner & Klockner

Lab Sample No: 88684
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 6.6

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Lead	2.6	0.54		P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

304689

ENVIROTECH RESEARCH, INC.

Client ID: SSGT-1_7-7.5
Site: Klockner & Klockner

Lab Sample No: 88685
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4659.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 8

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	680
Bromomethane	ND	680
Vinyl Chloride	ND	680
Chloroethane	ND	680
Methylene Chloride	ND	410
Acetone	ND	680
Carbon Disulfide	ND	680
1,1-Dichloroethene	ND	270
1,1-Dichloroethane	ND	680
trans-1,2-Dichloroethene	ND	680
cis-1,2-Dichloroethene	ND	680
Chloroform	ND	680
1,2-Dichloroethane	ND	270
2-Butanone	ND	680
1,1,1-Trichloroethane	ND	680
Carbon Tetrachloride	ND	270
Bromodichloromethane	ND	140
1,2-Dichloropropane	ND	140
cis-1,3-Dichloropropene	ND	680
Trichloroethene	ND	140
Dibromochloromethane	ND	680
1,1,2-Trichloroethane	ND	410
Benzene	ND	140
trans-1,3-Dichloropropene	ND	680
Bromoform	ND	540
4-Methyl-2-Pentanone	ND	680
2-Hexanone	ND	680
Tetrachloroethene	ND	140
1,1,2,2-Tetrachloroethane	ND	140
Toluene	ND	680
Chlorobenzene	ND	680
Ethylbenzene	ND	540
Styrene	ND	680
Xylene (Total)	ND	680

304690

ENVIROTECH RESEARCH, INC.

Client ID: SSGT-1_7-7.5
Site: Klockner & Klockner

Lab Sample No: 88685
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4659.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 7.8

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
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29.			
30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304691

ENVIROTECH RESEARCH, INC.

Client ID: **SSGT-1 7-7.5**
Site: **Klockner & Klockner**

Lab Sample No: 88685
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 7.8

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Lead	4.7	0.54		P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

304692

ENVIROTECH RESEARCH, INC.

Client ID: SSGT-3_7-7.5
Site: Klockner & Klockner

Lab Sample No: 88686
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4660.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.2 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 9

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	670
Bromomethane	ND	670
Vinyl Chloride	ND	670
Chloroethane	ND	670
Methylene Chloride	ND	400
Acetone	ND	670
Carbon Disulfide	ND	670
1,1-Dichloroethene	ND	270
1,1-Dichloroethane	ND	670
trans-1,2-Dichloroethene	ND	670
cis-1,2-Dichloroethene	ND	670
Chloroform	ND	670
1,2-Dichloroethane	ND	270
2-Butanone	ND	670
1,1,1-Trichloroethane	ND	670
Carbon Tetrachloride	ND	270
Bromodichloromethane	ND	130
1,2-Dichloropropane	ND	130
cis-1,3-Dichloropropene	ND	670
Trichloroethene	ND	130
Dibromochloromethane	ND	670
1,1,2-Trichloroethane	ND	400
Benzene	ND	130
trans-1,3-Dichloropropene	ND	670
Bromoform	ND	540
4-Methyl-2-Pentanone	ND	670
2-Hexanone	ND	670
Tetrachloroethene	ND	130
1,1,2,2-Tetrachloroethane	ND	130
Toluene	ND	670
Chlorobenzene	ND	670
Ethylbenzene	ND	540
Styrene	ND	670
Xylene (Total)	ND	670

304693

ENVIROTECH RESEARCH, INC.

Client ID: SSGT-3_7-7.5
Site: Klockner & Klockner

Lab Sample No: 88686
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4660.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.2 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 8.9

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
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30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304694

CHAIN-OF-CUSTODY

PROJECT NAME: Klockner & Klockner
PROJECT NO: 95-03-02 Envirotech Research # 809003
LABORATORY: Envirotech Research, Inc.

SITE ADDRESS: Stickle Avenue & Elm Street, Rockaway Borough, NJ
SAMPLE DATE: 10/7/98
SAMPLER(S): Cheryl L. Coffee / L. WESTCOTT

H950

SAMPLE TIME	SAMPLE LOCATION	SAMPLE ID#	SAMPLE DEPTH	SAMPLE MATRIX	ANALYSIS REQUESTED	PRESER-VATIVE	NO. OF CONT.	SPECIAL INSTRUCTIONS
—	TRIP BLANK		N/A	MEOH		ICE	1	88662
1405	FIELD BLANK	FB-2	N/A	H_2O	TCL VOC	ICE/HCl	2	88663
1045	ALLEYWAY	SSAW-7	5-5.5	SOIL	PHAL 8021	ICE/MEOH	2	88664
1046	ALLEYWAY	SSAW-7	12-12.5	SOIL	PHAL 8021	ICE/MEOH	2	88665
1105	SUMP	SSSP-1	4-4.5	SOIL	TCL VOC, PHC, TAL METALS, *BNTIS	ICE/MEOH	3	88666
1152	ALLEY WAY	SSAW-9	1-1.5	SOIL	PHAL (8021)	ICE/MEOH	2	88667
1155	ALLEY WAY	SSAW-10	1-1.5	SOIL	PHAL (8021)	ICE/MEOH	2	88668
1210	ALLEYWAY	SSAW-9	11.5-12'	SOIL	PHAL (8021)	ICE/MEOH	2	88669
1200	GEOLOGICAL CHARACTERISTIC	SSGC-2	1-3'	SOIL	TOC, GRAIN SIZE	ICE	2	88670
1235	ALLEYWAY	SSAW-2	1.5-2'	SOIL	PHAL (8021)	ICE/MEOH	2	88671
1243	ALLEY WAY	SSAW-2	7.5-8'	SOIL	PHAL (8021)	ICE/MEOH	2	88672
1245	GEOLOGICAL CHARACTERISTICS	SSGC-3	1-4'	SOIL	TOC, GRAIN SIZE	ICE	2	88673

RELINQUISHED BY: Cheryl Coffee DATE: 10/7/98 TIME: 1745 RECEIVED BY: [signature] DATE: 10/7/98 TIME 1745

RELINQUISHED BY: DATE: TIME: RECEIVED BY: DATE: TIME

ANALYTICAL PARAMETER IDENTIFICATION KEY:

PHC: PETROLEUM HYDROCARBONS
VOC: VOLATILE ORGANICS BY GC/MS WITH LIBRARY SEARCH
PAH: POLYCYCLIC AROMATIC HYDROCARBONS IN BASE NEUTRAL SCAN WITH LIBRARY SEARCH
BN: BASE NEUTRALS WITH LIBRARY SEARCH
AE: ACID EXTRACTABLES WITH LIBRARY SEARCH
PPM: PRIORITY POLLUTANT METALS
PP+40: PRIORITY POLLUTANT PLUS FORTY PEAKS

CT = CEILING TILE
FT = FLOOR TILE

TSI = THERMAL SYSTEM INSULATION

TOTAL NO. CONTAINERS_____

THE WHITMAN COMPANIES INC
44 WEST FERRIS STREET
EAST BRUNSWICK, NJ 08816

304695

CHAIN-OF-CUSTODY

Run Bntom 88677 per Cheryl Coffee

PROJECT NAME: Klockner & Klockner

PROJECT NO: 95-03-02 Envirotech # 809003

LABORATORY: Envirotech Research, Inc.

SITE ADDRESS: Stickle Avenue & Elm Street, Rockaway Borough, NJ

SAMPLE DATE: 10/7/98

SAMPLER(S): Cheryl L. Coffee / L. WESTOTT

H950

SAMPLE TIME	SAMPLE LOCATION	SAMPLE ID#	SAMPLE DEPTH	SAMPLE MATRIX	ANALYSIS REQUESTED	PRESER-VATIVE	NO. OF CONT.	SPECIAL INSTRUCTIONS
1303	SCALE ROOM	SSSR-2	0-.5'	SOIL	PHAL (8021)	ICE/MEOH	2	88674
1320	SCALE ROOM	SSSR-3	0-.5'	SOIL	PHAL (8021)	ICE/MEOH	2	88675
1351	DRUM STORAGE AREA	SSDSA-2	0-.5'	SOIL	Cn	ICE	1	88676
1354	DRUM STORAGE SHED	SSFS-2	0-.5	SOIL	PHC, TAL METALS, BN+15	ICE	1	BN CONTINGENT 88677
1438	ALLEY WAY	SSAW-4	4-4.5'	SOIL	PHAL (8021)	ICE/MEOH	2	88678
1445	ALLEY WAY	SSAW-4	9.5-10'	SOIL	PHAL (8021)	ICE/MEOH	2	88679
1450	GEOLOGICAL CHARACTERISTICS	SSGC-4	4-7'	SOIL	TOC, GRAIN SIZE	ICE	2	88680
1515	SCALE ROOM	SSSR-1	4-4.5'	SOIL	PHAL (8021)	ICE/MEOH	2	88681
1520	SCALE ROOM	SSSR-4	4-4.5'	SOIL	PHAL (8021)	ICE/MEOH	2	88682
1530	LEACH PIT	SSLP-1	12-12.5	SOIL	TAL METALS	ICE	1	88683
1615	GAS TANK	SSGT-2	7-7.5	SOIL	TCL VOC	ICE/MEOH	2	88684
1625	GAS TANK	SSGT-1	7-7.5	SOIL	TCL VOC, Pb	ICE/MEOH	3	88685

RELINQUISHED BY: Cheryl L Coffee DATE: 10/7/98 TIME: 17:45 RECEIVED BY: [signature] DATE: 17:45 TIME 10/7/98

RELINQUISHED BY: DATE: TIME: RECEIVED BY: DATE: TIME

ANALYTICAL PARAMETER IDENTIFICATION KEY:

PHC: PETROLEUM HYDROCARBONS

VOC: VOLATILE ORGANICS BY GC/MS WITH LIBRARY SEARCH

PAH: POLYCYCLIC AROMATIC HYDROCARBONS IN BASE NEUTRAL SCAN WITH LIBRARY SEARCH

BN: BASE NEUTRALS WITH LIBRARY SEARCH

AE: ACID EXTRACTABLES WITH LIBRARY SEARCH

PPM: PRIORITY POLLUTANT METALS

PP+40: PRIORITY POLLUTANT PLUS FORTY PEAKS

CT = CEILING TILE

FT = FLOOR TILE

TSI = THERMAL SYSTEM INSULATION

TOTAL NO. CONTAINERS_____

THE WHITMAN COMPANIES INC
44 WEST FERRIS STREET
EAST BRUNSWICK, NJ 08816

304696

CHAIN-OF-CUSTODY

PROJECT NAME: Klockner & Klockner
PROJECT NO: 95-03-02 Envirotech # 809003
LABORATORY: Envirotech Research, Inc.

SITE ADDRESS: Stickle Avenue & Elm Street, Rockaway Borough, NJ
SAMPLE DATE: 10/7/98
SAMPLER(S): Cheryl L. Coffee / L. WESTCOTT

4950

SAMPLE TIME	SAMPLE LOCATION	SAMPLE ID#	SAMPLE DEPTH	SAMPLE MATRIX	ANALYSIS REQUESTED	PRESER-VATIVE	NO. OF CONT.	SPECIAL INSTRUCTIONS
1630	GAS TANK	SSGT-3	7-7.5	SOIL	TCL VOC	ICE/MEOH	2	886 86

RELINQUISHED BY: Cheryl Coffee DATE: 10/7/98 TIME: 1745 RECEIVED BY: [illegible] DATE: 1745 TIME 10/7/98

RELINQUISHED BY: DATE: TIME: RECEIVED BY: DATE: TIME

ANALYTICAL PARAMETER IDENTIFICATION KEY:

PHC: PETROLEUM HYDROCARBONS
VOC: VOLATILE ORGANICS BY GC/MS WITH LIBRARY SEARCH
PAH: POLYCYCLIC AROMATIC HYDROCARBONS IN BASE NEUTRAL SCAN WITH LIBRARY SEARCH
BN: BASE NEUTRALS WITH LIBRARY SEARCH
AE: ACID EXTRACTABLES WITH LIBRARY SEARCH
PPM: PRIORITY POLLUTANT METALS
PP+40: PRIORITY POLLUTANT PLUS FORTY PEAKS

CT = CEILING TILE
FT = FLOOR TILE
TSI = THERMAL SYSTEM INSULATION

TOTAL NO. CONTAINERS_____

THE WHITMAN COMPANIES INC
44 WEST FERRIS STREET
EAST BRUNSWICK, NJ 08816

304697

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
ENVIROTECH RESEARCH, INC.

777 NEW DURHAM ROAD, EDISON, NJ
08817
(732) 549-3900

Job No: H950 **Site:** Klockner & Klockner

Client: The Whitman Companies, Inc.

VOAMS

WATER - 8260B

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
88663	10/7/1998	10/7/1998			10.19.98	DB	8355

SOLID - 8260B

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
88662	10/7/1998	10/7/1998			10.15.98	TL	8020
88666	10/7/1998	10/7/1998			10.20.98	VP	8040
88684	10/7/1998	10/7/1998			10.15.98	TL	8020
88685	10/7/1998	10/7/1998			↓	↓	↓
88686	10/7/1998	10/7/1998			↓	↓	↓

304698

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
ENVIROTECH RESEARCH, INC.

777 NEW DURHAM ROAD, EDISON, NJ
08817
(732) 549-3900

Job No: H950 **Site:** Klockner & Klockner

Client: The Whitman Companies, Inc.

BNAMS

SOLID - 8270C

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
- 88666	10/7/1998	10/7/1998					
✓ 88677	10/7/1998	10/7/1998	10-15-98	SO	10/21/98	UL	4734

304699

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
ENVIROTECH RESEARCH, INC.

777 NEW DURHAM ROAD, EDISON, NJ
08817
(732) 549-3900

Job No: H950 **Site:** Klockner & Klockner

Client: The Whitman Companies, Inc.

VOAGC

8021Be

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
SOLID							
88664	10/7/1998	10/07/1998			10.19.98	KB	3699
88665	10/7/1998	10/07/1998			↓	↓	↓
88667	10/7/1998	10/07/1998			10.21.98	KB	3699
88668	10/7/1998	10/07/1998			10.19.98	KB	3699
88669	10/7/1998	10/07/1998			↓	↓	↓
88671	10/7/1998	10/07/1998			↓	↓	↓
88672	10/7/1998	10/07/1998			↓	↓	↓
88674	10/7/1998	10/07/1998			10.20.98	↓	↓
88675	10/7/1998	10/07/1998			10.19.98	↓	↓
88678	10/7/1998	10/07/1998			10.20.98	↓	↓
88679	10/7/1998	10/07/1998			↓	↓	↓
88681	10/7/1998	10/07/1998			↓	↓	↓
88682	10/7/1998	10/07/1998			↓	↓	↓

304700

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
ENVIROTECH RESEARCH, INC.

777 NEW DURHAM ROAD, EDISON, NJ
08817
(732) 549-3900

Job No: H950 **Site:** Klockner & Klockner

Client: The Whitman Companies, Inc. **Date Sampled:** 10/7/1998

Sample No.: 88666 **Date Received:** 10/7/1998

Matrix: SOLID

METALS

Analytic Parameter	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
7471A - MERCURY	10/19/98	MP	10/20/98	MP	7057
6010B - ARSENIC	10/14/98	BJR	10/20/98	DR	7057
6010B - SELENIUM					
6010B - THALLIUM					
6010B - ALUMINUM					
6010B - ANTIMONY					
6010B - BARIUM					
6010B - BERYLLIUM					
6010B - CADMIUM					
6010B - CALCIUM					
6010B - CHROMIUM					
6010B - COBALT					
6010B - COPPER					
6010B - IRON					
6010B - LEAD					
6010B - MAGNESIUM					
6010B - MANGANESE					
6010B - NICKEL					
6010B - POTASSIUM					
6010B - SILVER					
6010B - SODIUM			10/21/98	DR	
6010B - VANADIUM			10/20/98	DR	
6010B - ZINC					

304701

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
ENVIROTECH RESEARCH, INC.

777 NEW DURHAM ROAD, EDISON, NJ
08817
(732) 549-3900

Job No: H950 **Site:** Klockner & Klockner

Client: The Whitman Companies, Inc. **Date Sampled:** 10/7/1998

Sample No.: 88677 **Date Received:** 10/7/1998

Matrix: SOLID

METALS

Analytic Parameter	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
7471A - MERCURY	10/19/98	MP	10/20/98	MP	7057
6010B - ARSENIC	10/14/98	BR	10/20/98	PK	7057
6010B - SELENIUM					
6010B - THALLIUM					
6010B - ALUMINUM					
6010B - ANTIMONY					
6010B - BARIUM					
6010B - BERYLLIUM					
6010B - CADMIUM					
6010B - CALCIUM					
6010B - CHROMIUM					
6010B - COBALT					
6010B - COPPER					
6010B - IRON					
6010B - LEAD					
6010B - MAGNESIUM					
6010B - MANGANESE					
6010B - NICKEL					
6010B - POTASSIUM					
6010B - SILVER					
6010B - SODIUM			10/21/98	PK	
6010B - VANADIUM			10/20/98	PK	
6010B - ZINC					

304702

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
ENVIROTECH RESEARCH, INC.

777 NEW DURHAM ROAD, EDISON, NJ
08817
(732) 549-3900

Job No: H950 **Site:** Klockner & Klockner

Client: The Whitman Companies, Inc. **Date Sampled:** 10/7/1998

Sample No.: 88683 **Date Received:** 10/7/1998

Matrix: SOLID

METALS

Analytic Parameter	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
7471A - MERCURY	10/19/98	MP	10/20/98	MP	7057
6010B - ARSENIC	10/19/98	BOR	10/20/98	PR	7057
6010B - SELENIUM					
6010B - THALLIUM					
6010B - ALUMINUM					
6010B - ANTIMONY					
6010B - BARIUM					
6010B - BERYLLIUM					
6010B - CADMIUM					
6010B - CALCIUM					
6010B - CHROMIUM					
6010B - COBALT					
6010B - COPPER					
6010B - IRON					
6010B - LEAD					
6010B - MAGNESIUM					
6010B - MANGANESE					
6010B - NICKEL					
6010B - POTASSIUM					
6010B - SILVER					
6010B - SODIUM			10/21/98	PR	
6010B - VANADIUM			10/20/98	PR	
6010B - ZINC					

304703

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
ENVIROTECH RESEARCH, INC.

777 NEW DURHAM ROAD, EDISON, NJ
08817
(732) 549-3900

Job No: H950 **Site:** Klockner & Klockner

Client: The Whitman Companies, Inc. **Date Sampled:** 10/7/1998

Sample No.: 88684 **Date Received:** 10/7/1998

Matrix: SOLID

METALS

Analytic Parameter	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
LEAD	10/19/98	KG	10/20/98	PK	7057

304704

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
ENVIROTECH RESEARCH, INC.

777 NEW DURHAM ROAD, EDISON, NJ
08817
(732) 549-3900

Job No: H950 **Site:** Klockner & Klockner

Client: The Whitman Companies, Inc. **Date Sampled:** 10/7/1998

Sample No.: 88685 **Date Received:** 10/7/1998

Matrix: SOLID

METALS

Analytic Parameter	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
6010B - LEAD	10/14/98	BJR	10/20/98	DK	7057

304705

INTERNAL CUSTODY RECORD
AND
LABORATORY CHRONICLE
ENVIROTECH RESEARCH, INC.

777 NEW DURHAM ROAD, EDISON, NJ
08817
(732) 549-3900

Job No: H950 **Site:** Klockner & Klockner

Client: The Whitman Companies, Inc.

WET CHEM

PET HYDROCARBONS

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
SOLID							
88666	10/7/1998	10/07/1998	10.12.5.	AS.	10.12.5	AS	4658
88677	10/7/1998	10/07/1998	↓	↓	↓	↓	↓

TOC

Lab Sample ID	Date Sampled	Date Received	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
SOLID							
88670	10/7/1998	10/07/1998			10/14/98	AA	1402
88673	10/7/1998	10/07/1998			↓	↓	↓
88680	10/7/1998	10/07/1998			10/19/98		

304706

Analytical Methodology Summary

Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B. Water samples are analyzed for volatile organics by purge and trap GC/PID and GC/ELCD as specified in EPA Methods 601 and 602. Solid samples are analyzed by GC/PID and GC/ELCD in accordance with SW-846, 3rd Edition Method 8021B.

Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

304707

Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method 200.7 and solid Method 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1 and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

	Water Test Method		Solid Test Method	
Element	Flame	Furnace	Flame	Furnace
Aluminum	202.1	202.2	7020	--
Antimony	204.1	204.2	7040	7041
Arsenic	--	206.2	--	7060
Barium	208.1	--	7080	--
Beryllium	210.1	210.2	7090	7091
Cadmium	213.1	213.2	7130	7131
Calcium	215.1	--	7140	--
Chromium, Total	218.1	218.2	7190	7191
Chromium, (+6)	218.4	218.5	7197	7195
Cobalt	219.1	219.2	7200	7201
Copper	220.1	220.2	7210	--
Iron	236.1	236.2	7380	--
Lead	239.1	239.2	7420	7421
Magnesium	242.1	--	7450	--
Manganese	243.1	243.2	7460	--
Nickel	249.1	249.2	7520	--
Potassium	258.1	--	7610	--
Selenium	--	270.2	--	7740
Silver	272.1	272.2	7760	--
Sodium	273.1	--	7770	--
Tin	283.1	283.2	7870	--
Thallium	279.1	279.2	7840	7841
Vanadium	286.1	286.2	7910	7911
Zinc	289.1	289.2	7950	--

Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

304708

Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

Ignitability	- Method 1020A
Corrosivity	- Water pH Method 9040B Soil pH Method 9045C
Reactivity	- Chapter 7, Section 7.3.3 and 7.3.4 respectively for hydrogen cyanide and hydrogen sulfide release
Toxicity	- TCLP Method 1311

Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 17th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

304709

ORGANIC DATA REPORTING QUALIFIERS

ND - The compound was not detected at the indicated concentration.

J - Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified quantitation limit but greater than zero. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

INORGANIC DATA REPORTING QUALIFIERS (SW-846 METHODS ONLY)

ND - The compound was not detected at the indicated concentration.

B - Reported value is less than the Method Detection Limit but greater than or equal to the Instrument Detection Limit.

E - The reported value is estimated because of the presence of interference. See explanatory note in the Nonconformance Summary if the problem applies to all of the samples or on the individual Inorganic Analysis Data Sheet if the problem is isolated.

M - Duplicate injection precision not met on the Furnace Atomic Absorption analysis.

N - The spiked sample recovery is not within control limits.

S - The reported value was determined by the Method of Standard Additions (MSA).

* - Duplicate Analysis is not within control limits.

W - Post digestion spike for Furnace Atomic Absorption analysis is out of control.

\+ - Correlation coefficient for MSA is less than 0.995.

M Column - Method Qualifiers

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP).

A - Flame Atomic Absorption Spectroscopy (FAA).

F - Graphite Furnace Atomic Absorption Spectroscopy (GFAA).

CV - Cold Vapor Atomic Absorption Spectroscopy.

304710

NON-CONFORMANCE SUMMARY

Envirotech Research, Inc. Job Number: H950

Volatile Organics Analysis:

All data conforms with method requirements _____; or
Analysis was not requested _____; or
Non-conformance for the specific samples listed is as follows:

PA3644: MS/MSD % recovery vinyl chloride = 140/140% (70-130% Q.C. limits)
" MSD % recovery chloromethane = 146% (70-130% Q.C. limits)
" " " " chloroethane = 137% (70-130% Q.C. limits)

note: α,α,α-TFT surrogate std spiked prior to sampling / CH_2Br_2Cl spiked upon receipt in laboratory.

See continuation page if checked ( )

Base/Neutral and/or Acid Extractable Organics:

All data conforms with method requirements _____; or
Analysis was not requested _____; or
Non-conformance for the specific samples listed is as follows:

Sample 88677: IS-6 area < 50% check std area. Sample extract reanalyzed confirming matrix interference.

See continuation page if checked ( )

PCBs and/or Organochlorine Pesticides:

All data conforms with method requirements _____; or
Analysis was not requested ✓; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

304711

Non-conformance Summary, Page 2 of 2
Envirotech Research, Inc. Job Number: H950

Metals Analysis:

All data conforms with method requirements ✓; or
Analysis was not requested _____; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Total Petroleum Hydrocarbons:

All data conforms with method requirements ✓; or
Analysis was not requested _____; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

General Chemistry/Disposal Parameters:

All data conforms with method requirements ✓; or
Analysis was not requested _____; or
Non-conformance for the specific samples listed is as follows:

See continuation page if checked ( )

Signature of
Laboratory Manager: [signature] Date: 11/5/98

304712

Client ID: **Trip_Blank**
Site: Klockner & Klockner

Lab Sample No: **88662**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4657.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg	Quantitation Limit Units: ug/kg
Chloromethane	ND	620
Bromomethane	ND	620
Vinyl Chloride	ND	620
Chloroethane	ND	620
Methylene Chloride	ND	380
Acetone	ND	620
Carbon Disulfide	ND	620
1,1-Dichloroethene	ND	250
1,1-Dichloroethane	ND	620
trans-1,2-Dichloroethene	ND	620
cis-1,2-Dichloroethene	ND	620
Chloroform	ND	620
1,2-Dichloroethane	ND	250
2-Butanone	ND	620
1,1,1-Trichloroethane	ND	620
Carbon Tetrachloride	ND	250
Bromodichloromethane	ND	120
1,2-Dichloropropane	ND	120
cis-1,3-Dichloropropene	ND	620
Trichloroethene	ND	120
Dibromochloromethane	ND	620
1,1,2-Trichloroethane	ND	380
Benzene	ND	120
trans-1,3-Dichloropropene	ND	620
Bromoform	ND	500
4-Methyl-2-Pentanone	ND	620
2-Hexanone	ND	620
Tetrachloroethene	ND	120
1,1,2,2-Tetrachloroethane	ND	120
Toluene	ND	620
Chlorobenzene	ND	620
Ethylbenzene	ND	500
Styrene	ND	620
Xylene (Total)	ND	620

304713

Client ID: **Trip_Blank**
Site: Klockner & Klockner

Lab Sample No: **88662**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4657.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0.0

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304714

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4657.d
Report Date: 16-Oct-98 17:34:10

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4657.d
Lab Smp Id: 88662 Client Smp ID: Trip_Blank
Inj Date : 15-OCT-98 17:20:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 88662;50;;10;25
Misc Info : H950;8020;TL
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/8260newHIGH.m
Meth Date : 16-Oct-98 08:34:26 tim Quant Type: ISTD
Cal Date : 14-OCT-98 12:21:00 Cal File: e4614.d
Als bottle: 15
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: HSLVOAv.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (mL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.652	8.680	(0.950)	871709	51	6300
$ 37 Toluene-d8 (SUR)	98	11.083	11.117	(0.868)	2230152	48	6000
* 32 Chlorobenzene-d5	117	12.765	12.804	(1.000)	2194812	50	
$ 41 Bromofluorobenzene (SUR)	174	14.043	14.071	(0.921)	789132	56	7000
* 19 Fluorobenzene	96	9.104	9.149	(1.000)	2772866	50	
* 91 1,4-Dichlorobenzene-d4	152	15.244	15.276	(1.000)	685000	50	

304715

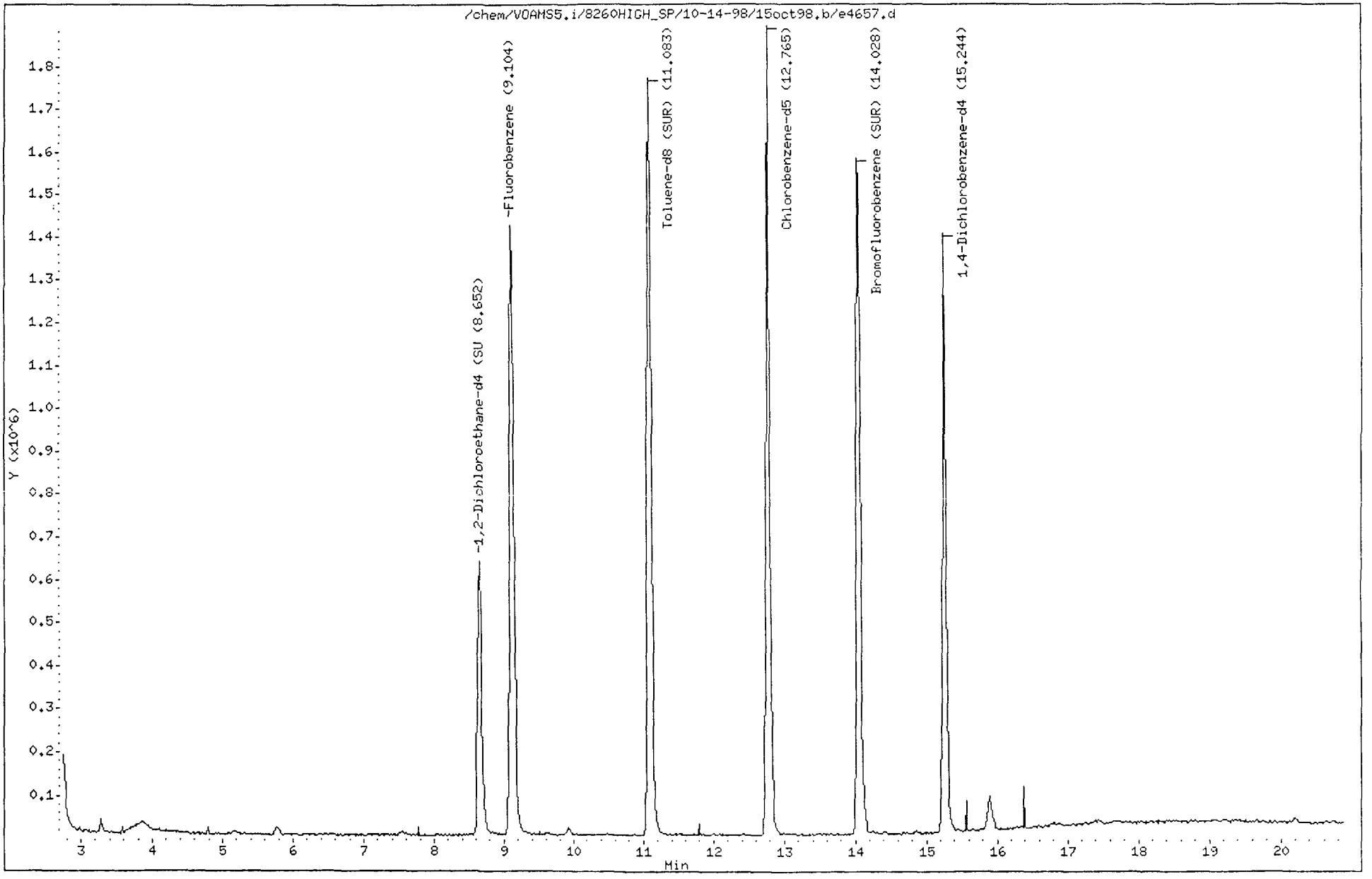
Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4657.d
Date : 15-OCT-98 17:20:00
Client ID: Trip_Blank
Sample Info: 88662;50;;10;25

Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

304716



Client ID: **FB-2**
Site: Klockner & Klockner

Lab Sample No: **88663**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c2236.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	3.0
Acetone	ND	5.0
Carbon Disulfide	ND	5.0
1,1-Dichloroethene	ND	2.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
1,2-Dichloroethane	ND	2.0
2-Butanone	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	1.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	3.0
Benzene	ND	1.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	4.0
4-Methyl-2-Pentanone	ND	5.0
2-Hexanone	ND	5.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	4.0
Styrene	ND	5.0
Xylene (Total)	ND	5.0

304717

Client ID: **FB-2**
Site: Klockner & Klockner

Lab Sample No: **88663**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c2236.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/l	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304718

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2236.d
Report Date: 20-Oct-98 07:00:16

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2236.d
Lab Smp Id: 88663 Client Smp ID: FB-2
Inj Date : 19-OCT-98 13:57:00
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : 88663
Misc Info : H950;8355;DB
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/new8260HIGH.m
Meth Date : 19-Oct-98 12:05:49 Quant Type: ISTD
Cal Date : 17-OCT-98 14:01:00 Cal File: c2202.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HSLVOAv.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: 5/Vo

Name	Value	Description
Vo	5.000	SampleVolume

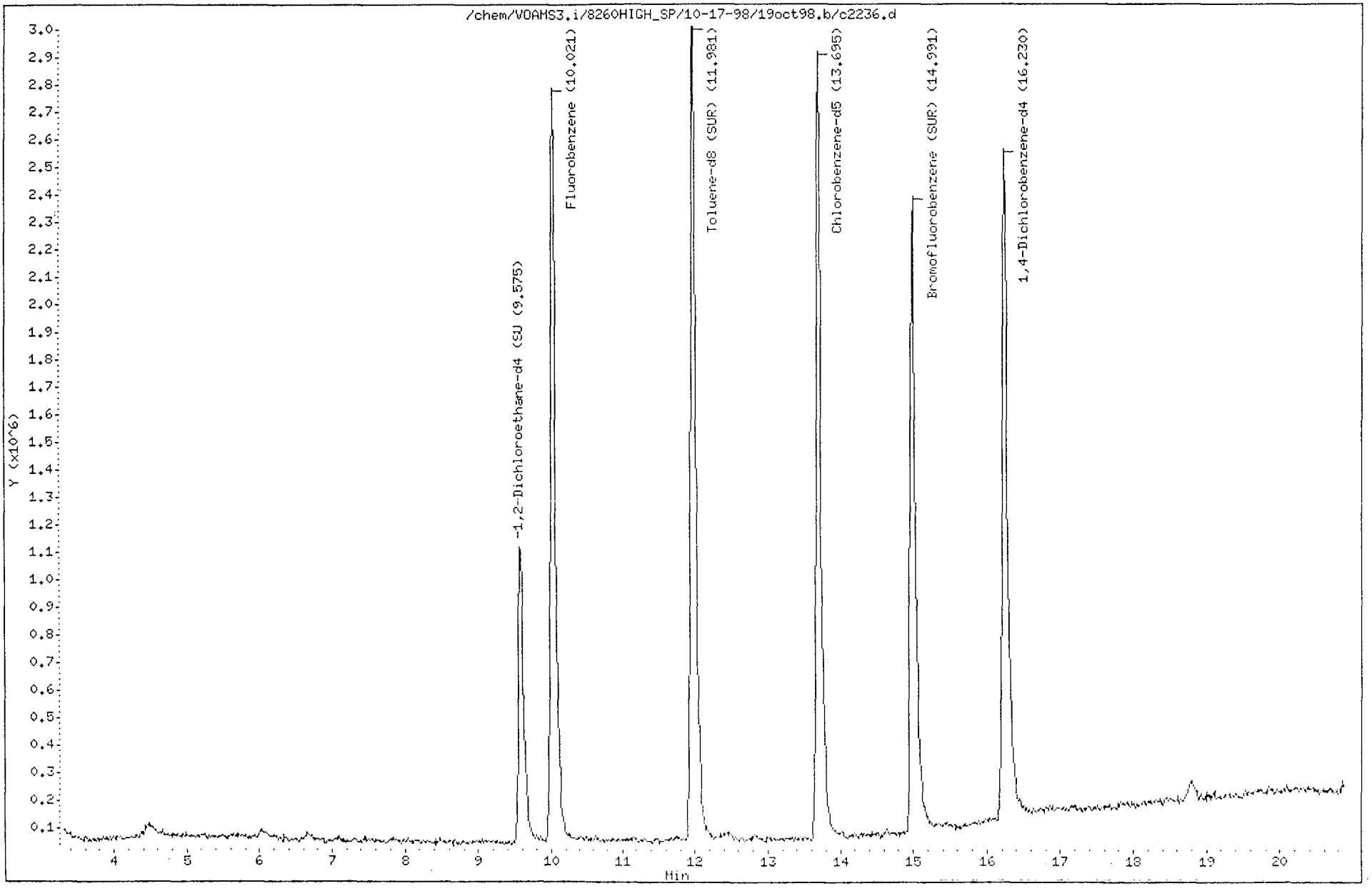
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	9.589	9.533	(0.957)	1756835	44	44
$ 37 Toluene-d8 (SUR)	98	11.981	11.924	(0.875)	4929196	46	46
* 32 Chlorobenzene-d5	117	13.695	13.653	(1.000)	4034660	50	
$ 41 Bromofluorobenzene (SUR)	174	14.991	14.935	(0.924)	1738255	48	48
* 19 Fluorobenzene	96	10.021	9.980	(1.000)	5761748	50	
* 91 1,4-Dichlorobenzene-d4	152	16.230	16.189	(1.000)	1823491	50	

304719

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2236.d
Date : 19-OCT-98 13:57:00
Client ID: FB-2
Sample Info: 88663
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS3.i
Operator: VOAMS 3
Column diameter: 0.53

304720



Client ID: **SSSP-1_4-4.5**
Site: Klockner & Klockner

Lab Sample No: **88666**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6484.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.8 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 250.0
% Moisture: 10

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	3200
Bromomethane	ND	3200
Vinyl Chloride	ND	3200
Chloroethane	ND	3200
Methylene Chloride	ND	1900
Acetone	ND	3200
Carbon Disulfide	ND	3200
1,1-Dichloroethene	ND	1300
1,1-Dichloroethane	ND	3200
trans-1,2-Dichloroethene	ND	3200
cis-1,2-Dichloroethene	790 J	3200
Chloroform	ND	3200
1,2-Dichloroethane	ND	1300
2-Butanone	ND	3200
1,1,1-Trichloroethane	ND	3200
Carbon Tetrachloride	ND	1300
Bromodichloromethane	ND	640
1,2-Dichloropropane	ND	640
cis-1,3-Dichloropropene	ND	3200
Trichloroethene	37000	640
Dibromochloromethane	ND	3200
1,1,2-Trichloroethane	ND	1900
Benzene	ND	640
trans-1,3-Dichloropropene	ND	3200
Bromoform	ND	2600
4-Methyl-2-Pentanone	ND	3200
2-Hexanone	ND	3200
Tetrachloroethene	2100	640
1,1,2,2-Tetrachloroethane	ND	640
Toluene	ND	3200
Chlorobenzene	ND	3200
Ethylbenzene	ND	2600
Styrene	ND	3200
Xylene (Total)	ND	3200

304721

Client ID: **SSSP-1_4-4.5**
Site: Klockner & Klockner

Lab Sample No: **88666**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6484.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.8 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 250.0
% Moisture: 10.0

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
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18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304722

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6484.d
Report Date: 21-Oct-98 11:55:36

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6484.d
Lab Smp Id: 88666 Client Smp ID: SSSP-1_4-4.5
Inj Date : 20-OCT-98 20:50:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : 88666;250;10.0;10.8;25
Misc Info : H950;8040;VP
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/new8260HIGH.m
Meth Date : 21-Oct-98 10:24:31 dave Quant Type: ISTD
Cal Date : 07-OCT-98 09:00:00 Cal File: a6192.d
Als bottle: 16
Dil Factor: 250.00000
Integrator: HP RTE Compound Sublist: HSLVOAv.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (mL)
Ws	10.800	Weight of sample extracted (g)
M	10.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
M 14 1,2-Dichloroethene (total)	100				46015	1.3	810(a)
13 cis-1,2-Dichloroethene	96	9.068	9.023	(0.859)	46015	1.2	790(a)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.117	10.087	(0.958)	341539	8.8	5600
25 Trichloroethene	95	11.018	10.988	(1.043)	2672640	58	37000(H)
$ 37 Toluene-d8 (SUR)	98	12.480	12.436	(0.881)	761393	7.7	5000
35 Tetrachloroethene	166	13.234	13.204	(0.934)	193865	3.2	2100
* 32 Chlorobenzene-d5	117	14.165	14.135	(1.000)	4466533	50	
$ 41 Bromofluorobenzene (SUR)	174	15.450	15.405	(0.924)	496753	9.1	5900
* 19 Fluorobenzene	96	10.560	10.530	(1.000)	5067980	50	
* 91 1,4-Dichlorobenzene-d4	152	16.720	16.676	(1.000)	2476306	50	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

304723

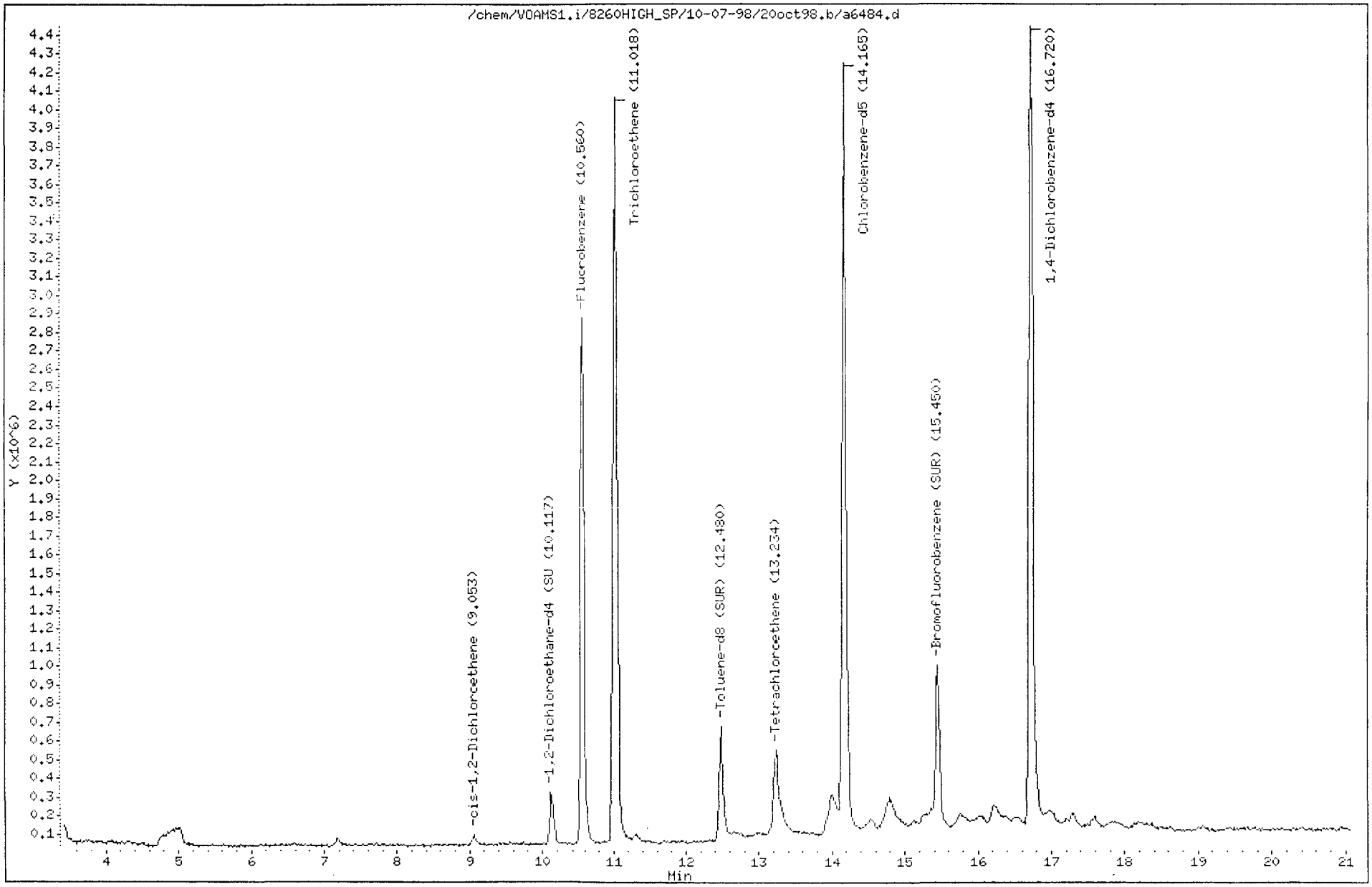
Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6484.d
Date : 20-OCT-98 20:50:00
Client ID: SSSP-1_4-4.5
Sample Info: 88666;250;10.0;10.8;25

Column phase: DB624

Instrument: VOAMS1.i

Operator: VOAMS 3
Column diameter: 0.53

304724



Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6484.d

Date : 20-OCT-98 20:50:00

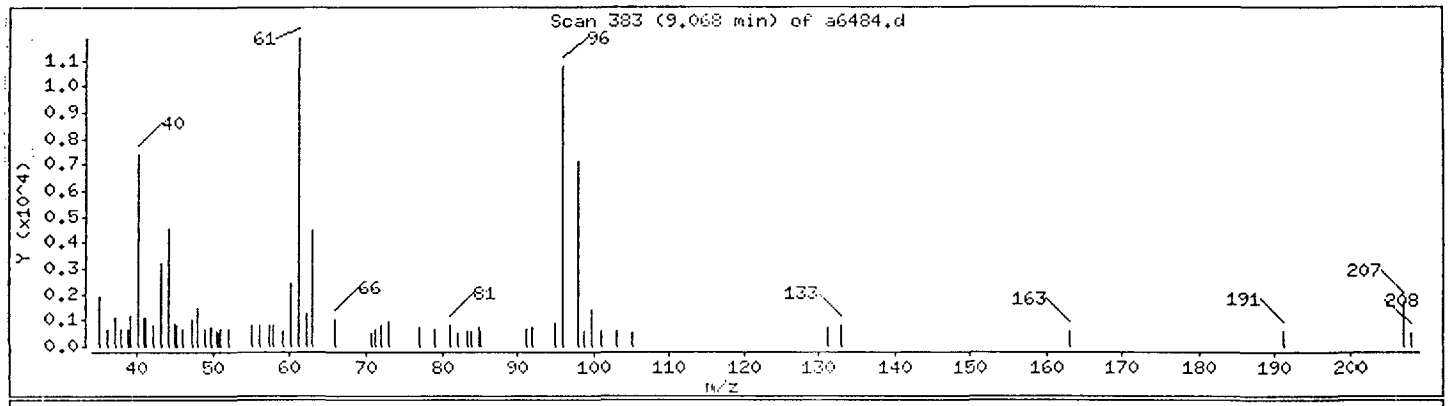
Client ID: SSSP-1_4-4.5 Instrument: VOAMS1.i

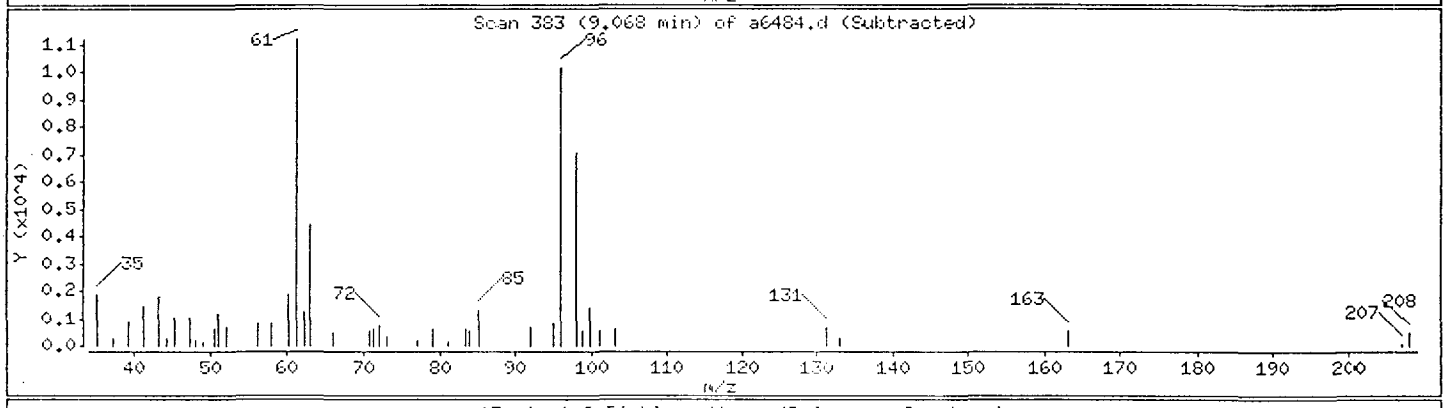
Sample Info: 88666;250;10.0;10.8;25

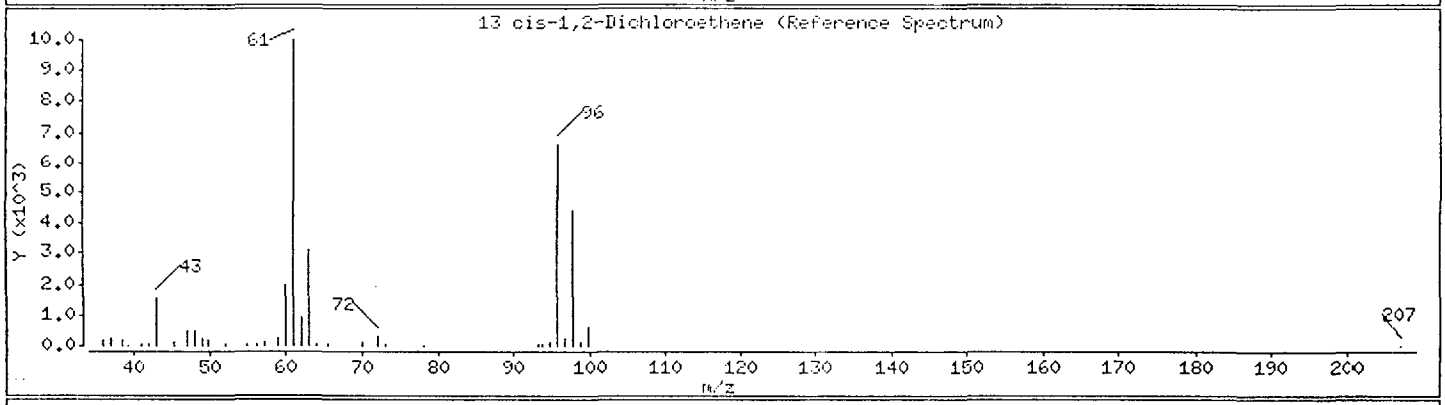
Operator: VOAMS 3

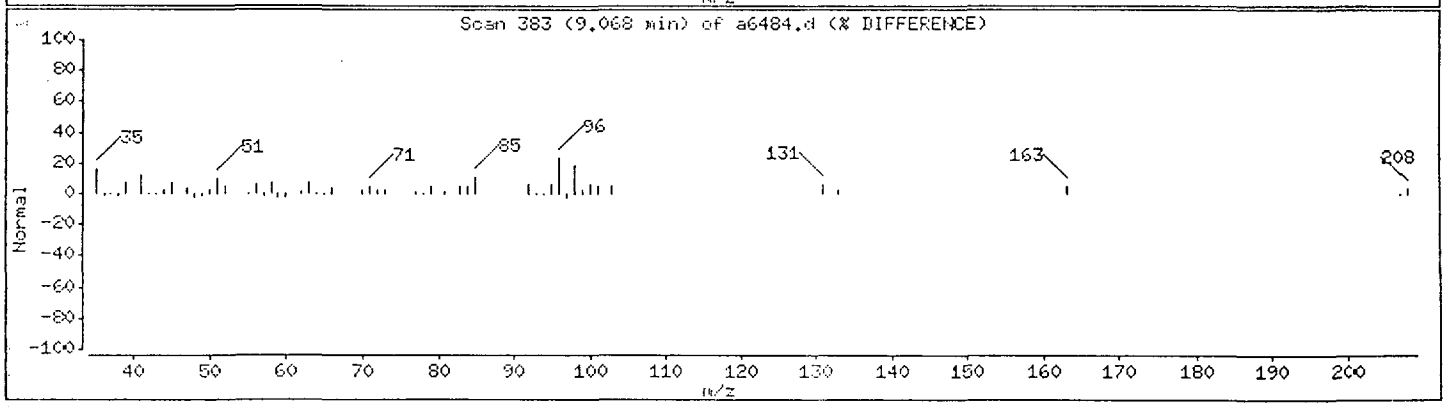
Column phase: DB624 Column diameter: 0.53 **304725**

13 cis-1,2-Dichloroethene









Data File: /chem/VOAMS1.i/826CHIGH_SP/10-07-98/20oct98.b/a6484.d

Date : 20-OCT-98 20:50:00

Client ID: SSSP-1_4-4.5 Instrument: VOAMS1.i

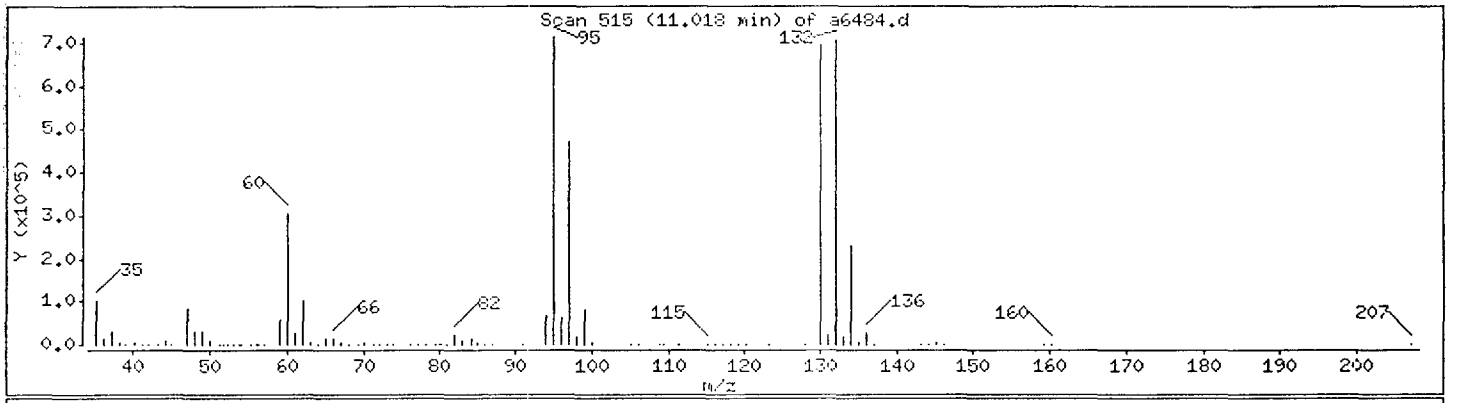
Sample Info: 88666;250;10.0;10.8;25

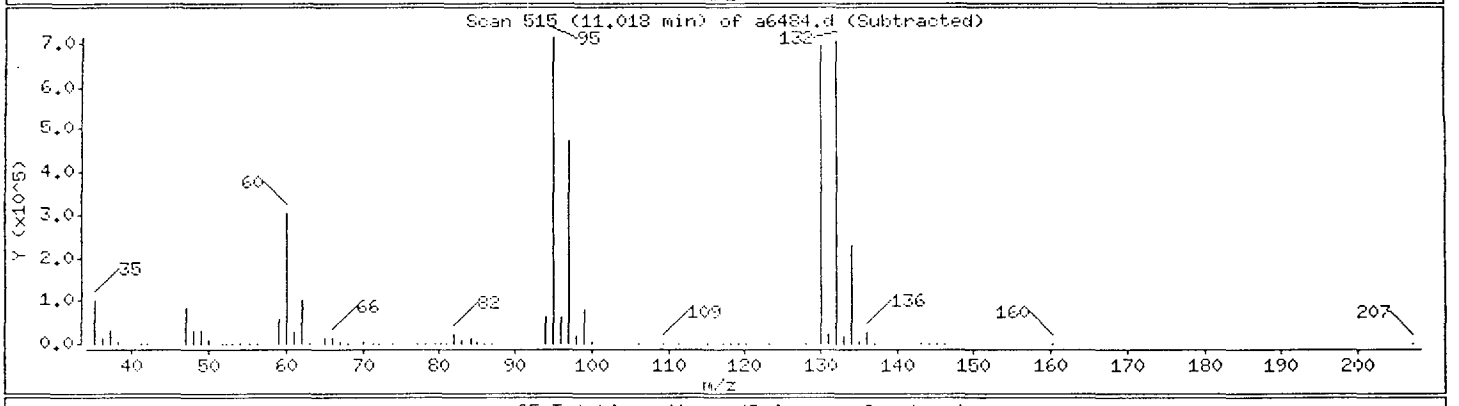
Operator: VOAMS 3

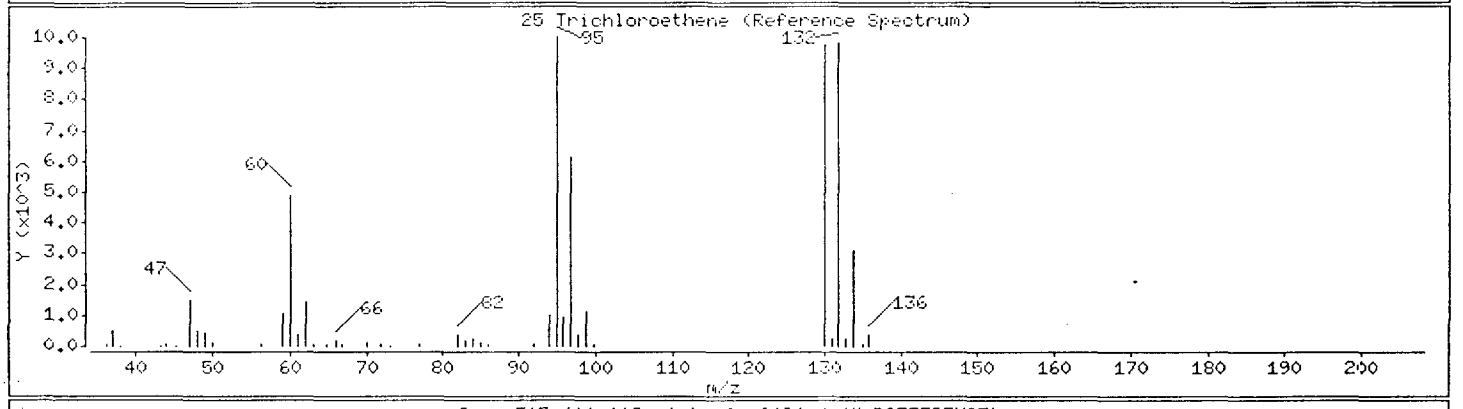
Column phase: DB624 Column diameter: 0.53

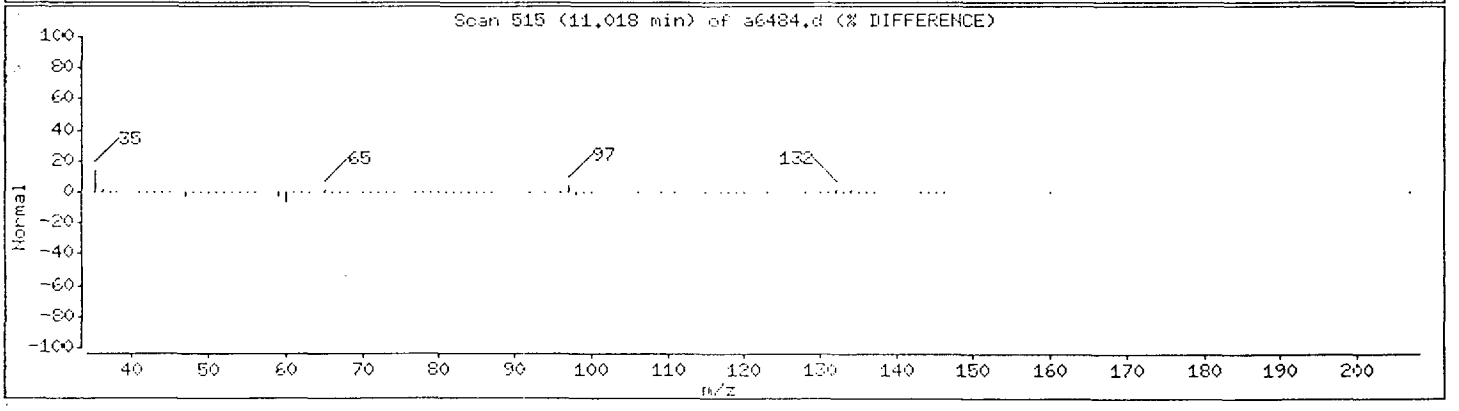
304726

25 Trichloroethene









Data File: /chem/VOAMS1.i/826CHIGH_SP/10-07-98/20oct98.b/a6484.d

Date : 20-OCT-98 20:50:00

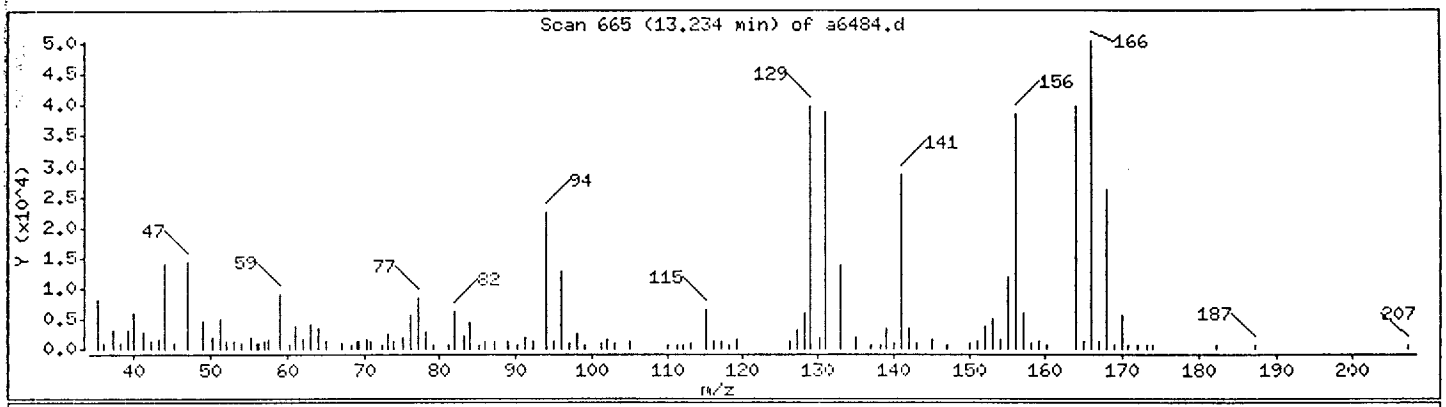
Client ID: SSSP-1_4-4.5 Instrument: VOAMS1.i

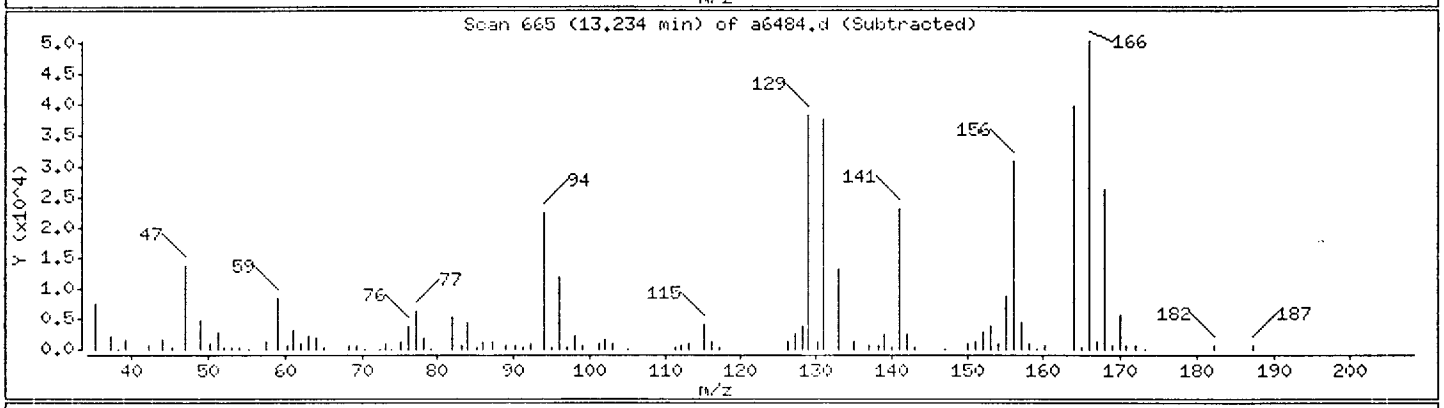
Sample Info: S8666;250;10.0;10.8;25

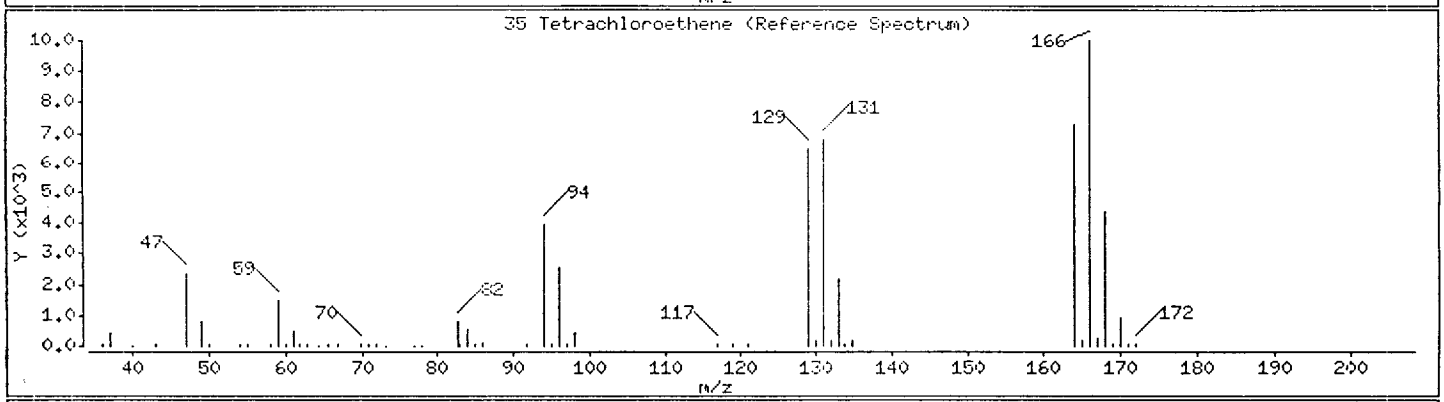
Operator: VOAMS 3

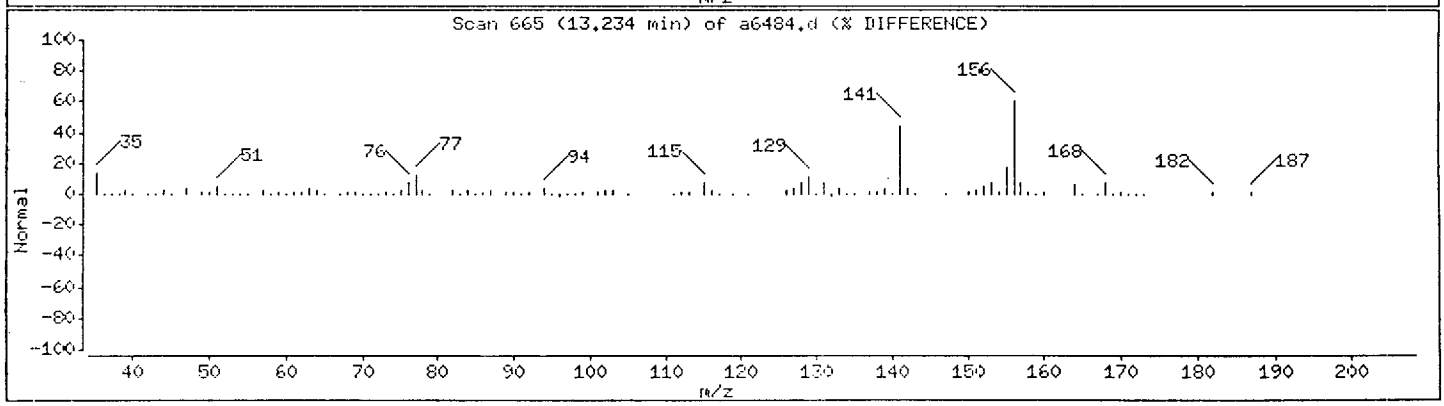
Column phase: DB624 Column diameter: 0.53 **304727**

35 Tetrachloroethene









Client ID: **SSFS-2_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88677**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8328.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 5.0 ml
Dilution Factor: 1.0
% Moisture: 4

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
bis(2-Chloroethyl)ether	ND	87
1,3-Dichlorobenzene	ND	870
1,4-Dichlorobenzene	ND	870
1,2-Dichlorobenzene	ND	870
bis(2-chloroisopropyl)ether	ND	870
N-Nitroso-di-n-propylamine	ND	87
Hexachloroethane	ND	87
Nitrobenzene	ND	87
Isophorone	ND	870
bis(2-Chloroethoxy)methane	ND	870
1,2,4-Trichlorobenzene	ND	87
Naphthalene	ND	870
4-Chloroaniline	ND	870
Hexachlorobutadiene	ND	170
2-Methylnaphthalene	ND	870
Hexachlorocyclopentadiene	ND	870
2-Chloronaphthalene	ND	870
2-Nitroaniline	ND	1700
Dimethylphthalate	ND	870
Acenaphthylene	ND	870
2,6-Dinitrotoluene	ND	170
3-Nitroaniline	ND	1700
Acenaphthene	ND	870
Dibenzofuran	ND	870
2,4-Dinitrotoluene	ND	170
Diethylphthalate	ND	870
4-Chlorophenyl-phenylether	ND	870
Fluorene	ND	870
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	870
4-Bromophenyl-phenylether	ND	870
Hexachlorobenzene	ND	87
Phenanthrene	78 J	870
Anthracene	ND	870

304728

Client ID: **SSFS-2_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88677**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8328.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 5.0 ml
Dilution Factor: 1.0
% Moisture: 4

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Carbazole	ND	870
Di-n-butylphthalate	ND	870
Fluoranthene	120 J	870
Pyrene	130 J	870
Butylbenzylphthalate	ND	870
3,3'-Dichlorobenzidine	ND	1700
Benzo(a)anthracene	55 J	87
Chrysene	120 J	870
bis(2-Ethylhexyl)phthalate	13000	870
Di-n-octylphthalate	ND	870
Benzo(b)fluoranthene	100	87
Benzo(k)fluoranthene	39 J	87
Benzo(a)pyrene	81 J	87
Indeno(1,2,3-cd)pyrene	36 J	87
Dibenz(a,h)anthracene	ND	87
Benzo(g,h,i)perylene	46 J	870

304729

Client ID: **SSFS-2_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88677**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8328.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 5.0 ml
Dilution Factor: 1.0
% Moisture: 4.5

SEMI-VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8270C

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. Unknown Alkane	27.03	1200	
2. Unknown Alkane	29.20	3900	
3.			
4.			
5.			
6.			
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29.			
30.			

TOTAL ESTIMATED CONCENTRATION 5100

304730

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d
Report Date: 21-Oct-98 15:37:58

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d
Lab Smp Id: 88677 Client Smp ID: SSFS-2_0-0.5
Inj Date : 21-OCT-98 15:00:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : 88677;30;5;1;4.5;
Misc Info : H950;TCLBN+10;4734;122;
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/21oct98.b/8270C-REV..m
Meth Date : 21-Oct-98 10:59:01 Quant Type: ISTD
Cal Date : 17-OCT-98 00:00:00 Cal File: s8230.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HSLBNb.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	5.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	4.500	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
* 79 1,4-Dichlorobenzene-d4	152	12.647	12.646	(1.000)	536934	40	
$ 76 Nitrobenzene-d5 (SUR)	82	13.611	13.620	(0.918)	407211	21	3700
* 80 Naphthalene-d8	136	14.832	14.839	(1.000)	1788418	40	
$ 77 2-Fluorobiphenyl (SUR)	172	16.623	16.630	(0.936)	774525	22	3900
* 82 Acenaphthene-d10	164	17.752	17.752	(1.000)	1101345	40	
* 83 Phenanthrene-d10	188	20.210	20.215	(1.000)	1596413	40	
52 Phenanthrene	178	20.243	20.255	(1.002)	21769	0.45	78(aM)
56 Fluoranthene	202	22.199	22.216	(1.098)	30939	0.72	120(a)
57 Pyrene	202	22.580	22.593	(0.919)	24612	0.73	130(a)
$ 78 Terphenyl-d14 (SUR)	244	22.822	22.831	(0.929)	596799	26	4500
61 Benzo(a)anthracene	228	24.551	24.566	(0.999)	8263	0.32	55(a)
* 81 Chrysene-d12	240	24.571	24.586	(1.000)	843276	40	
62 Chrysene	228	24.605	24.633	(1.001)	17098	0.67	120(aM)
63 bis(2-Ethylhexyl)phthalate	149	24.557	24.546	(0.999)	2162549	76	13000
65 Benzo(b)fluoranthene	252	26.718	26.736	(0.963)	12142	0.60	100(M)

304731

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d
Report Date: 21-Oct-98 15:37:58

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
66 Benzo(k)fluoranthene	252	26.779	26.816	(0.965)	4226	0.22	39(aM)
67 Benzo(a)pyrene	252	27.565	27.594	(0.994)	8607	0.46	81(aM)
* 84 Perylene-d12	264	27.743	27.740	(1.000)	559798	40	
68 Indeno(1,2,3-cd)pyrene	276	31.425	31.437	(1.133)	3883	0.20	36(aM)
70 Benzo(g,h,i)perylene	276	32.517	32.624	(1.172)	4964	0.26	46(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

304732

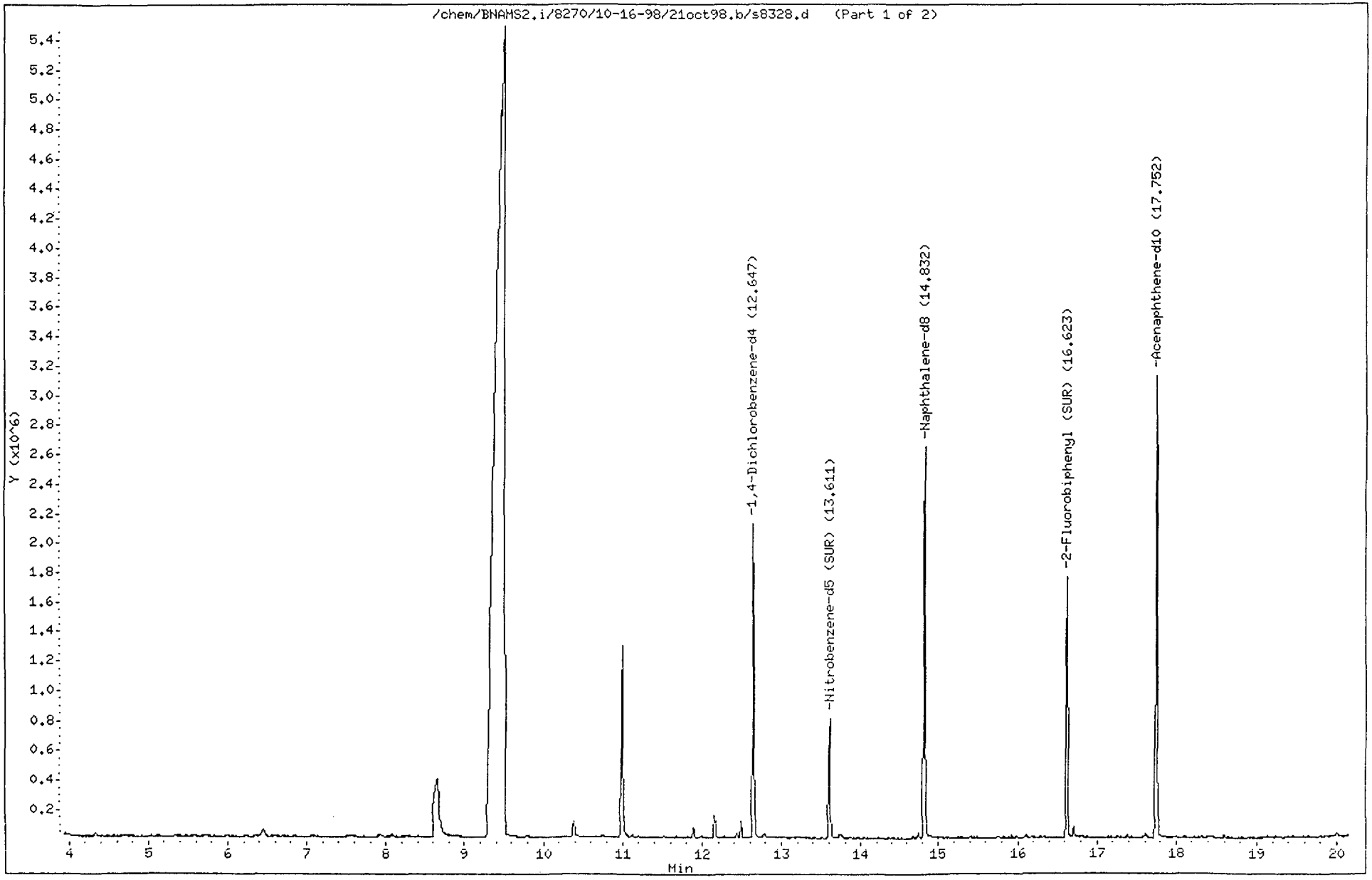
Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d
Date : 21-OCT-98 15:00:00
Client ID: SSFS-2_0-0.5
Sample Info: 88677;30;5;1;4.5;

Column phase: DB-5

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

304733



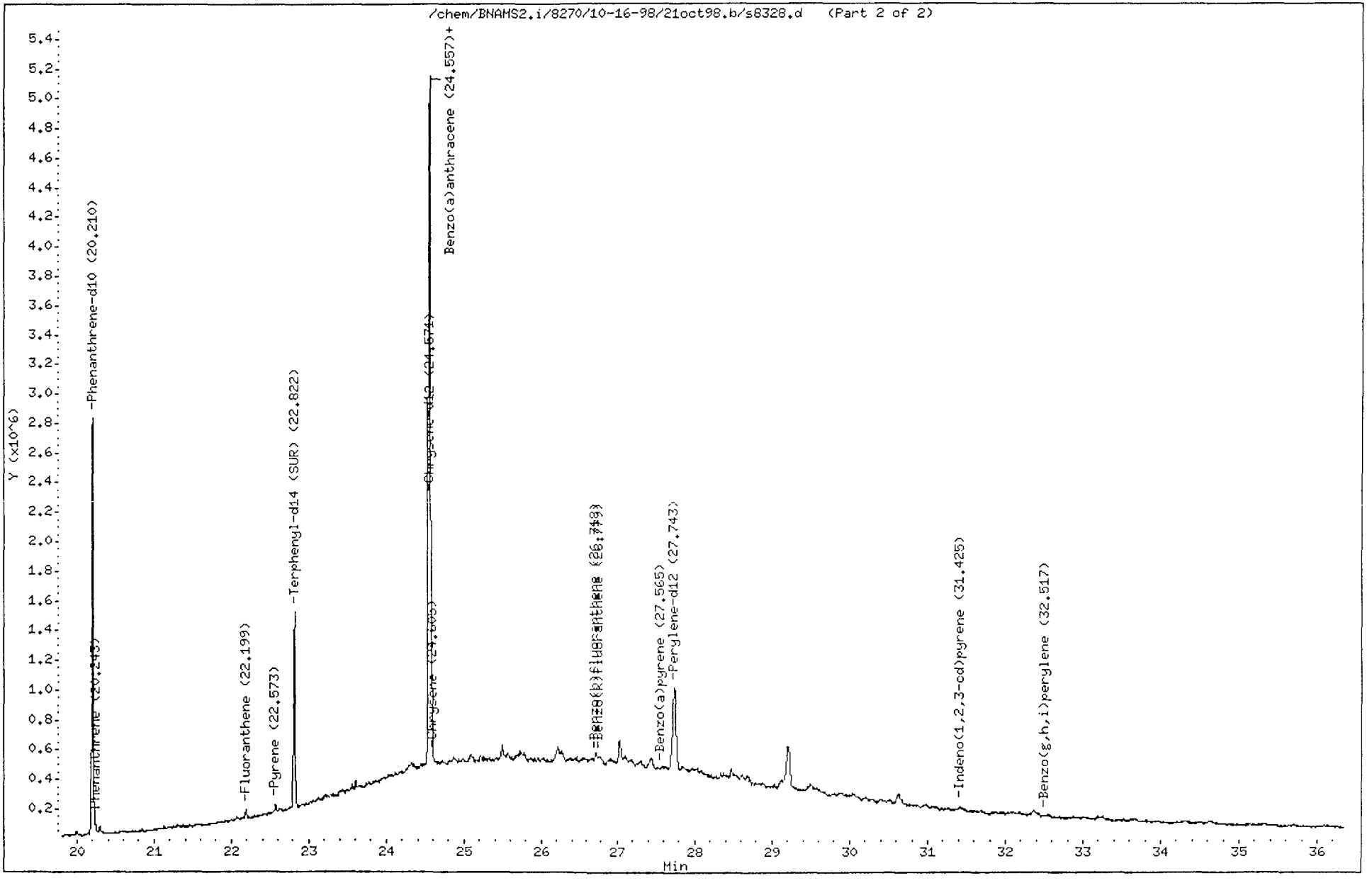
Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d
Date : 21-OCT-98 15:00:00
Client ID: SSFS-2_0-0.5
Sample Info: 88677;30;5;1;4.5;

Column phase: DB-5

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

304734



Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

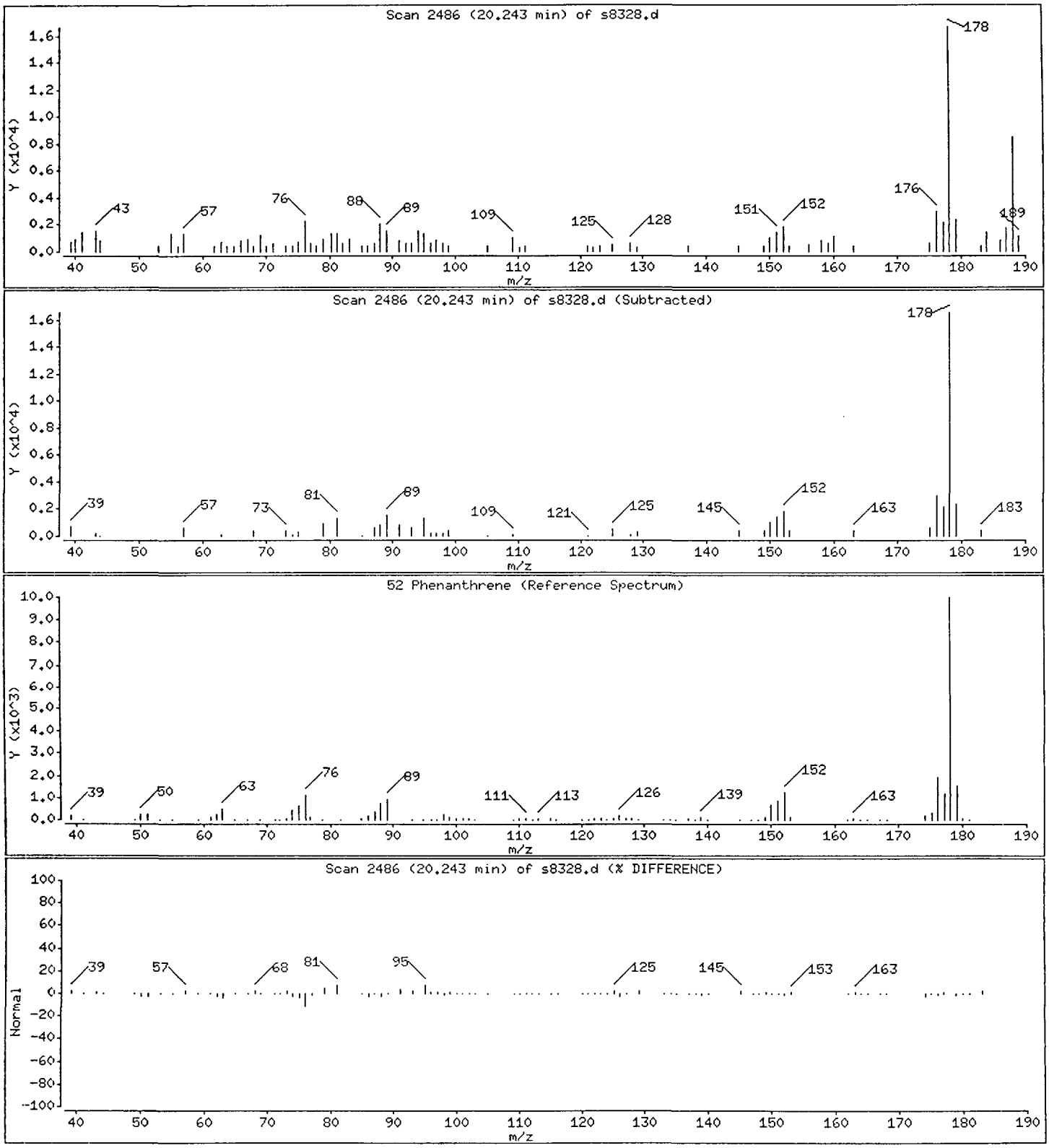
Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

Sample Info: 88677;30;5;1;4.5;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25 304735

52 Phenanthrene



Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

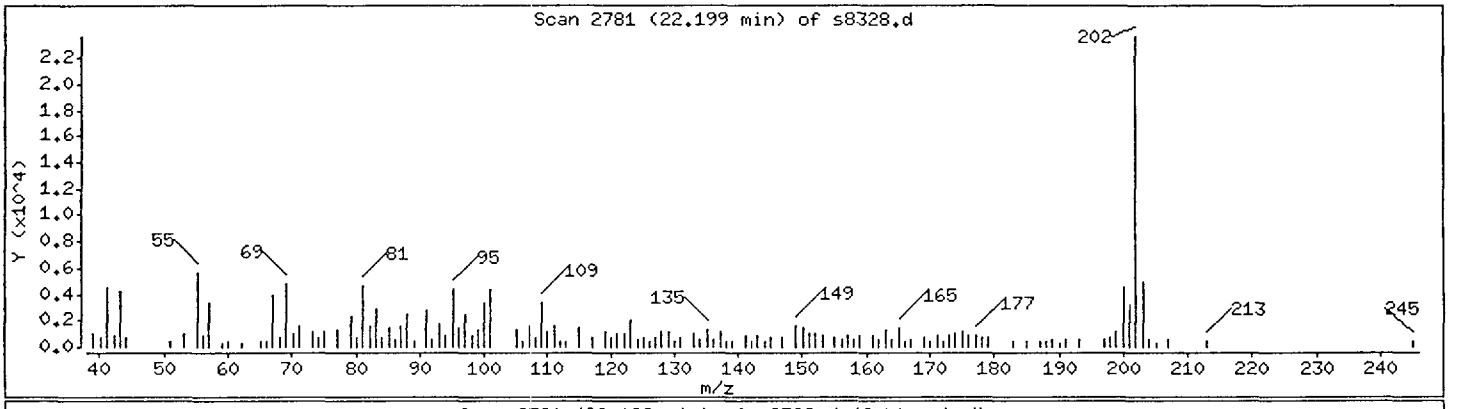
Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

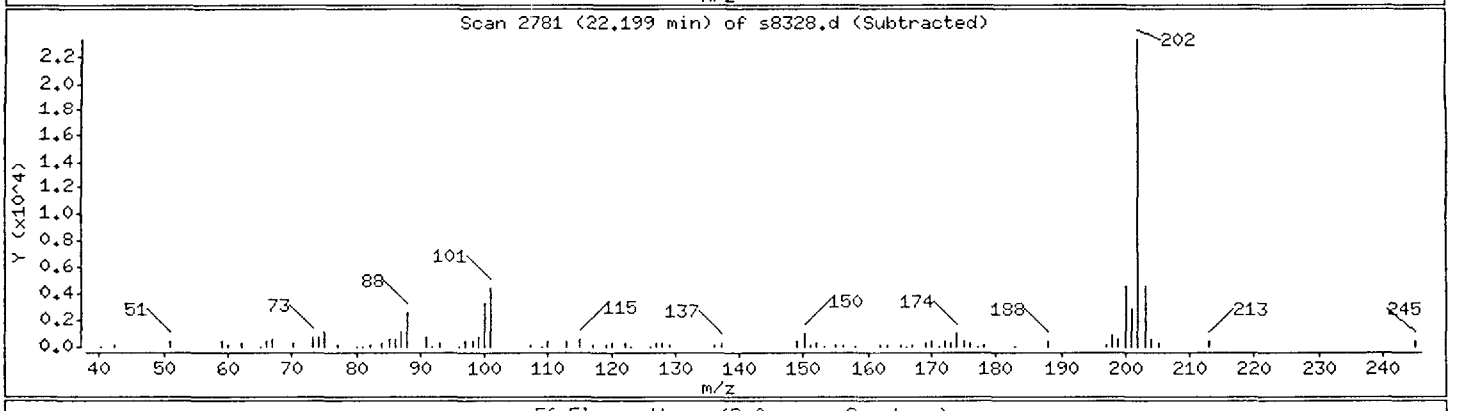
Sample Info: 88677;30;5;1;4.5;

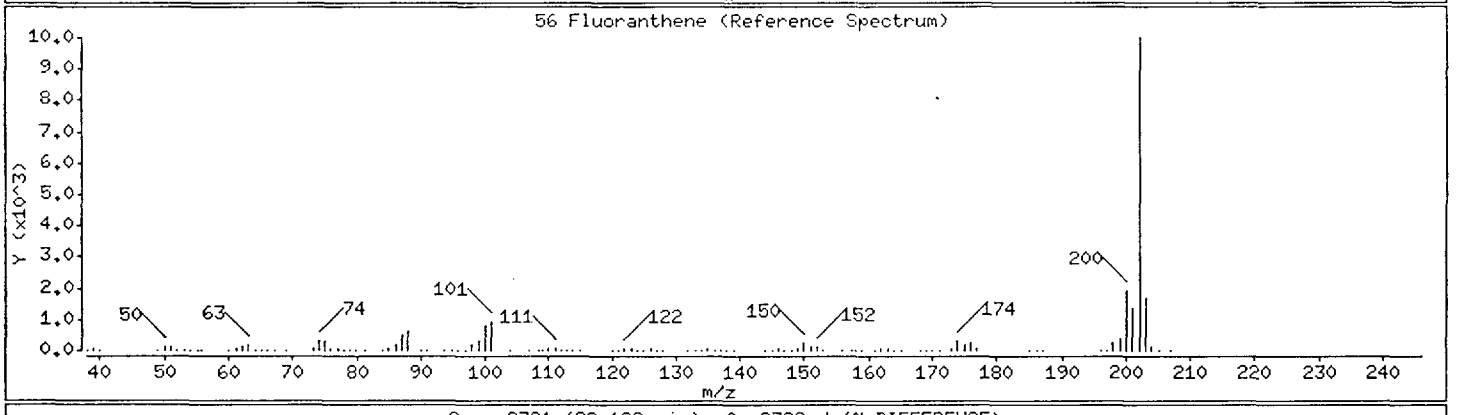
Operator: BNAMS 2

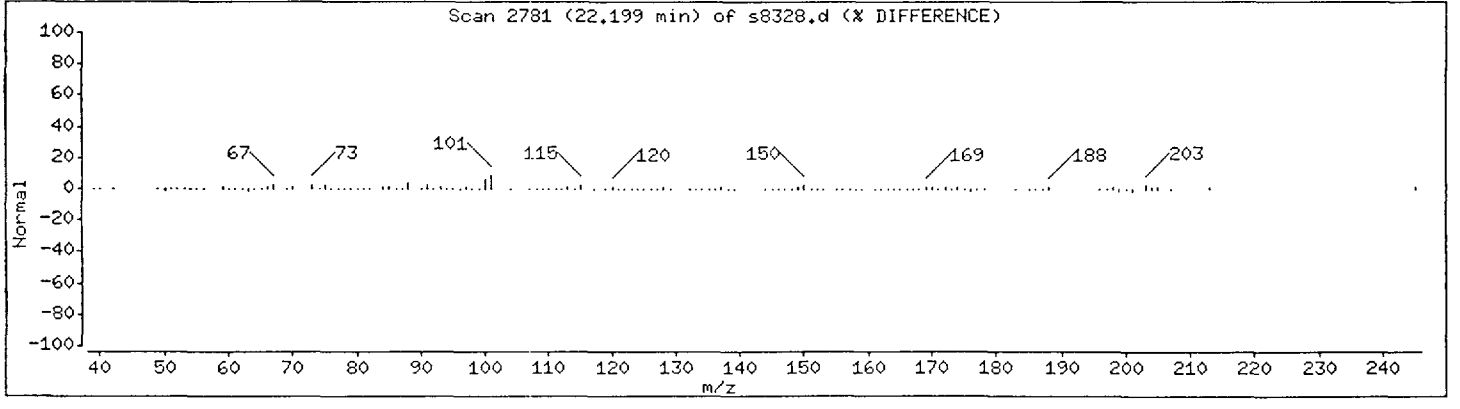
Column phase: DB-5 Column diameter: 0.25 304736

56 Fluoranthene









Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

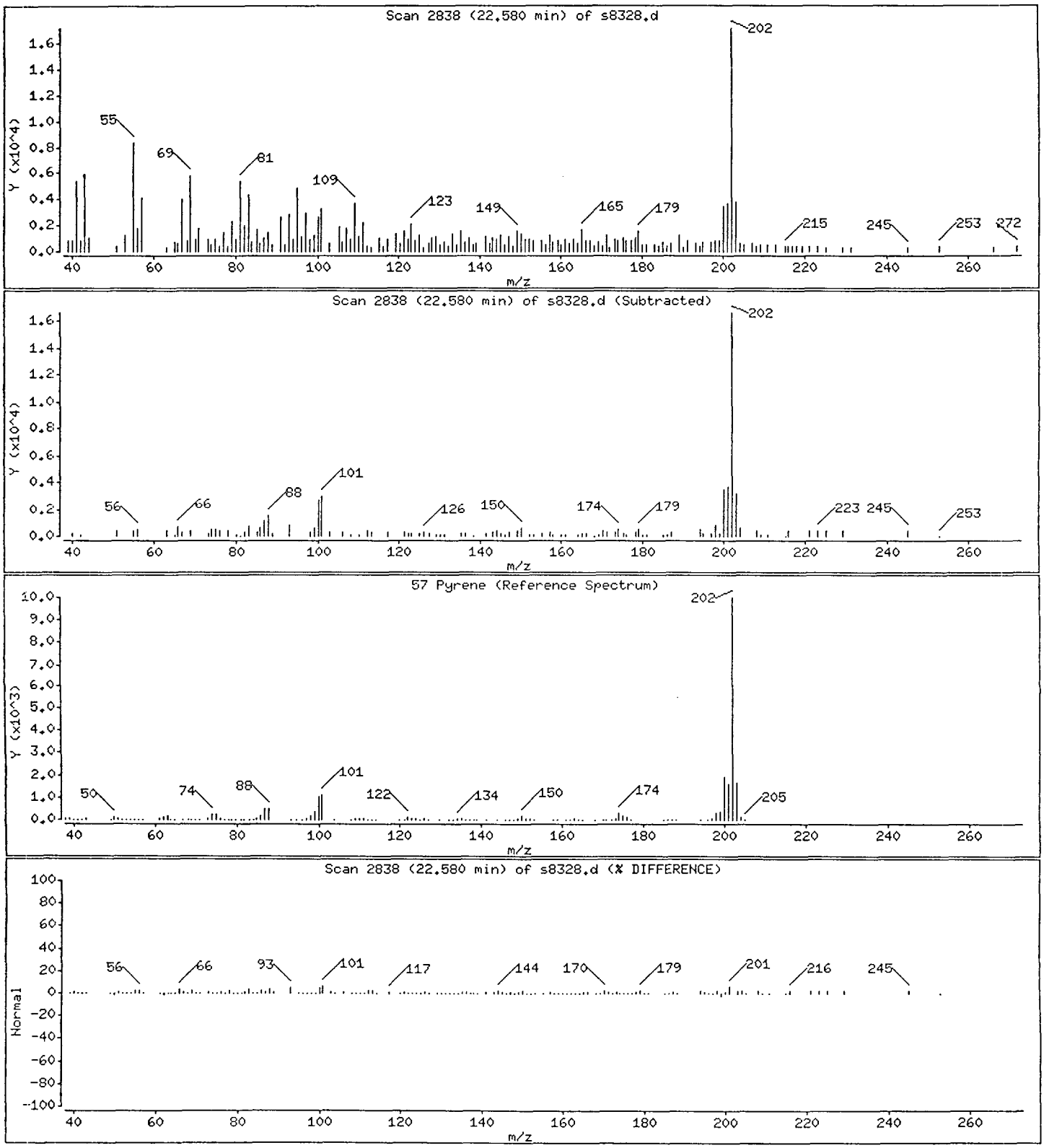
Sample Info: 88677;30;5;1;4.5;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

304737

57 Pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

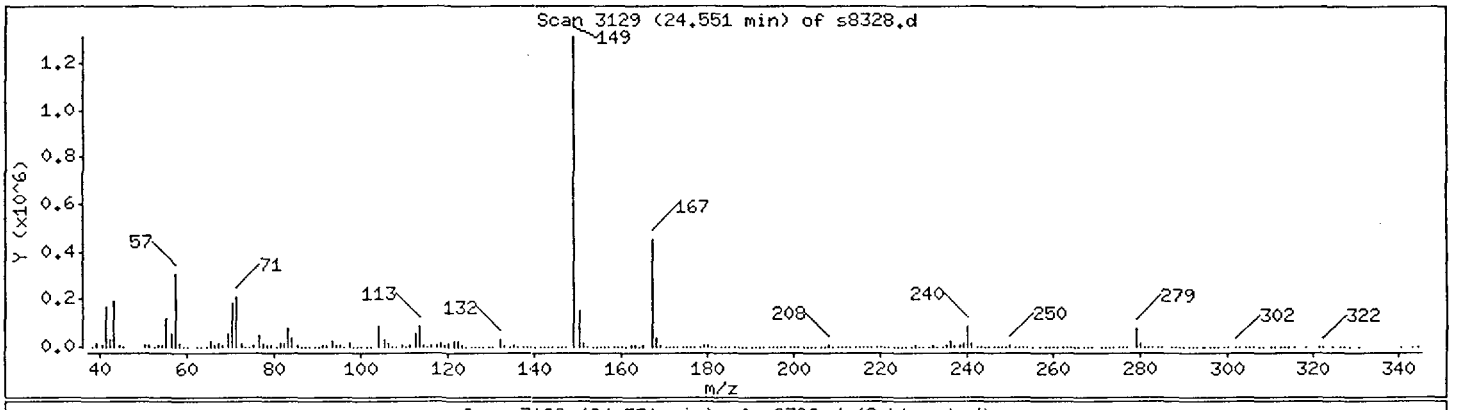
Sample Info: 88677;30;5;1;4.5;

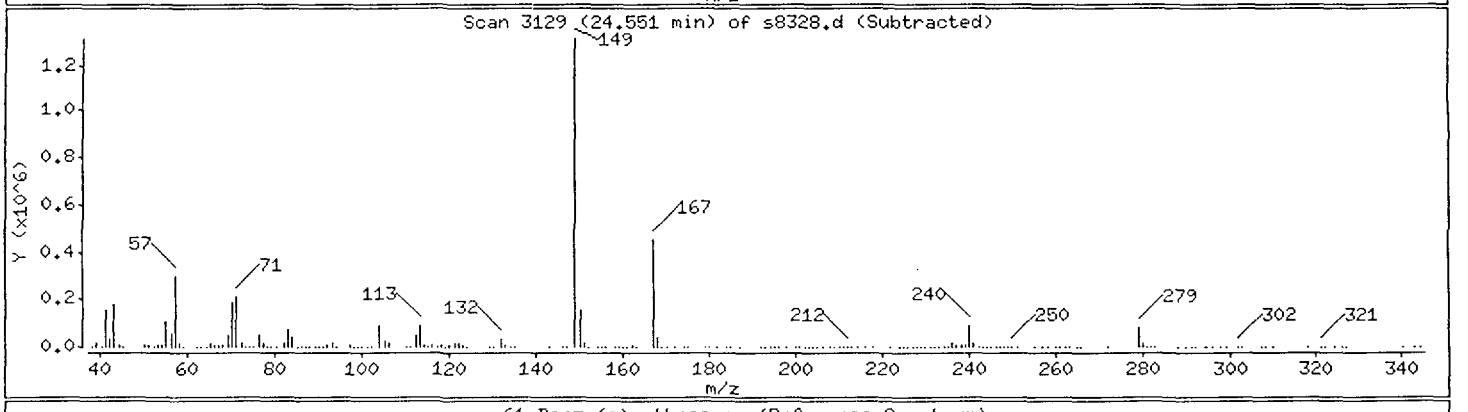
Operator: BNAMS 2

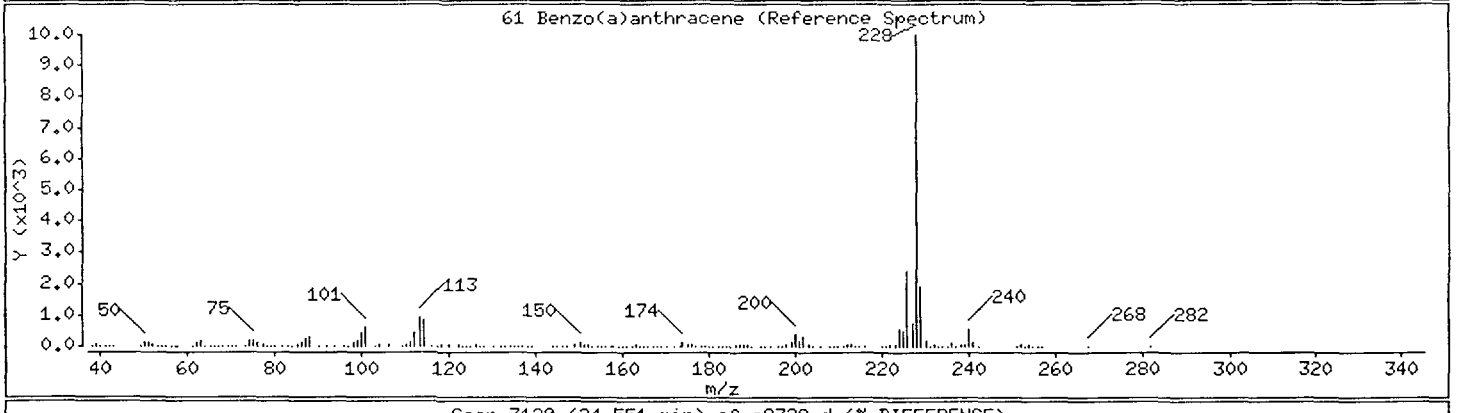
Column phase: DB-5 Column diameter: 0.25

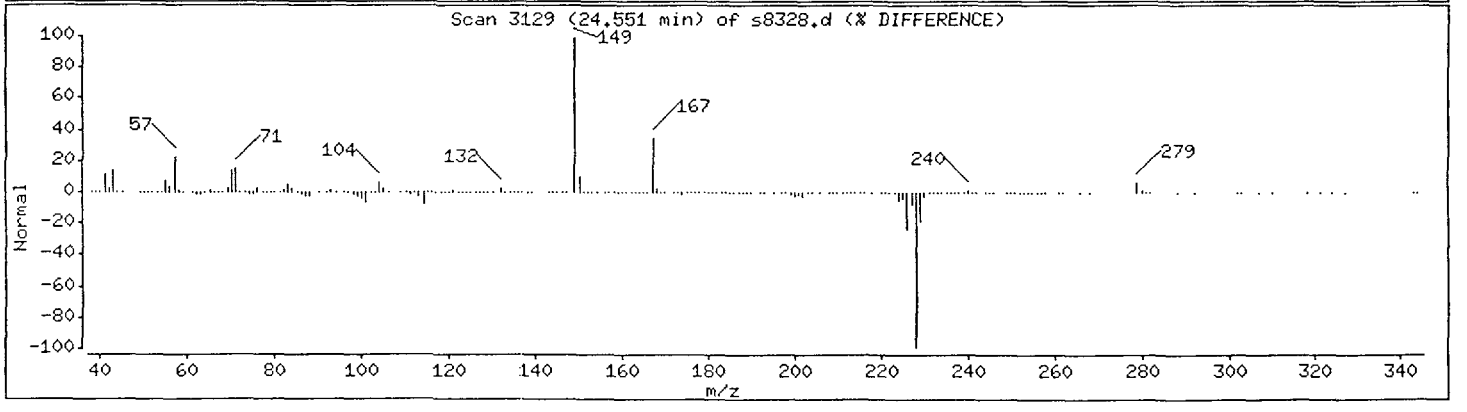
304738

61 Benzo(a)anthracene









Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

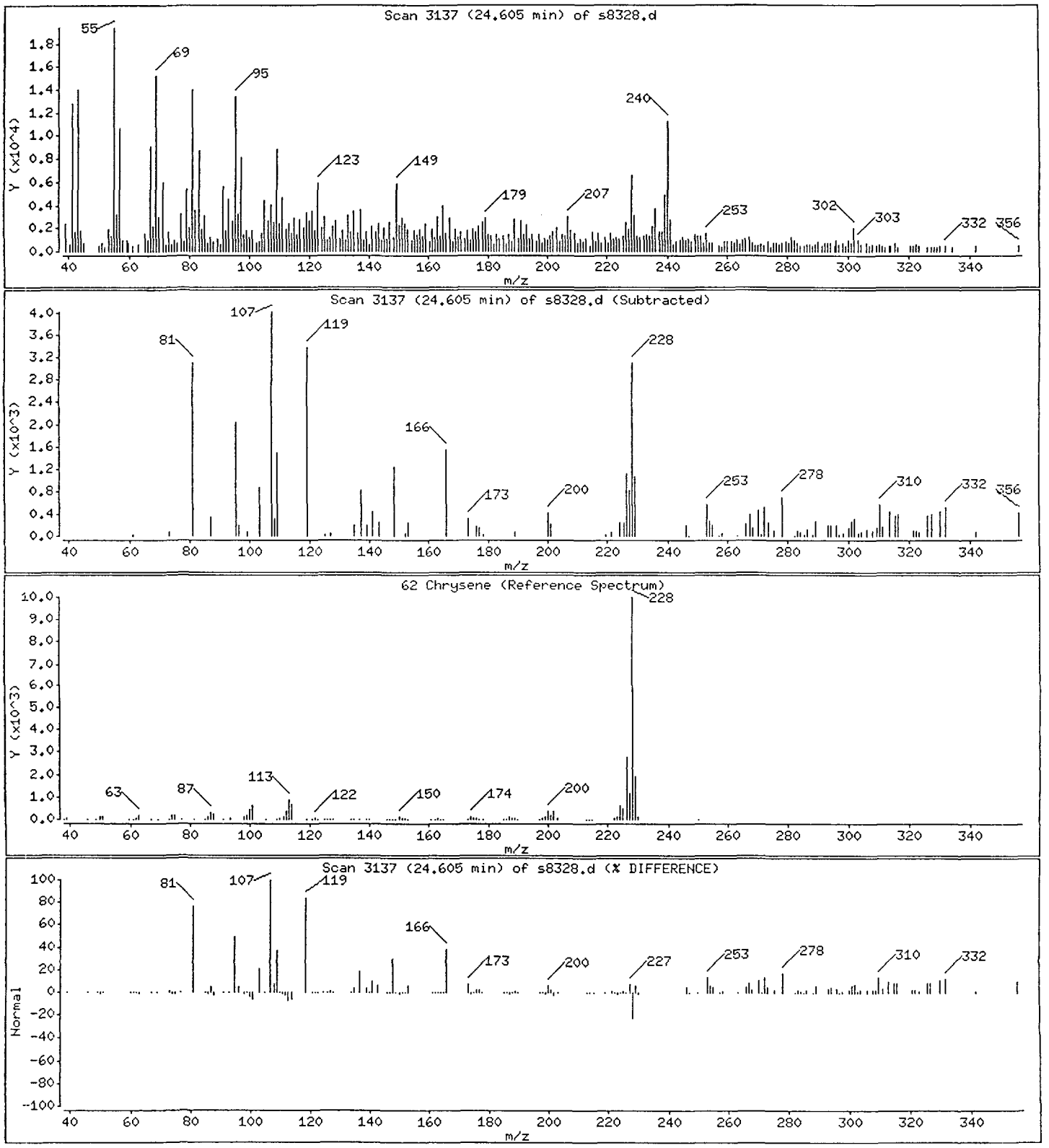
Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

Sample Info: 88677;30;5;1;4.5;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25 304739

62 Chrysene



Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

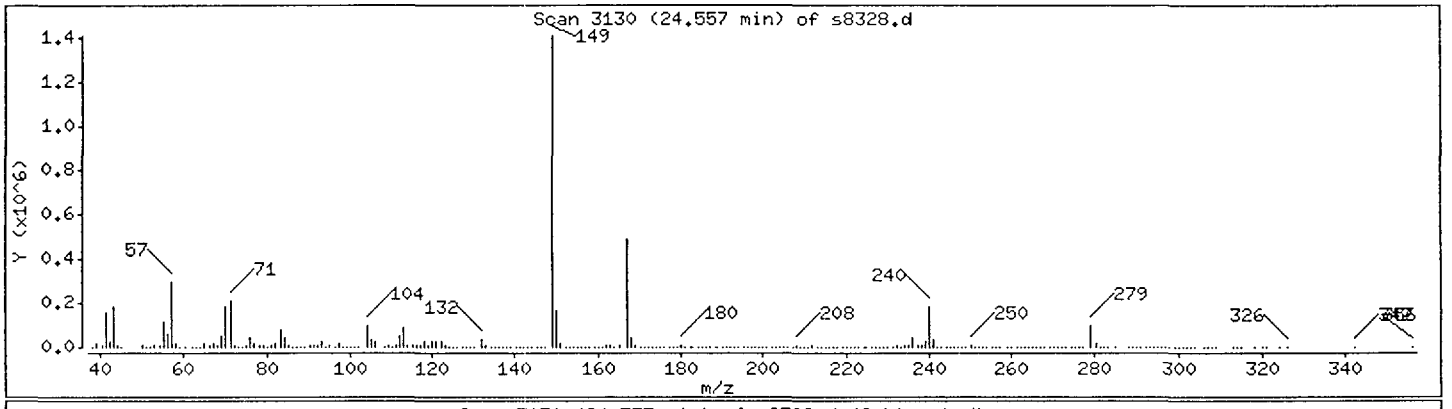
Sample Info: 88677;30;5;1;4.5;

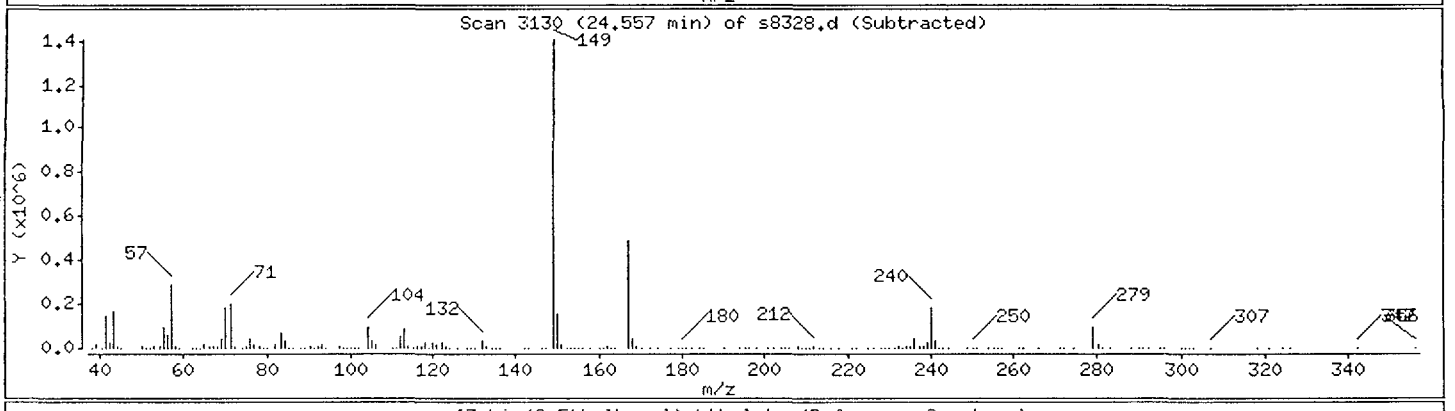
Operator: BNAMS 2

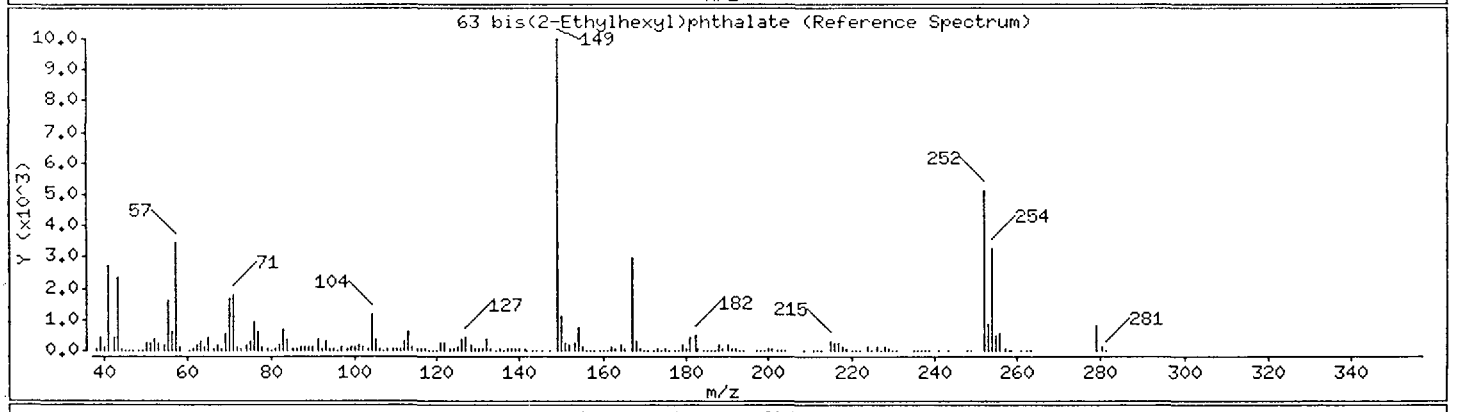
Column phase: DB-5 Column diameter: 0.25

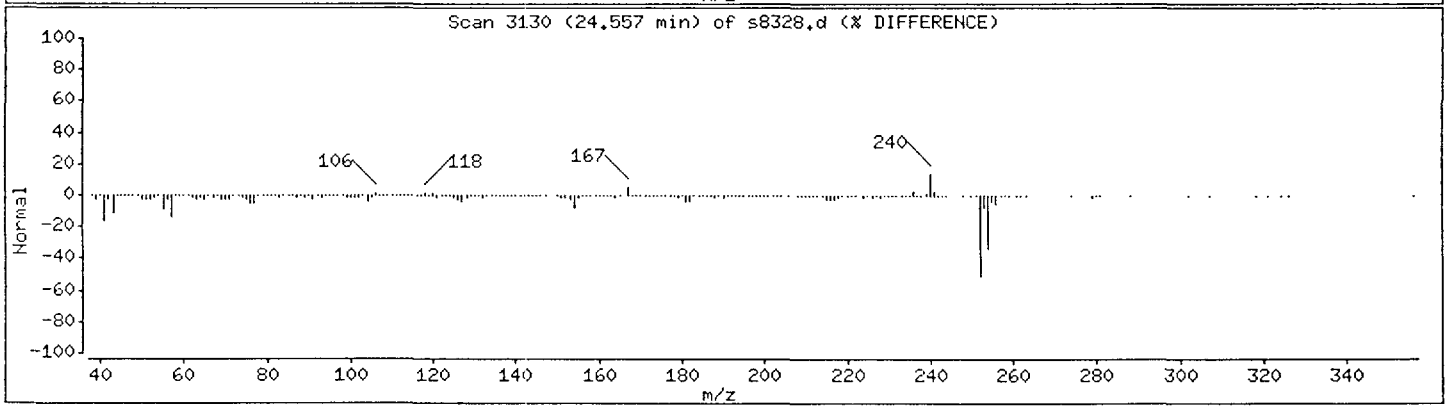
304740

63 bis(2-Ethylhexyl)phthalate









Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

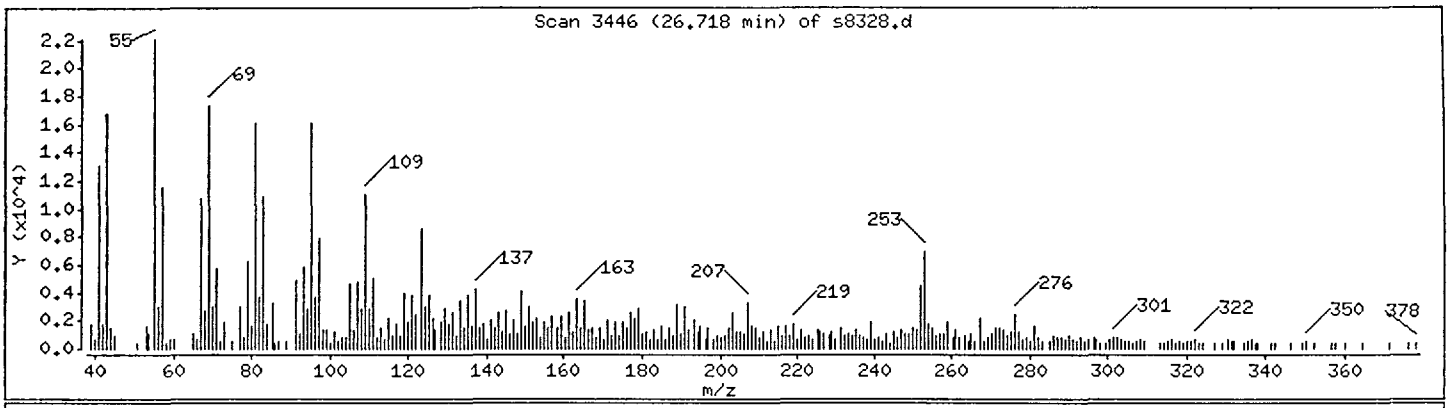
Sample Info: 88677;30;5;1;4.5;

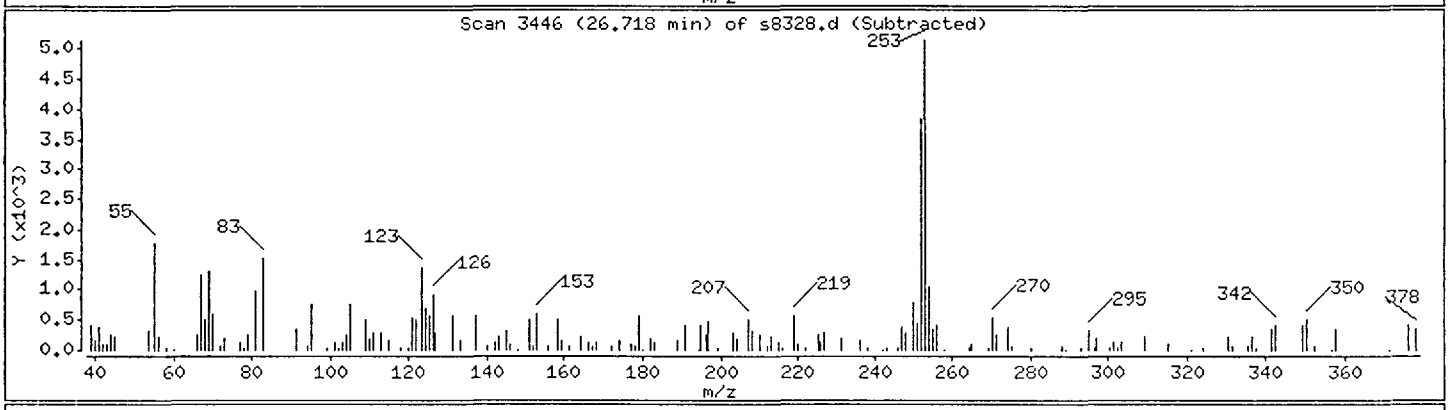
Operator: BNAMS 2

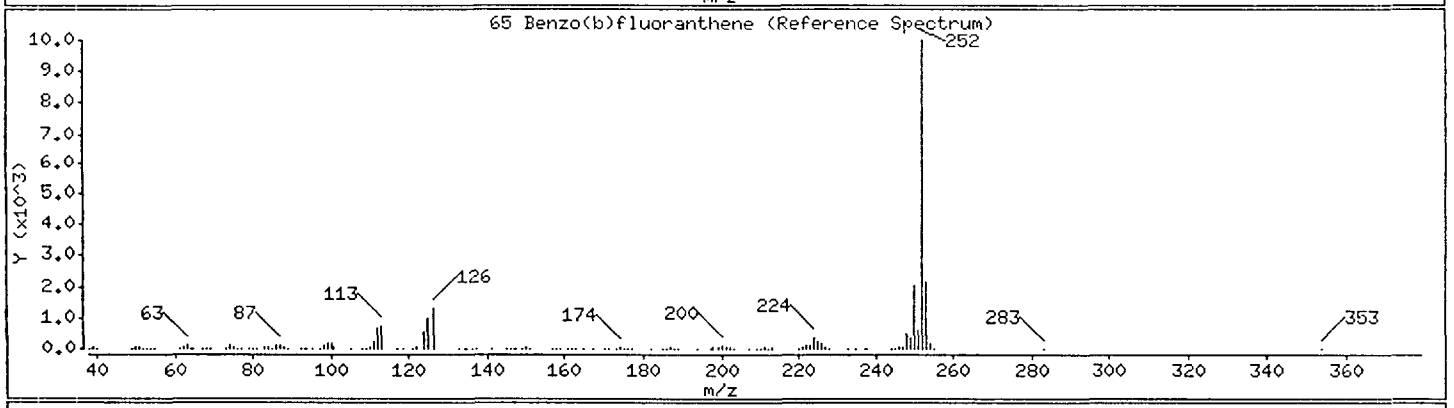
Column phase: DB-5 Column diameter: 0.25

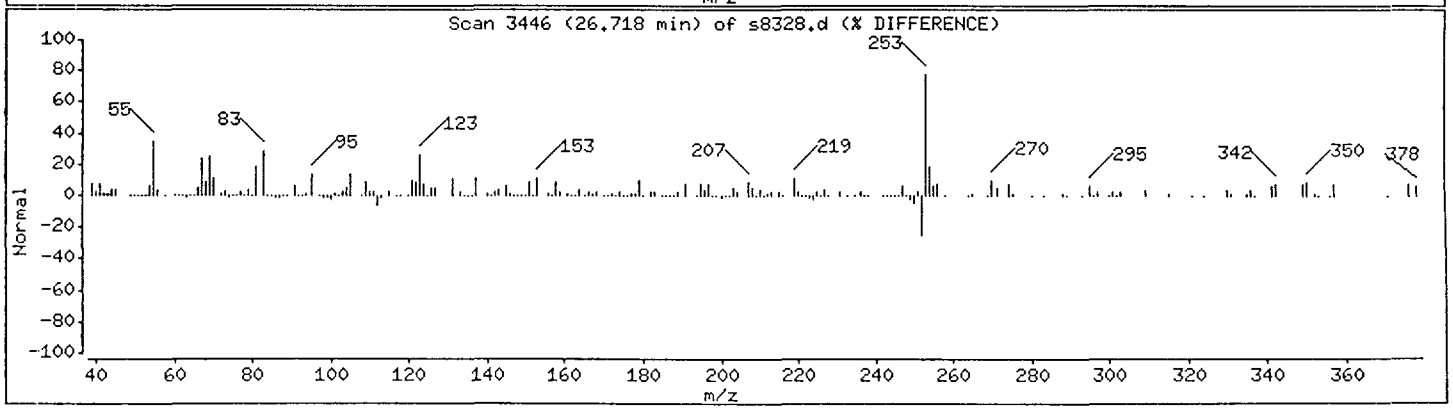
304741

65 Benzo(b)fluoranthene









Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

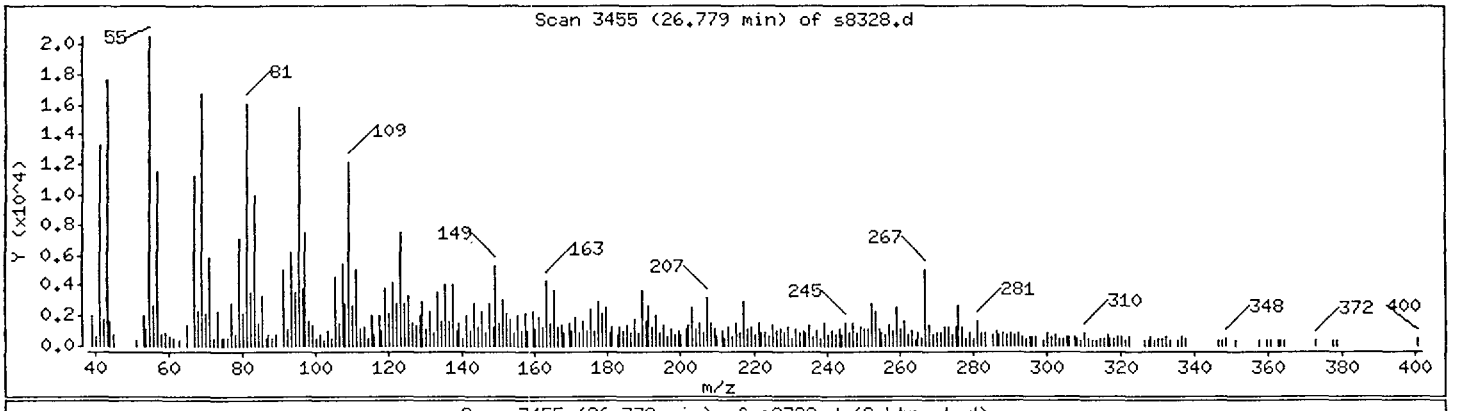
Sample Info: 88677;30;5;1;4.5;

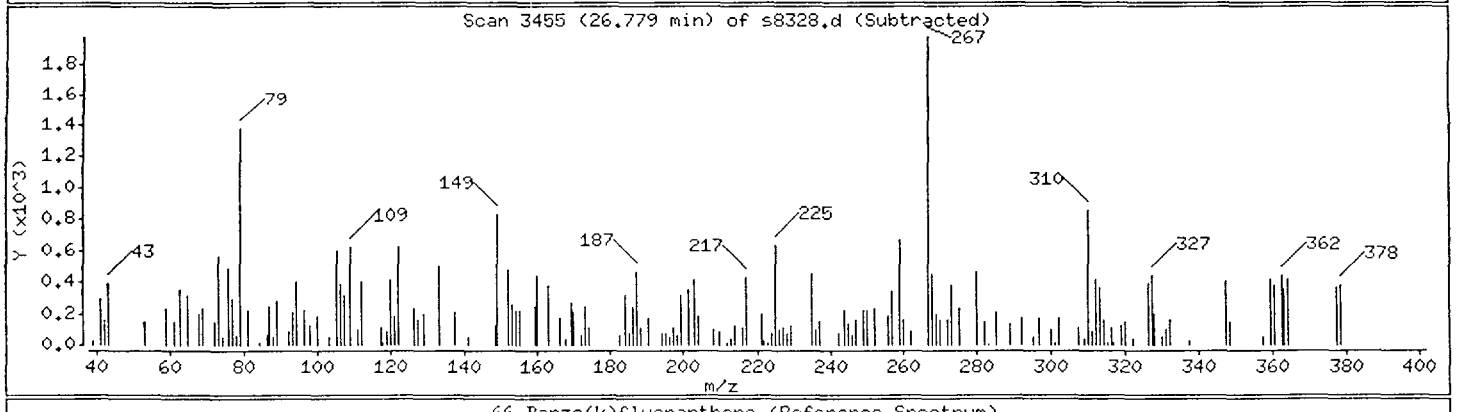
Operator: BNAMS 2

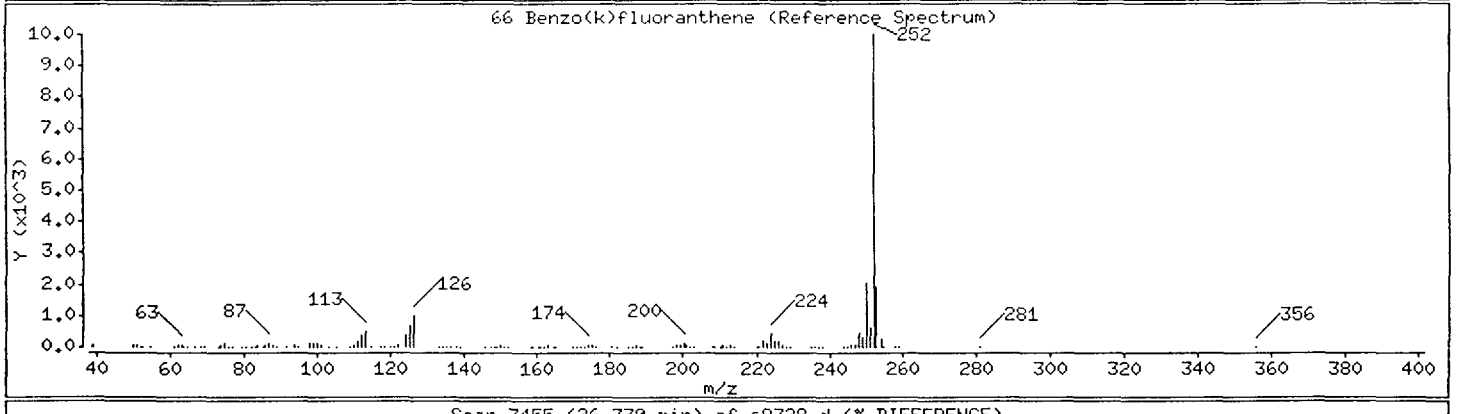
Column phase: DB-5 Column diameter: 0.25

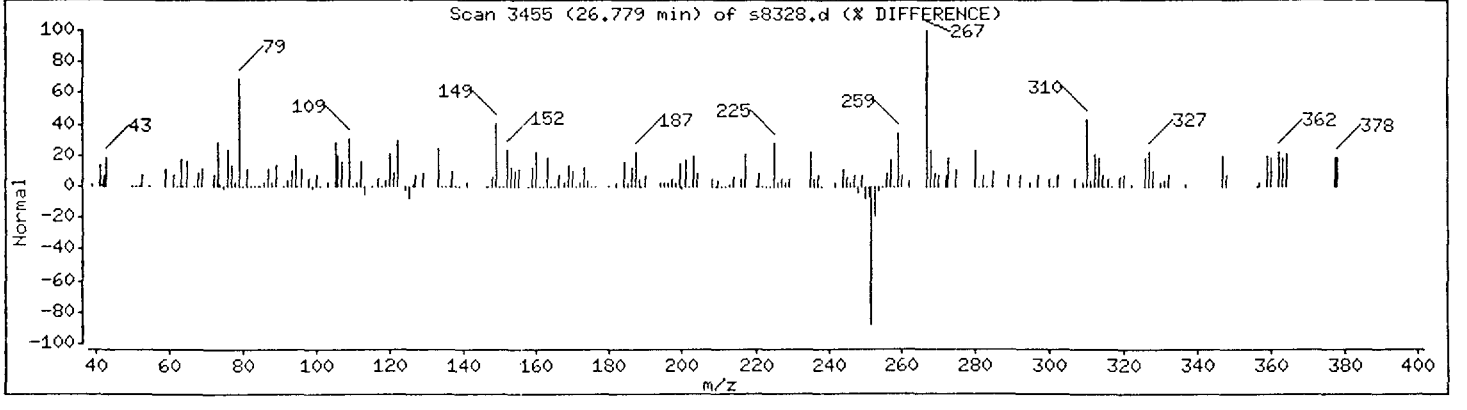
304742

66 Benzo(k)fluoranthene









Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

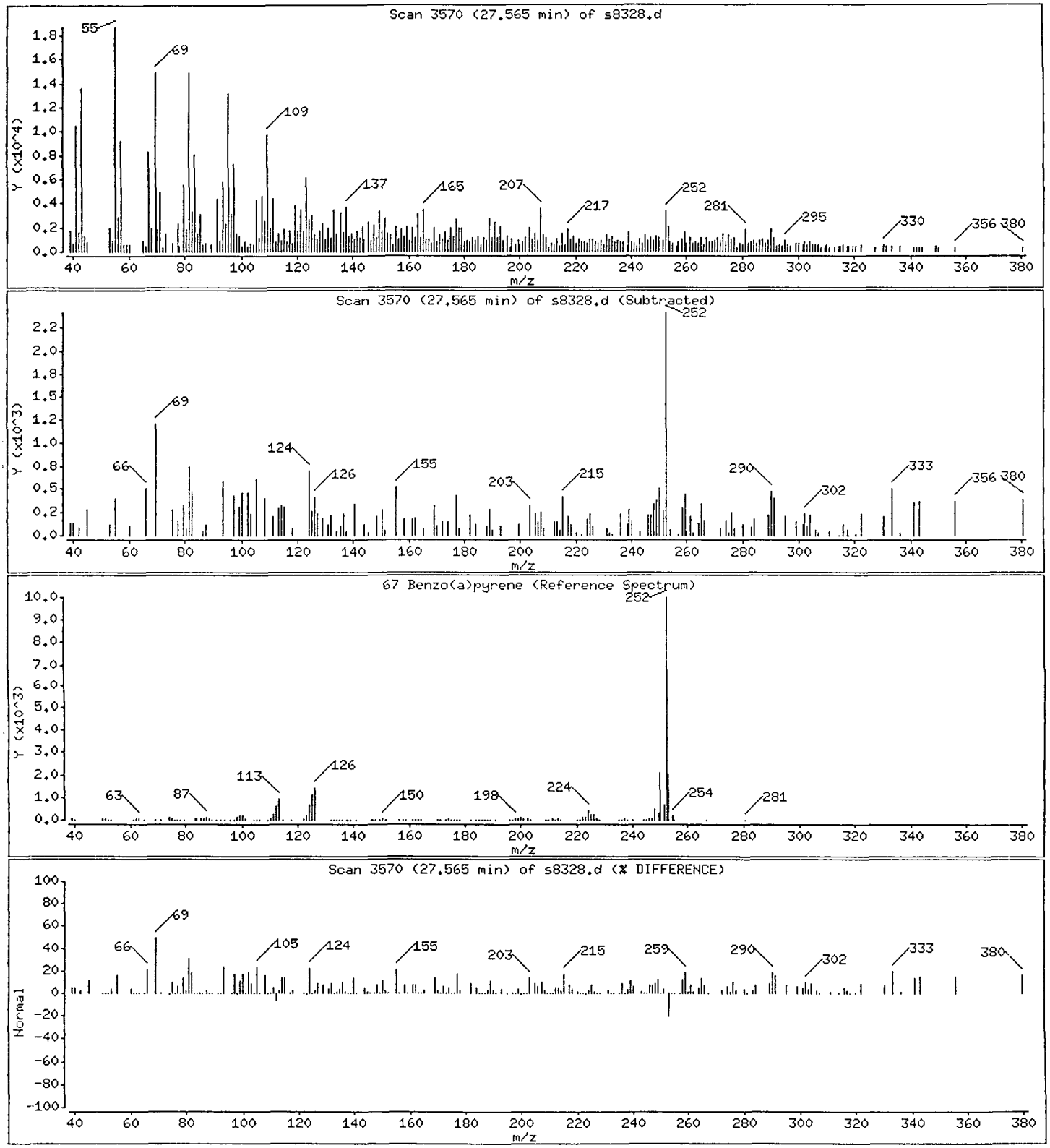
Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

Sample Info: 88677;30;5;1;4.5;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25 **304743**

67 Benzo(a)pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

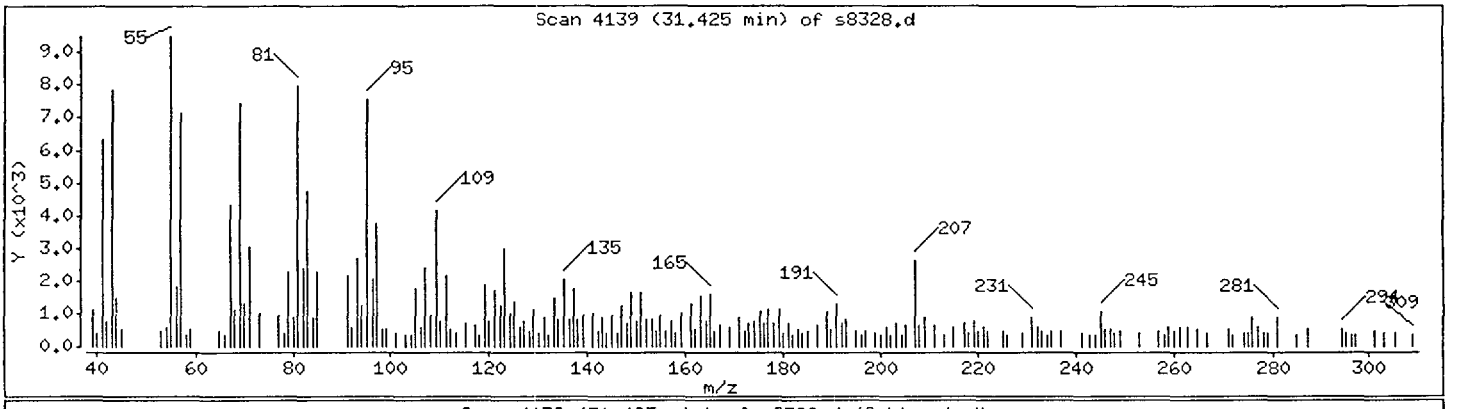
Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

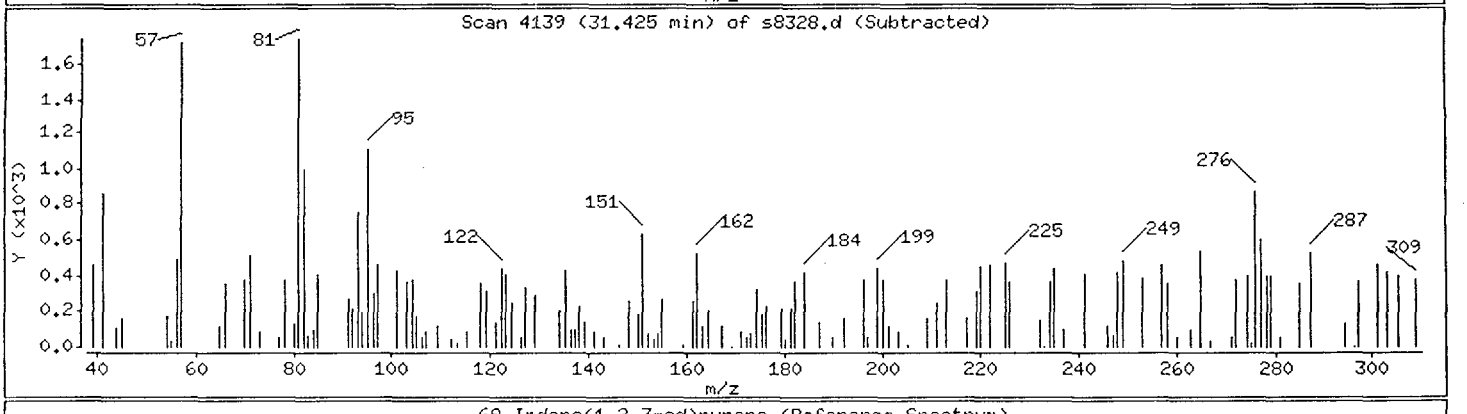
Sample Info: 88677;30;5;1;4.5;

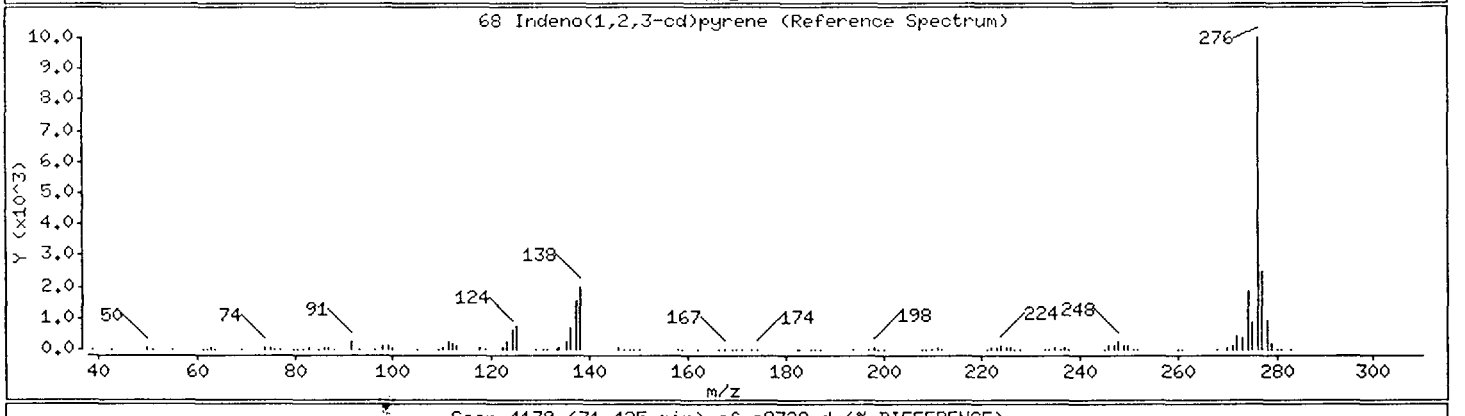
Operator: BNAMS 2

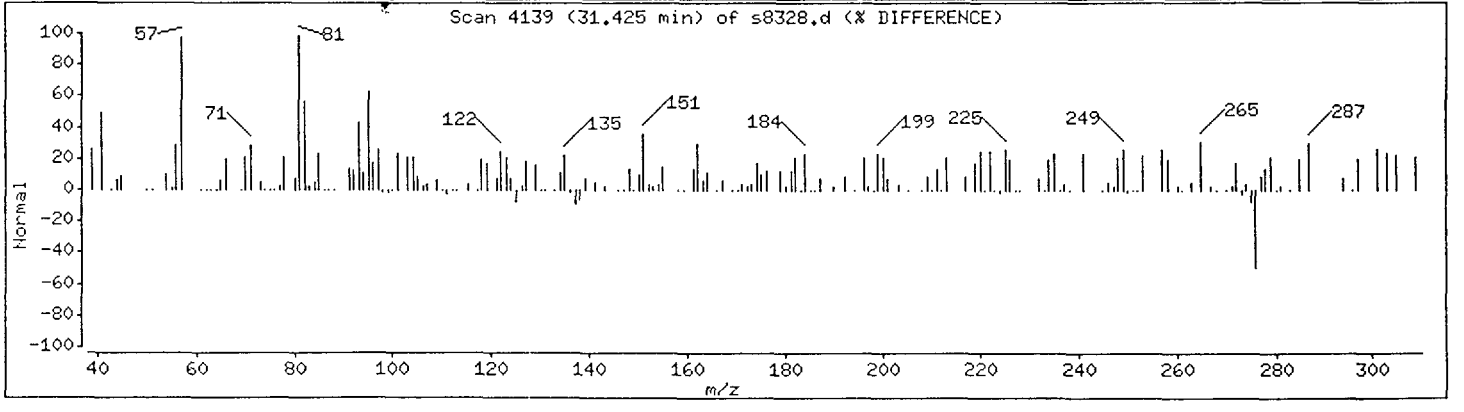
Column phase: DB-5 Column diameter: 0.25 **304744**

68 Indeno(1,2,3-cd)pyrene









Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

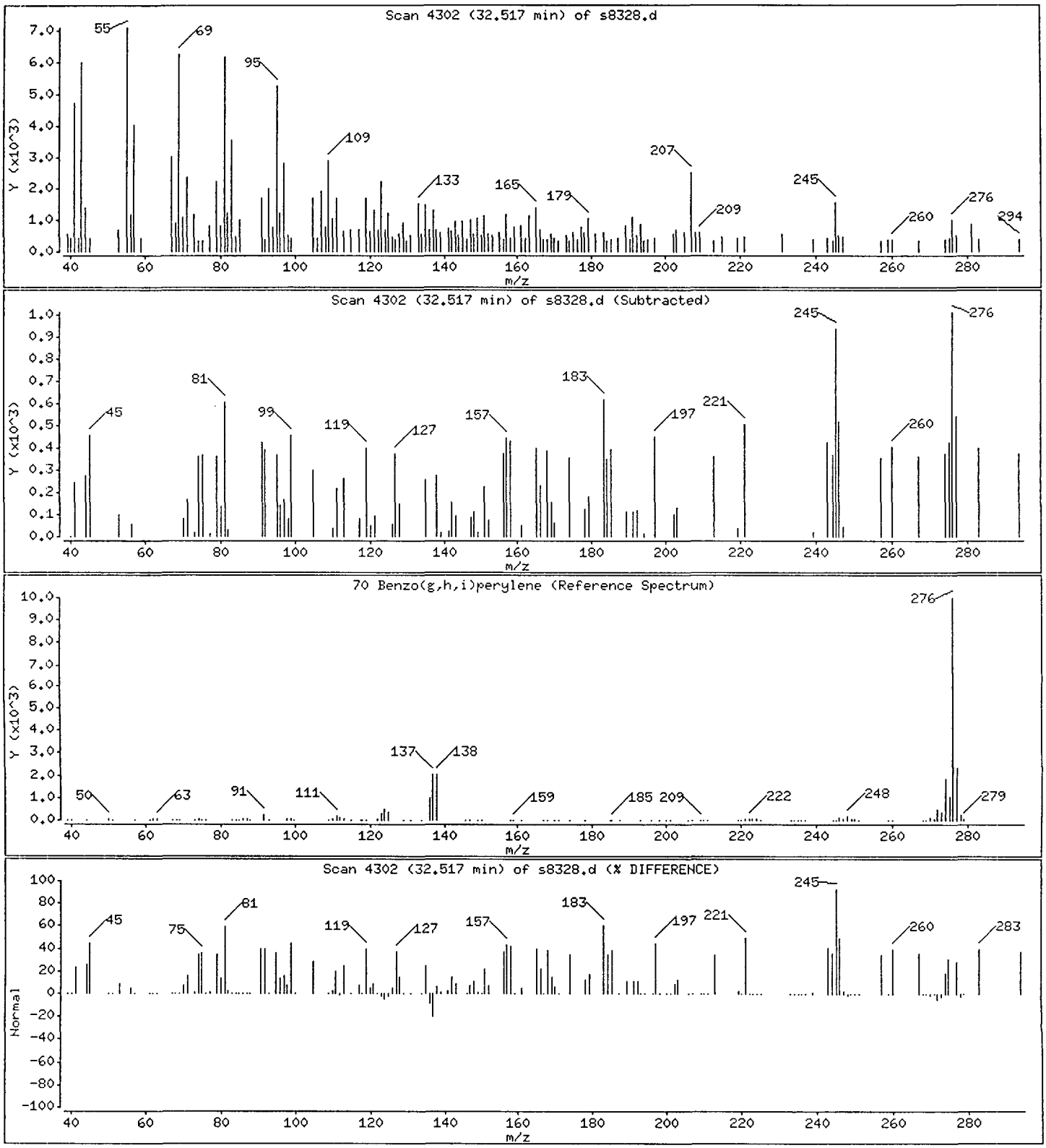
Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

Sample Info: 88677;30;5;1;4.5;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25 **304745**

70 Benzo(g,h,i)perylene



Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

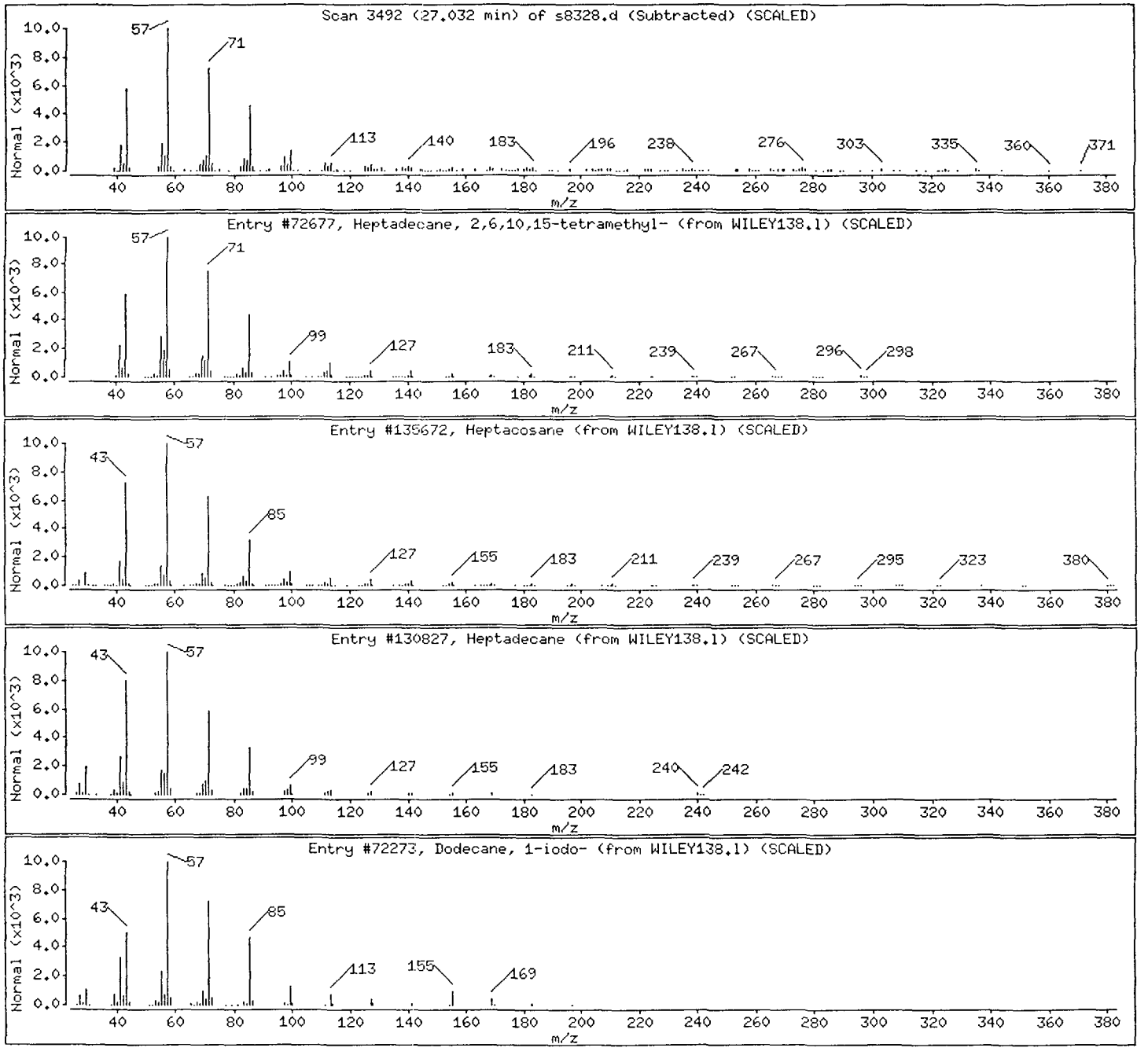
Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

Sample Info: 88677;30;5;1;4.5;

Operator: BNAMS 2 **304746**

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Alkane						
Heptadecane, 2,6,10,15-tetramethyl-	54833-48-6	WILEY138.1	72677	86	C21H44	296
Heptacosane	593-49-7	WILEY138.1	135672	86	C27H56	380
Heptadecane	629-78-7	WILEY138.1	130827	80	C17H36	240
Dodecane, 1-iodo-	4292-19-7	WILEY138.1	72273	72	C12H25I	296



Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8328.d

Date : 21-OCT-98 15:00:00

Client ID: SSFS-2_0-0.5 Instrument: BNAMS2.i

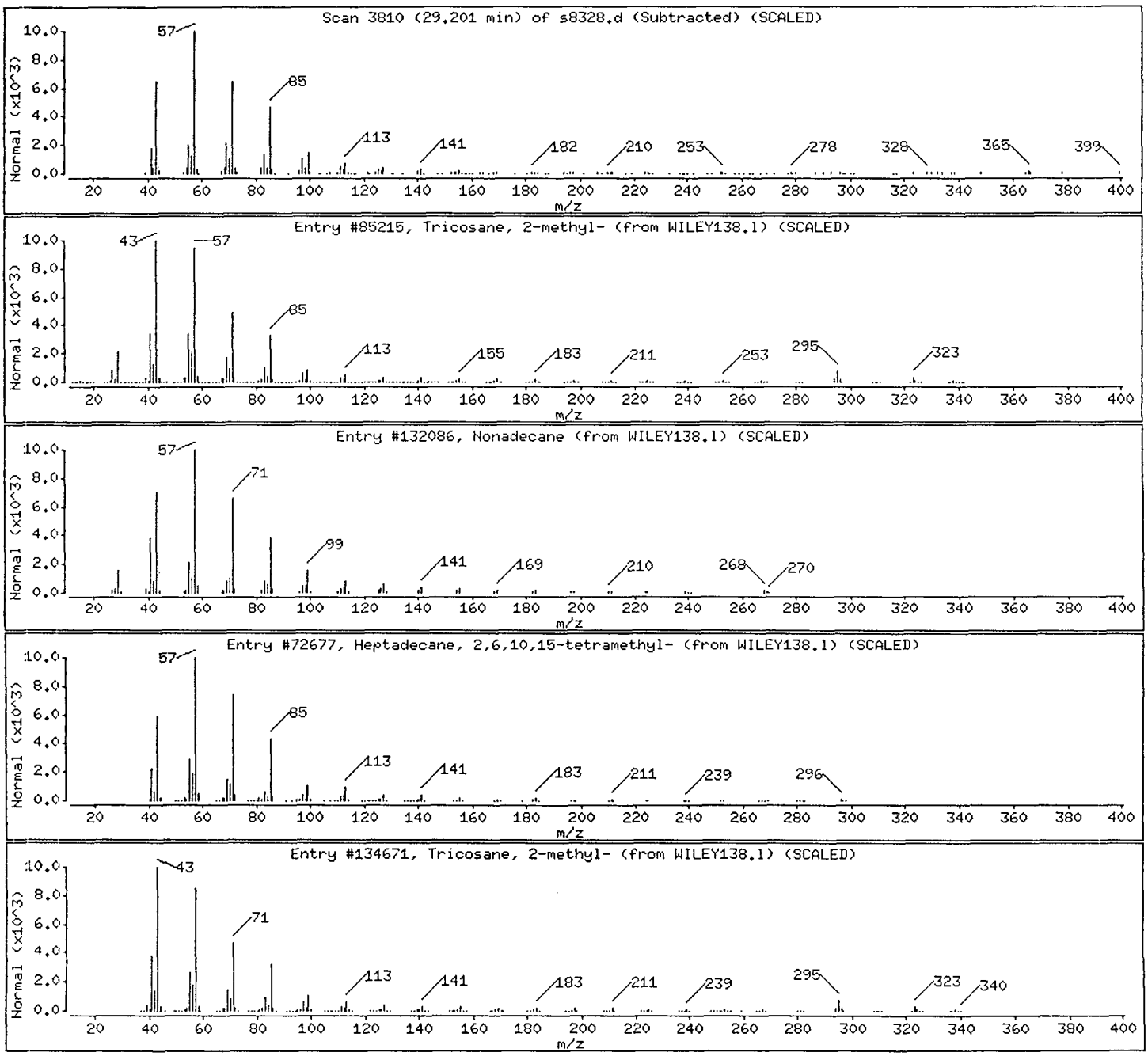
Sample Info: 88677;30;5;1;4.5;

Operator: BNAMS 2

304747

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Alkane						
Tricosane, 2-methyl-	1928-30-9	WILEY138.1	85215	93	C24H50	338
Nonadecane	629-92-5	WILEY138.1	132086	92	C19H40	268
Heptadecane, 2,6,10,15-tetramethyl-	54833-48-6	WILEY138.1	72677	91	C21H44	296
Tricosane, 2-methyl-	1928-30-9	WILEY138.1	134671	90	C24H50	338



Client ID: **SSGT-2_7-7.5**
Site: Klockner & Klockner

Lab Sample No: **88684**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4658.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.7 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 7

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	620
Bromomethane	ND	620
Vinyl Chloride	ND	620
Chloroethane	ND	620
Methylene Chloride	ND	380
Acetone	ND	620
Carbon Disulfide	ND	620
1,1-Dichloroethene	ND	250
1,1-Dichloroethane	ND	620
trans-1,2-Dichloroethene	ND	620
cis-1,2-Dichloroethene	ND	620
Chloroform	ND	620
1,2-Dichloroethane	ND	250
2-Butanone	ND	620
1,1,1-Trichloroethane	ND	620
Carbon Tetrachloride	ND	250
Bromodichloromethane	ND	120
1,2-Dichloropropane	ND	120
cis-1,3-Dichloropropene	ND	620
Trichloroethene	ND	120
Dibromochloromethane	ND	620
1,1,2-Trichloroethane	ND	380
Benzene	ND	120
trans-1,3-Dichloropropene	ND	620
Bromoform	ND	500
4-Methyl-2-Pentanone	ND	620
2-Hexanone	ND	620
Tetrachloroethene	ND	120
1,1,2,2-Tetrachloroethane	ND	120
Toluene	ND	620
Chlorobenzene	ND	620
Ethylbenzene	ND	500
Styrene	ND	620
Xylene (Total)	ND	620

304748

Client ID: SSGT-2_7-7.5
Site: Klockner & Klockner

Lab Sample No: 88684
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4658.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.7 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 6.6

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
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11.			
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26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304749

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4658.d
Report Date: 16-Oct-98 17:34:21

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4658.d
Lab Smp Id: 88684 Client Smp ID: SSGT-2_7-7.5
Inj Date : 15-OCT-98 17:47:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 88684;50;6.6;10.7;25
Misc Info : H950;8020;TL
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/8260newHIGH.m
Meth Date : 16-Oct-98 08:34:26 tim Quant Type: ISTD
Cal Date : 14-OCT-98 12:21:00 Cal File: e4614.d
Als bottle: 16
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: HSLVOAv.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (mL)
Ws	10.700	Weight of sample extracted (g)
M	6.600	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.652	8.680	(0.950)	825463	48	6000
$ 37 Toluene-d8 (SUR)	98	11.083	11.117	(0.868)	2098232	44	5500
* 32 Chlorobenzene-d5	117	12.766	12.804	(1.000)	2221969	50	
$ 41 Bromofluorobenzene (SUR)	174	14.043	14.071	(0.921)	749379	51	6400
* 19 Fluorobenzene	96	9.104	9.149	(1.000)	2776078	50	
* 91 1,4-Dichlorobenzene-d4	152	15.244	15.276	(1.000)	712343	50	

304750

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4658.d
Date : 15-OCT-98 17:47:00
Client ID: SSGT-2_7-7.5
Sample Info: 88684;50;6.6;10.7;25

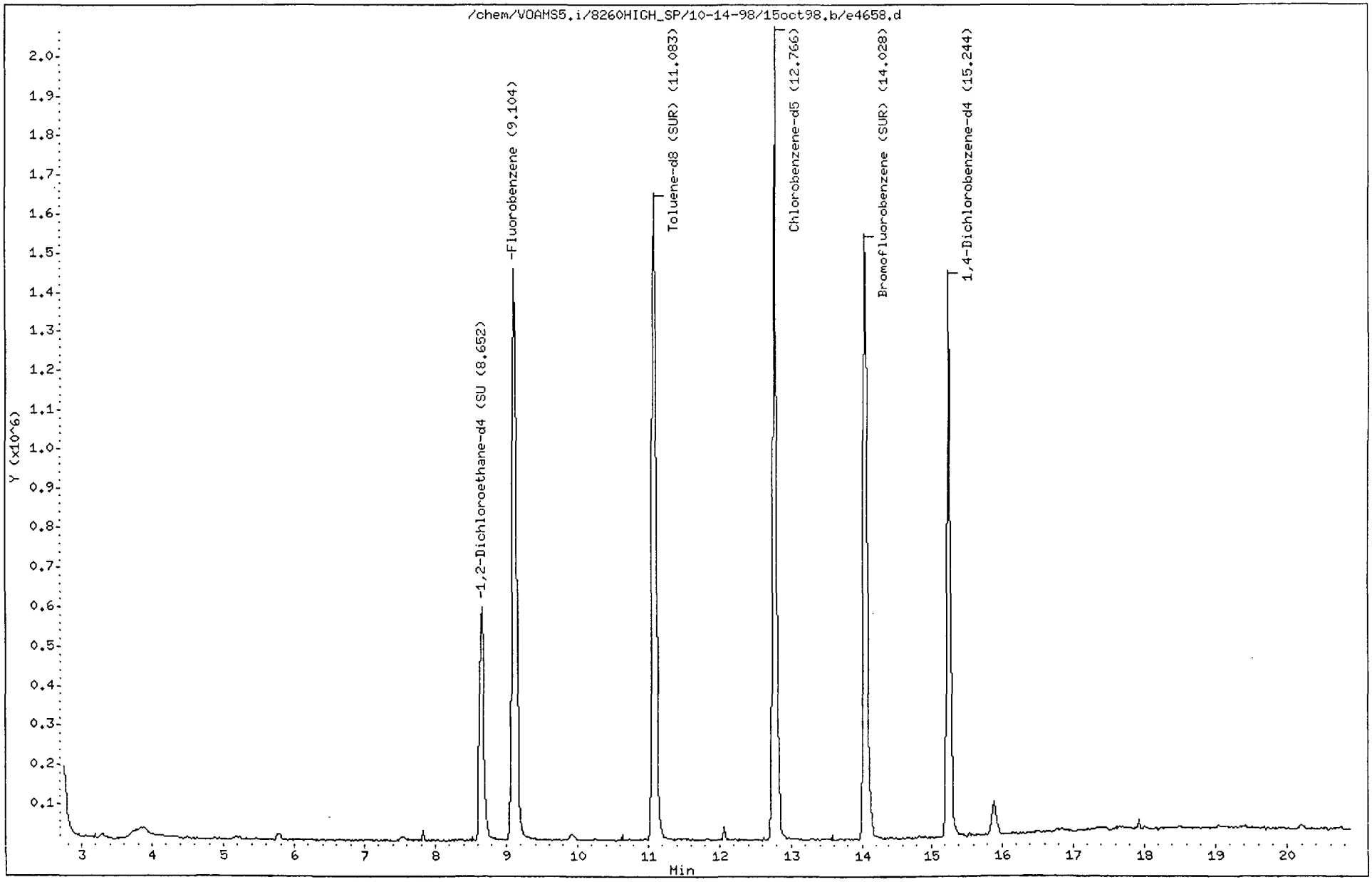
Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

304751

92



Client ID: **SSGT-1_7-7.5**
Site: Klockner & Klockner

Lab Sample No: **88685**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4659.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 8

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	680
Bromomethane	ND	680
Vinyl Chloride	ND	680
Chloroethane	ND	680
Methylene Chloride	ND	410
Acetone	ND	680
Carbon Disulfide	ND	680
1,1-Dichloroethene	ND	270
1,1-Dichloroethane	ND	680
trans-1,2-Dichloroethene	ND	680
cis-1,2-Dichloroethene	ND	680
Chloroform	ND	680
1,2-Dichloroethane	ND	270
2-Butanone	ND	680
1,1,1-Trichloroethane	ND	680
Carbon Tetrachloride	ND	270
Bromodichloromethane	ND	140
1,2-Dichloropropane	ND	140
cis-1,3-Dichloropropene	ND	680
Trichloroethene	ND	140
Dibromochloromethane	ND	680
1,1,2-Trichloroethane	ND	410
Benzene	ND	140
trans-1,3-Dichloropropene	ND	680
Bromoform	ND	540
4-Methyl-2-Pentanone	ND	680
2-Hexanone	ND	680
Tetrachloroethene	ND	140
1,1,2,2-Tetrachloroethane	ND	140
Toluene	ND	680
Chlorobenzene	ND	680
Ethylbenzene	ND	540
Styrene	ND	680
Xylene (Total)	ND	680

304752

Client ID: **SSGT-1_7-7.5**
Site: Klockner & Klockner

Lab Sample No: **88685**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4659.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 7.8

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
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18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION	0.0

304753

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4659.d
Report Date: 16-Oct-98 17:34:31

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4659.d
Lab Smp Id: 88685 Client Smp ID: SSGT-1_7-7.5
Inj Date : 15-OCT-98 18:14:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 88685;50;7.8;10;25
Misc Info : H950;8020;TL
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/8260newHIGH.m
Meth Date : 16-Oct-98 08:34:26 tim Quant Type: ISTD
Cal Date : 14-OCT-98 12:21:00 Cal File: e4614.d
Als bottle: 17
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: HSLVOAv.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (mL)
Ws	10.000	Weight of sample extracted (g)
M	7.800	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.652	8.680	(0.950)	839716	50	6800
$ 37 Toluene-d8 (SUR)	98	11.083	11.117	(0.868)	2102413	46	6200
* 32 Chlorobenzene-d5	117	12.766	12.804	(1.000)	2141644	50	
$ 41 Bromofluorobenzene (SUR)	174	14.028	14.071	(0.920)	757659	54	7300
* 19 Fluorobenzene	96	9.104	9.149	(1.000)	2722158	50	
* 91 1,4-Dichlorobenzene-d4	152	15.244	15.276	(1.000)	683275	50	

304754

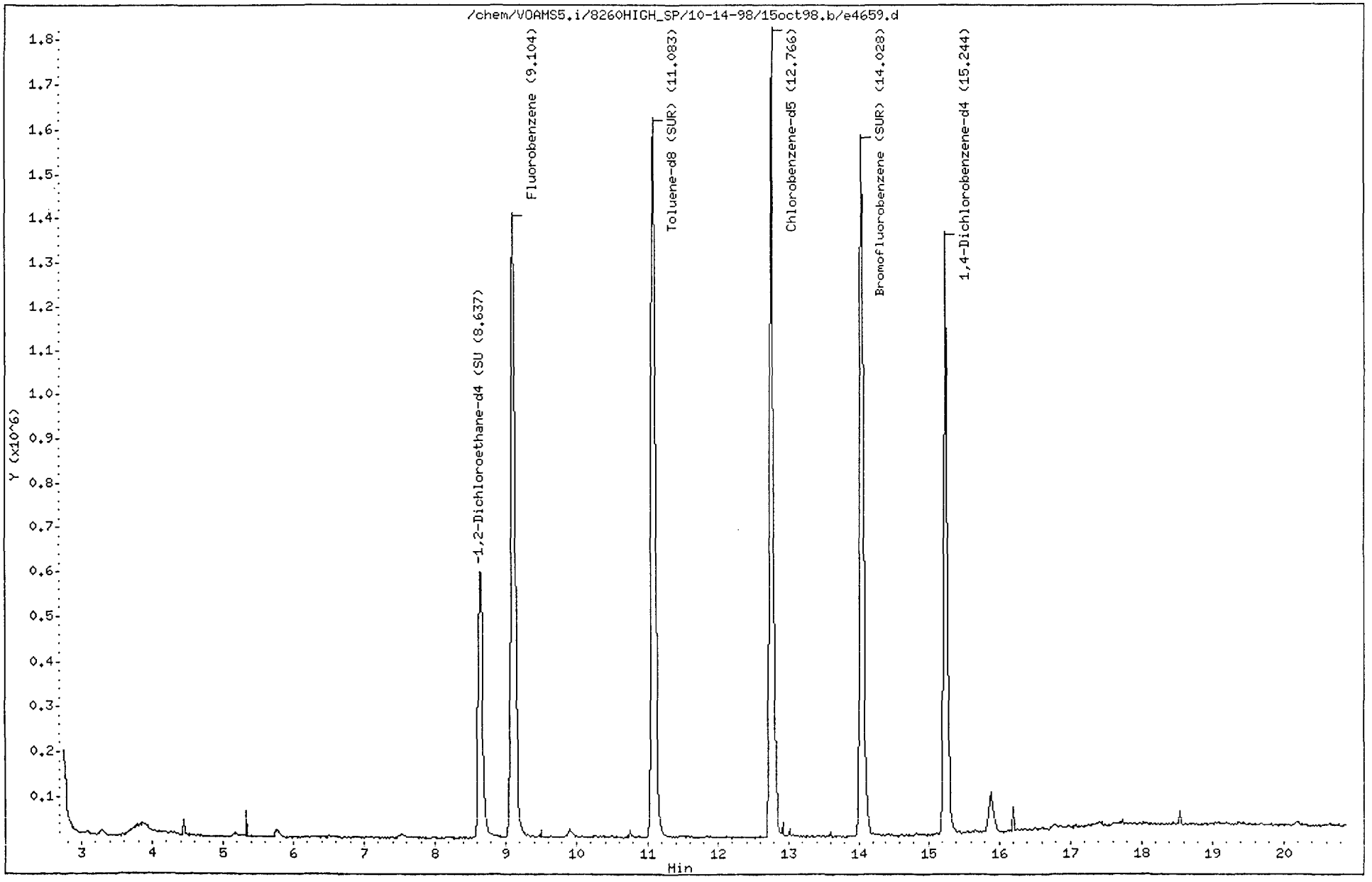
Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4659.d
Date : 15-OCT-98 18:14:00
Client ID: SSGT-1_7-7.5
Sample Info: 88685;50;7.8;10;25

Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

304755



Client ID: **SSGT-3_7-7.5**
Site: Klockner & Klockner

Lab Sample No: **88686**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4660.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.2 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 9

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	670
Bromomethane	ND	670
Vinyl Chloride	ND	670
Chloroethane	ND	670
Methylene Chloride	ND	400
Acetone	ND	670
Carbon Disulfide	ND	670
1,1-Dichloroethene	ND	270
1,1-Dichloroethane	ND	670
trans-1,2-Dichloroethene	ND	670
cis-1,2-Dichloroethene	ND	670
Chloroform	ND	670
1,2-Dichloroethane	ND	270
2-Butanone	ND	670
1,1,1-Trichloroethane	ND	670
Carbon Tetrachloride	ND	270
Bromodichloromethane	ND	130
1,2-Dichloropropane	ND	130
cis-1,3-Dichloropropene	ND	670
Trichloroethene	ND	130
Dibromochloromethane	ND	670
1,1,2-Trichloroethane	ND	400
Benzene	ND	130
trans-1,3-Dichloropropene	ND	670
Bromoform	ND	540
4-Methyl-2-Pentanone	ND	670
2-Hexanone	ND	670
Tetrachloroethene	ND	130
1,1,2,2-Tetrachloroethane	ND	130
Toluene	ND	670
Chlorobenzene	ND	670
Ethylbenzene	ND	540
Styrene	ND	670
Xylene (Total)	ND	670

304756

Client ID: **SSGT-3_7-7.5**
Site: Klockner & Klockner

Lab Sample No: **88686**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4660.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.2 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 8.9

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304757

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4660.d
Report Date: 16-Oct-98 17:34:41

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4660.d
Lab Smp Id: 88686 Client Smp ID: SSGT-3_7-7.5
Inj Date : 15-OCT-98 18:42:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 88686;50;8.9;10.2;25
Misc Info : H950;8020;TL
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/8260newHIGH.m
Meth Date : 16-Oct-98 08:34:26 tim Quant Type: ISTD
Cal Date : 14-OCT-98 12:21:00 Cal File: e4614.d
Als bottle: 18
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: HSLVOAv.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (mL)
Ws	10.200	Weight of sample extracted (g)
M	8.900	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.637	8.680	(0.949)	840083	50	6700
$ 37 Toluene-d8 (SUR)	98	11.083	11.117	(0.868)	2112234	46	6300
* 32 Chlorobenzene-d5	117	12.766	12.804	(1.000)	2130197	50	
$ 41 Bromofluorobenzene (SUR)	174	14.028	14.071	(0.920)	765114	54	7200
* 19 Fluorobenzene	96	9.105	9.149	(1.000)	2716084	50	
* 91 1,4-Dichlorobenzene-d4	152	15.244	15.276	(1.000)	692752	50	

304758

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4660.d
Date : 15-OCT-98 18:42:00
Client ID: SSGT-3_7-7.5
Sample Info: 88686;50;8.9;10.2;25

Column phase: DB624

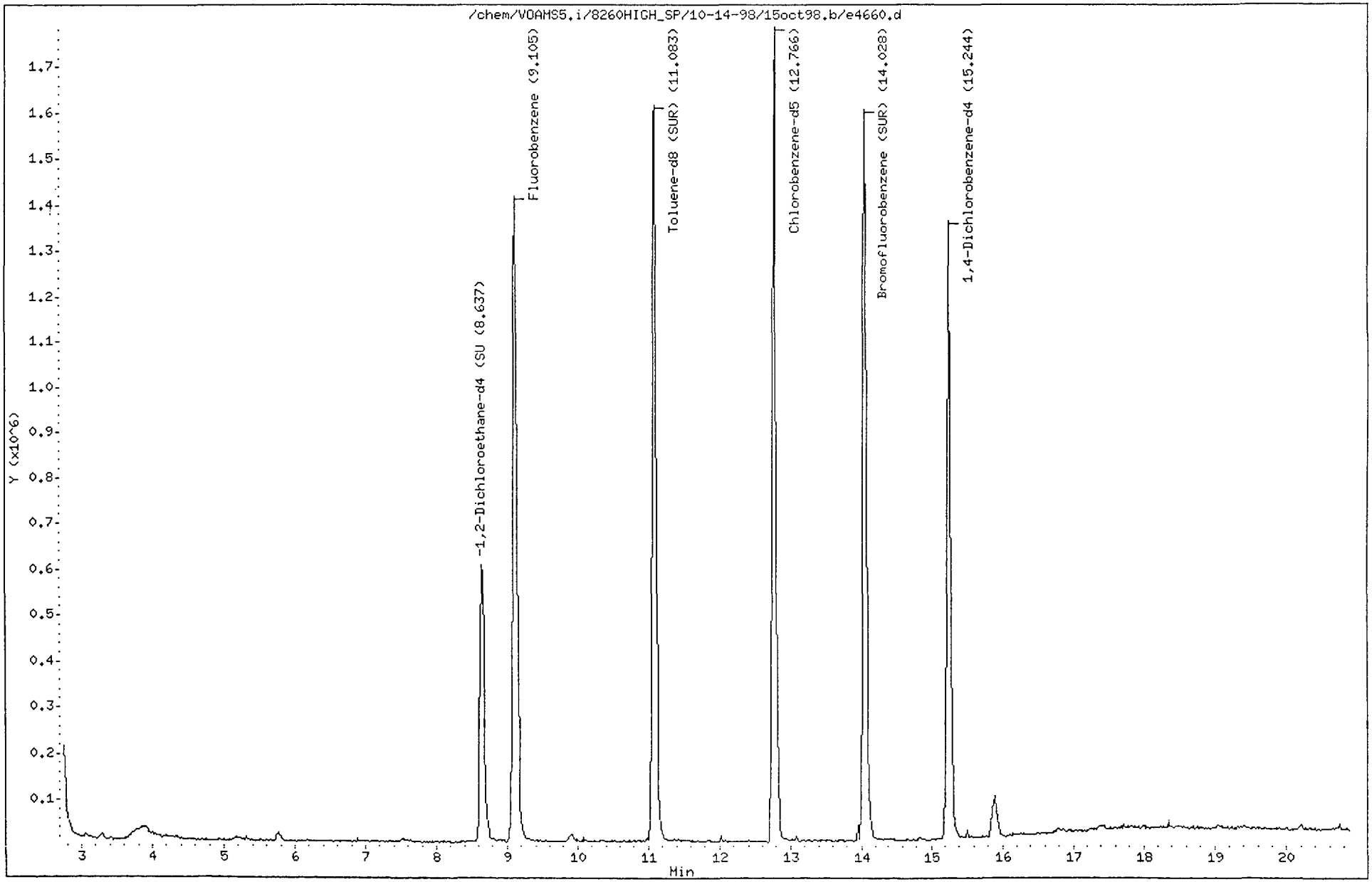
Instrument: VOAMS5.i

Operator: VOAMS 5

Column diameter: 0.53

304759

100



VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab File ID: A6186 BFB Injection Date: 10/07/98

Instrument ID: VOAMS1 BFB Injection Time: 0545

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.9
75	30.0 - 60.0% of mass 95	48.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	50.0 - 100.0% of mass 95	79.4
175	5.0 - 9.0% of mass 174	5.8 (7.3)1
176	95.0 - 101.0% of mass 174	78.6 (99.0)1
177	5.0 - 9.0% of mass 176	5.3 (6.7)2

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

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

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ASTD005	ASTD005	A6187	10/07/98	0615
02	ASTD020	ASTD020	A6189	10/07/98	0732
03	ASTD050	ASTD050	A6190	10/07/98	0801
04	ASTD100	ASTD100	A6191	10/07/98	0831
05	ASTD200	ASTD200	A6192	10/07/98	0900
06					
07					
08					
09					
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13					
14					
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16					
17					
18					
19					
20					
21					
22					

304760

Data File: /chem/VOAMS1.i/826CHIGH_SP/10-07-98/07oct98.b/a6186.d

Date : 07-OCT-98 05:45:00

Client ID:

Instrument: VOAMS1.i

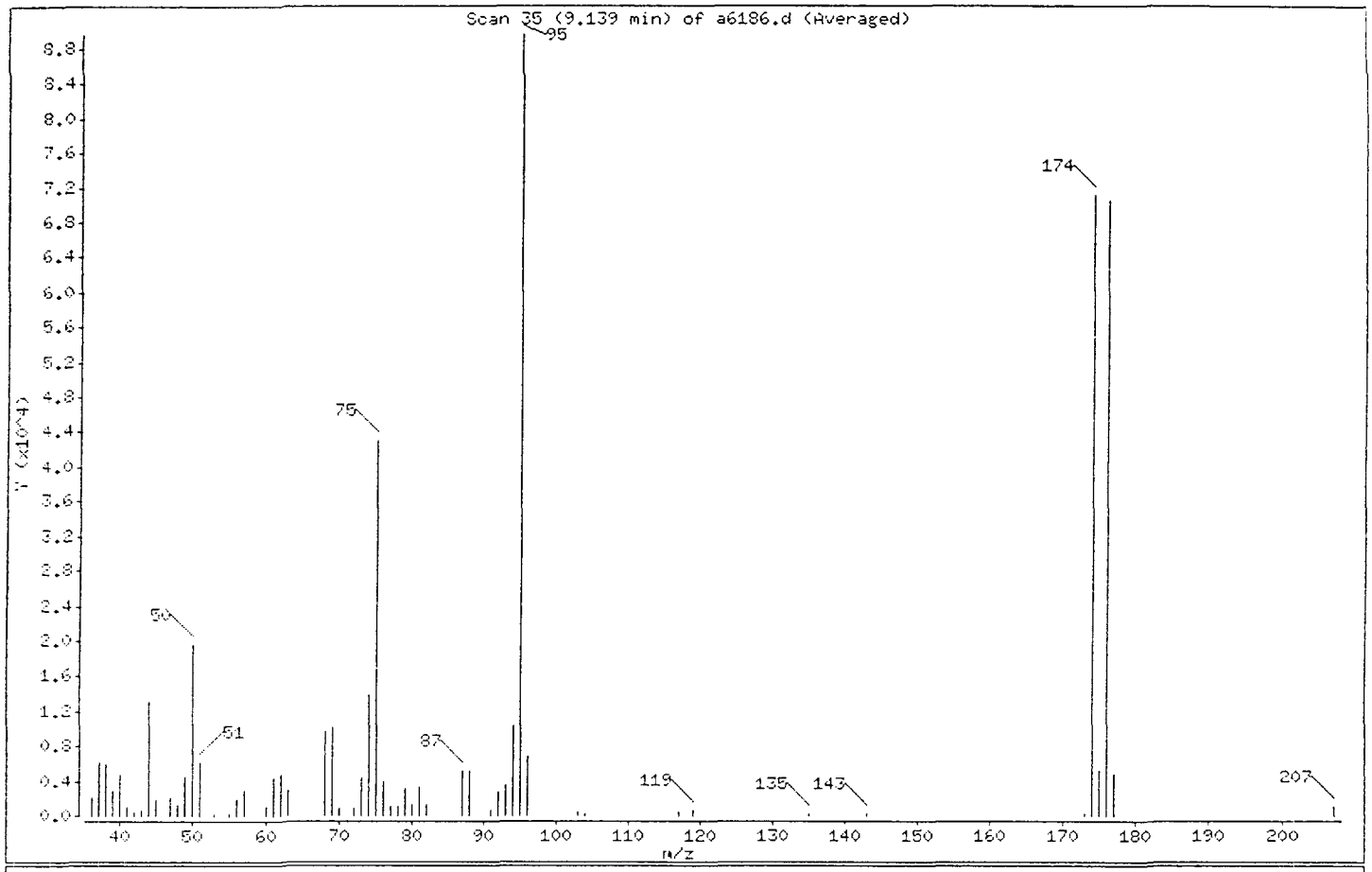
Sample Info: ABFB280 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53

1 Bromofluorobenzene



m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.57
75	30.00 - 60.00% of mass 95	46.14
96	5.00 - 9.00% of mass 95	7.50
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	91.99
175	5.00 - 9.00% of mass 174	6.25 (6.80)
176	95.00 - 101.00% of mass 174	88.42 (96.11)
177	5.00 - 9.00% of mass 176	6.02 (6.81)

304761

Date : 07-OCT-98 05:45:00

Client ID: Instrument: VOAMS1.i

Sample Info: ABFB280 50ng

Operator: VOAMS 5

Column phase: DB-624 Column diameter: 0.53

Data File: a6186.d
Spectrum: Scan 36 (9.139 min) of a6186.d (Averaged)
Location of Maximum: 95.00
Number of points: 57

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1984	53.00	270	76.00	4000	103.00	349
37.00	6244	55.00	295	77.00	1069	104.00	257
38.00	5935	56.00	1814	78.00	941	117.00	346
39.00	2917	57.00	2831	79.00	3066	119.00	529
40.00	4758	60.00	1103	80.00	1193	135.00	286
41.00	993	61.00	4357	81.00	3281	143.00	294
42.00	511	62.00	4808	82.00	1150	173.00	285
43.00	695	63.00	2915	87.00	5160	174.00	71154
44.00	13088	68.00	3709	88.00	5075	175.00	5206
45.00	1912	69.00	9996	91.00	672	176.00	70445
47.00	2013	70.00	729	92.00	2685	177.00	4720
48.00	1186	72.00	917	93.00	3580	207.00	1045
49.00	4509	73.00	4381	94.00	10345		
50.00	19650	74.00	13781	95.00	89629		
51.00	6244	75.00	43146	96.00	6718		

304762

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6186.d

Date : 07-OCT-98 05:45:00

Client ID:

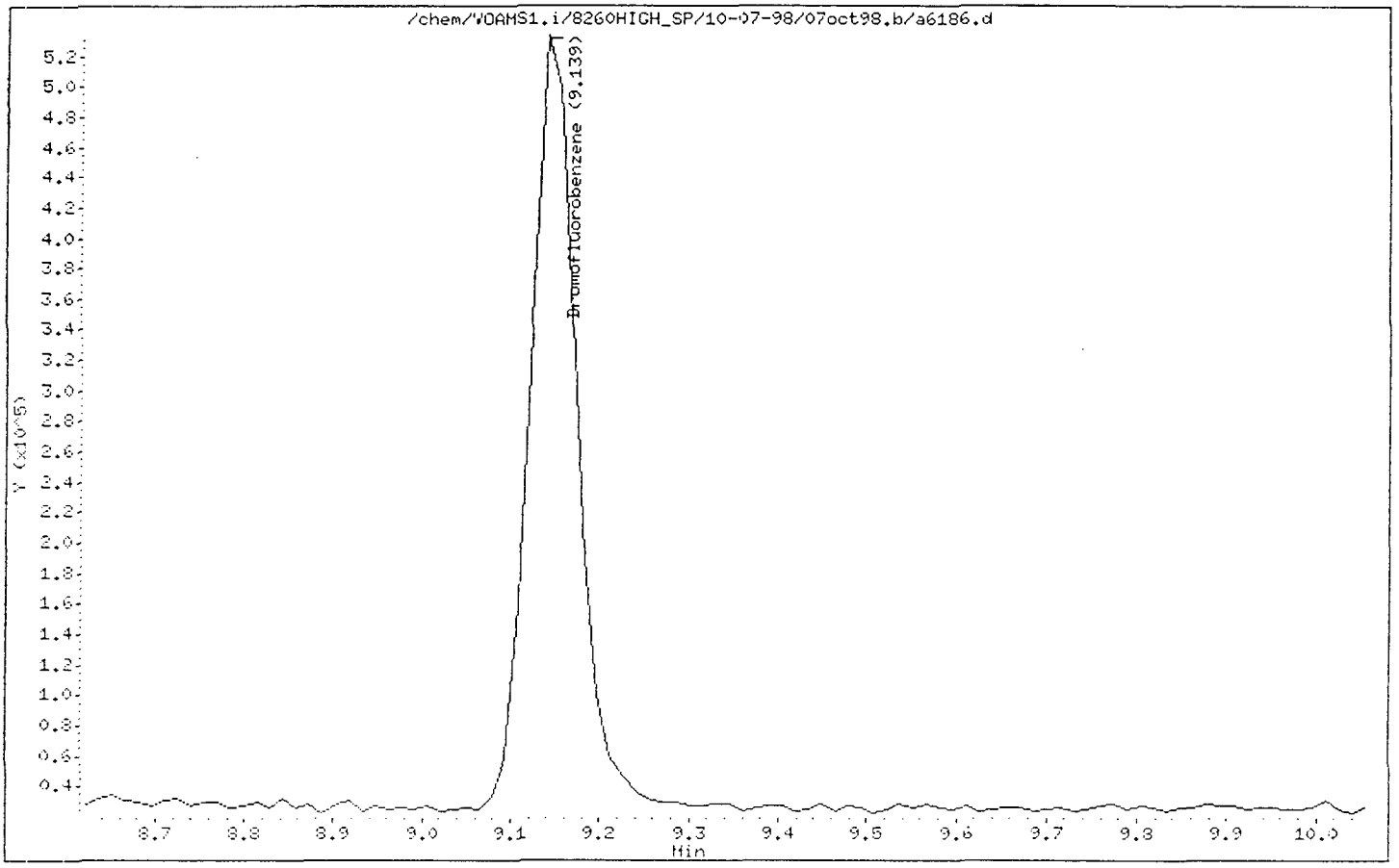
Instrument: VOAMS1.i

Sample Info: ABFB280 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53



304763

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab File ID: A6468 BFB Injection Date: 10/20/98

Instrument ID: VOAMS1 BFB Injection Time: 1028

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.4
75	30.0 - 60.0% of mass 95	49.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	77.0
175	5.0 - 9.0% of mass 174	5.9 (7.7)1
176	95.0 - 101.0% of mass 174	75.8 (98.4)1
177	5.0 - 9.0% of mass 176	5.4 (7.2)2

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

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

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ASTD293	ASTD293	A6469	10/20/98	1106
02	AV293	AV293	A6472	10/20/98	1258
03	SSSP-1_4-4.5	88666	A6484	10/20/98	2050
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

304764

Data File: /chem/VOAMS1.i/826CHIGH_SP/10-07-98/20oct98.b/a6468.d

Date : 20-OCT-98 10:28:00

Client ID:

Instrument: VOAMS1.i

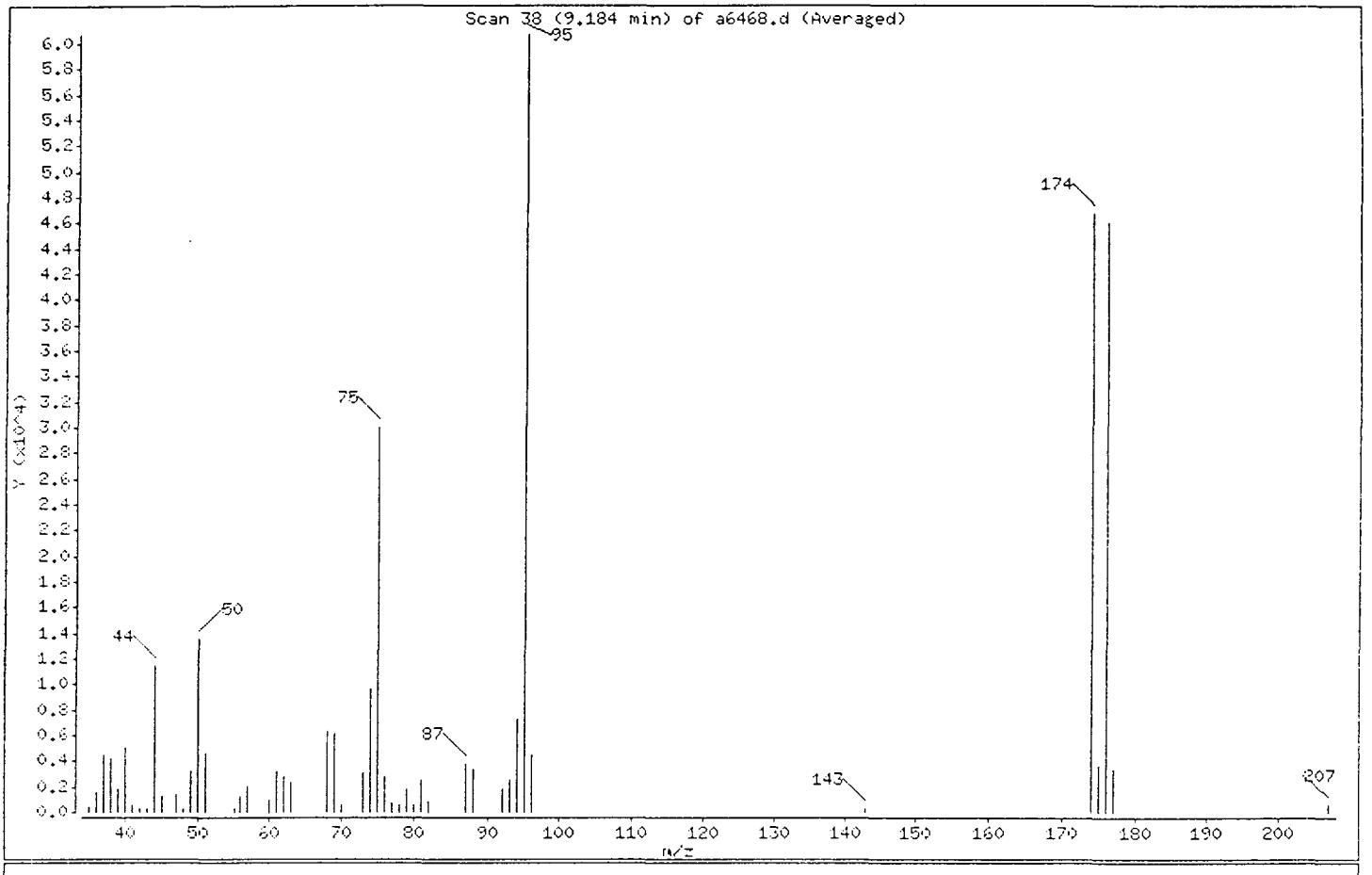
Sample Info: ABFB293 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53

1 Bromofluorobenzene



m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.40
75	30.00 - 60.00% of mass 95	49.50
96	5.00 - 9.00% of mass 95	6.17
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	77.04
175	5.00 - 9.00% of mass 174	5.95 (7.72)
176	95.00 - 101.00% of mass 174	75.81 (98.40)
177	5.00 - 9.00% of mass 176	5.43 (7.17)

304765

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6468.d

Date : 20-OCT-98 10:28:00

Client ID:

Instrument: VOAMS1.i

Sample Info: ABFB293 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53

Data File: a6468.d
Spectrum: Scan 39 (9.184 min) of a6468.d (Averaged)
Location of Maximum: 95.00
Number of points: 49

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	386	49.00	3266	73.00	3025	93.00	2579
36.00	1467	50.00	13595	74.00	9635	94.00	7296
37.00	4507	51.00	4669	75.00	30034	95.00	60680
38.00	4154	55.00	253	76.00	2832	96.00	4525
39.00	1876	56.00	1277	77.00	656	143.00	252
40.00	4957	57.00	2162	78.00	527	174.00	46749
41.00	569	60.00	972	79.00	1781	175.00	3610
42.00	295	61.00	3169	80.00	523	176.00	46000
43.00	306	62.00	2746	81.00	2474	177.00	3296
44.00	11471	63.00	2364	82.00	860	207.00	585
45.00	1238	68.00	6245	87.00	3734		
47.00	1404	69.00	6175	88.00	3310		
48.00	307	70.00	608	92.00	1759		

304766

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6468.d

Date : 20-OCT-98 10:28:00

Client ID:

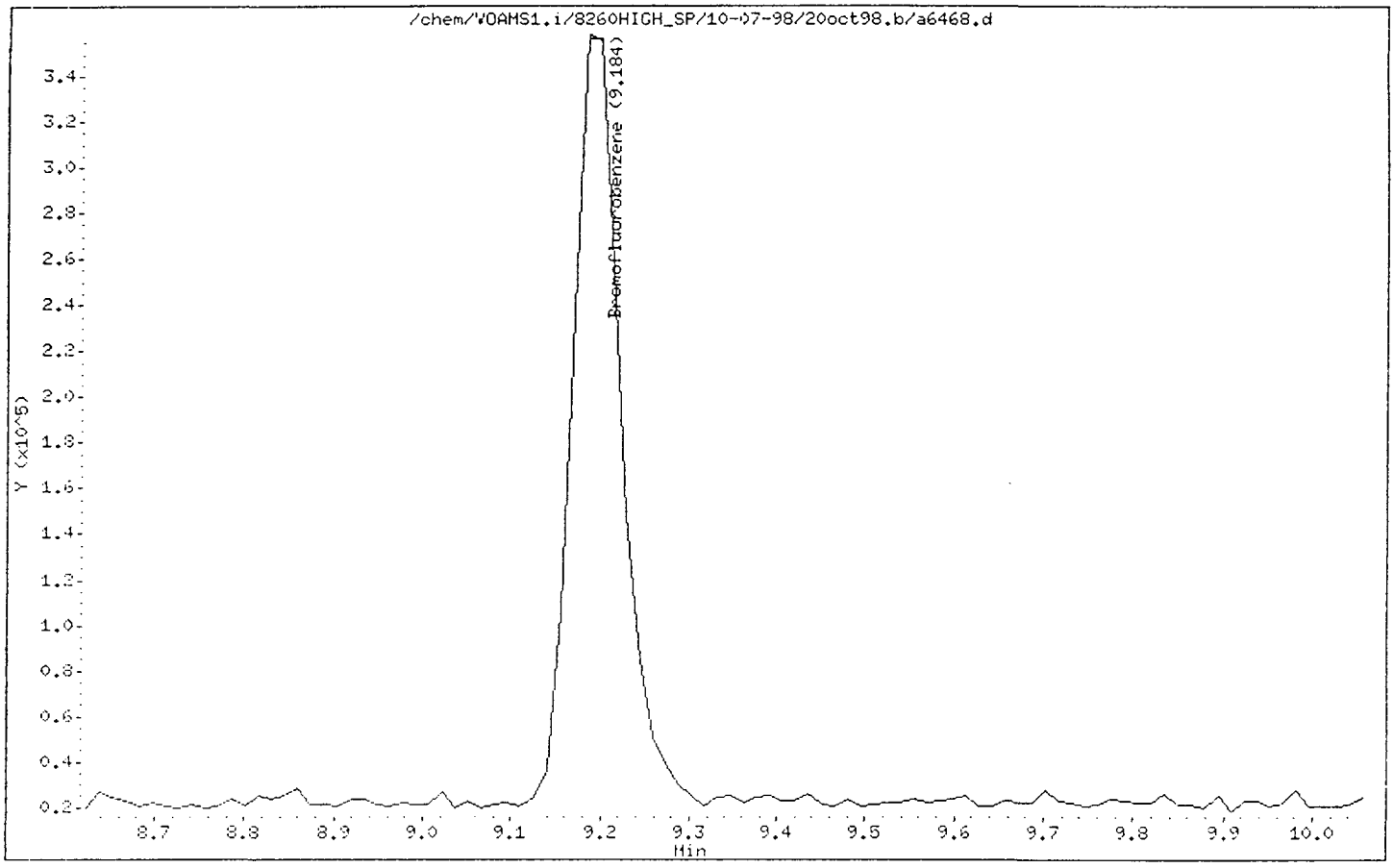
Instrument: VOAMS1.i

Sample Info: ABFB293 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53



304767

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab File ID: C2196 BFB Injection Date: 10/17/98

Instrument ID: VOAMS3 BFB Injection Time: 1113

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.3
75	30.0 - 60.0% of mass 95	49.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	68.2
175	5.0 - 9.0% of mass 174	5.5 (8.1)1
176	95.0 - 101.0% of mass 174	68.3 (100.3)1
177	5.0 - 9.0% of mass 176	5.7 (8.3)2

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

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

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CSTD005	CSTD005	C2197	10/17/98	1135
02	CSTD020	CSTD020	C2199	10/17/98	1234
03	CSTD050	CSTD050	C2200	10/17/98	1303
04	CSTD100	CSTD100	C2201	10/17/98	1332
05	CSTD200	CSTD200	C2202	10/17/98	1401
06					
07					
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18					
19					
20					
21					
22					

304768

Data File: /chem/VOAMS3.i/826CHIGH_SP/10-17-98/17oct98.b/c2196.d

Date : 17-OCT-98 11:13:00

Client ID:

Instrument: VOAMS3.i

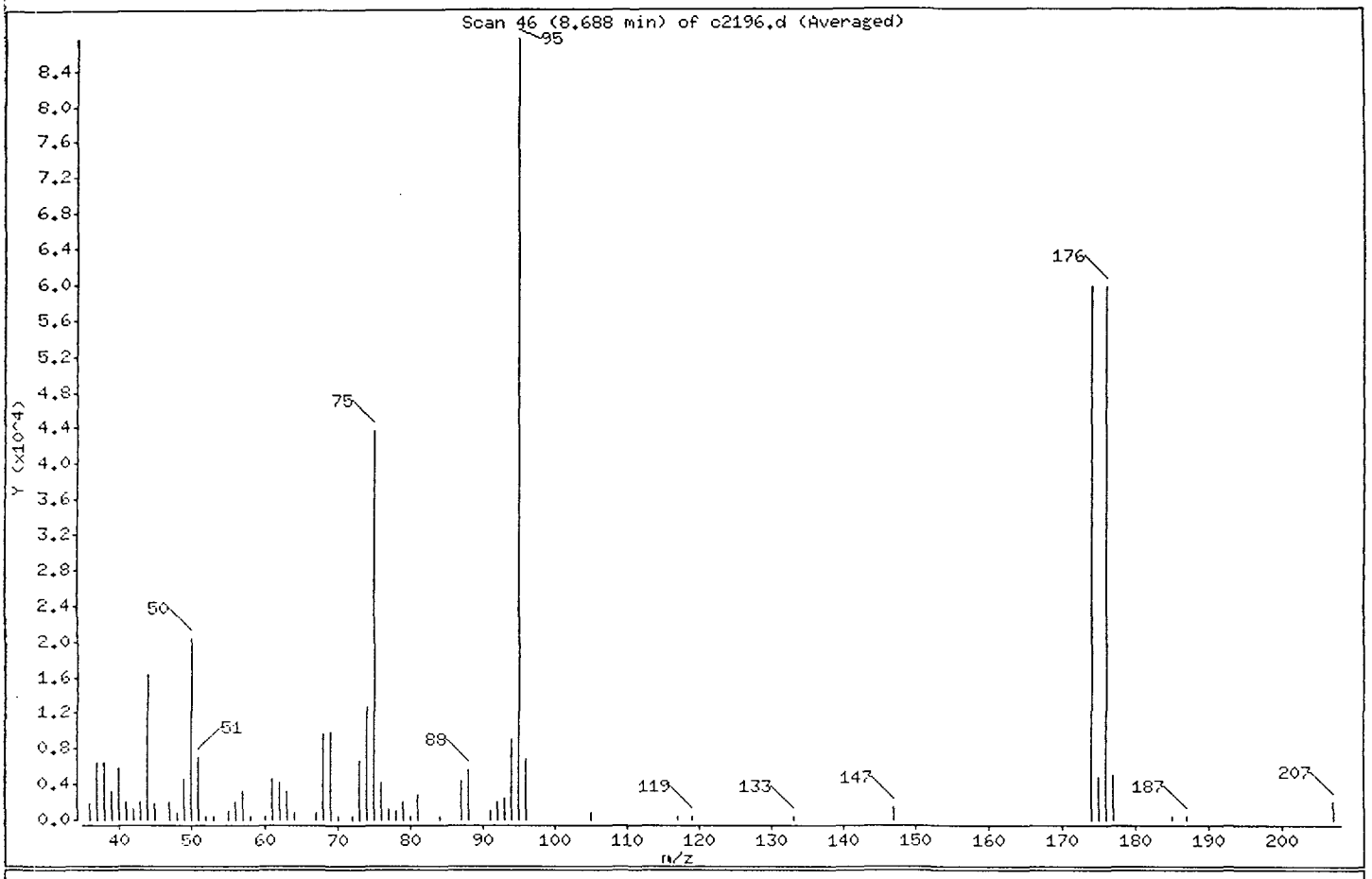
Sample Info: CBFB290 50ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.32
75	30.00 - 60.00% of mass 95	49.82
96	5.00 - 9.00% of mass 95	7.83
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	68.16
175	5.00 - 9.00% of mass 174	5.54 (8.13)
176	95.00 - 101.00% of mass 174	68.34 (100.26)
177	5.00 - 9.00% of mass 176	5.70 (8.34)

304769

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2196.d

Date : 17-OCT-98 11:13:00

Client ID:

Instrument: VOAMS3.i

Sample Info: CBFB290 50ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53

Data File: c2196.d
Spectrum: Scan 47 (8.688 min) of c2196.d (Averaged)
Location of Maximum: 95.00
Number of points: 61

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1865	53.00	353	74.00	12582	96.00	6856
37.00	6502	55.00	958	75.00	43621	105.00	816
38.00	6486	56.00	2002	76.00	4228	117.00	449
39.00	3300	57.00	3177	77.00	1295	119.00	476
40.00	5866	58.00	353	78.00	1033	133.00	381
41.00	1936	60.00	480	79.00	2105	147.00	1316
42.00	1174	61.00	4708	80.00	418	174.00	59682
43.00	2010	62.00	4191	81.00	2786	175.00	4852
44.00	16282	63.00	3305	84.00	334	176.00	59837
45.00	1878	64.00	732	87.00	4387	177.00	4992
47.00	2081	67.00	862	88.00	5576	185.00	390
48.00	728	68.00	9708	91.00	1025	187.00	466
49.00	4711	69.00	9949	92.00	1968	207.00	1997
50.00	20421	70.00	422	93.00	2480		
51.00	6953	72.00	369	94.00	8960		
52.00	375	73.00	6695	95.00	87557		

304770

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2196.d

Date : 17-OCT-98 11:13:00

Client ID:

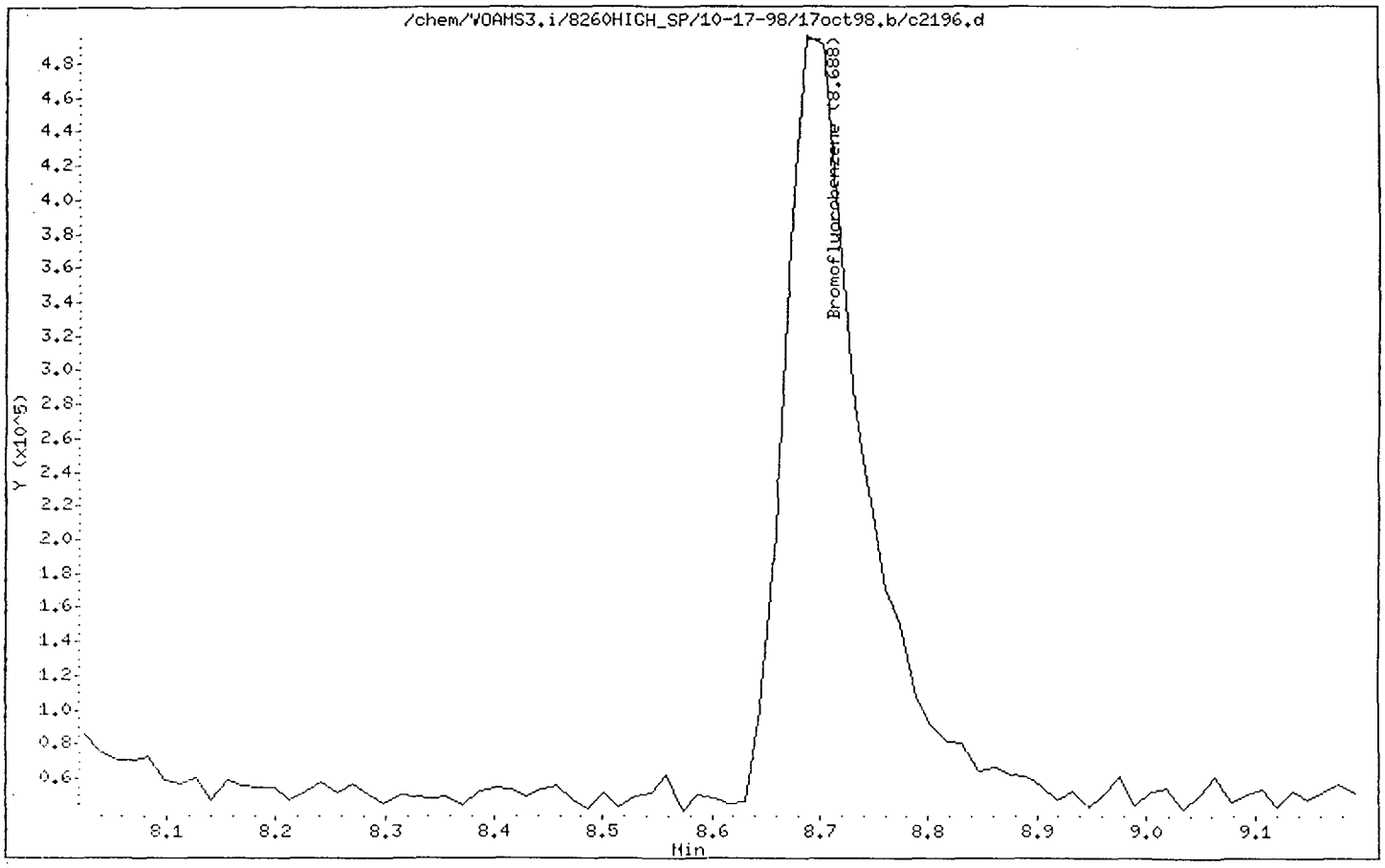
Instrument: VOAMS3.i

Sample Info: CBFB290 50ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53



304771

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab File ID: C2231 BFB Injection Date: 10/19/98

Instrument ID: VOAMS3 BFB Injection Time: 1102

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0% of mass 95	21.4	
75	30.0 - 60.0% of mass 95	50.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	8.7	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 100.0% of mass 95	77.0	
175	5.0 - 9.0% of mass 174	6.0	(7.8)1
176	95.0 - 101.0% of mass 174	77.4	(100.5)1
177	5.0 - 9.0% of mass 176	5.8	(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:

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CSTD292	CSTD292	C2232	10/19/98	1126
02	CV292	CV292	C2234	10/19/98	1239
03	FB-2	88663	C2236	10/19/98	1357
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

304772

Data File: /chem/VOAMS3.i/826CHIGH_SP/10-17-98/19oct98.b/c2231.d

Date : 19-OCT-98 11:02:00

Client ID: CBFB292 50ng

Instrument: VOAMS3.i

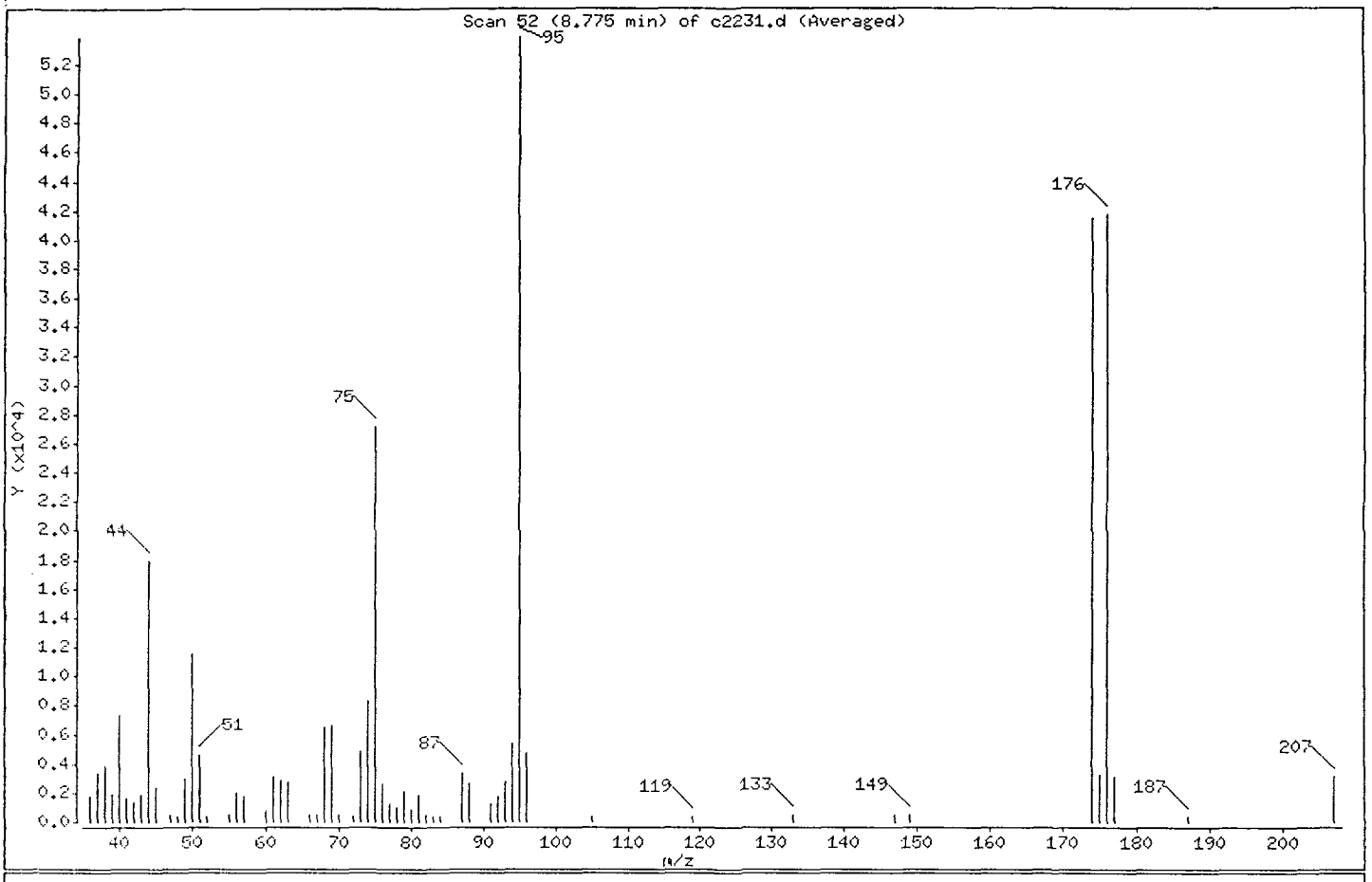
Sample Info: CBFB292 50ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.38
75	30.00 - 60.00% of mass 95	50.43
96	5.00 - 9.00% of mass 95	8.74
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	77.01
175	5.00 - 9.00% of mass 174	6.04 (7.84)
176	95.00 - 101.00% of mass 174	77.38 (100.48)
177	5.00 - 9.00% of mass 176	5.84 (7.55)

304773

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2231.d

Date : 19-OCT-98 11:02:00

Client ID: CBFB292 50ng

Instrument: VOAMS3.i

Sample Info: CBFB292 50ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53

Data File: c2231.d
Spectrum: Scan 53 (8.775 min) of c2231.d (Averaged)
Location of Maximum: 95.00
Number of points: 60

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1691	55.00	484	76.00	2581	96.00	4708
37.00	3395	56.00	1994	77.00	1244	105.00	384
38.00	3850	57.00	1681	78.00	1027	119.00	349
39.00	1825	60.00	712	79.00	2145	133.00	445
40.00	7294	61.00	3100	80.00	828	147.00	449
41.00	1626	62.00	2806	81.00	1836	149.00	479
42.00	1338	63.00	2712	82.00	528	174.00	41466
43.00	1892	66.00	496	83.00	363	175.00	3250
44.00	17931	67.00	503	84.00	433	176.00	41666
45.00	2296	68.00	6379	87.00	3355	177.00	3146
47.00	454	69.00	6557	88.00	2639	187.00	394
48.00	391	70.00	517	91.00	1199	207.00	3042
49.00	2962	72.00	404	92.00	1786		
50.00	11511	73.00	4881	93.00	2745		
51.00	4590	74.00	8296	94.00	5273		
52.00	335	75.00	27157	95.00	53848		

304774

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2231.d

Date : 19-OCT-98 11:02:00

Client ID: CBFB292 50ng

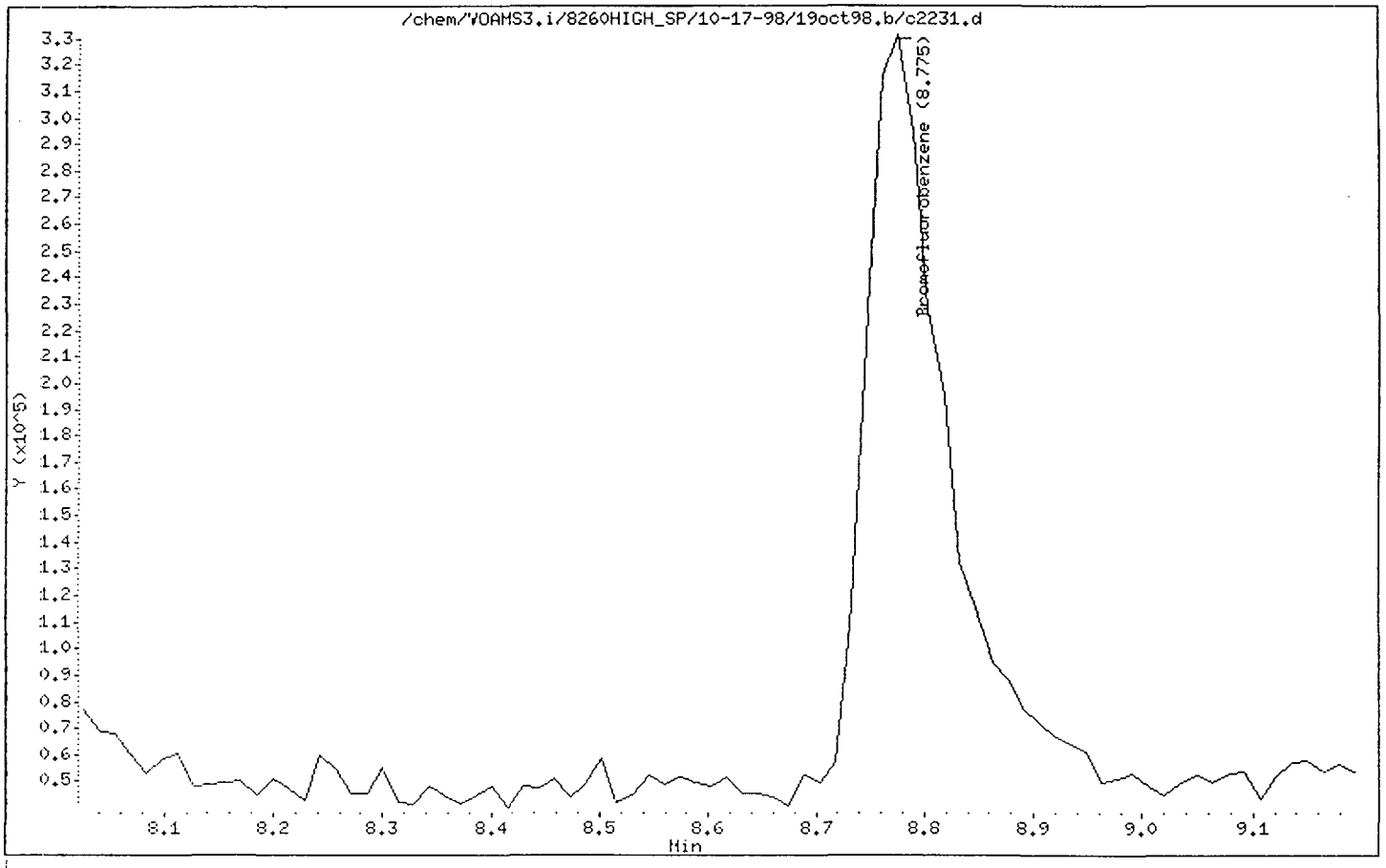
Instrument: VOAMS3.i

Sample Info: CBFB292 50ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53



304775

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab File ID: E4607 BFB Injection Date: 10/14/98

Instrument ID: VOAMS5 BFB Injection Time: 0834

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.8
75	30.0 - 60.0% of mass 95	41.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	56.3
175	5.0 - 9.0% of mass 174	4.0 (7.1)1
176	95.0 - 101.0% of mass 174	56.7 (100.8)1
177	5.0 - 9.0% of mass 176	3.8 (6.6)2

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

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

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ESTD005	ESTD005	E4609	10/14/98	1001
02	ESTD020	ESTD020	E4610	10/14/98	1029
03	ESTD050	ESTD050	E4611	10/14/98	1057
04	ESTD100	ESTD100	E4613	10/14/98	1153
05	ESTD200	ESTD200	E4614	10/14/98	1221
06					
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21					
22					

304776

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4607.d

Date : 14-OCT-98 08:34:00

Client ID: EBFB287 50ng

Instrument: VOAMS5.i

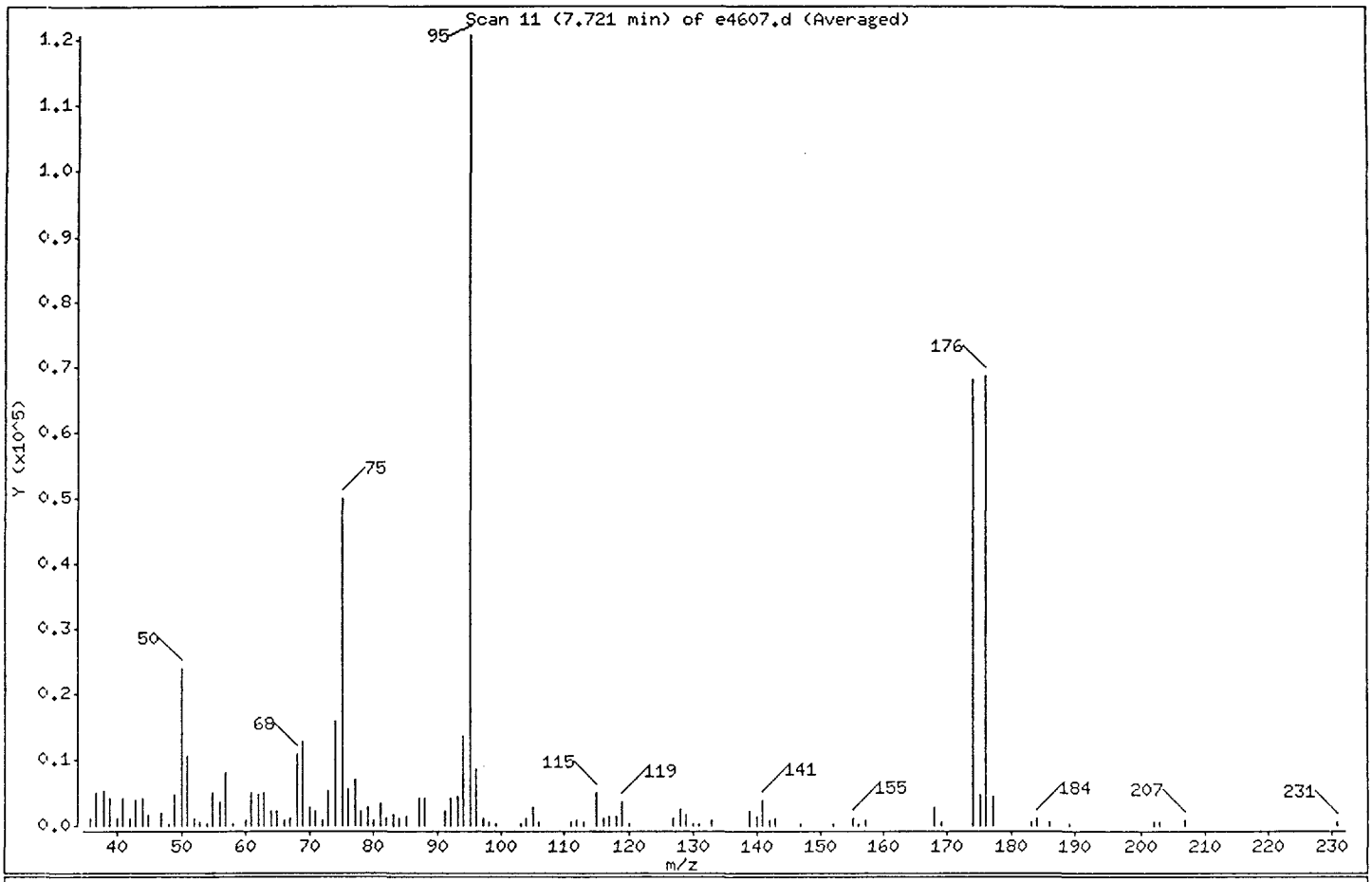
Sample Info: EBFB287 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.75
75	30.00 - 60.00% of mass 95	41.41
96	5.00 - 9.00% of mass 95	7.20
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	56.26
175	5.00 - 9.00% of mass 174	3.98 (7.07)
176	95.00 - 101.00% of mass 174	56.73 (100.84)
177	5.00 - 9.00% of mass 176	3.75 (6.61)

304777

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4607.d

Date : 14-OCT-98 08:34:00

Client ID: EBFB287 50ng

Instrument: VOAMS5.i

Sample Info: EBFB287 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53

Data File: e4607.d
Spectrum: Scan 12 (7.721 min) of e4607.d (Averaged)
Location of Maximum: 95.00
Number of points: 102

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1168	64.00	2245	93.00	4466	139.00	2270
37.00	5037	65.00	2174	94.00	13541	140.00	1427
38.00	5171	66.00	848	95.00	120658	141.00	3759
39.00	4245	67.00	1226	96.00	8691	142.00	730
40.00	1229	68.00	10946	97.00	1056	143.00	1013
41.00	4103	69.00	12700	98.00	424	147.00	208
42.00	1139	70.00	2739	99.00	200	152.00	226
43.00	3909	71.00	2149	103.00	229	155.00	1031
44.00	4067	72.00	948	104.00	1009	156.00	203
45.00	1594	73.00	5166	105.00	2696	157.00	730
47.00	1844	74.00	15680	106.00	489	168.00	2888
48.00	348	75.00	49970	111.00	446	169.00	660
49.00	4660	76.00	5555	112.00	751	174.00	67880
50.00	23832	77.00	6930	113.00	424	175.00	4798
51.00	10557	78.00	2115	115.00	5034	176.00	68450
52.00	974	79.00	2729	116.00	985	177.00	4526
53.00	509	80.00	922	117.00	1251	183.00	460
54.00	220	81.00	3196	118.00	1255	184.00	1206
55.00	4875	82.00	1100	119.00	3704	186.00	640
56.00	3598	83.00	1547	120.00	201	189.00	219
57.00	7984	84.00	1102	127.00	1199	202.00	476
58.00	212	85.00	1279	128.00	2619	203.00	453
60.00	891	87.00	4254	129.00	1694	207.00	961
61.00	5072	88.00	4166	130.00	282	231.00	676
62.00	4850	91.00	2201	131.00	226		
63.00	4991	92.00	4088	133.00	703		

304778

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4607.d

Date : 14-OCT-98 08:34:00

Client ID: EBFB287 50ng

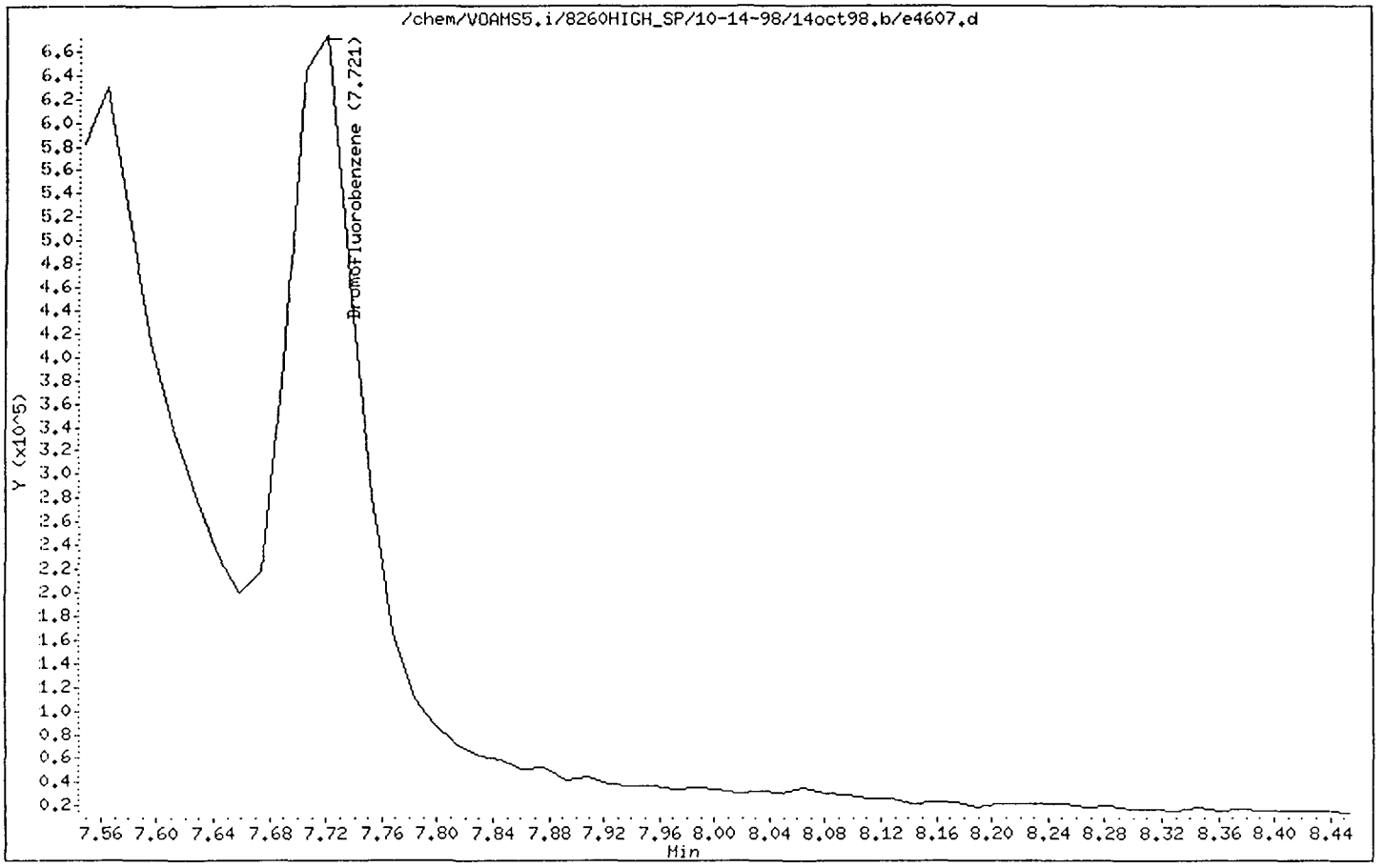
Instrument: VOAMS5.i

Sample Info: EBFB287 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53



304779

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab File ID: E4642 BFB Injection Date: 10/15/98

Instrument ID: VOAMS5 BFB Injection Time: 1009

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	41.0
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 - 100.0% of mass 95	56.5
175	5.0 - 9.0% of mass 174	3.7 (6.5)1
176	95.0 - 101.0% of mass 174	56.0 (99.2)1
177	5.0 - 9.0% of mass 176	3.5 (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:

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ESTD288	ESTD288	E4643	10/15/98	1023
02	EV288B	EV288B	E4653	10/15/98	1530
03	TRIP_BLANK	88662	E4657	10/15/98	1720
04	SSGT-2_7-7.5	88684	E4658	10/15/98	1747
05	SSGT-1_7-7.5	88685	E4659	10/15/98	1814
06	SSGT-3_7-7.5	88686	E4660	10/15/98	1842
07					
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19					
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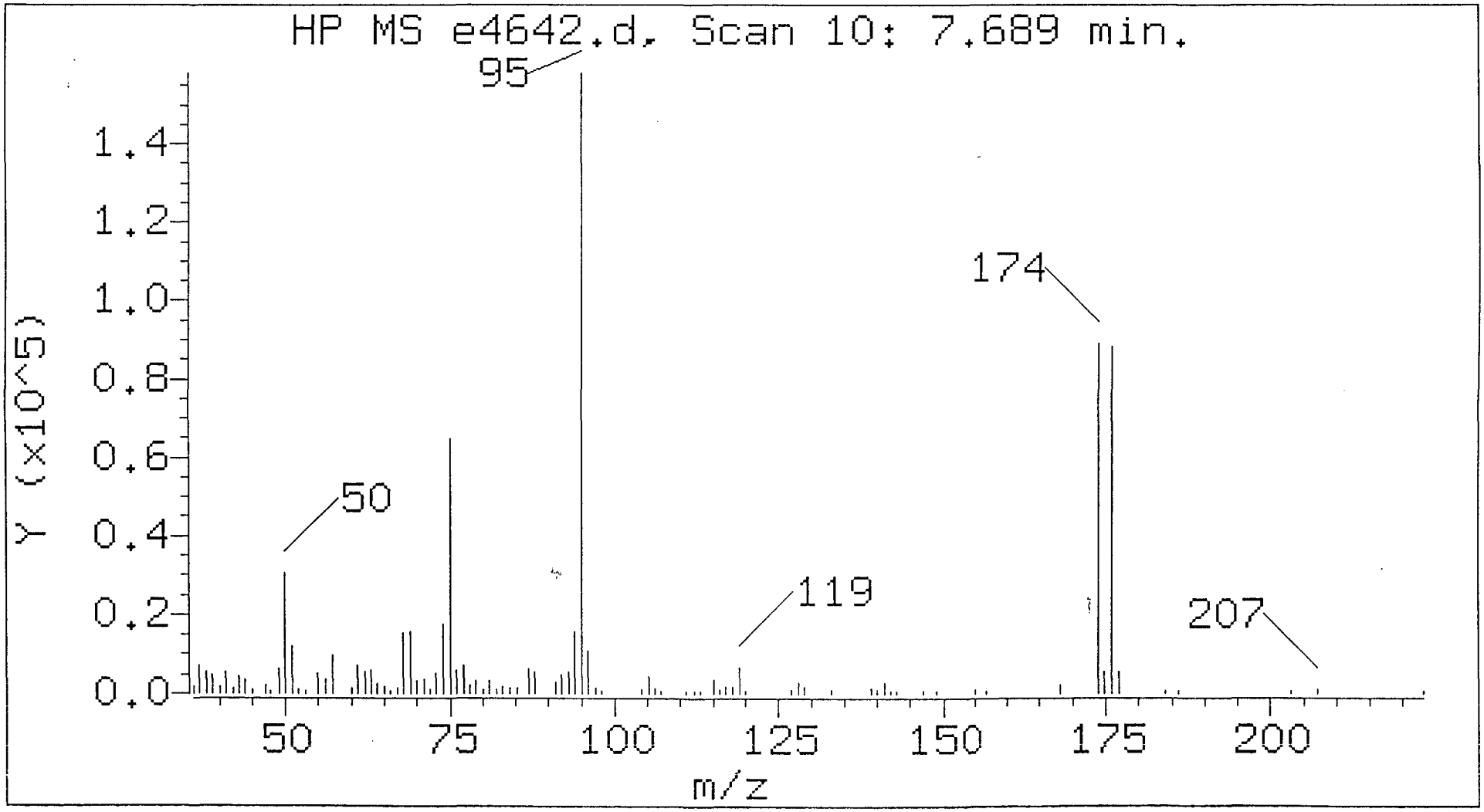
22					

304780

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.
Injection Date: 15-OCT-98 10:09:00
Instrument: VOAMS5.i
Client Sample ID: EBFB288 50ng

304781



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4642.d
Spectrum: HP MS e4642.d, Scan 10: 7.689 min.
Location of Maximum: 95.00
Number of points: 92

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.05	1900	63.95	2516	91.00	3047	133.05	1263
37.05	7116	64.95	1750	92.00	4904	139.05	1616
38.00	5668	65.95	857	93.00	5653	140.00	1071
39.00	4959	67.05	1413	94.00	15829	141.00	3189
40.00	1956	67.95	15360	95.00	158144	142.00	857
41.00	5575	68.95	15657	96.00	10966	142.90	868
42.00	1383	70.05	3234	97.00	1447	147.00	827
43.00	4372	71.05	3875	98.00	694	149.00	727
44.00	3908	71.95	1156	104.00	1196	155.10	1087
45.00	1256	72.95	5422	105.10	4586	156.90	656
47.00	2166	74.05	17560	106.00	1379	168.05	2403
47.80	913	75.05	64816	107.00	651	173.95	89280
49.00	6299	76.05	6212	110.90	796	174.85	5828
50.00	30368	77.05	7076	112.10	671	175.95	88552
51.00	11907	78.05	2348	113.00	696	176.95	5575
52.00	1287	78.95	3551	115.05	3810	183.95	748
53.10	865	79.95	1081	115.95	1125	186.05	859
55.00	5302	80.95	3413	116.95	2008	203.00	701
56.00	3930	82.05	1108	118.05	1956	207.00	1104
57.10	9933	83.05	1829	119.05	6941	223.05	654
60.00	1564	84.05	1346	120.05	712		
61.00	6998	85.15	1438	127.05	1146		
62.00	5796	87.05	6299	128.05	2920		
63.00	5976	87.95	5606	129.05	1877		

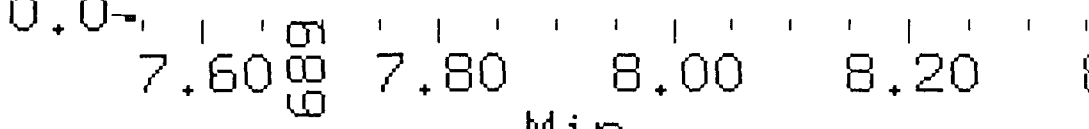
304782

Data File: /chem/VOAMS5.i/8260HIGH_SP/10
Injection Date: 15-OCT-98 10:09:00
Instrument: VOAMS5.i
Client Sample ID: EBFB288 50ng

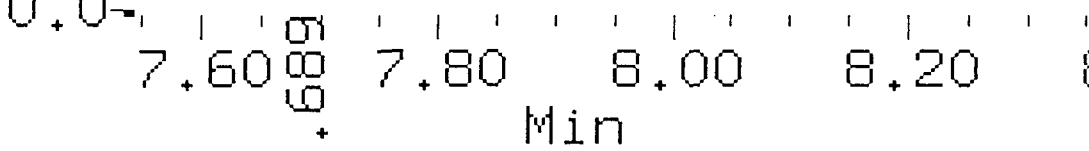
Compound: Bromofluorobenzene
CAS Number: 460-00-4

304783

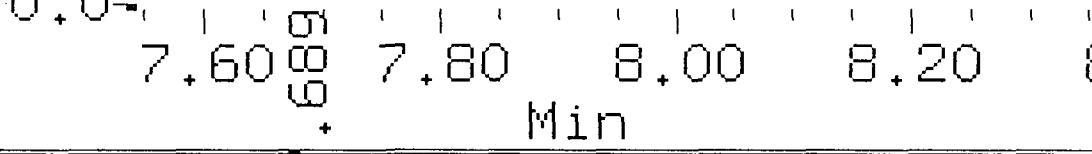
Ion 95.00: Area: 158144 Height: 158144



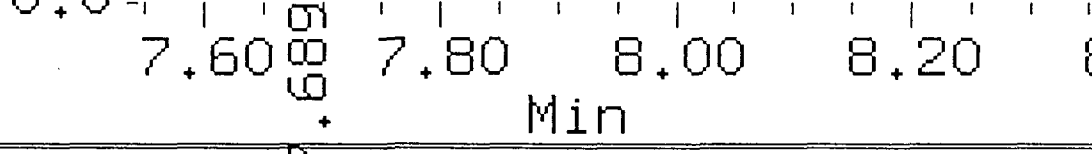
Ion 50.00: Area: 30368 Height: 30368



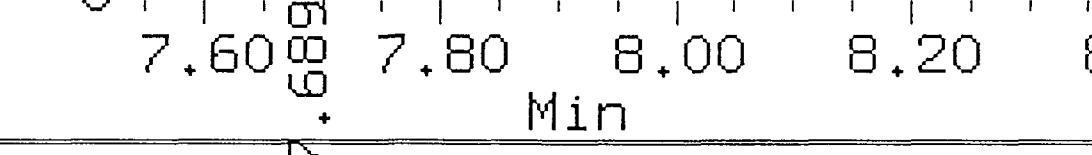
Ion 75.00: Area: 64816 Height: 64816



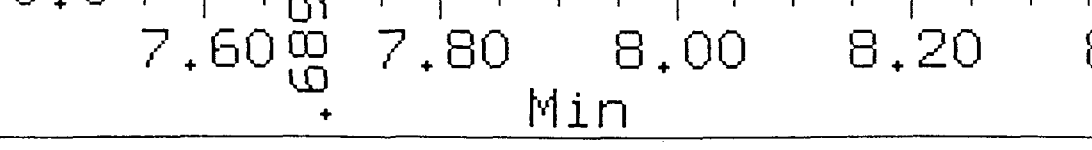
Ion 96.00: Area: 10966 Height: 10966



Ion 173.00: Area: 0 Height: 0

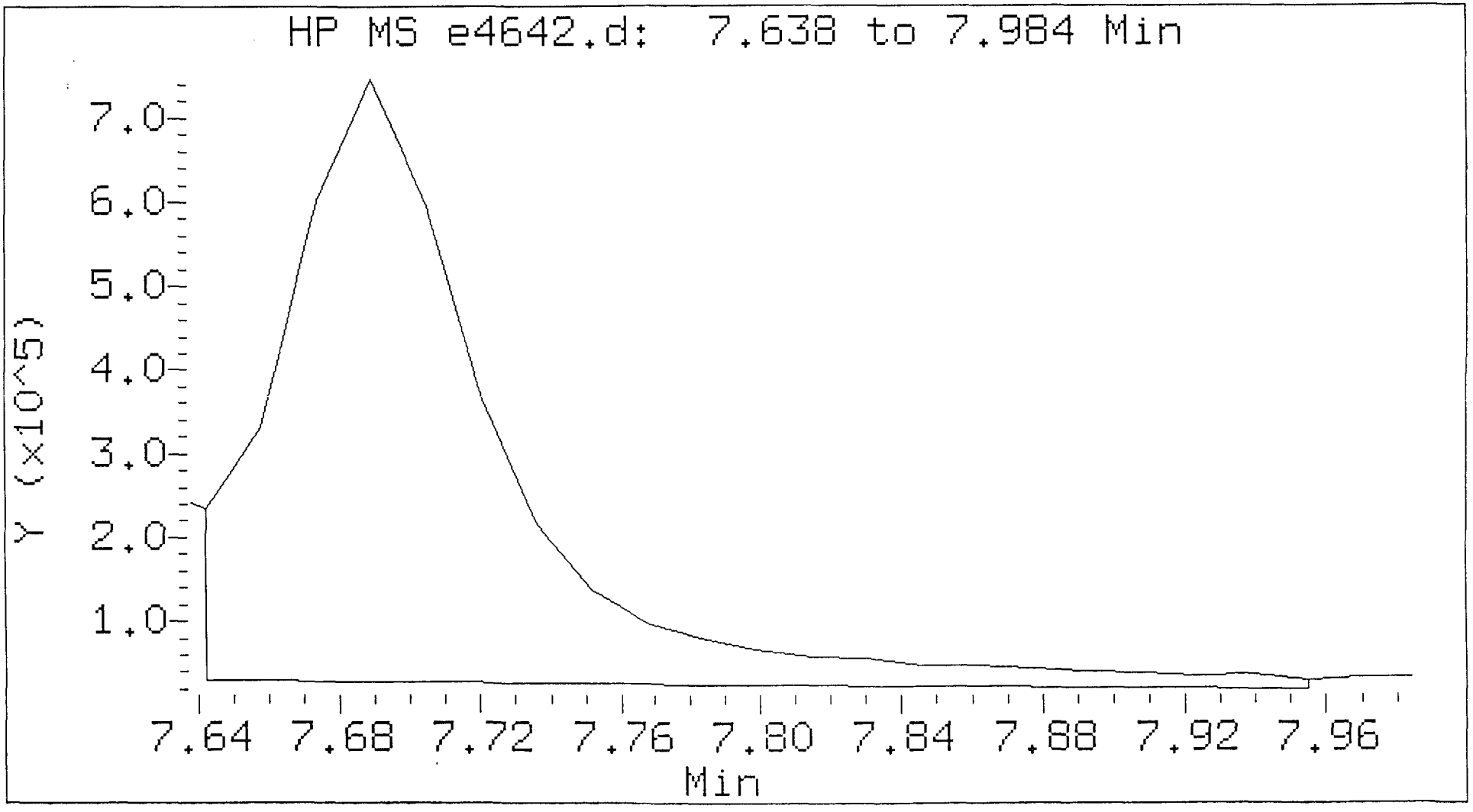


Ion 174.00: Area: 89280 Height: 89280



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.
Injection Date: 15-OCT-98 10:09:00
Instrument: VOAMS5.i
Client Sample ID: EBFB288 50ng

304784



SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: S7726 DFTPP Injection Date: 09/28/98

Instrument ID: BNAMS2 DFTPP Injection Time: 1239

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	52.5
70	Less than 2.0% of mass 69	0.3 (0.5)1
127	40.0 - 60.0% of mass 198	48.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	19.4
365	Greater than 1.0% of mass 198	2.57
441	0.0 - 100.0% of mass 443	11.6 (79.0)2
442	40.0 - 110.0% of mass 198	75.4
443	17.0 - 23.0% of mass 442	14.7 (19.5)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

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

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S7727	09/28/98	1257
02	SSTD120	SSTD120	S7728	09/28/98	1356
03	SSTD080	SSTD080	S7729	09/28/98	1440
04	SSTD020	SSTD020	S7730	09/28/98	1524
05	SSTD005	SSTD005	S7732	09/28/98	1653
06					
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304785

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7726.d

Date : 28-SEP-98 12:39:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT271

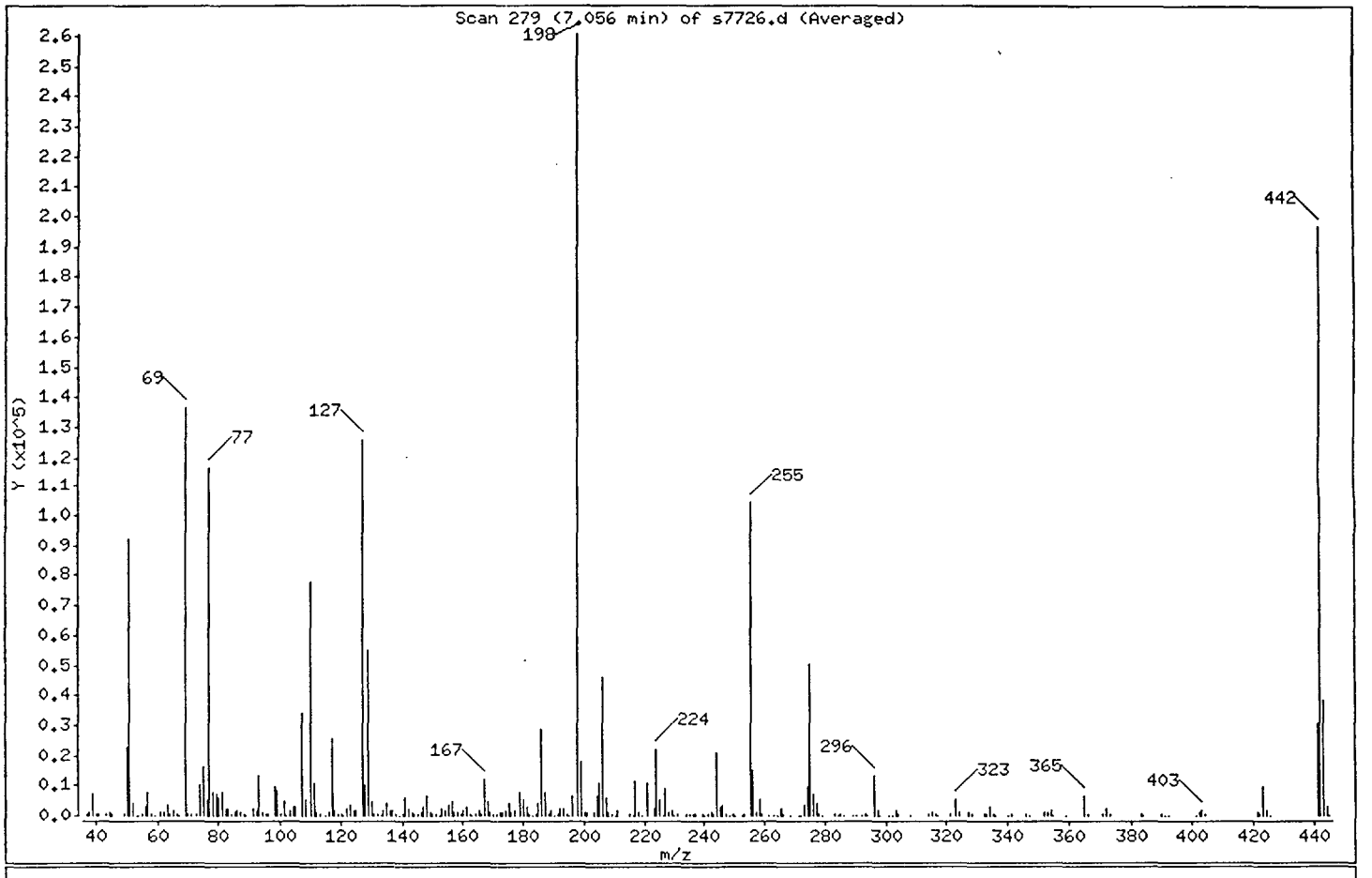
Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

304786

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.44
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	52.53
70	Less than 2.00% of mass 69	0.26 (0.50)
127	40.00 - 60.00% of mass 198	48.28
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	19.42
365	Greater than 1.00% of mass 198	2.57
441	0.01 - 100.00% of mass 443	11.61 (79.02)
442	40.00 - 110.00% of mass 198	75.39
443	17.00 - 23.00% of mass 442	14.70 (19.50)

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7726.d

Date : 28-SEP-98 12:39:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT271

Operator: BNA2

304787

Column phase: DB-5

Column diameter: 0.25

Data File: s7726.d
Spectrum: Scan 280 (7.056 min) of s7726.d (Averaged)
Location of Maximum: 198.00
Number of points: 276

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	313	119.00	354	191.00	849	278.00	539
38.00	1072	120.00	317	192.00	2524	279.00	73
39.00	7280	121.00	171	193.00	2283	283.00	459
40.00	555	122.00	2320	194.00	539	284.00	267
41.00	563	123.00	3754	195.00	69	285.00	735
43.00	653	124.00	1682	196.00	6785	286.00	75
44.00	1056	125.00	1515	198.00	260501	289.00	137
45.00	418	127.00	125781	199.00	17726	290.00	68
49.00	509	128.00	10264	200.00	1041	292.00	77
50.00	22678	129.00	55360	201.00	1162	293.00	829
51.00	92317	130.00	4535	203.00	1295	294.00	68
52.00	4467	131.00	767	204.00	6714	296.00	13263
53.00	152	132.00	519	205.00	11046	297.00	1753
54.00	79	133.00	171	206.00	45858	298.00	84
55.00	745	134.00	1525	207.00	6093	301.00	147
56.00	2717	135.00	3996	208.00	1403	302.00	124
57.00	7498	136.00	1606	209.00	442	303.00	1722
58.00	382	137.00	2094	210.00	217	304.00	372
59.00	68	138.00	337	211.00	1762	308.00	68
61.00	1284	139.00	128	215.00	503	314.00	756
62.00	1189	140.00	304	216.00	211	315.00	1451
63.00	3701	141.00	6216	217.00	11158	316.00	731
64.00	581	142.00	2102	218.00	1373	317.00	155
65.00	2032	143.00	1306	219.00	70	321.00	456
66.00	341	144.00	372	221.00	10636	323.00	5265
67.00	96	145.00	340	223.00	2186	324.00	919
69.00	136829	146.00	1104	224.00	22160	327.00	979
70.00	687	147.00	3004	225.00	5505	328.00	424
71.00	314	148.00	6536	226.00	202	332.00	400
73.00	897	149.00	1465	227.00	9092	333.00	458
74.00	9956	150.00	465	228.00	1409	334.00	3185
75.00	15948	151.00	887	229.00	1971	335.00	894
76.00	5405	152.00	129	230.00	164	336.00	72
77.00	116690	153.00	2137	231.00	854	340.00	67
78.00	7845	154.00	1498	234.00	599	341.00	529

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7726.d

Date : 28-SEP-98 12:39:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT271

Operator: BNA2

304788

Column phase: DB-5

Column diameter: 0.25

Data File: s7726.d

Spectrum: Scan 280 (7.056 min) of s7726.d (Averaged)

Location of Maximum: 198.00

Number of points: 276

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7161	155.00	3450	235.00	612	346.00	895
80.00	5747	156.00	4725	236.00	457	347.00	74
81.00	7997	157.00	1076	237.00	641	352.00	1269
82.00	2107	158.00	1125	239.00	379	353.00	988
83.00	2425	159.00	879	240.00	286	354.00	1508
84.00	308	160.00	1581	241.00	547	355.00	243
85.00	1467	161.00	3020	242.00	1347	359.00	69
86.00	2074	162.00	852	243.00	383	365.00	6692
87.00	1065	163.00	179	244.00	21117	366.00	852
88.00	411	164.00	386	245.00	2752	371.00	421
89.00	244	165.00	1758	246.00	3466	372.00	2630
91.00	2239	166.00	785	247.00	639	373.00	643
92.00	2024	167.00	11678	248.00	150	383.00	632
93.00	13194	168.00	4971	249.00	760	384.00	98
94.00	1031	169.00	959	250.00	86	390.00	348
95.00	558	170.00	405	252.00	104	391.00	244
96.00	612	171.00	362	253.00	391	392.00	171
98.00	9834	172.00	927	255.00	103917	401.00	207
99.00	8120	173.00	1207	256.00	15198	402.00	1138
100.00	712	174.00	2048	257.00	1171	403.00	1501
101.00	4709	175.00	4074	258.00	5414	404.00	440
102.00	290	176.00	1192	259.00	780	421.00	1179
103.00	1554	177.00	1789	261.00	77	422.00	440
104.00	2726	179.00	7896	263.00	68	423.00	9429
105.00	2852	180.00	5377	264.00	238	424.00	1812
107.00	34133	181.00	2911	265.00	2141	425.00	148
108.00	5262	182.00	373	266.00	311	441.00	30256
110.00	78013	183.00	295	268.00	72	442.00	196384
111.00	11019	184.00	635	271.00	104	443.00	38290
112.00	1178	185.00	3989	272.00	117	444.00	3241
113.00	412	186.00	28701	273.00	3427	445.00	75
115.00	87	187.00	7588	274.00	9513		
116.00	1439	188.00	857	275.00	50584		
117.00	25453	189.00	1535	276.00	7368		
118.00	1895	190.00	294	277.00	3960		

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7726.d

Date : 28-SEP-98 12:39:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT271

Operator: BNA2

304789

Column phase: DB-5

Column diameter: 0.25

Data File: s7726.d

Spectrum: Scan 280 (7.056 min) of s7726.d (Averaged)

Location of Maximum: 198.00

Number of points: 276

m/z	Y	m/z	Y	m/z	Y	m/z	Y

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7726.d

Date : 28-SEP-98 12:39:00

Client ID:

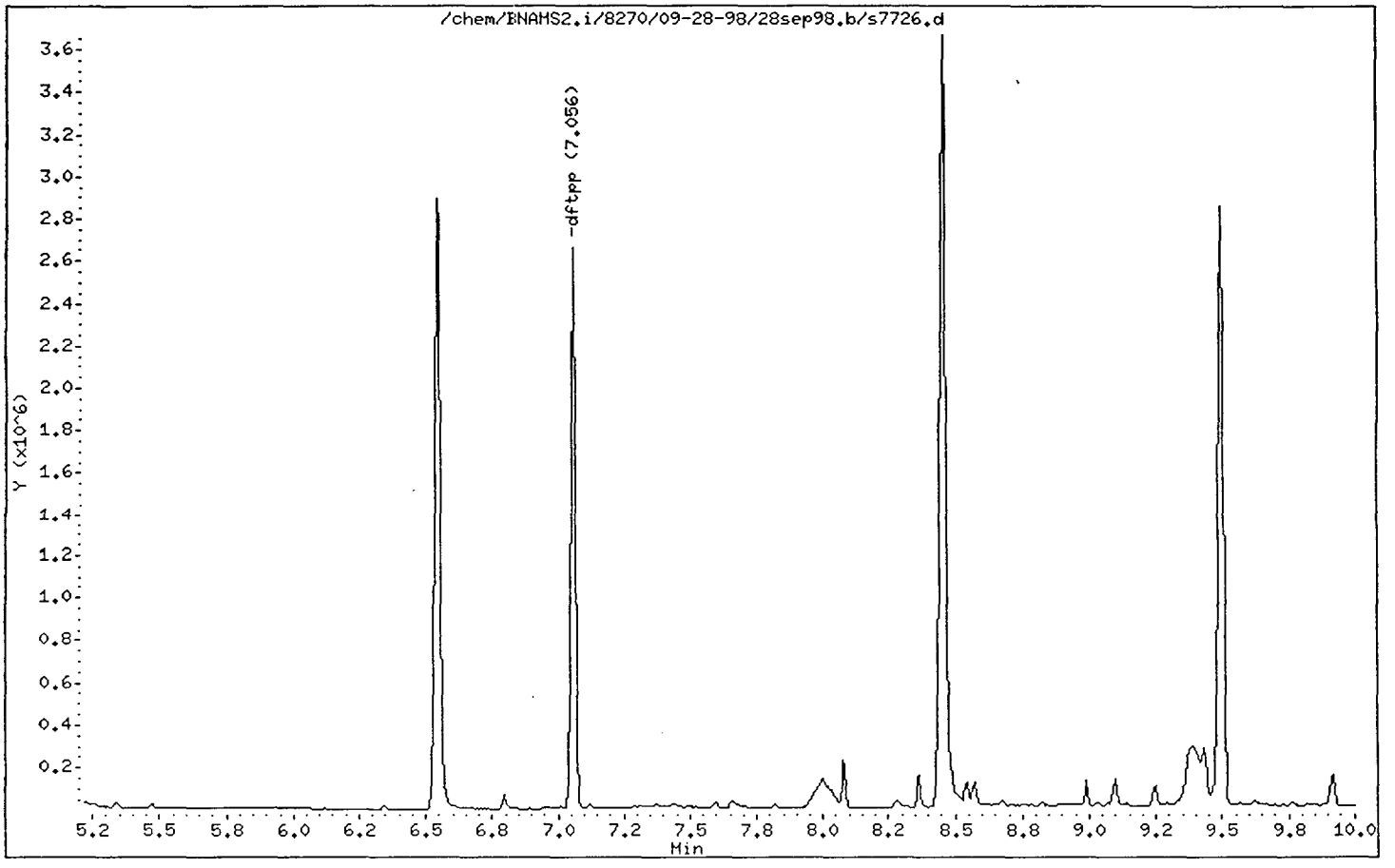
Instrument: BNAMS2.i

Sample Info: SDFT271

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



304790

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: S8211 DFTPP Injection Date: 10/16/98

Instrument ID: BNAMS2 DFTPP Injection Time: 0931

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	52.3
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	48.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 30.0% of mass 198	19.6
365	Greater than 1.0% of mass 198	2.49
441	0.0 - 100.0% of mass 443	12.2 (81.7)2
442	40.0 - 110.0% of mass 198	78.1
443	17.0 - 23.0% of mass 442	14.9 (19.1)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

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

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD289	SSTD289	S8212	10/16/98	0949
02	SB288A	SB288A	S8222	10/16/98	1715
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

304791

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8211.d

Date : 16-OCT-98 09:31:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT289

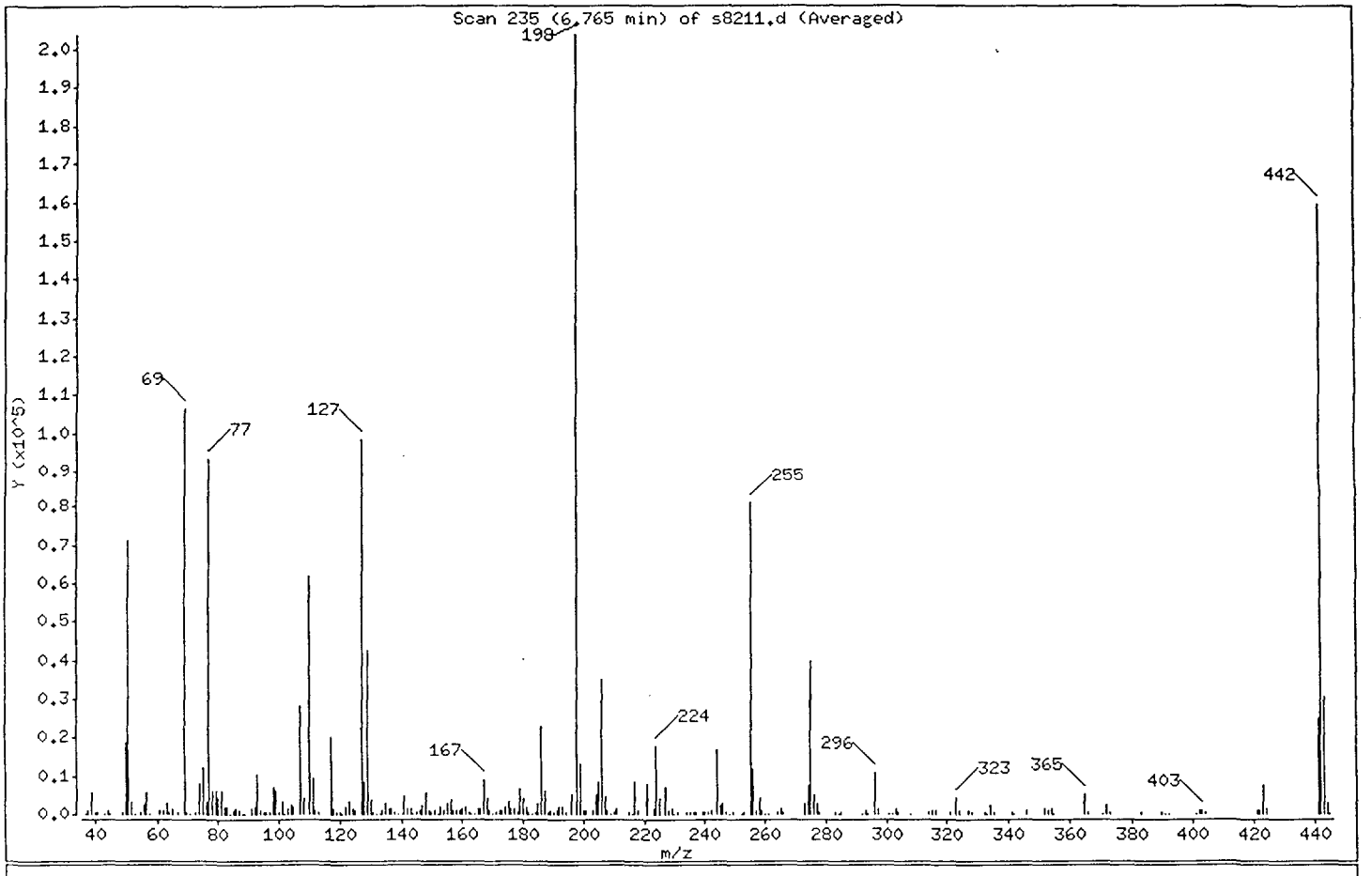
Operator: BNA2

304792

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.87
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	52.26
70	Less than 2.00% of mass 69	0.21 (0.40)
127	40.00 - 60.00% of mass 198	48.28
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.45
275	10.00 - 30.00% of mass 198	19.59
365	Greater than 1.00% of mass 198	2.49
441	0.01 - 100.00% of mass 443	12.18 (81.70)
442	40.00 - 110.00% of mass 198	78.15
443	17.00 - 23.00% of mass 442	14.91 (19.08)

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8211.d

Date : 16-OCT-98 09:31:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT289

Operator: BNA2

304793

Column phase: DB-5

Column diameter: 0.25

Data File: s8211.d
Spectrum: Scan 236 (6.765 min) of s8211.d (Averaged)
Location of Maximum: 198.00
Number of points: 254

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	203	117.00	19987	182.00	469	265.00	1610
38.00	825	118.00	1441	183.00	173	266.00	446
39.00	5626	119.00	282	184.00	504	273.00	2795
40.00	521	120.00	329	185.00	2927	274.00	7549
41.00	262	121.00	77	186.00	23162	275.00	39933
43.00	208	122.00	1740	187.00	5985	276.00	5375
44.00	770	123.00	3076	188.00	590	277.00	2827
45.00	162	124.00	1448	189.00	1167	278.00	332
49.00	454	125.00	1108	190.00	350	283.00	343
50.00	18593	127.00	98394	191.00	767	284.00	222
51.00	71074	128.00	8228	192.00	1702	285.00	625
52.00	3461	129.00	42778	193.00	2006	292.00	90
53.00	108	130.00	3611	194.00	458	293.00	777
55.00	650	131.00	628	196.00	4964	294.00	69
56.00	2332	132.00	204	198.00	203818	296.00	10696
57.00	5405	133.00	171	199.00	13144	297.00	1343
58.00	82	134.00	1077	200.00	1015	301.00	111
61.00	906	135.00	2901	201.00	738	302.00	184
62.00	958	136.00	1214	203.00	1104	303.00	1281
63.00	2914	137.00	1391	204.00	5247	304.00	303
64.00	461	138.00	460	205.00	8387	308.00	73
65.00	1513	139.00	184	206.00	35048	314.00	528
67.00	319	140.00	195	207.00	4645	315.00	1157
69.00	106522	141.00	4851	208.00	1034	316.00	705
70.00	427	142.00	1469	209.00	211	321.00	389
71.00	91	143.00	1194	210.00	246	323.00	4301
73.00	380	144.00	136	211.00	1288	324.00	706
74.00	7882	145.00	370	215.00	462	327.00	750
75.00	12411	146.00	758	216.00	232	328.00	356
76.00	3457	147.00	2248	217.00	8259	332.00	351
77.00	93432	148.00	5693	218.00	839	333.00	167
78.00	6102	149.00	1091	221.00	8042	334.00	2326
79.00	5974	150.00	370	223.00	1377	335.00	699
80.00	4298	151.00	746	224.00	17612	341.00	402
81.00	6164	152.00	231	225.00	4024	342.00	88

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8211.d

Date : 16-OCT-98 09:31:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT289

Operator: BNA2

304794

Column phase: DB-5

Column diameter: 0.25

Data File: s8211.d
Spectrum: Scan 236 (6.765 min) of s8211.d (Averaged)
Location of Maximum: 198.00
Number of points: 254

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	1686	153.00	1713	227.00	7059	346.00	750
83.00	1836	154.00	1008	228.00	990	352.00	1216
84.00	196	155.00	2771	229.00	1494	353.00	806
85.00	1038	156.00	3628	230.00	154	354.00	1346
86.00	1639	157.00	951	231.00	695	355.00	74
87.00	783	158.00	783	234.00	523	365.00	5070
88.00	102	159.00	753	235.00	581	366.00	425
89.00	85	160.00	1426	236.00	352	371.00	152
91.00	1478	161.00	2088	237.00	485	372.00	2147
92.00	1780	162.00	603	239.00	331	373.00	381
93.00	10448	163.00	193	240.00	246	383.00	574
94.00	851	164.00	226	241.00	406	390.00	270
95.00	405	165.00	1639	242.00	1106	391.00	87
96.00	674	166.00	1345	244.00	16648	392.00	81
97.00	241	167.00	8711	245.00	2188	401.00	177
98.00	7156	168.00	3992	246.00	2629	402.00	864
99.00	5986	169.00	726	247.00	504	403.00	1170
100.00	612	170.00	215	248.00	88	404.00	331
101.00	3407	171.00	382	249.00	646	421.00	1038
102.00	165	172.00	828	252.00	71	422.00	1154
103.00	1317	173.00	931	253.00	269	423.00	7461
104.00	2437	174.00	1814	255.00	81042	424.00	1294
105.00	1996	175.00	3213	256.00	11941	441.00	24823
107.00	27973	176.00	1286	257.00	1012	442.00	159282
108.00	4289	177.00	1323	258.00	4071	443.00	30384
110.00	61824	178.00	384	259.00	868	444.00	2615
111.00	9264	179.00	6343	260.00	78	445.00	99
112.00	889	180.00	4287	261.00	92		
113.00	239	181.00	2085	264.00	269		

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8211.d

Date : 16-OCT-98 09:31:00

Client ID:

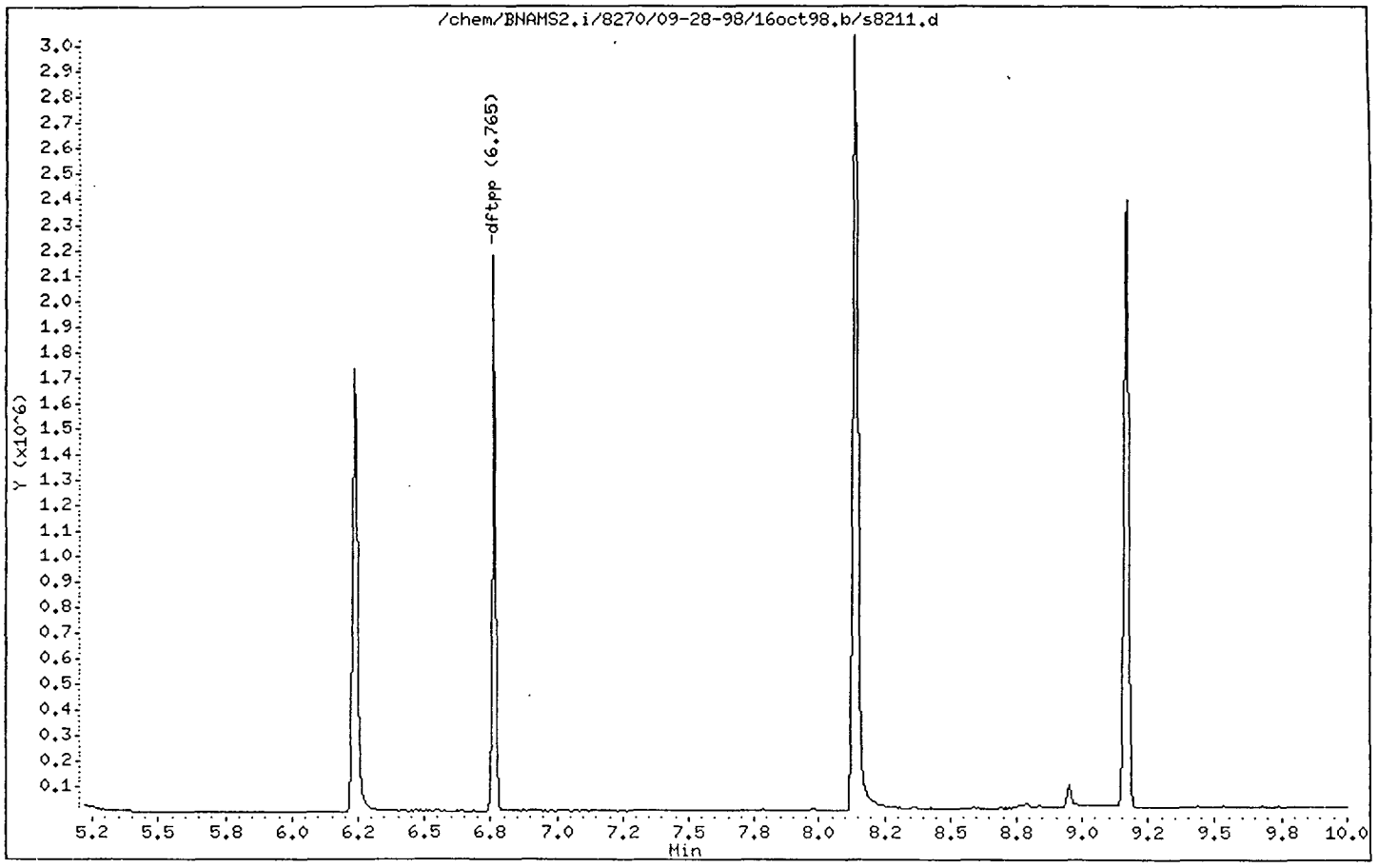
Instrument: BNAMS2.i

Sample Info: SDFT289

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



304795

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: S8223 DFTPP Injection Date: 10/16/98

Instrument ID: BNAMS2 DFTPP Injection Time: 1900

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	53.6
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	47.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	20.3
365	Greater than 1.0% of mass 198	2.67
441	0.0 - 100.0% of mass 443	10.2 (64.7)2
442	40.0 - 110.0% of mass 198	81.9
443	17.0 - 23.0% of mass 442	15.8 (19.3)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

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

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S8225	10/16/98	2018
02	SSTD120	SSTD120	S8226	10/16/98	2104
03	SSTD080	SSTD080	S8227	10/16/98	2148
04	SSTD020	SSTD020	S8228	10/16/98	2232
05	SSTD005-S	SSTD005-S	S8230	10/17/98	0000
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

304796

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8223.d

Date : 16-OCT-98 19:00:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT289A

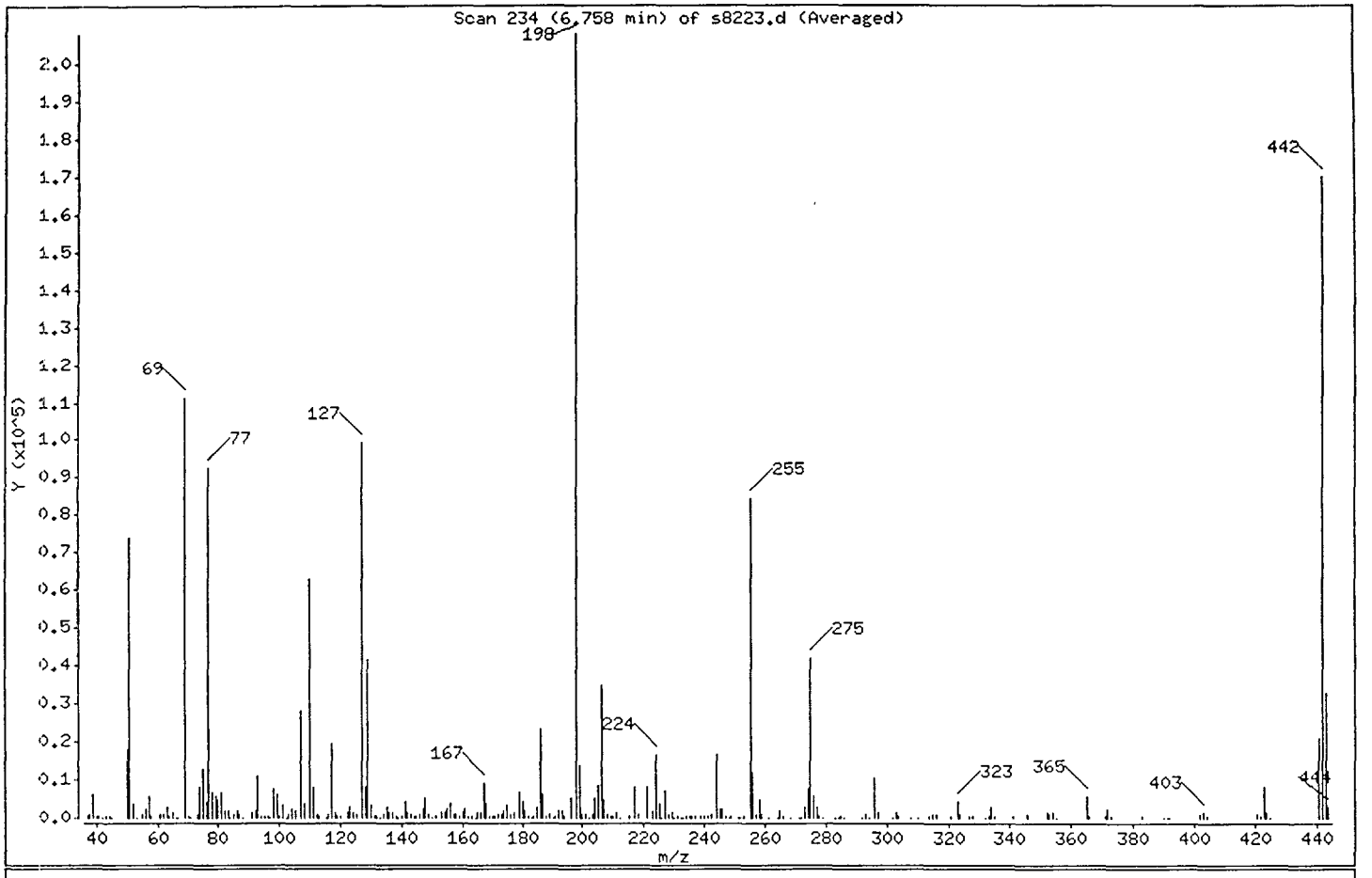
Operator: BNA2

304797

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.55
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	53.60
70	Less than 2.00% of mass 69	0.22 (0.41)
127	40.00 - 60.00% of mass 198	47.82
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.61
275	10.00 - 30.00% of mass 198	20.28
365	Greater than 1.00% of mass 198	2.67
441	0.01 - 100.00% of mass 443	10.22 (64.66)
442	40.00 - 110.00% of mass 198	81.95
443	17.00 - 23.00% of mass 442	15.81 (19.29)

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8223.d

Date : 16-OCT-98 19:00:00

Client ID: Instrument: BNAMS2.i

Sample Info: SDFT289A

Operator: BNA2 304798

Column phase: DB-5 Column diameter: 0.25

Data File: s8223.d
Spectrum: Scan 235 (6.758 min) of s8223.d (Averaged)
Location of Maximum: 198.00
Number of points: 260

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	258	117.00	19742	187.00	6375	271.00	66
38.00	907	118.00	1595	188.00	633	272.00	87
39.00	6113	119.00	255	189.00	1122	273.00	2873
40.00	495	120.00	379	190.00	133	274.00	7551
41.00	551	122.00	1659	191.00	685	275.00	42101
42.00	71	123.00	2890	192.00	1683	276.00	5664
43.00	376	124.00	1276	193.00	1894	277.00	2818
44.00	674	125.00	1107	194.00	343	278.00	312
45.00	207	127.00	99282	196.00	5336	279.00	67
50.00	18223	128.00	8130	198.00	207621	283.00	232
51.00	73800	129.00	41509	199.00	13734	284.00	95
52.00	3752	130.00	3515	200.00	934	285.00	431
53.00	199	131.00	627	201.00	939	286.00	79
55.00	736	132.00	442	202.00	150	292.00	87
56.00	2386	133.00	97	203.00	1014	293.00	907
57.00	5637	134.00	1056	204.00	5186	294.00	151
58.00	262	135.00	3033	205.00	8760	296.00	10554
61.00	804	136.00	1208	206.00	34925	297.00	1351
62.00	1003	137.00	1406	207.00	4602	302.00	219
63.00	2915	138.00	406	208.00	1016	303.00	1420
64.00	458	139.00	157	209.00	316	304.00	371
65.00	1475	140.00	487	210.00	422	308.00	100
66.00	69	141.00	4443	211.00	1467	310.00	82
67.00	219	142.00	1578	212.00	133	314.00	559
69.00	111277	143.00	1025	215.00	363	315.00	1131
70.00	458	144.00	314	217.00	8038	316.00	721
71.00	150	145.00	374	218.00	885	321.00	361
73.00	892	146.00	944	221.00	8006	323.00	4343
74.00	8177	147.00	2284	223.00	2099	324.00	783
75.00	13079	148.00	5308	224.00	16837	327.00	701
76.00	4505	149.00	989	225.00	4056	328.00	335
77.00	92402	150.00	147	226.00	91	332.00	202
78.00	6635	151.00	657	227.00	7111	333.00	304
79.00	5784	153.00	1367	228.00	1038	334.00	2830
80.00	4536	154.00	1314	229.00	1441	335.00	606

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8223.d

Date : 16-OCT-98 19:00:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT289A

Operator: BNA2

304799

Column phase: DB-5

Column diameter: 0.25

Data File: s8223.d
Spectrum: Scan 235 (6.758 min) of s8223.d (Averaged)
Location of Maximum: 198.00
Number of points: 260

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	6492	155.00	2421	230.00	158	341.00	466
82.00	1703	156.00	3626	231.00	642	346.00	778
83.00	1769	157.00	768	232.00	72	352.00	1257
84.00	161	158.00	979	233.00	71	353.00	845
85.00	1085	159.00	589	234.00	404	354.00	1236
86.00	2040	160.00	1438	235.00	631	355.00	104
87.00	798	161.00	2194	236.00	383	365.00	5548
88.00	208	162.00	612	237.00	445	366.00	677
91.00	1521	163.00	254	239.00	282	371.00	369
92.00	1791	164.00	157	240.00	369	372.00	2307
93.00	10869	165.00	1635	241.00	490	373.00	569
94.00	638	166.00	1506	242.00	923	383.00	534
95.00	337	167.00	9221	244.00	16628	390.00	225
96.00	496	168.00	3612	245.00	2346	391.00	76
97.00	199	169.00	694	246.00	2446	392.00	68
98.00	7415	170.00	279	247.00	509	402.00	978
99.00	6287	171.00	528	248.00	69	403.00	1335
100.00	579	172.00	874	249.00	601	404.00	482
101.00	3271	173.00	1109	251.00	80	421.00	1032
102.00	93	174.00	1751	252.00	77	422.00	456
103.00	1187	175.00	3270	253.00	348	423.00	7986
104.00	2373	176.00	1180	255.00	84261	424.00	1602
105.00	2059	177.00	1441	256.00	12168	425.00	78
107.00	28392	179.00	6744	257.00	918	441.00	21226
108.00	3917	180.00	4401	258.00	4825	442.00	170144
110.00	62781	181.00	2103	259.00	736	443.00	32829
111.00	8338	182.00	246	261.00	69	444.00	2782
112.00	1026	183.00	123	264.00	77		
113.00	382	184.00	348	265.00	1797		
115.00	69	185.00	2812	266.00	437		
116.00	911	186.00	23214	268.00	72		

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8223.d

Date : 16-OCT-98 19:00:00

Client ID:

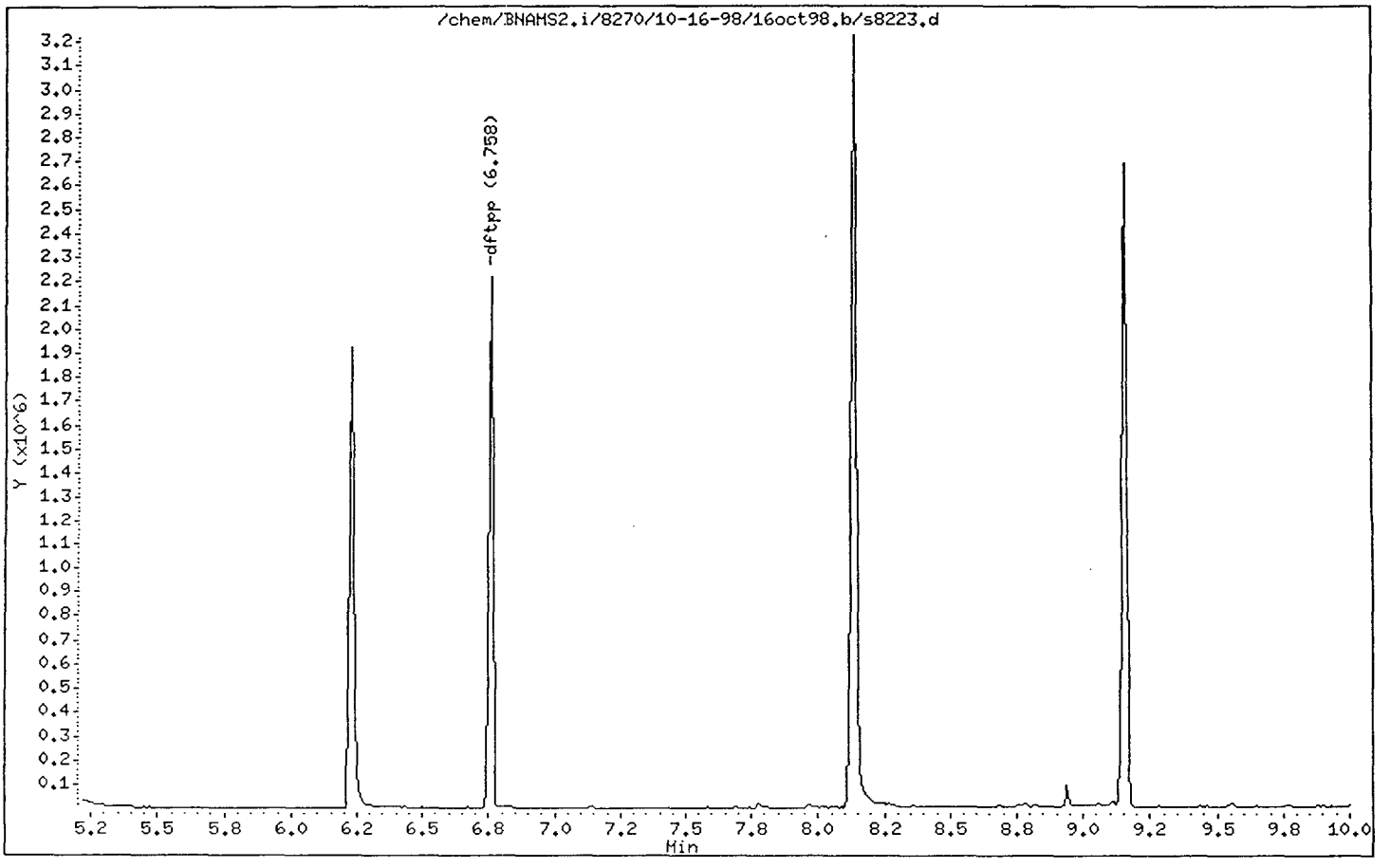
Instrument: BNAMS2.i

Sample Info: SDFT289A

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



304800

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: S8321 DFTPP Injection Date: 10/21/98

Instrument ID: BNAMS2 DFTPP Injection Time: 1008

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	52.4
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	49.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 30.0% of mass 198	20.0
365	Greater than 1.0% of mass 198	2.67
441	0.0 - 100.0% of mass 443	12.7 (79.5)2
442	40.0 - 110.0% of mass 198	80.2
443	17.0 - 23.0% of mass 442	15.9 (19.8)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

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

	CLIENT ID	LAB SAMPLE No.	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD294	SSTD294	S8322	10/21/98	1031
02	SSFS-2_0-0.5	88677	S8328	10/21/98	1500
03	SSFS-2_0-0.5	88677R1	S8330	10/21/98	1629
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

304801

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8321.d

Date : 21-OCT-98 10:08:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT294

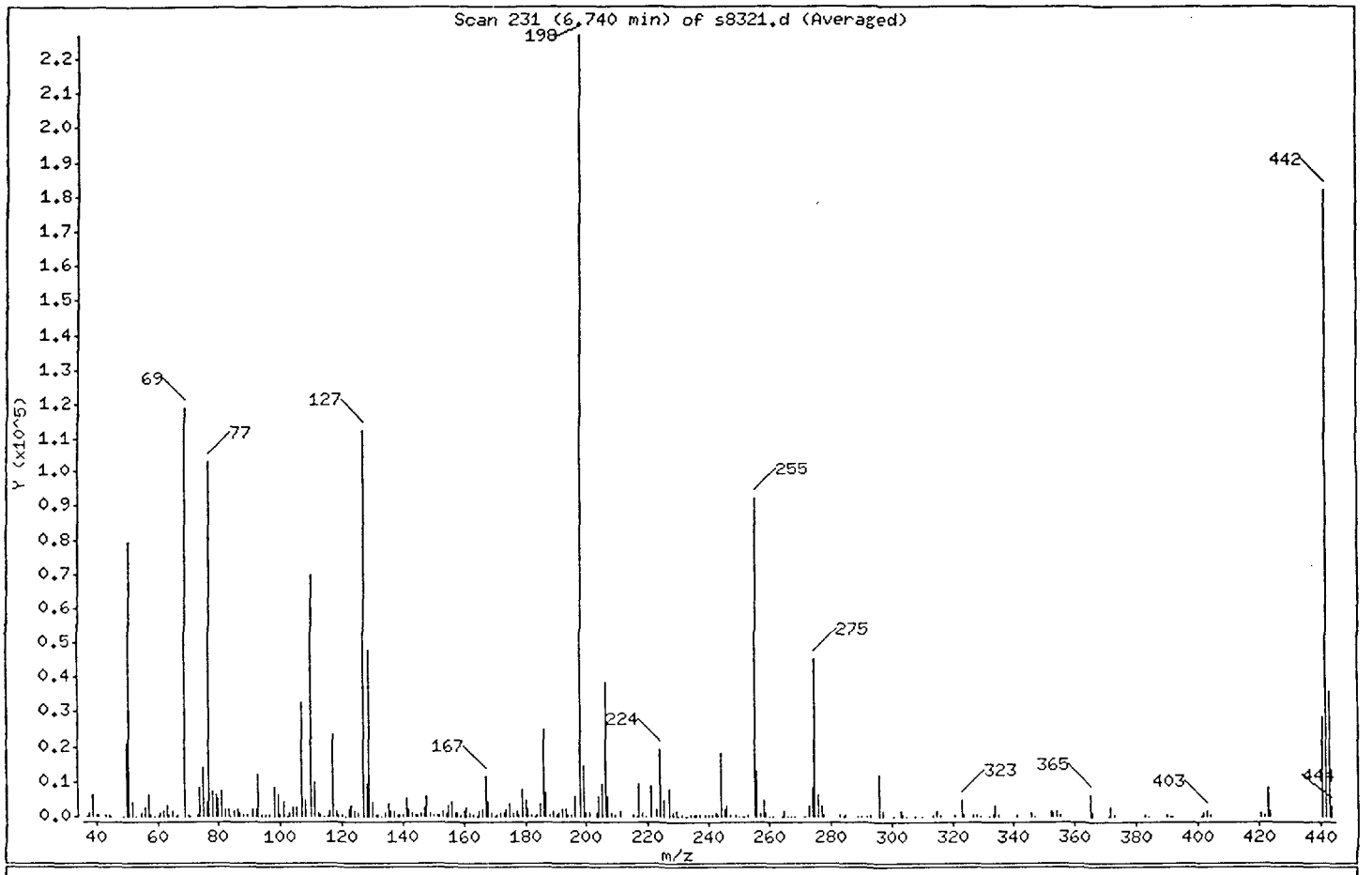
Operator: BNA2

304802

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.96
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	52.42
70	Less than 2.00% of mass 69	0.24 (0.46)
127	40.00 - 60.00% of mass 198	49.56
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.42
275	10.00 - 30.00% of mass 198	19.99
365	Greater than 1.00% of mass 198	2.67
441	0.01 - 100.00% of mass 443	12.65 (79.53)
442	40.00 - 110.00% of mass 198	80.23
443	17.00 - 23.00% of mass 442	15.91 (19.83)

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8321.d

Date : 21-OCT-98 10:08:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT294

304803

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: s8321.d
Spectrum: Scan 232 (6.740 min) of s8321.d (Averaged)
Location of Maximum: 198.00
Number of points: 271

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	176	116.00	1594	185.00	3393	267.00	85
38.00	968	117.00	23402	186.00	25232	268.00	76
39.00	6142	118.00	1544	187.00	6720	271.00	75
40.00	689	119.00	272	188.00	718	272.00	116
41.00	730	120.00	499	189.00	1581	273.00	2999
43.00	374	121.00	111	190.00	301	274.00	8363
44.00	573	122.00	1874	191.00	792	275.00	45354
45.00	137	123.00	3029	192.00	2073	276.00	6039
49.00	164	124.00	1583	193.00	2269	277.00	3240
50.00	20851	125.00	1186	194.00	419	278.00	493
51.00	79293	127.00	112424	195.00	350	283.00	410
52.00	4144	128.00	9420	196.00	5577	284.00	210
53.00	218	129.00	48130	198.00	226837	285.00	624
55.00	890	130.00	4319	199.00	14573	289.00	72
56.00	2617	131.00	759	200.00	1045	290.00	79
57.00	6400	132.00	428	201.00	998	292.00	79
58.00	261	133.00	213	203.00	1207	293.00	741
59.00	82	134.00	1219	204.00	5559	296.00	11996
60.00	85	135.00	3489	205.00	9179	297.00	1519
61.00	1072	136.00	1354	206.00	38696	301.00	68
62.00	1309	137.00	1635	207.00	5479	303.00	1418
63.00	3248	138.00	410	208.00	1086	304.00	397
64.00	456	139.00	456	209.00	366	305.00	69
65.00	1621	140.00	483	211.00	1526	308.00	85
66.00	165	141.00	5290	215.00	318	310.00	71
67.00	292	142.00	1869	216.00	158	314.00	630
69.00	118901	143.00	1252	217.00	9597	315.00	1324
70.00	548	144.00	265	218.00	1192	316.00	662
71.00	236	145.00	461	219.00	92	321.00	469
73.00	562	146.00	1003	221.00	8880	323.00	4706
74.00	8573	147.00	2544	223.00	2312	324.00	704
75.00	14214	148.00	5968	224.00	19503	327.00	672
76.00	3955	149.00	1229	225.00	4717	328.00	418
77.00	103002	150.00	442	227.00	8048	329.00	67
78.00	7154	151.00	779	228.00	1206	332.00	224

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8321.d

Date : 21-OCT-98 10:08:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT294

304804

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: s8321.d

Spectrum: Scan 232 (6.740 min) of s8321.d (Averaged)

Location of Maximum: 198.00

Number of points: 271

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	6422	152.00	540	229.00	1748	333.00	264
80.00	5126	153.00	1578	230.00	238	334.00	2992
81.00	7430	154.00	1247	231.00	757	335.00	715
82.00	2024	155.00	2945	232.00	67	341.00	413
83.00	2014	156.00	4130	233.00	94	346.00	939
84.00	218	157.00	972	234.00	547	347.00	68
85.00	1387	158.00	856	235.00	595	352.00	1340
86.00	1932	159.00	538	236.00	450	353.00	813
87.00	1063	160.00	1587	237.00	493	354.00	1406
88.00	358	161.00	2505	239.00	488	355.00	289
89.00	301	162.00	794	240.00	346	365.00	6060
91.00	1886	163.00	354	241.00	524	366.00	798
92.00	2009	164.00	257	242.00	1177	371.00	147
93.00	11926	165.00	1822	243.00	523	372.00	2537
94.00	777	166.00	1832	244.00	18129	373.00	540
95.00	642	167.00	11607	245.00	2314	383.00	630
96.00	579	168.00	4352	246.00	3122	384.00	92
98.00	8249	169.00	868	247.00	623	390.00	346
99.00	6494	170.00	220	249.00	525	391.00	93
100.00	735	171.00	459	250.00	73	392.00	144
101.00	4258	172.00	793	251.00	94	401.00	131
102.00	204	173.00	1172	252.00	75	402.00	1026
103.00	1270	174.00	2077	253.00	308	403.00	1357
104.00	2690	175.00	3649	255.00	92552	404.00	444
105.00	2384	176.00	1268	256.00	13187	421.00	1086
107.00	32661	177.00	1775	257.00	1064	422.00	514
108.00	4656	178.00	348	258.00	4641	423.00	8213
110.00	69666	179.00	7635	259.00	783	424.00	1689
111.00	10026	180.00	4701	260.00	67	441.00	28706
112.00	963	181.00	2160	261.00	87	442.00	181992
113.00	404	182.00	357	264.00	117	443.00	36096
114.00	98	183.00	163	265.00	1667	444.00	3241
115.00	82	184.00	574	266.00	229		

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8321.d

Date : 21-OCT-98 10:08:00

Client ID:

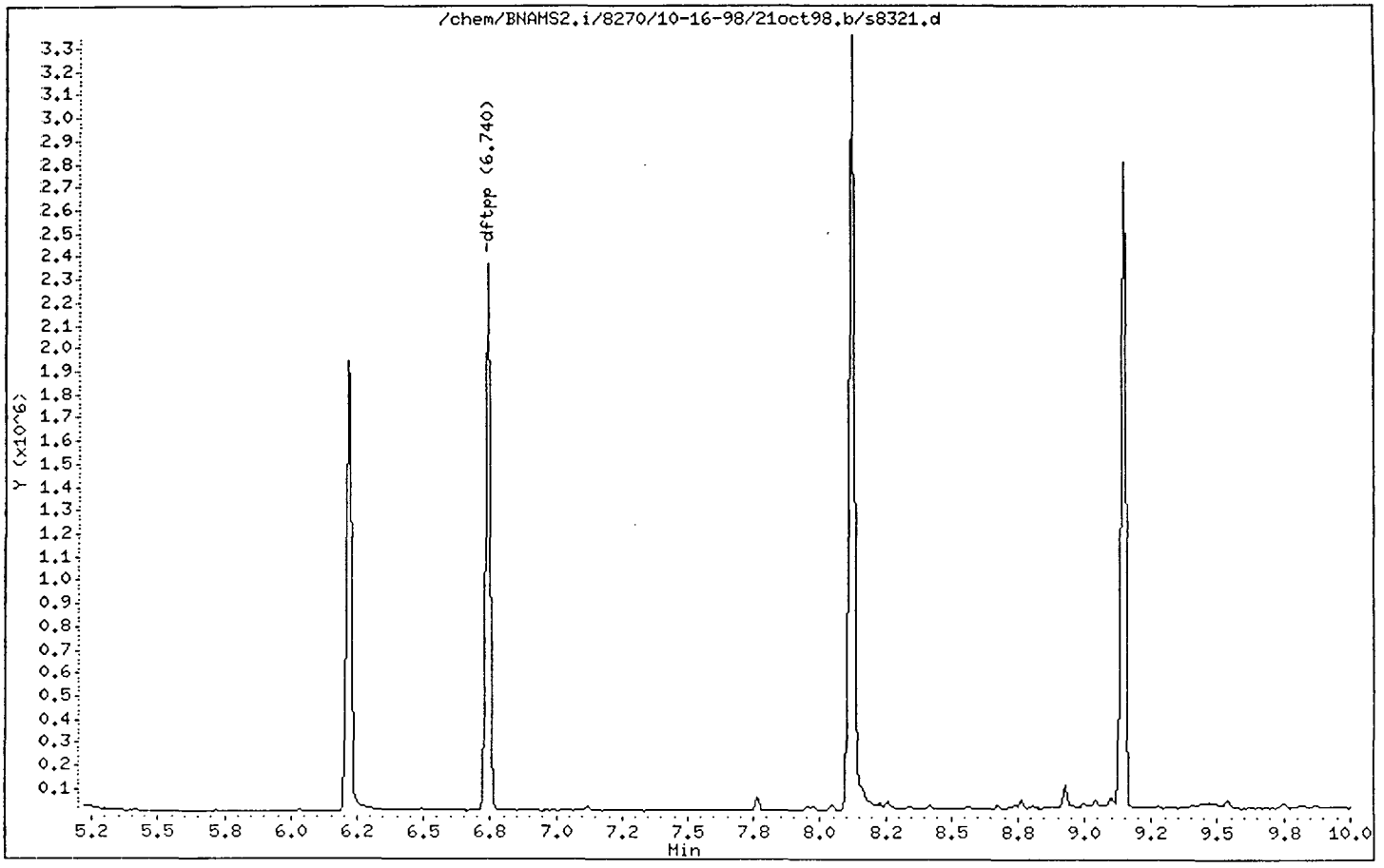
Instrument: BNAMS2.i

Sample Info: SDFT294

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25



304805

LAB SAMPLE NO.

AV293

VOLATILE METHOD BLANK SUMMARY

Matrix: SOIL

Date Analyzed: 10/20/98

Level: HIGH

Time Analyzed: 1258

Lab File ID: A6472

Heated Purge (Y/N) N

Instrument ID: VOAMS1

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	SSSP-1_4-4.5	88666	A6484	2050
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
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14				
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29				
30				

COMMENTS:

304806

Client ID: **AV293**
Site:

Lab Sample No: **AV293**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6472.d

Matrix: SOIL
Level: HIGH
Sample Weight: 5.0 g
Methanol Ext. Volume: 10.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	500
Bromomethane	ND	500
Vinyl Chloride	ND	500
Chloroethane	ND	500
Methylene Chloride	110 J	300
Acetone	580	500
Carbon Disulfide	ND	500
Trichlorofluoromethane	ND	500
1,1-Dichloroethene	ND	200
1,1-Dichloroethane	ND	500
trans-1,2-Dichloroethene	ND	500
cis-1,2-Dichloroethene	ND	500
Chloroform	ND	500
1,2-Dichloroethane	ND	200
2-Butanone	ND	500
1,1,1-Trichloroethane	ND	500
Carbon Tetrachloride	ND	200
Bromodichloromethane	ND	100
1,2-Dichloropropane	ND	100
cis-1,3-Dichloropropene	ND	500
Trichloroethene	ND	100
Dibromochloromethane	ND	500
1,1,2-Trichloroethane	ND	300
Benzene	ND	100
trans-1,3-Dichloropropene	ND	500
2-Chloroethyl Vinyl Ether	ND	500
Bromoform	ND	400
4-Methyl-2-Pentanone	ND	500
2-Hexanone	ND	500
Tetrachloroethene	ND	100
1,1,2,2-Tetrachloroethane	ND	100
Toluene	ND	500
Chlorobenzene	ND	500
Ethylbenzene	ND	400

304807

Client ID: **AV293**
Site:

Lab Sample No: **AV293**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6472.d

Matrix: SOIL
Level: HIGH
Sample Weight: 5.0 g
Methanol Ext. Volume: 10.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0

VOLATILE ORGANICS - GC/MS (cont'd)
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Styrene	ND	500
Xylene (Total)	ND	500
Ethyl Ether	ND	500
Acrolein	ND	10000
Freon TF	ND	500
Isopropanol	ND	50000
Acetonitrile	ND	10000
TBA	ND	10000
Acrylonitrile	ND	5000
MTBE	ND	500
Hexane	ND	100
DIPE	ND	500
Ethyl Acetate	ND	1000
Vinyl Acetate	ND	500
Tetrahydrofuran	ND	100
Cyclohexane	ND	500
Isobutanol	ND	50000
Isopropyl Acetate	ND	1000
n-Heptane	ND	100
n-Butanol	ND	50000
Propyl Acetate	ND	1000
Butyl Acetate	ND	1000
1,2-Dibromoethane	ND	500
1,3-Dichlorobenzene	ND	500
1,4-Dichlorobenzene	ND	500
1,2-Dichlorobenzene	ND	500
Naphthalene	ND	500
Methylnaphthalene (total)	ND	500
Dimethylnaphthalene (total)	ND	500
Dichlorodifluoromethane	ND	500
1,1-Dichloropropene	ND	500
1,2,4-Trichlorobenzene	ND	500
Hexachlorobutadiene	ND	500
1,4-Dioxane	ND	100000

304808

Client ID: **AV293**
Site:

Lab Sample No: **AV293**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6472.d

Matrix: SOIL
Level: HIGH
Sample Weight: 5.0 g
Methanol Ext. Volume: 10.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0

VOLATILE ORGANICS - GC/MS (cont'd)
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Methyl Acrylate	ND	100
1,1,1,2-Tetrachloroethane	ND	500
1,2,3-Trichlorobenzene	ND	500
1,2,3-Trichloropropane	ND	500
1,2,4-Trimethylbenzene	ND	500
1,2-Dibromo-3-chloropropane	ND	500
1,3,5-Trimethylbenzene	ND	500
1,3-Dichloropropane	ND	500
2,2-Dichloropropane	ND	500
2-Chlorotoluene	ND	500
4-Chlorotoluene	ND	500
Bromobenzene	ND	500
Bromochloromethane	ND	500
Dibromomethane	ND	500
Isopropylbenzene	ND	500
n-Butylbenzene	ND	500
n-Propylbenzene	ND	500
p-Isopropyltoluene	ND	500
sec-Butylbenzene	ND	500
tert-Butylbenzene	ND	500
Allyl chloride	ND	500
Benzyl chloride	ND	500
Epichlorohydrin	ND	10000
Isoprene	ND	500
Methyl methacrylate	ND	500
n-Pentane	ND	500
Allyl alcohol	ND	100000
Amyl Acetate	ND	1000

304809

Client ID: **AV293**
Site:

Lab Sample No: **AV293**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6472.d

Matrix: SOIL
Level: HIGH
Sample Weight: 5.0 g
Methanol Ext. Volume: 10.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0.0

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
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21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 0.0

304810

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6472.d
Report Date: 21-Oct-98 11:53:47

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6472.d
Lab Smp Id: AV293
Inj Date : 20-OCT-98 12:58:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : AV293
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/new8260HIGH.m
Meth Date : 21-Oct-98 10:24:31 dave Quant Type: ISTD
Cal Date : 07-OCT-98 09:00:00 Cal File: a6192.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
7 Acetone	43	6.584	6.497	(0.623)	35601	5.8	580(H)
6 Methylene Chloride	84	7.190	7.152	(0.680)	30622	1.1	110(a)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.130	10.087	(0.959)	1349660	49	4900
* 19 Fluorobenzene	96	10.573	10.530	(1.000)	3574257	50	
$ 37 Toluene-d8 (SUR)	98	12.479	12.436	(0.880)	3212664	50	5000
* 32 Chlorobenzene-d5	117	14.178	14.135	(1.000)	2931694	50	
$ 41 Bromofluorobenzene (SUR)	174	15.463	15.405	(0.924)	1631403	46	4600
* 91 1,4-Dichlorobenzene-d4	152	16.733	16.676	(1.000)	1608637	50	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

304811

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6472.d
Date : 20-OCT-98 12:58:00
Client ID:
Sample Info: AV293

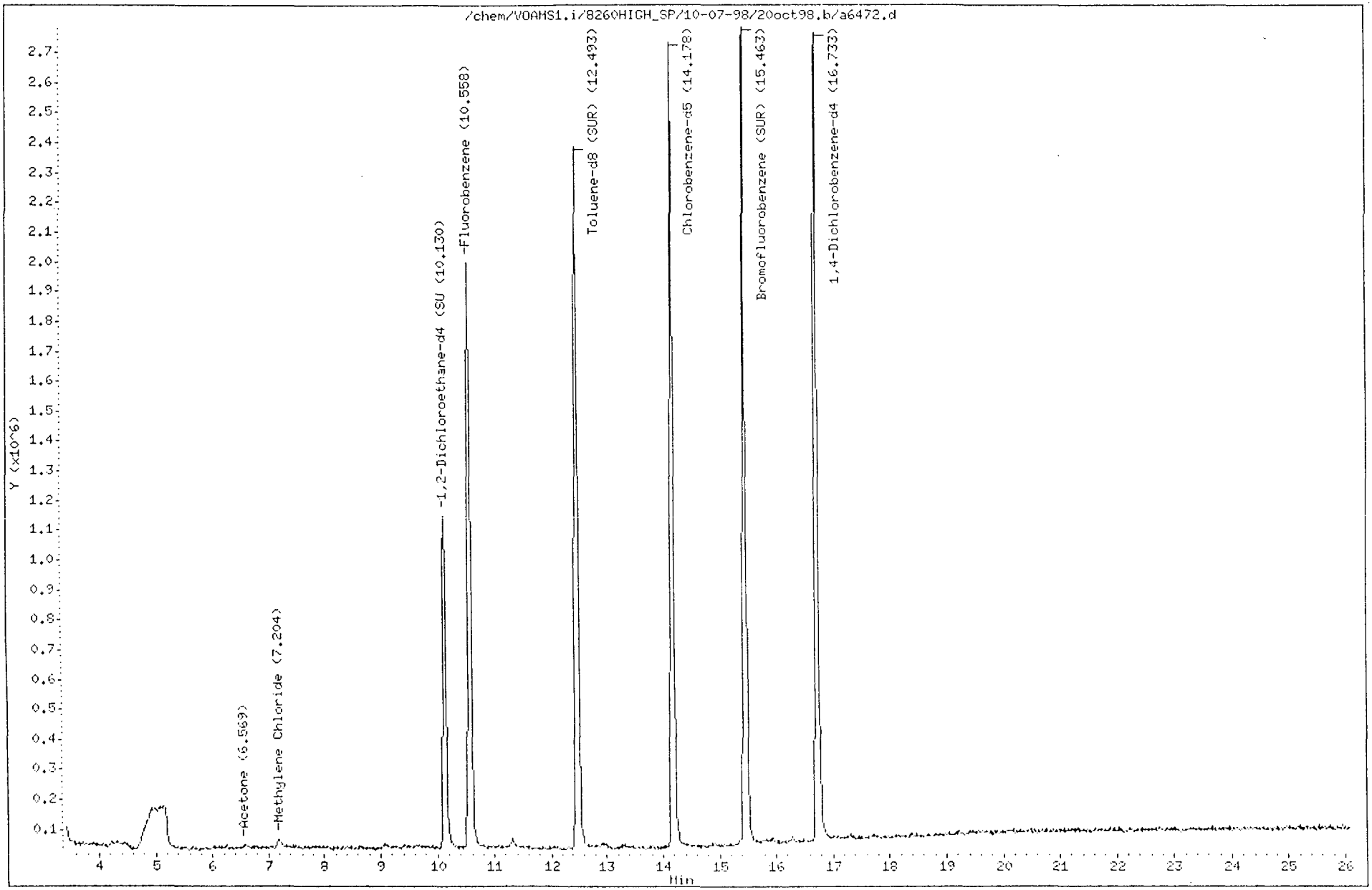
Instrument: VOAMS1.i

Operator: VOAMS 3

304812

Column phase: DB624

Column diameter: 0.53



Data File: /chem/VOAMS1.i/826CHIGH_SP/10-07-98/20oct98.b/a6472.d

Date : 20-OCT-98 12:58:00

Client ID: Instrument: VOAMS1.i

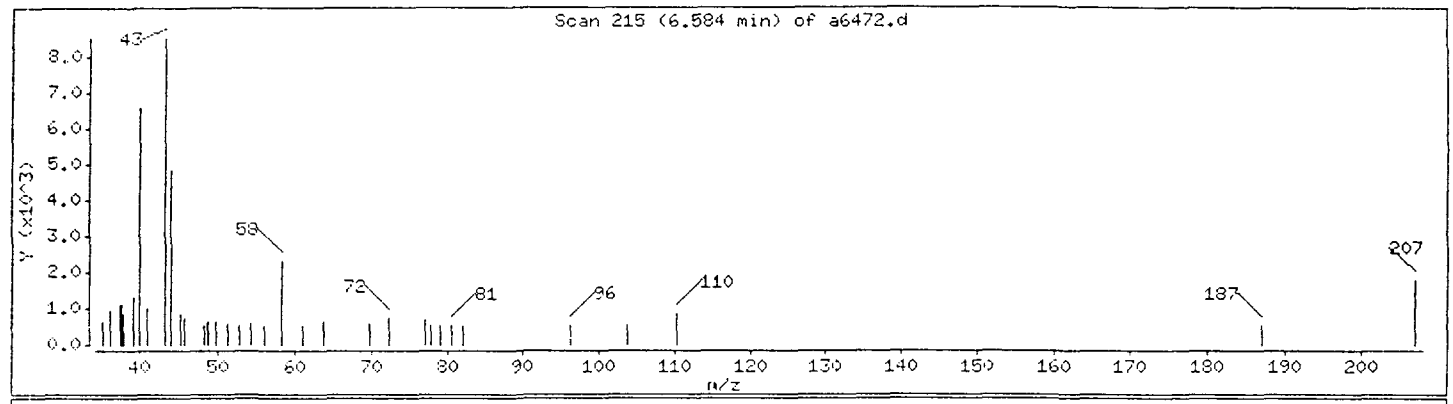
Sample Info: AW293

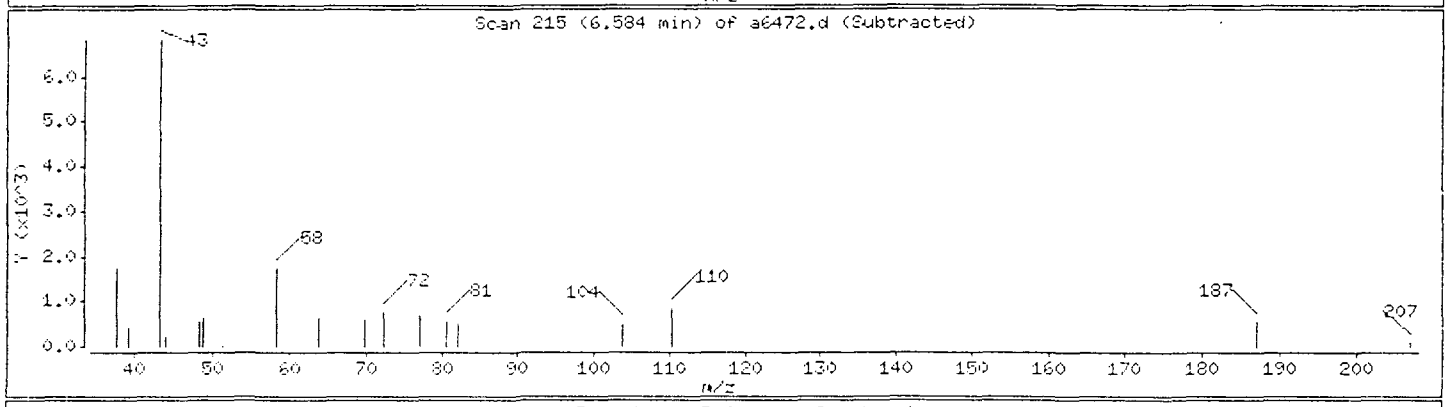
Operator: VOAMS 3

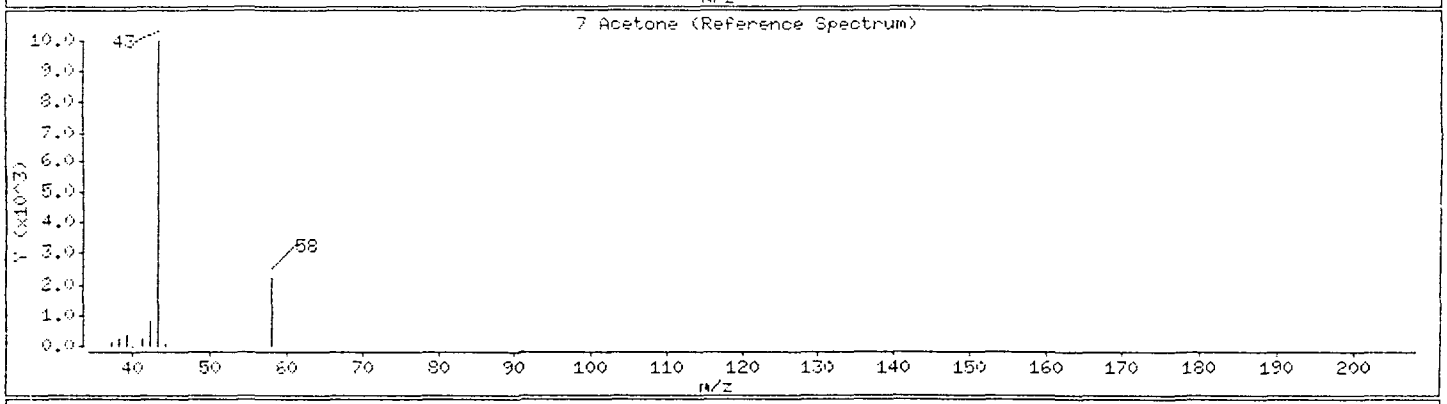
Column phase: DB624 Column diameter: 0.53

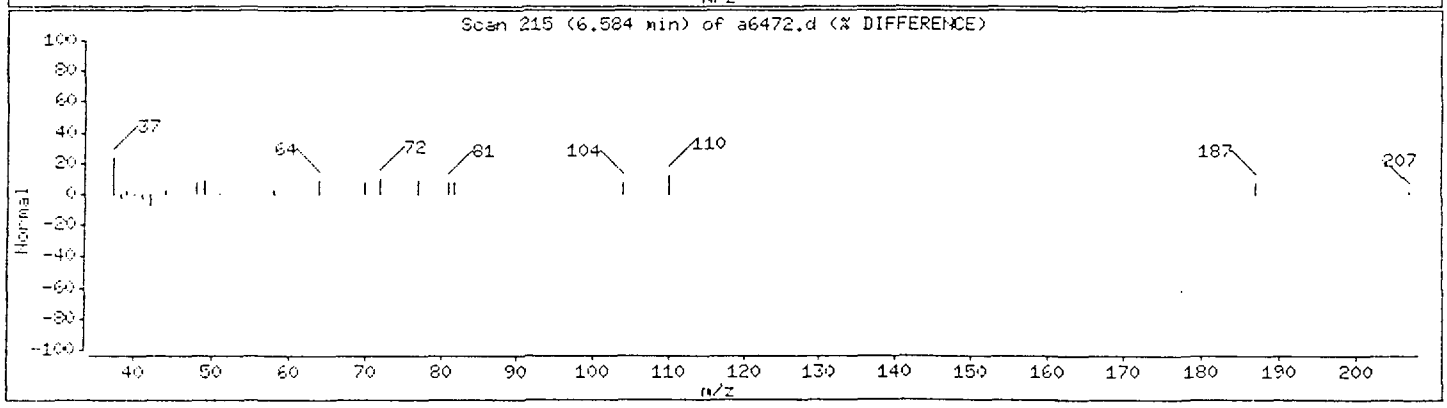
304813

7 Acetone









Data File: /chem/VOAMS1.i/826CHIGH_SP/10-07-98/20oct98.b/a6472.d

Date : 20-OCT-98 12:58:00

Client ID:

Instrument: VOAMS1.i

Sample Info: AW293

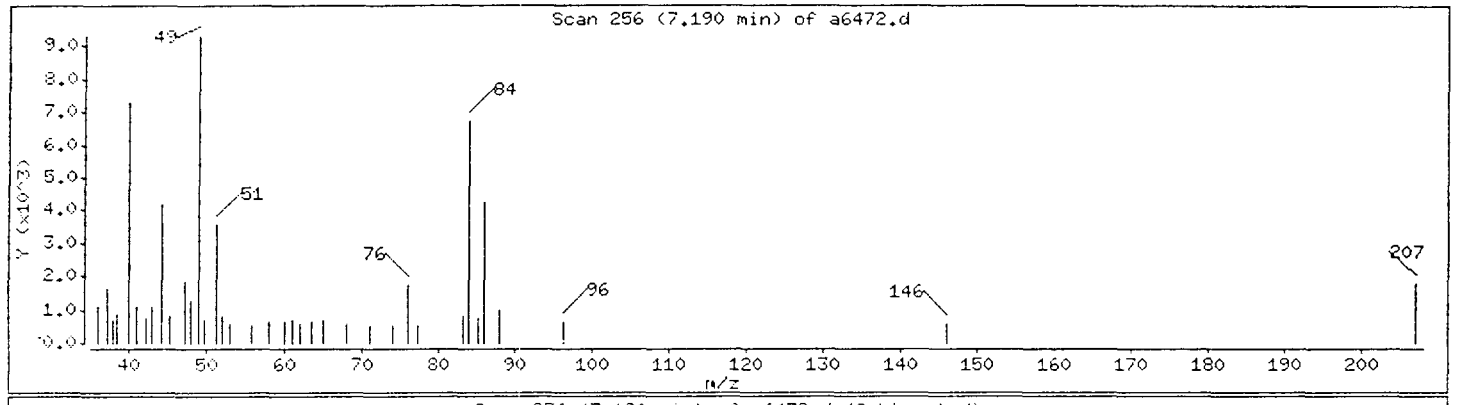
Operator: VOAMS 3

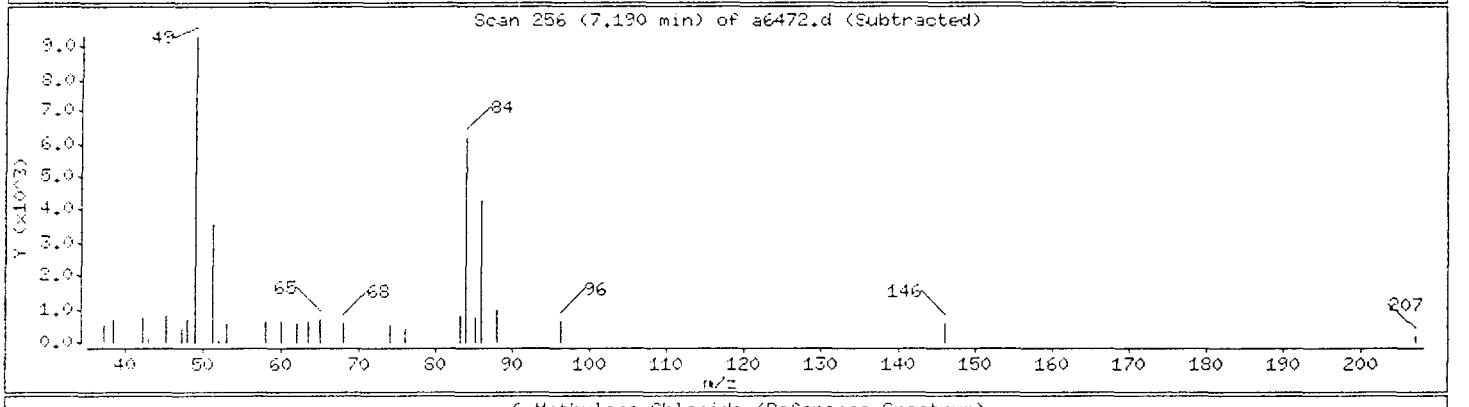
Column phase: DB624

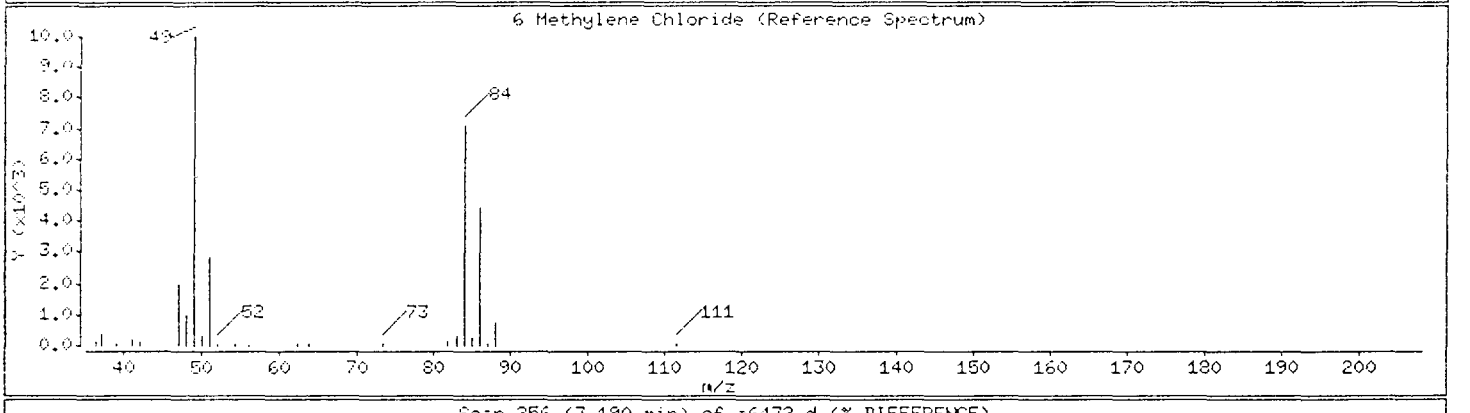
Column diameter: 0.53

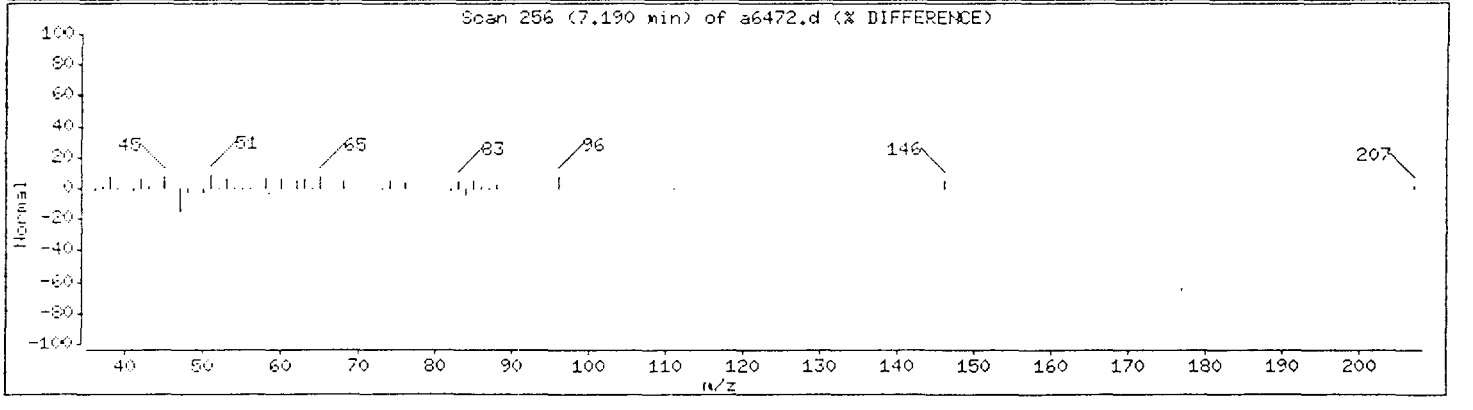
304814

6 Methylene Chloride









LAB SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

CV292

Matrix: WATER

Date Analyzed: 10/19/98

Level: LOW

Time Analyzed: 1239

Lab File ID: C2234

Heated Purge (Y/N) N

Instrument ID: VOAMS3

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	FB-2	88663	C2236	1357
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
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COMMENTS:

304815

Client ID: **CV292**
Site:

Lab Sample No: **CV292**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c2234.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 8260

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	3.0
Acetone	ND	5.0
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	2.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
1,2-Dichloroethane	ND	2.0
2-Butanone	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	1.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	3.0
Benzene	ND	1.0
trans-1,3-Dichloropropene	ND	5.0
2-Chloroethyl Vinyl Ether	ND	5.0
Bromoform	ND	4.0
4-Methyl-2-Pentanone	ND	5.0
2-Hexanone	ND	5.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	4.0

304816

Client ID: **CV292**
Site:

Lab Sample No: **CV292**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c2234.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS (cont'd)
METHOD 8260

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Styrene	ND	5.0
Xylene (Total)	ND	5.0
Ethyl Ether	ND	5.0
Acrolein	ND	100
Freon TF	ND	5.0
Isopropanol	ND	500
Acetonitrile	ND	100
TBA	ND	100
Acrylonitrile	ND	50
MTBE	ND	5.0
Hexane	ND	1.0
DIPE	ND	5.0
Ethyl Acetate	ND	10
Vinyl Acetate	ND	5.0
Tetrahydrofuran	ND	1.0
Cyclohexane	ND	5.0
Isobutanol	ND	500
Isopropyl Acetate	ND	10
n-Heptane	ND	1.0
n-Butanol	ND	500
Propyl Acetate	ND	10
Butyl Acetate	ND	10
1,2-Dibromoethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
Naphthalene	ND	5.0
Methylnaphthalene (total)	ND	5.0
Dimethylnaphthalene (total)	ND	5.0
Dichlorodifluoromethane	ND	1.0
1,1-Dichloropropene	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
1,4-Dioxane	ND	1000

304817

Client ID: **CV292**
Site:

Lab Sample No: **CV292**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c2234.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS (cont'd)
METHOD 8260

Parameter	Analytical Result Units: ug/l	Quantitation Limit Units: ug/l
Methyl Acrylate	ND	1.0
1,1,1,2-Tetrachloroethane	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0
1,2,3-Trichloropropane	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
1,2-Dibromo-3-chloropropane	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
1,3-Dichloropropane	ND	5.0
2,2-Dichloropropane	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
Bromobenzene	ND	5.0
Bromochloromethane	ND	5.0
Dibromomethane	ND	5.0
Isopropylbenzene	ND	5.0
n-Butylbenzene	ND	5.0
n-Propylbenzene	ND	5.0
p-Isopropyltoluene	ND	5.0
sec-Butylbenzene	ND	5.0
tert-Butylbenzene	ND	5.0
Allyl chloride	ND	5.0
Benzyl chloride	ND	5.0
Epichlorohydrin	ND	100
Isoprene	ND	5.0
Methyl methacrylate	ND	5.0
n-Pentane	ND	5.0
Allyl alcohol	ND	1000
Amyl Acetate	ND	10

304818

Client ID: **CV292**
Site:

Lab Sample No: **CV292**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAMS3.i
Lab File ID: c2234.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/l	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
3.			
4.			
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TOTAL ESTIMATED CONCENTRATION 0.0

304819

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2234.d
Report Date: 19-Oct-98 13:19:26

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2234.d
Lab Smp Id: CV292 Client Smp ID: CV292
Inj Date : 19-OCT-98 12:39:00
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : CV292
Misc Info :
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/new8260HIGH.m
Meth Date : 19-Oct-98 12:05:49 Quant Type: ISTD
Cal Date : 17-OCT-98 14:01:00 Cal File: c2202.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: 5/Vo

Name	Value	Description
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	9.562	9.533	(0.955)	1847265	44	44
* 19 Fluorobenzene	96	10.009	9.980	(1.000)	6055980	50	
$ 37 Toluene-d8 (SUR)	98	11.954	11.924	(0.874)	5236286	46	46
* 32 Chlorobenzene-d5	117	13.682	13.653	(1.000)	4278656	50	
$ 41 Bromofluorobenzene (SUR)	174	14.979	14.935	(0.923)	1862253	46	46
* 91 1,4-Dichlorobenzene-d4	152	16.232	16.189	(1.000)	2041264	50	

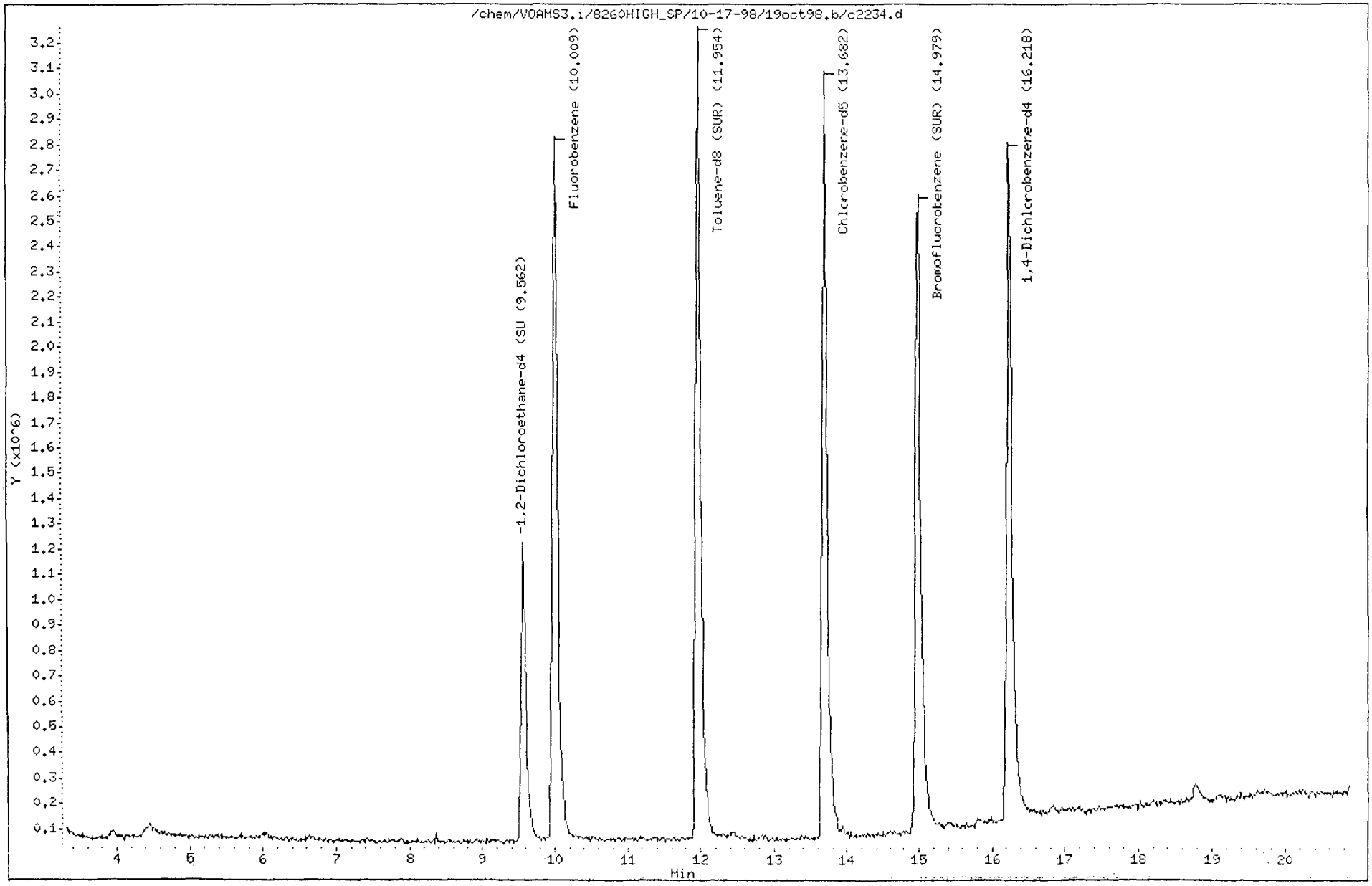
304820

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2234.d
Date : 19-OCT-98 12:39:00
Client ID: CV292
Sample Info: CV292
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS3.i

Operator: VOAMS 3
Column diameter: 0.53

304821



LAB SAMPLE NO.

EV288B

VOLATILE METHOD BLANK SUMMARY

Matrix: SOIL

Date Analyzed: 10/15/98

Level: HIGH

Time Analyzed: 1530

Lab File ID: E4653

Heated Purge (Y/N) N

Instrument ID: VOAMS5

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	TRIP_BLANK	88662	E4657	1720
02	SSGT-2_7-7.5	88684	E4658	1747
03	SSGT-1_7-7.5	88685	E4659	1814
04	SSGT-3_7-7.5	88686	E4660	1842
05				
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COMMENTS:

304822

Client ID: **EV288B**
Site:

Lab Sample No: **EV288B**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4653.d

Matrix: SOIL
Level: HIGH
Sample Weight: 5.0 g
Methanol Ext. Volume: 10.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0

VOLATILE ORGANICS - GC/MS
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Chloromethane	ND	500
Bromomethane	ND	500
Vinyl Chloride	ND	500
Chloroethane	ND	500
Methylene Chloride	ND	300
Acetone	ND	500
Carbon Disulfide	ND	500
Trichlorofluoromethane	ND	500
1,1-Dichloroethene	ND	200
1,1-Dichloroethane	ND	500
trans-1,2-Dichloroethene	ND	500
cis-1,2-Dichloroethene	ND	500
Chloroform	ND	500
1,2-Dichloroethane	ND	200
2-Butanone	ND	500
1,1,1-Trichloroethane	ND	500
Carbon Tetrachloride	ND	200
Bromodichloromethane	ND	100
1,2-Dichloropropane	ND	100
cis-1,3-Dichloropropene	ND	500
Trichloroethene	ND	100
Dibromochloromethane	ND	500
1,1,2-Trichloroethane	ND	300
Benzene	ND	100
trans-1,3-Dichloropropene	ND	500
2-Chloroethyl Vinyl Ether	ND	500
Bromoform	ND	400
4-Methyl-2-Pentanone	ND	500
2-Hexanone	ND	500
Tetrachloroethene	ND	100
1,1,2,2-Tetrachloroethane	ND	100
Toluene	ND	500
Chlorobenzene	ND	500
Ethylbenzene	ND	400

Client ID: **EV288B**
Site:

Lab Sample No: **EV288B**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4653.d

Matrix: SOIL
Level: HIGH
Sample Weight: 5.0 g
Methanol Ext. Volume: 10.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0

VOLATILE ORGANICS - GC/MS (cont'd)
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Styrene	ND	500
Xylene (Total)	ND	500
Ethyl Ether	ND	500
Acrolein	ND	10000
Freon TF	ND	500
Isopropanol	ND	50000
Acetonitrile	ND	10000
TBA	ND	10000
Acrylonitrile	ND	5000
MTBE	ND	500
Hexane	ND	100
DIPE	ND	500
Ethyl Acetate	ND	1000
Vinyl Acetate	ND	500
Tetrahydrofuran	ND	100
Cyclohexane	ND	500
Isobutanol	ND	50000
Isopropyl Acetate	ND	1000
n-Heptane	ND	100
n-Butanol	ND	50000
Propyl Acetate	ND	1000
Butyl Acetate	ND	1000
1,2-Dibromoethane	ND	500
1,3-Dichlorobenzene	ND	500
1,4-Dichlorobenzene	ND	500
1,2-Dichlorobenzene	ND	500
Naphthalene	ND	500
Methylnaphthalene (total)	ND	500
Dimethylnaphthalene (total)	ND	500
Dichlorodifluoromethane	ND	500
1,1-Dichloropropene	ND	500
1,2,4-Trichlorobenzene	ND	500
Hexachlorobutadiene	ND	500
1,4-Dioxane	ND	100000

Client ID: **EV288B**
Site:

Lab Sample No: **EV288B**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4653.d

Matrix: SOIL
Level: HIGH
Sample Weight: 5.0 g
Methanol Ext. Volume: 10.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0

VOLATILE ORGANICS - GC/MS (cont'd)
METHOD 8260B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Methyl Acrylate	ND	100
1,1,1,2-Tetrachloroethane	ND	500
1,2,3-Trichlorobenzene	ND	500
1,2,3-Trichloropropane	ND	500
1,2,4-Trimethylbenzene	ND	500
1,2-Dibromo-3-chloropropane	ND	500
1,3,5-Trimethylbenzene	ND	500
1,3-Dichloropropane	ND	500
2,2-Dichloropropane	ND	500
2-Chlorotoluene	ND	500
4-Chlorotoluene	ND	500
Bromobenzene	ND	500
Bromochloromethane	ND	500
Dibromomethane	ND	500
Isopropylbenzene	ND	500
n-Butylbenzene	ND	500
n-Propylbenzene	ND	500
p-Isopropyltoluene	ND	500
sec-Butylbenzene	ND	500
tert-Butylbenzene	ND	500
Allyl chloride	ND	500
Benzyl chloride	ND	500
Epichlorohydrin	ND	10000
Isoprene	ND	500
Methyl methacrylate	ND	500
n-Pentane	ND	500
Allyl alcohol	ND	100000
Amyl Acetate	ND	1000

304825

Client ID: **EV288B**
Site:

Lab Sample No: **EV288B**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4653.d

Matrix: SOIL
Level: HIGH
Sample Weight: 5.0 g
Methanol Ext. Volume: 10.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0.0

VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8260B

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. NO VOLATILE ORGANIC COMPOUNDS FOUND			
2.			
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TOTAL ESTIMATED CONCENTRATION 0.0

304826

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4653.d
Report Date: 16-Oct-98 17:33:47

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4653.d
Lab Smp Id: EV288B Client Smp ID: EV288B
Inj Date : 15-OCT-98 15:30:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : EV288B
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/8260newHIGH.m
Meth Date : 16-Oct-98 08:34:26 tim Quant Type: ISTD
Cal Date : 14-OCT-98 12:21:00 Cal File: e4614.d
Als bottle: 11 QC Sample: BLANK
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.652	8.680	(0.950)	866536	50	5000
* 19 Fluorobenzene	96	9.104	9.149	(1.000)	2792896	50	
$ 37 Toluene-d8 (SUR)	98	11.083	11.117	(0.868)	2223482	47	4700
* 32 Chlorobenzene-d5	117	12.766	12.804	(1.000)	2198786	50	
$ 41 Bromofluorobenzene (SUR)	174	14.044	14.071	(0.921)	788491	57	5700
* 91 1,4-Dichlorobenzene-d4	152	15.244	15.276	(1.000)	678251	50	

304827

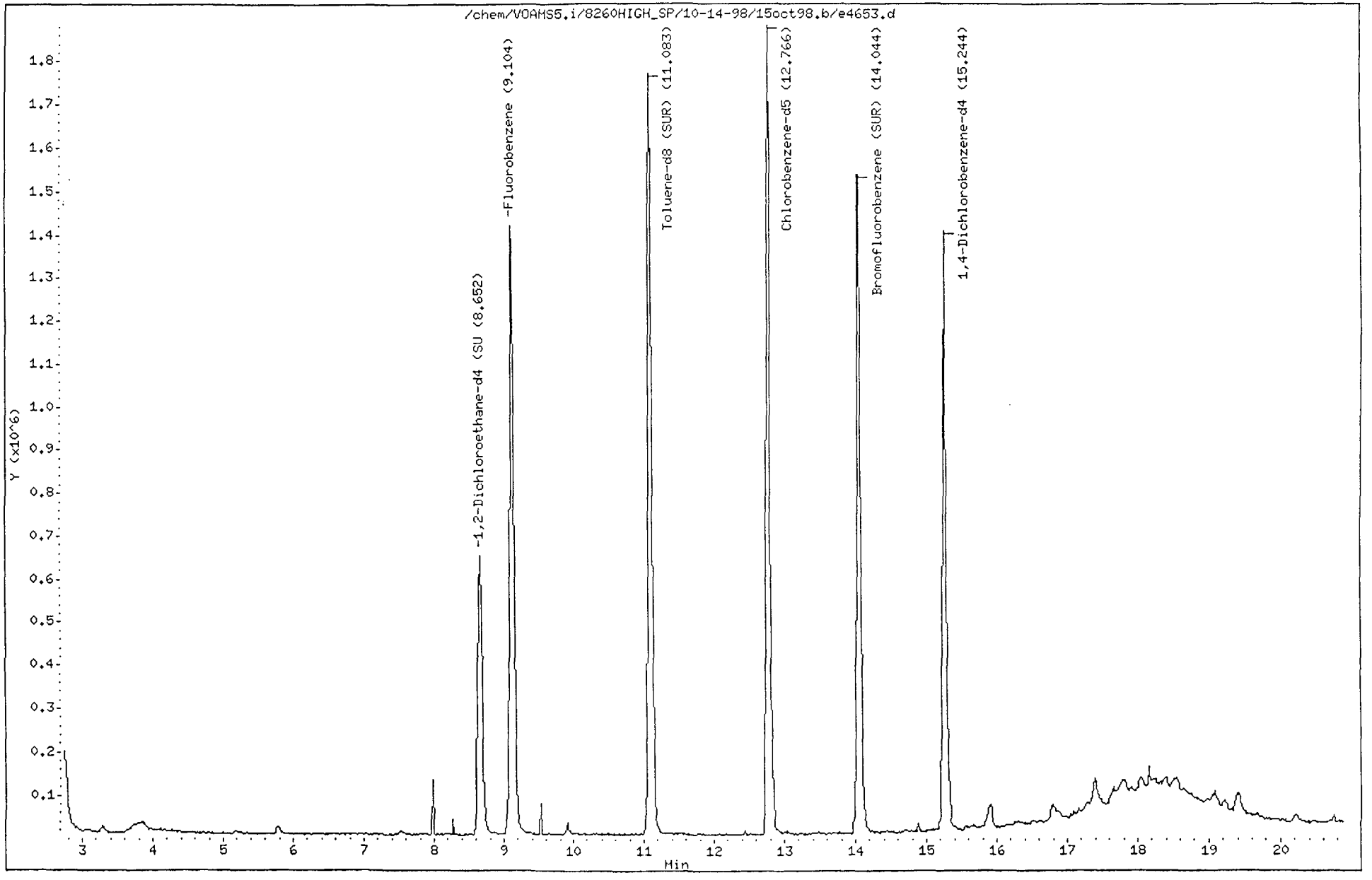
Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4653.d
Date : 15-OCT-98 15:30:00
Client ID: EV288B
Sample Info: EV288B

Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

304828



LAB SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

SB288A

Matrix: SOIL

Date Analyzed: 10/16/98

Level: LOW

Time Analyzed: 1715

Instrument ID: BNAMS2

Lab File ID: S8222

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	DATE ANALYZED
01	SSFS-2_0-0.5	88677	S8328	10/21/98
02	SSFS-2_0-0.5R1	88677R1	S8330	10/21/98
03				
04				
05				
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COMMENTS:

304829

Client ID: **SB288A**
Site:

Lab Sample No: **SB288A**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Extracted: 10/15/98
Date Analyzed: 10/16/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8222.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Phenol	ND	330
2-Chlorophenol	ND	330
2-Methylphenol	ND	330
4-Methylphenol	ND	330
2-Nitrophenol	ND	330
2,4-Dimethylphenol	ND	330
2,4-Dichlorophenol	ND	330
4-Chloro-3-methylphenol	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2,4-Dinitrophenol	ND	1300
4-Nitrophenol	ND	1300
4,6-Dinitro-2-methylphenol	ND	1300
Pentachlorophenol	ND	1300
Benzoic Acid	ND	330
N-Nitrosodimethylamine	ND	330
bis(2-Chloroethyl)ether	ND	33
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
bis(2-chloroisopropyl)ether	ND	330
N-Nitroso-di-n-propylamine	ND	33
Hexachloroethane	ND	33
Nitrobenzene	ND	33
Isophorone	ND	330
bis(2-Chloroethoxy)methane	ND	330
1,2,4-Trichlorobenzene	ND	33
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	67
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	670

304830

Client ID: **SB288A**
Site:

Lab Sample No: **SB288A**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Extracted: 10/15/98
Date Analyzed: 10/16/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8222.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	67
3-Nitroaniline	ND	670
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	67
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	670
N-Nitrosodiphenylamine	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	33
Phenanthrene	ND	330
Anthracene	ND	330
Carbazole	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Pyrene	ND	330
Benzidine	ND	1300
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	33
Chrysene	ND	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	33
Benzo(k)fluoranthene	ND	33
Benzo(a)pyrene	ND	33
Indeno(1,2,3-cd)pyrene	ND	33
Dibenz(a,h)anthracene	ND	33
Benzo(g,h,i)perylene	ND	330
Pyridine	ND	330

304831

Client ID: **SB288A**
Site:

Lab Sample No: **SB288A**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Extracted: 10/15/98
Date Analyzed: 10/16/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8222.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Aniline	ND	330
Benzyl Alcohol	ND	330
1,2-Diphenylhydrazine	ND	330
Diphenyl	ND	330
Diphenyl Ether	ND	330
Acetophenone	ND	330
1,4-Dioxane	ND	330
N,N-Dimethylaniline	ND	33

304832

Client ID: **SB288A**
Site:

Lab Sample No: **SB288A**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Extracted: 10/15/98
Date Analyzed: 10/16/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8222.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 0.0

SEMI-VOLATILE ORGANICS - GC/MS
TENTATIVELY IDENTIFIED COMPOUNDS
METHOD 8270C

COMPOUND NAME	RT	EST. CONC. ug/kg	Q
1. Unknown Aldol Condensate	8.79	2700	
2. Unknown Aldol Condensate	9.62	92000	
3. Unknown Aldol Condensate	10.42	370	
4. Unknown Aldol Condensate	11.05	5300	
5. Unknown Aldol Condensate	12.22	470	
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
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24.			
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26.			
27.			
28.			
29.			
30.			

TOTAL ESTIMATED CONCENTRATION 100840

304833

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8222.d
Report Date: 16-Oct-98 18:05:59

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8222.d
Lab Smp Id: SB288A Client Smp ID: BNA
Inj Date : 16-OCT-98 17:15:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SB288A;30;2;1;;
Misc Info : ;BNA;;;
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 10:14:54 Quant Type: ISTD
Cal Date : 28-SEP-98 16:53:00 Cal File: s7732.d
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
$ 16 2-Fluorophenol (SUR)	112	10.227	10.174	(0.807)	1425902	88	5800
$ 17 Phenol-d5 (SUR)	99	12.071	12.062	(0.953)	2026072	92	6100
* 79 1,4-Dichlorobenzene-d4	152	12.668	12.661	(1.000)	454947	40	
$ 76 Nitrobenzene-d5 (SUR)	82	13.632	13.636	(0.918)	733913	45	3000
* 80 Naphthalene-d8	136	14.851	14.849	(1.000)	1594561	40	
$ 77 2-Fluorobiphenyl (SUR)	172	16.641	16.641	(0.937)	1381736	42	2800
* 82 Acenaphthene-d10	164	17.762	17.764	(1.000)	995676	40	
$ 18 2,4,6-Tribromophenol (SUR)	330	19.074	19.068	(1.074)	583769	94	6300
* 83 Phenanthrene-d10	188	20.222	20.218	(1.000)	1486594	40	
$ 78 Terphenyl-d14 (SUR)	244	22.841	22.838	(0.929)	1403631	50	3300
* 81 Chrysene-d12	240	24.584	24.596	(1.000)	1081197	40	
* 84 Perylene-d12	264	27.749	27.758	(1.000)	1145229	40	

304834

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8222.d
Date : 16-OCT-98 17:15:00
Client ID: BNA
Sample Info: SB288A;30;2;1;;

Column phase: DB-5

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

304835

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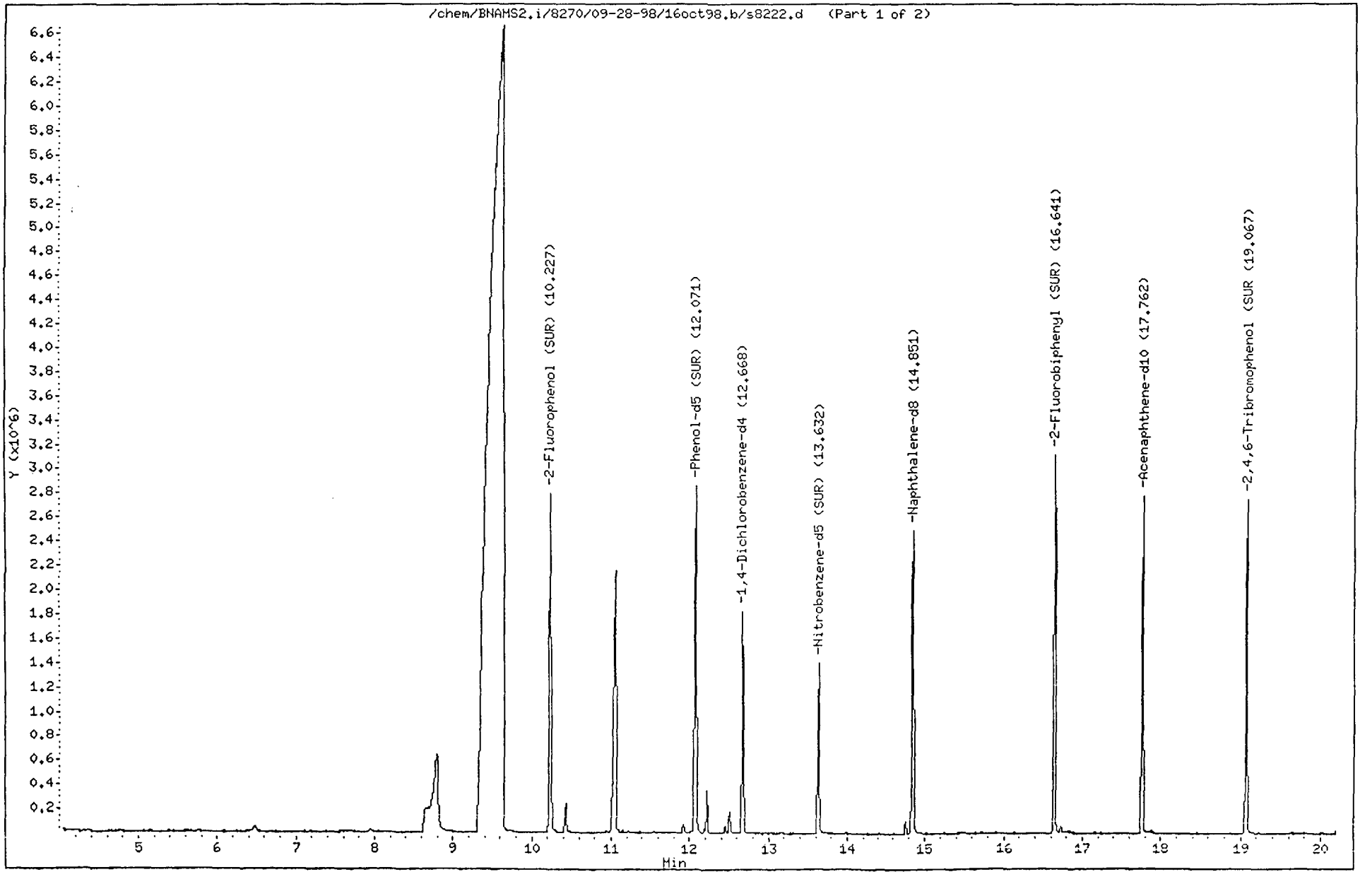

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8222.d
Date : 16-OCT-98 17:15:00
Client ID: BNA
Sample Info: SB288A;30;2;1;;

Column phase: DB-5

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

304836

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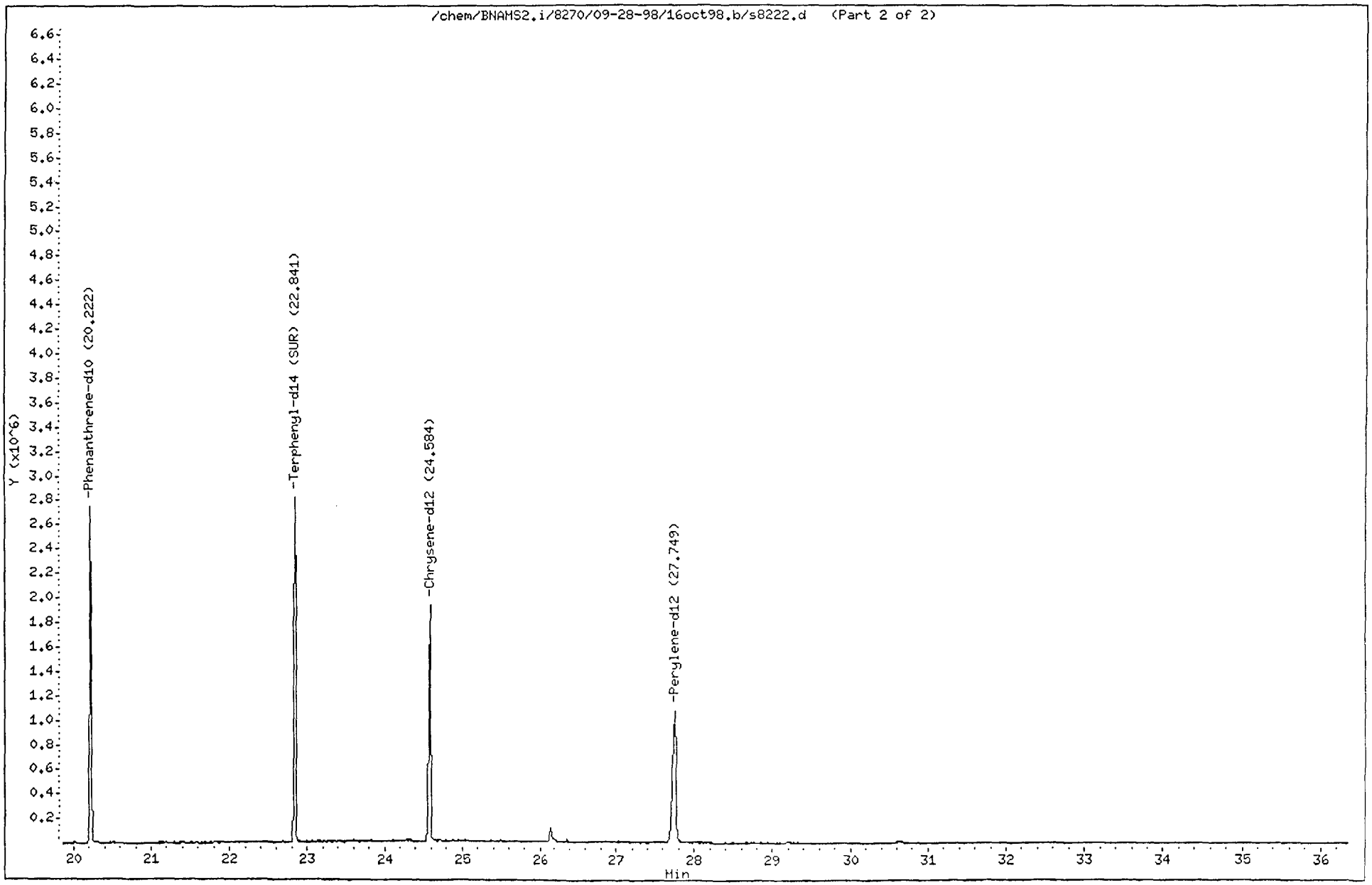

VOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

LAB FILE ID: RRF5: A6187 RRF20: A6189 RRF50: A6190
RRF100: A6191 RRF200: A6192

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Chloromethane	0.185	0.199	0.234	0.212	0.210
Bromomethane	0.260	0.295	0.333	0.325	0.329
Vinyl Chloride	0.160	0.162	0.188	0.171	0.170
Chloroethane	0.143	0.145	0.161	0.148	0.148
Methylene Chloride	0.461	0.350	0.350	0.353	0.371
Acetone	0.142	0.089	0.074	0.067	0.067
Carbon Disulfide	0.884	0.797	0.872	0.899	0.926
Trichlorofluoromethane	0.576	0.583	0.647	0.592	0.606
1,1-Dichloroethene	0.390	0.314	0.300	0.298	0.307
1,1-Dichloroethane	0.648	0.605	0.626	0.632	0.671
trans-1,2-Dichloroethene	0.379	0.339	0.335	0.336	0.358
cis-1,2-Dichloroethene	0.416	0.341	0.362	0.364	0.360
Chloroform	0.804	0.705	0.745	0.752	0.752
1,2-Dichloroethane	0.434	0.400	0.417	0.421	0.412
2-Butanone	0.024	0.022	0.022	0.022	0.021
1,1,1-Trichloroethane	0.616	0.509	0.523	0.534	0.543
Carbon Tetrachloride	0.590	0.521	0.538	0.551	0.554
Bromodichloromethane	0.860	0.755	0.815	0.832	0.823
1,2-Dichloropropane	0.533	0.375	0.389	0.398	0.385
cis-1,3-Dichloropropene	0.581	0.515	0.539	0.552	0.555
Trichloroethene	0.588	0.422	0.428	0.427	0.426
Dibromochloromethane	0.892	0.857	0.981	0.963	0.990
1,1,2-Trichloroethane	0.368	0.393	0.425	0.405	0.407
Benzene	1.004	0.758	0.787	0.791	0.781
trans-1,3-Dichloropropene	0.528	0.490	0.551	0.534	0.557
2-Chloroethyl Vinyl Ether	0.077	0.086	0.095	0.102	0.117
Bromoform	0.567	0.653	0.748	0.734	0.760
4-Methyl-2-Pentanone	0.232	0.266	0.277	0.282	0.285
2-Hexanone	0.258	0.312	0.336	0.326	0.338
Tetrachloroethene	0.830	0.620	0.645	0.618	0.623
1,1,2,2-Tetrachloroethane	1.594	1.221	1.318	1.287	1.306
Toluene	1.119	0.992	1.070	1.028	1.050
Chlorobenzene	0.947	0.846	0.908	0.867	0.869
Ethylbenzene	0.351	0.328	0.342	0.326	0.312
Styrene	0.758	0.658	0.698	0.673	0.674
Xylene (Total)	0.439	0.386	0.411	0.394	0.391
Ethyl Ether	0.190	0.186	0.184	0.190	0.188
Acrolein	0.014	0.015	0.016	0.016	0.018
Freon TF	0.881	0.797	0.833	0.739	0.798

304837

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

LAB FILE ID: RRF5: A6187 RRF20: A6189 RRF50: A6190
RRF100: A6191 RRF200: A6192

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Isopropanol					
Acetonitrile	0.012	0.015	0.014	0.013	0.016
TBA	0.010	0.011	0.011	0.010	0.012
Acrylonitrile	0.051	0.058	0.061	0.060	0.067
MTBE	0.600	0.599	0.608	0.607	0.641
Hexane					
DIPE	1.144	1.080	1.136	1.122	1.177
Ethyl Acetate					
Vinyl Acetate	0.512	0.463	0.479	0.474	0.495
Tetrahydrofuran					
Cyclohexane	0.448	0.392	0.412	0.369	0.383
Isobutanol					
Isopropyl Acetate	0.540	0.582	0.485	0.488	0.481
n-Heptane					
n-Butanol					
Propyl Acetate					
Butyl Acetate					
1,2-Dibromoethane	0.764	0.750	0.832	0.798	0.816
1,3-Dichlorobenzene	1.617	1.378	1.388	1.368	1.436
1,4-Dichlorobenzene	1.869	1.474	1.685	1.643	1.604
1,2-Dichlorobenzene	1.539	1.333	1.413	1.395	1.409
Naphthalene	1.271	1.093	1.151	1.151	1.177
Methylnaphthalene (total)					
Dimethylnaphthalene (total)					
Dichlorodifluoromethane	0.401	0.394	0.540	0.486	0.491
1,1-Dichloropropene	0.489	0.425	0.440	0.437	0.433
1,2,4-Trichlorobenzene	1.048	0.935	1.000	0.990	0.957
Hexachlorobutadiene	0.692	0.550	0.583	0.576	0.553
1,4-Dioxane	0.001	0.002	0.002	0.002	0.002
Methyl Acrylate					
1,1,1,2-Tetrachloroethane	0.545	0.518	0.567	0.546	0.541
1,2,3-Trichlorobenzene	0.845	0.784	0.828	0.812	0.809
1,2,3-Trichloropropane	0.910	0.840	0.877	0.863	0.870
1,2,4-Trimethylbenzene	1.889	1.545	1.599	1.569	1.537
1,2-Dibromo-3-chloropropane	0.185	0.206	0.216	0.222	0.219
1,3,5-Trimethylbenzene	1.802	1.499	1.532	1.499	1.453
1,3-Dichloropropane	0.603	0.596	0.651	0.615	0.607
2,2-Dichloropropane	0.482	0.442	0.451	0.453	0.455
2-Chlorotoluene	1.813	1.821	1.761	1.739	1.696

304838

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

LAB FILE ID: RRF5: A6187 RRF20: A6189 RRF50: A6190
RRF100: A6191 RRF200: A6192

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
4-Chlorotoluene	2.061	1.755	1.837	1.816	1.865
Bromobenzene	1.121	0.964	1.016	0.993	1.002
Bromochloromethane	0.349	0.302	0.312	0.313	0.311
Dibromomethane	0.542	0.498	0.512	0.510	0.497
Isopropylbenzene	0.896	1.058	0.827	0.803	0.821
n-Butylbenzene	1.755	1.525	1.620	1.614	1.593
n-Propylbenzene	2.514	2.212	2.282	2.260	2.219
p-Isopropyltoluene	1.825	1.572	1.690	1.674	1.662
sec-Butylbenzene	2.292	1.879	2.004	2.001	2.040
tert-Butylbenzene	1.814	1.541	1.581	1.569	1.578
Allyl chloride	0.167	0.165	0.160	0.156	0.168
Benzyl chloride	1.034	1.067	1.099	1.122	1.149
Epichlorohydrin	0.020	0.022	0.020	0.021	0.022
Isoprene	0.282	0.261	0.274	0.256	0.269
Methyl methacrylate	0.188	0.181	0.182	0.183	0.184
n-Pentane	0.048	0.037	0.041	0.036	0.037
Allyl alcohol					
Amyl Acetate					
1,2-Dichloroethane-d4 (SUR)	0.420	0.411	0.373	0.362	0.352
Toluene-d8 (SUR)	1.240	1.147	1.101	1.002	1.011
Bromofluorobenzene (SUR)	1.290	1.128	1.065	1.005	1.005

304839

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Chloromethane	AVRG	0.20802655	8.8**
Bromomethane	AVRG	0.30846024	10.1*
Vinyl Chloride	AVRG	0.17006524	6.4*
Chloroethane	AVRG	0.14900082	4.6*
Methylene Chloride	AVRG	0.37697437	12.6*
Acetone	AVRG	0.08799650	35.8*
Carbon Disulfide	AVRG	0.87557588	5.5*
Trichlorofluoromethane	AVRG	0.60086496	4.7*
1,1-Dichloroethene	AVRG	0.32183378	12.1*
1,1-Dichloroethane	AVRG	0.63670698	3.9**
trans-1,2-Dichloroethene	AVRG	0.34939484	5.4*
cis-1,2-Dichloroethene	AVRG	0.36869922	7.7*
Chloroform	AVRG	0.75166295	4.6*
1,2-Dichloroethane	AVRG	0.41698787	3.0*
2-Butanone	AVRG	0.02219527	5.6*
1,1,1-Trichloroethane	AVRG	0.54480389	7.6*
Carbon Tetrachloride	AVRG	0.55075634	4.6*
Bromodichloromethane	AVRG	0.81711827	4.7*
1,2-Dichloropropane	AVRG	0.41611022	15.8*
cis-1,3-Dichloropropene	AVRG	0.54863871	4.4*
Trichloroethene	AVRG	0.45837301	15.8*
Dibromochloromethane	AVRG	0.93661812	6.3*
1,1,2-Trichloroethane	AVRG	0.39944490	5.3*
Benzene	AVRG	0.82436194	12.3*
trans-1,3-Dichloropropene	AVRG	0.53219965	5.0*
2-Chloroethyl Vinyl Ether	AVRG	0.09548352	15.8*
Bromoform	AVRG	0.69255803	11.8**
4-Methyl-2-Pentanone	AVRG	0.26851086	8.1*
2-Hexanone	AVRG	0.31400641	10.4*
Tetrachloroethene	AVRG	0.66731859	13.8*
1,1,2,2-Tetrachloroethane	AVRG	1.34542184	10.7**
Toluene	AVRG	1.05175917	4.5*
Chlorobenzene	AVRG	0.88746955	4.5**
Ethylbenzene	AVRG	0.33205082	4.5*
Styrene	AVRG	0.69224071	5.7*
Xylene (Total)	AVRG	0.40422894	5.4*
Ethyl Ether	AVRG	0.18760164	1.3*
Acrolein	AVRG	0.01593909	9.7*
Freon TF	AVRG	0.80936418	6.4*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304840

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Isopropanol	AVRG		
Acetonitrile	AVRG	0.01403836	10.1*
TBA	AVRG	0.01093036	7.4*
Acrylonitrile	AVRG	0.05945443	9.6*
MTBE	AVRG	0.61097142	2.8*
Hexane	AVRG		
DIPE	AVRG	1.13197200	3.1*
Ethyl Acetate	AVRG		
Vinyl Acetate	AVRG	0.48450329	4.0*
Tetrahydrofuran	AVRG		
Cyclohexane	AVRG	0.40066643	7.7*
Isobutanol	AVRG		
Isopropyl Acetate	AVRG	0.51514056	8.6*
n-Heptane	AVRG		
n-Butanol	AVRG		
Propyl Acetate	AVRG		
Butyl Acetate	AVRG		
1,2-Dibromoethane	AVRG	0.79191281	4.4*
1,3-Dichlorobenzene	AVRG	1.43728273	7.2*
1,4-Dichlorobenzene	AVRG	1.65502673	8.7*
1,2-Dichlorobenzene	AVRG	1.41778885	5.3*
Naphthalene	AVRG	1.16873964	5.6*
Methylnaphthalene (total)	AVRG		
Dimethylnaphthalene (total)	AVRG		
Dichlorodifluoromethane	AVRG	0.46217805	13.6*
1,1-Dichloropropene	AVRG	0.44479346	5.7*
1,2,4-Trichlorobenzene	AVRG	0.98620818	4.4*
Hexachlorobutadiene	AVRG	0.59069752	9.8*
1,4-Dioxane	AVRG	0.00154265	12.3*
Methyl Acrylate	AVRG		
1,1,1,2-Tetrachloroethane	AVRG	0.54350976	3.2*
1,2,3-Trichlorobenzene	AVRG	0.81565383	2.8*
1,2,3-Trichloropropane	AVRG	0.87208343	2.9*
1,2,4-Trimethylbenzene	AVRG	1.62767559	9.1*
1,2-Dibromo-3-chloropropane	AVRG	0.20978702	7.1*
1,3,5-Trimethylbenzene	AVRG	1.55703510	9.0*
1,3-Dichloropropane	AVRG	0.61458930	3.5*
2,2-Dichloropropane	AVRG	0.45668744	3.3*
2-Chlorotoluene	AVRG	1.76596267	3.0*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304841

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
4-Chlorotoluene	AVRG	1.86701363	6.2*
Bromobenzene	AVRG	1.01939799	5.9*
Bromochloromethane	AVRG	0.31739706	5.8*
Dibromomethane	AVRG	0.51192801	3.5*
Isopropylbenzene	AVRG	0.88099726	11.9*
n-Butylbenzene	AVRG	1.62166958	5.2*
n-Propylbenzene	AVRG	2.29738126	5.4*
p-Isopropyltoluene	AVRG	1.68453155	5.4*
sec-Butylbenzene	AVRG	2.04323876	7.4*
tert-Butylbenzene	AVRG	1.61672995	6.9*
Allyl chloride	AVRG	0.16348621	3.2*
Benzyl chloride	AVRG	1.09441719	4.1*
Epichlorohydrin	AVRG	0.02103973	3.9*
Isoprene	AVRG	0.26838289	3.9*
Methyl methacrylate	AVRG	0.18374259	1.5*
n-Pentane	AVRG	0.03984936	12.3*
Allyl alcohol	AVRG		
Amyl Acetate	AVRG		
1,2-Dichloroethane-d4 (SUR)	AVRG	0.38362861	7.8*
Toluene-d8 (SUR)	AVRG	1.10023387	9.0*
Bromofluorobenzene (SUR)	AVRG	1.09853548	10.8*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304842

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Report Date: 12-Nov-1998 11:05

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Lab Smp Id: ASTD200
Inj Date : 07-OCT-1998 09:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD200
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 08-Oct-98 11:28:48 maryb Quant Type: ISTD
Cal Date : 07-OCT-1998 09:00 Cal File: a6192.d
Als bottle: 8 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.734	3.734	(0.355)	9333213	200.000	210(A)
1 Chloromethane	50	4.118	4.118	(0.391)	4002858	200.000	200(A)
4 Vinyl Chloride	62	4.340	4.340	(0.412)	3237302	200.000	200(A)
3 Bromomethane	94	4.946	4.946	(0.470)	6264971	200.000	210(A)
5 Chloroethane	64	5.138	5.138	(0.488)	2805747	200.000	200
9 Trichlorofluoromethane	101	5.611	5.611	(0.533)	11522257	200.000	200(A)
121 n-Pentane	72	5.743	5.743	(0.545)	705411	200.000	190
46 Ethyl Ether	59	6.068	6.068	(0.576)	3569569	200.000	200(A)
119 Isoprene	67	6.128	6.128	(0.582)	5120413	200.000	200(A)
47 Acrolein	56	6.261	6.261	(0.595)	873925	500.000	580(A)
48 Freon TF	101	6.453	6.453	(0.613)	15166932	200.000	200
10 1,1-Dichloroethene	96	6.467	6.467	(0.614)	5840828	200.000	190
7 Acetone	43	6.497	6.497	(0.617)	1273226	200.000	150
8 Carbon Disulfide	76	6.866	6.866	(0.652)	17610748	200.000	210(A)
116 Allyl chloride	76	6.999	6.999	(0.665)	3204785	200.000	210(A)

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Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Report Date: 12-Nov-1998 11:05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	50 Acetonitrile	41	6.881	6.881	(0.653)	5909954	4000.00	4400(A)
	6 Methylene Chloride	84	7.162	7.162	(0.680)	7058404	200.000	200
	51 TBA	59	7.280	7.280	(0.691)	4596193	4000.00	4400(A)
	52 Acrylonitrile	53	7.502	7.502	(0.712)	1592705	250.000	280(A)
	53 MTBE	73	7.590	7.590	(0.721)	12193287	200.000	210(A)
	12 trans-1,2-Dichloroethene	96	7.605	7.605	(0.722)	6811813	200.000	200(A)
	122 Allyl alcohol	57	7.590	7.590	(0.721)	2868872	5000.00	(a)
	11 1,1-Dichloroethane	63	8.211	8.211	(0.780)	12764774	200.000	210(A)
	57 Vinyl Acetate	43	8.270	8.270	(0.785)	9409368	200.000	200(A)
	55 DIPE	45	8.270	8.270	(0.785)	22388611	200.000	210(A)
	18 2-Butanone	72	8.979	8.979	(0.853)	402642	200.000	190
	13 cis-1,2-Dichloroethene	96	9.023	9.023	(0.857)	6842290	200.000	200
	104 2,2-Dichloropropane	77	9.038	9.038	(0.858)	8655648	200.000	200
	108 Bromochloromethane	128	9.348	9.348	(0.888)	5923207	200.000	200
	15 Chloroform	83	9.422	9.422	(0.895)	14298215	200.000	200(A)
	20 1,1,1-Trichloroethane	97	9.732	9.732	(0.924)	10318991	200.000	200
	59 Cyclohexane	56	9.836	9.836	(0.934)	7284249	200.000	190
	92 1,1-Dichloropropene	75	9.924	9.924	(0.942)	8242504	200.000	190
	21 Carbon Tetrachloride	117	9.969	9.969	(0.947)	10538096	200.000	200(A)
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.087	10.087	(0.958)	6699676	200.000	180
	61 Isopropyl Acetate	43	10.131	10.131	(0.962)	18296439	400.000	370
	17 1,2-Dichloroethane	62	10.176	10.176	(0.966)	7831078	200.000	200
	28 Benzene	78	10.205	10.205	(0.969)	14855029	200.000	190
*	19 Fluorobenzene	96	10.530	10.530	(1.000)	4754078	50.0000	
	25 Trichloroethene	95	10.988	10.988	(1.043)	8098200	200.000	180
	23 1,2-Dichloropropane	63	11.254	11.254	(1.069)	7316461	200.000	180
	120 Methyl methacrylate	69	11.284	11.284	(1.072)	3499510	200.000	200(A)
	109 Dibromomethane	93	11.402	11.402	(1.083)	9457232	200.000	190
	95 1,4-Dioxane	88	11.387	11.387	(1.081)	812534	5000.00	5500(A)
	22 Bromodichloromethane	83	11.564	11.564	(1.098)	15658729	200.000	200(A)
	30 2-Chloroethyl Vinyl Ether	63	11.845	11.845	(1.125)	2226658	200.000	240(A)
	118 Epichlorohydrin	57	11.948	11.948	(1.135)	8220914	4000.00	4100(A)
	24 cis-1,3-Dichloropropene	75	12.081	12.081	(1.147)	10554473	200.000	200(A)
	33 4-Methyl-2-Pentanone	43	12.200	12.200	(1.159)	5418862	200.000	210(A)
$	37 Toluene-d8 (SUR)	98	12.436	12.436	(0.874)	16214257	200.000	180
	38 Toluene	91	12.525	12.525	(0.881)	16843965	200.000	200
	29 trans-1,3-Dichloropropene	75	12.702	12.702	(0.893)	8934971	200.000	210(A)
	27 1,1,2-Trichloroethane	83	12.938	12.938	(0.910)	6524293	200.000	200(A)
	103 1,3-Dichloropropane	76	13.145	13.145	(0.924)	9739134	200.000	200
	35 Tetrachloroethene	166	13.204	13.204	(0.928)	9984337	200.000	190
	34 2-Hexanone	43	12.200	12.200	(0.858)	5413371	200.000	220(A)
	26 Dibromochloromethane	129	13.441	13.441	(0.945)	15870796	200.000	210(A)
	66 1,2-Dibromoethane	107	13.618	13.618	(0.957)	13080123	200.000	210(A)
*	32 Chlorobenzene-d5	117	14.135	14.135	(1.000)	4008489	50.0000	(H)
	39 Chlorobenzene	112	14.164	14.164	(0.996)	13937212	200.000	200
	40 Ethylbenzene	106	14.238	14.238	(1.001)	5011203	200.000	190(H)
	43 m+p-Xylene	106	14.356	14.356	(1.009)	12538533	400.000	380

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Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Report Date: 12-Nov-1998 11:05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	97 1,1,1,2-Tetrachloroethane	131	14.223	14.223	(1.000)	8668197	200.000	200(H)
	44 o-Xylene	106	14.814	14.814	(1.042)	6272120	200.000	190
	42 Styrene	104	14.829	14.829	(1.043)	10814606	200.000	190
	31 Bromoform	173	15.095	15.095	(1.061)	12187778	200.000	220(A)
	110 Isopropylbenzene	105	15.199	15.199	(1.069)	13160875	200.000	190
$	41 Bromofluorobenzene (SUR)	174	15.405	15.405	(0.924)	9157659	200.000	180
	36 1,1,2,2-Tetrachloroethane	83	15.479	15.479	(0.928)	11906313	200.000	190
	99 1,2,3-Trichloropropane	75	15.568	15.568	(0.934)	7934402	200.000	200
	107 Bromobenzene	156	15.612	15.612	(0.936)	9138158	200.000	200
	112 n-Propylbenzene	91	15.642	15.642	(0.938)	20226991	200.000	190
	105 2-Chlorotoluene	91	15.789	15.789	(0.947)	15457836	200.000	190
	102 1,3,5-Trimethylbenzene	105	15.804	15.804	(0.948)	13247019	200.000	190
	106 4-Chlorotoluene	91	15.893	15.893	(0.953)	16997206	200.000	200
	115 tert-Butylbenzene	119	16.188	16.188	(0.971)	14386027	200.000	200
	100 1,2,4-Trimethylbenzene	105	16.218	16.218	(0.973)	14010267	200.000	190
	114 sec-Butylbenzene	105	16.410	16.410	(0.984)	18596145	200.000	200
	113 p-Isopropyltoluene	119	16.543	16.543	(0.992)	15147719	200.000	200
	67 1,3-Dichlorobenzene	146	16.617	16.617	(0.996)	13085472	200.000	200
*	91 1,4-Dichlorobenzene-d4	152	16.676	16.676	(1.000)	2278644	50.0000	
	68 1,4-Dichlorobenzene	146	16.705	16.705	(1.002)	14616256	200.000	190
	117 Benzyl chloride	91	16.809	16.809	(1.008)	10475848	200.000	210(A)
	111 n-Butylbenzene	91	17.001	17.001	(1.019)	14519242	200.000	200
	69 1,2-Dichlorobenzene	146	17.149	17.149	(1.028)	12839486	200.000	200
	101 1,2-Dibromo-3-chloropropane	75	17.991	17.991	(1.079)	1998367	200.000	210(A)
	93 1,2,4-Trichlorobenzene	180	18.995	18.995	(1.139)	8723774	200.000	190
	94 Hexachlorobutadiene	225	19.158	19.158	(1.149)	5039748	200.000	190
	70 Naphthalene	128	19.350	19.350	(1.160)	10732269	200.000	200(A)
	98 1,2,3-Trichlorobenzene	180	19.660	19.660	(1.179)	7372179	200.000	200
M	14 1,2-Dichloroethene (total)	100				13654103	400.000	400
M	45 Xylene (Total)	100				18810653	600.000	580

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

304845

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Date : 07-OCT-1998 09:00
Client ID:
Sample Info: ASTD200

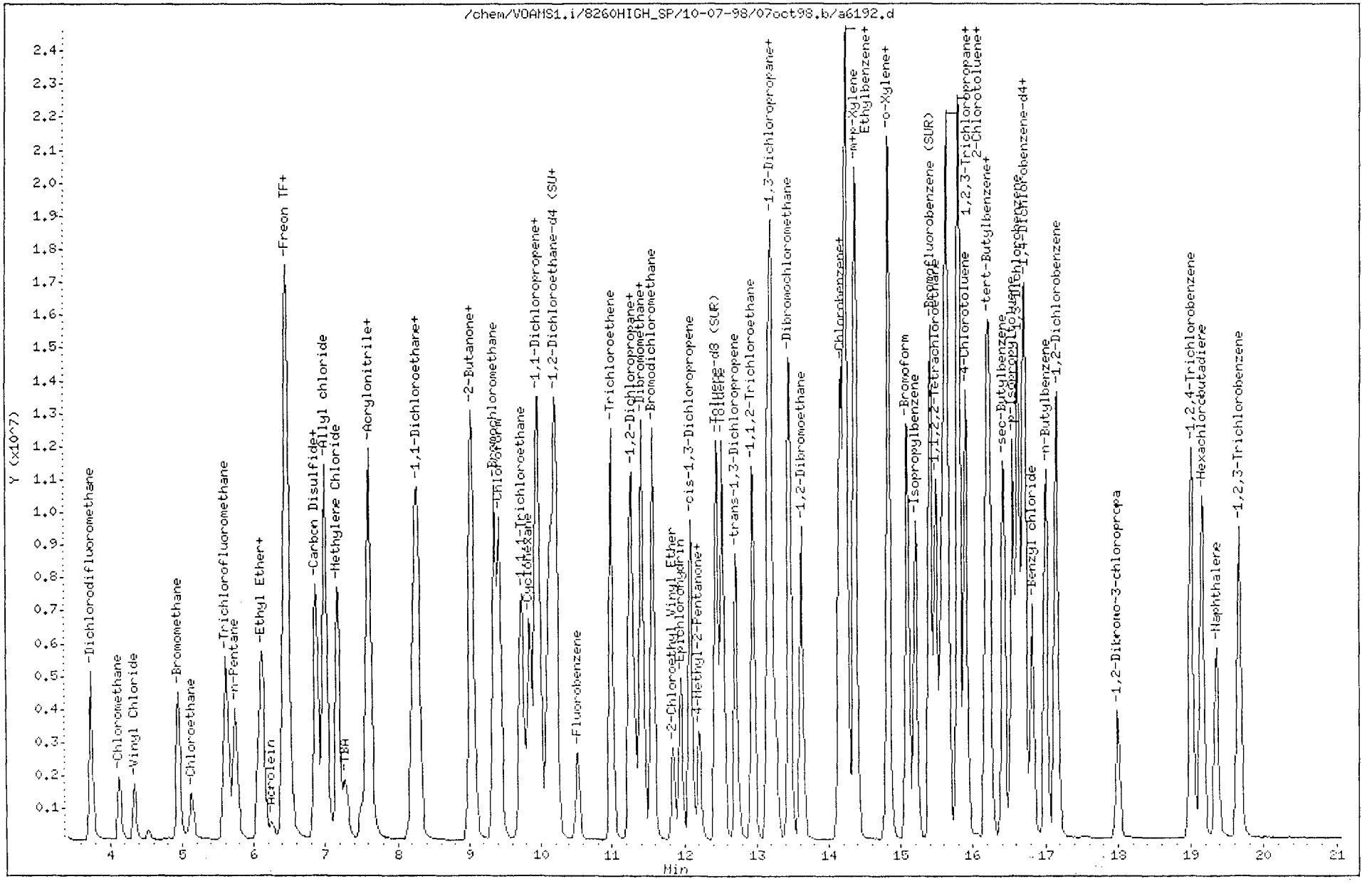
Instrument: VOAMS1.i

Operator: VOAMS 3

304846

Column phase: DB624

Column diameter: 0.53



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Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Report Date: 12-Nov-1998 11:05

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Lab Smp Id: ASTD100
Inj Date : 07-OCT-1998 08:31
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD100
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 08-Oct-98 11:28:48 maryb Quant Type: ISTD
Cal Date : 07-OCT-1998 08:31 Cal File: a6191.d
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.747	3.734	(0.356)	4376516	100.000	100
1 Chloromethane	50	4.131	4.118	(0.392)	1905912	100.000	100
4 Vinyl Chloride	62	4.353	4.340	(0.413)	1537640	100.000	100
3 Bromomethane	94	4.973	4.946	(0.472)	2924831	100.000	100
5 Chloroethane	64	5.150	5.138	(0.489)	1333313	100.000	99
9 Trichlorofluoromethane	101	5.623	5.611	(0.534)	5333800	100.000	98
121 n-Pentane	72	5.756	5.743	(0.547)	326465	100.000	91
46 Ethyl Ether	59	6.081	6.068	(0.578)	1708322	100.000	100(H)
119 Isoprene	67	6.140	6.128	(0.583)	2303295	100.000	95
47 Acrolein	56	6.273	6.261	(0.596)	583566	400.000	410
48 Freon TF	101	6.450	6.453	(0.613)	6655174	100.000	91
10 1,1-Dichloroethene	96	6.465	6.467	(0.614)	2684970	100.000	93
7 Acetone	43	6.495	6.497	(0.617)	607659	100.000	77
8 Carbon Disulfide	76	6.879	6.866	(0.653)	8097439	100.000	100
116 Allyl chloride	76	6.997	6.999	(0.665)	1406264	100.000	95

304847

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Report Date: 12-Nov-1998 11:05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	50 Acetonitrile	41	6.894	6.881	(0.655)	2360724	2000.00	1900
	6 Methylene Chloride	84	7.189	7.162	(0.683)	3177790	100.000	94
	51 TBA	59	7.292	7.280	(0.693)	1891935	2000.00	1900
	52 Acrylonitrile	53	7.499	7.502	(0.712)	1084537	200.000	200
	53 MTBE	73	7.603	7.590	(0.722)	5464132	100.000	99
	12 trans-1,2-Dichloroethene	96	7.617	7.605	(0.724)	3028243	100.000	96
	11 1,1-Dichloroethane	63	8.223	8.211	(0.781)	5695868	100.000	99
	57 Vinyl Acetate	43	8.282	8.270	(0.787)	4266083	100.000	98
	55 DIPE	45	8.282	8.270	(0.787)	10105440	100.000	99
	18 2-Butanone	72	8.991	8.979	(0.854)	194425	100.000	97
	13 cis-1,2-Dichloroethene	96	9.036	9.023	(0.858)	3277717	100.000	99
	104 2,2-Dichloropropane	77	9.050	9.038	(0.860)	4083770	100.000	99
	108 Bromochloromethane	128	9.361	9.348	(0.889)	2817007	100.000	98
	15 Chloroform	83	9.420	9.422	(0.895)	6775900	100.000	100
	20 1,1,1-Trichloroethane	97	9.745	9.732	(0.926)	4805947	100.000	98
	59 Cyclohexane	56	9.848	9.836	(0.935)	3320636	100.000	92
	92 1,1-Dichloropropene	75	9.937	9.924	(0.944)	3938870	100.000	98
	21 Carbon Tetrachloride	117	9.981	9.969	(0.948)	4961923	100.000	100
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.099	10.087	(0.959)	3258299	100.000	94
	61 Isopropyl Acetate	43	10.144	10.131	(0.964)	8784852	200.000	190
	17 1,2-Dichloroethane	62	10.188	10.176	(0.968)	3795673	100.000	100
	28 Benzene	78	10.218	10.205	(0.971)	7127321	100.000	96
*	19 Fluorobenzene	96	10.528	10.530	(1.000)	4503718	50.0000	
	25 Trichloroethene	95	11.001	10.988	(1.045)	3849480	100.000	93
	23 1,2-Dichloropropane	63	11.267	11.254	(1.070)	3590047	100.000	96
	120 Methyl methacrylate	69	11.296	11.284	(1.073)	1652427	100.000	100
	109 Dibromomethane	93	11.414	11.402	(1.084)	4595022	100.000	100
	95 1,4-Dioxane	88	11.385	11.387	(1.081)	566688	4000.00	4100
	22 Bromodichloromethane	83	11.562	11.564	(1.098)	7494091	100.000	100
	30 2-Chloroethyl Vinyl Ether	63	11.857	11.845	(1.126)	916417	100.000	110(H)
	118 Epichlorohydrin	57	11.961	11.948	(1.136)	3769710	2000.00	2000
	24 cis-1,3-Dichloropropene	75	12.094	12.081	(1.149)	4973479	100.000	100
	33 4-Methyl-2-Pentanone	43	12.212	12.200	(1.160)	2542807	100.000	100
$	37 Toluene-d8 (SUR)	98	12.448	12.436	(0.881)	7830319	100.000	98
	38 Toluene	91	12.537	12.525	(0.887)	8034971	100.000	110
	29 trans-1,3-Dichloropropene	75	12.714	12.702	(0.900)	4175658	100.000	110
	27 1,1,2-Trichloroethane	83	12.951	12.938	(0.916)	3162036	100.000	110
	103 1,3-Dichloropropane	76	13.158	13.145	(0.931)	4802759	100.000	110
	35 Tetrachloroethene	166	13.202	13.204	(0.934)	4826017	100.000	100
	34 2-Hexanone	43	12.212	12.200	(0.864)	2544878	100.000	110
	26 Dibromochloromethane	129	13.453	13.441	(0.952)	7523948	100.000	110
	66 1,2-Dibromoethane	107	13.616	13.618	(0.963)	6231512	100.000	110
*	32 Chlorobenzene-d5	117	14.133	14.135	(1.000)	3906515	50.0000	
	39 Chlorobenzene	112	14.177	14.164	(1.003)	6775416	100.000	110
	40 Ethylbenzene	106	14.251	14.238	(1.008)	2549703	100.000	110
	43 m+p-Xylene	106	14.369	14.356	(1.017)	6153619	200.000	210
	97 1,1,1,2-Tetrachloroethane	131	14.236	14.223	(1.007)	4266428	100.000	110

304848

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Report Date: 12-Nov-1998 11:05

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
44 o-Xylene	106	14.827	14.814	(1.049)	3089551	100.000	110
42 Styrene	104	14.827	14.829	(1.049)	5257718	100.000	100
31 Bromoform	173	15.093	15.095	(1.068)	5735405	100.000	120
110 Isopropylbenzene	105	15.211	15.199	(1.076)	6274575	100.000	99
$ 41 Bromofluorobenzene (SUR)	174	15.418	15.405	(0.925)	4477094	100.000	92
36 1,1,2,2-Tetrachloroethane	83	15.492	15.479	(0.929)	5731405	100.000	96
99 1,2,3-Trichloropropane	75	15.566	15.568	(0.934)	3842646	100.000	99
107 Bromobenzene	156	15.625	15.612	(0.937)	4423443	100.000	97
112 n-Propylbenzene	91	15.654	15.642	(0.939)	10061942	100.000	98
105 2-Chlorotoluene	91	15.802	15.789	(0.948)	7743045	100.000	98
102 1,3,5-Trimethylbenzene	105	15.802	15.804	(0.948)	6674482	100.000	96
106 4-Chlorotoluene	91	15.905	15.893	(0.954)	8088612	100.000	97
115 tert-Butylbenzene	119	16.186	16.188	(0.971)	6987858	100.000	97
100 1,2,4-Trimethylbenzene	105	16.230	16.218	(0.973)	6984912	100.000	96
114 sec-Butylbenzene	105	16.422	16.410	(0.985)	8909611	100.000	98
113 p-Isopropyltoluene	119	16.541	16.543	(0.992)	7452615	100.000	99
67 1,3-Dichlorobenzene	146	16.615	16.617	(0.996)	6089529	100.000	95
* 91 1,4-Dichlorobenzene-d4	152	16.674	16.676	(1.000)	2226324	50.0000	
68 1,4-Dichlorobenzene	146	16.703	16.705	(1.002)	7315342	100.000	99
117 Benzyl chloride	91	16.821	16.809	(1.009)	4996695	100.000	100
111 n-Butylbenzene	91	16.999	17.001	(1.019)	7188777	100.000	100
69 1,2-Dichlorobenzene	146	17.146	17.149	(1.028)	6210962	100.000	98
101 1,2-Dibromo-3-chloropropane	75	17.988	17.991	(1.079)	987600	100.000	100
93 1,2,4-Trichlorobenzene	180	19.008	18.995	(1.140)	4409213	100.000	100
94 Hexachlorobutadiene	225	19.156	19.158	(1.149)	2564689	100.000	98
70 Naphthalene	128	19.348	19.350	(1.160)	5124401	100.000	98
98 1,2,3-Trichlorobenzene	180	19.658	19.660	(1.179)	3614789	100.000	100
M 14 1,2-Dichloroethene (total)	100				6305960	200.000	190
M 45 Xylene (Total)	100				9243170	300.000	320

QC Flag Legend

H - Operator selected an alternate compound hit.

304849

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Date : 07-OCT-1998 08:31
Client ID:
Sample Info: ASTD100

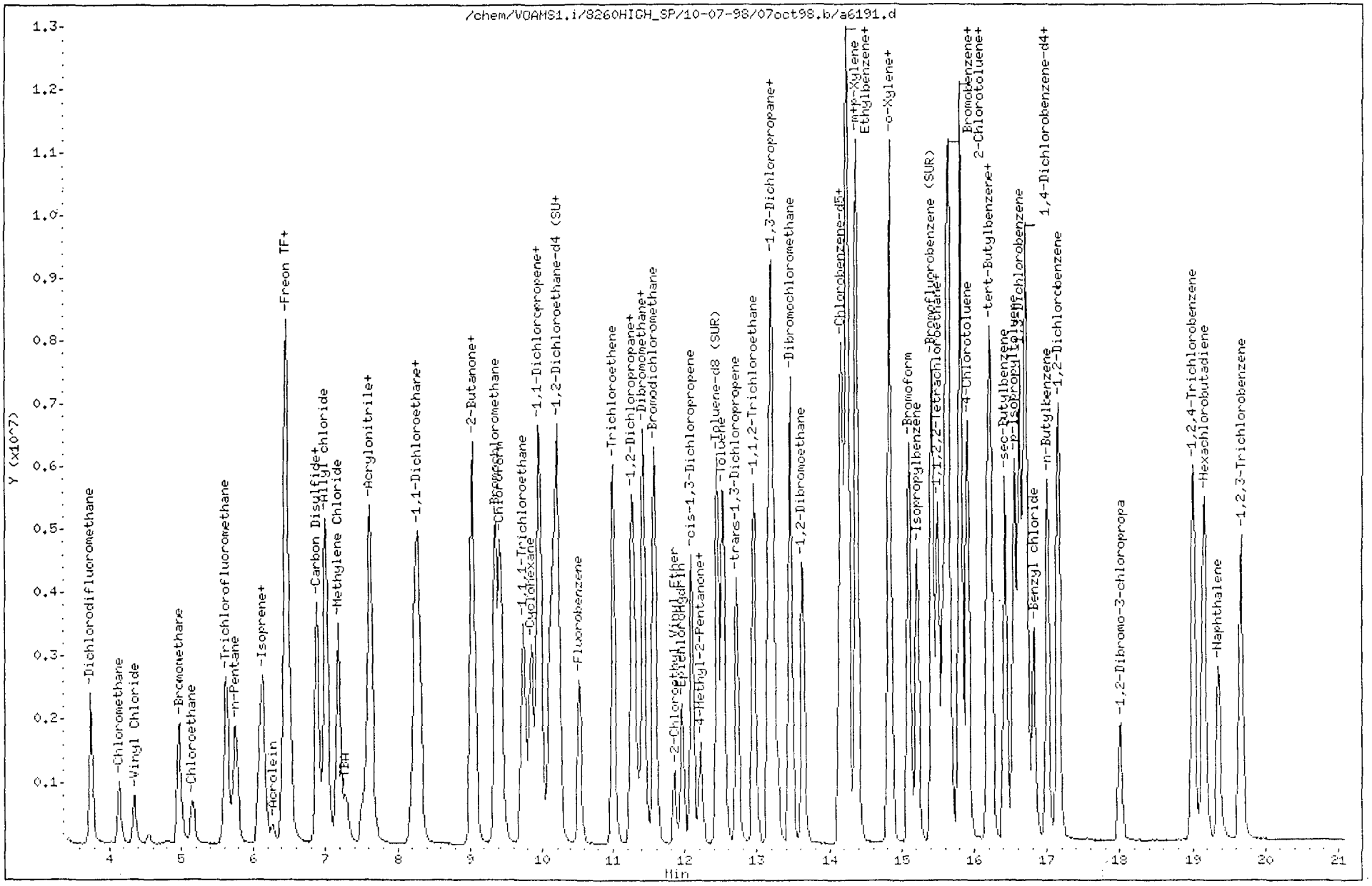
Instrument: VOAMS1.i

Operator: VOAMS 3

304850

Column phase: DB624

Column diameter: 0.53



191

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Report Date: 12-Nov-1998 11:05

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Lab Smp Id: ASTD050
Inj Date : 07-OCT-1998 08:01
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD050
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 08-Oct-98 11:28:48 maryb Quant Type: ISTD
Cal Date : 07-OCT-1998 08:01 Cal File: a6190.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.748	3.734	(0.356)	2352364	50.0000	58
1 Chloromethane	50	4.132	4.118	(0.392)	1021436	50.0000	56(H)
4 Vinyl Chloride	62	4.354	4.340	(0.413)	817727	50.0000	55
3 Bromomethane	94	4.974	4.946	(0.472)	1452402	50.0000	54
5 Chloroethane	64	5.166	5.138	(0.491)	700929	50.0000	54
9 Trichlorofluoromethane	101	5.624	5.611	(0.534)	2820900	50.0000	54
121 n-Pentane	72	5.772	5.743	(0.548)	178241	50.0000	51
46 Ethyl Ether	59	6.082	6.068	(0.578)	802740	50.0000	49(H)
119 Isoprene	67	6.141	6.128	(0.583)	1193346	50.0000	51
47 Acrolein	56	6.274	6.261	(0.596)	409434	300.000	290
48 Freon TF	101	6.466	6.453	(0.614)	3629695	50.0000	51
10 1,1-Dichloroethene	96	6.481	6.467	(0.616)	1305223	50.0000	46
7 Acetone	43	6.496	6.497	(0.617)	324787	50.0000	42
8 Carbon Disulfide	76	6.880	6.866	(0.653)	3798044	50.0000	50
116 Allyl chloride	76	7.013	6.999	(0.666)	698201	50.0000	49(H)

304851

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Report Date: 12-Nov-1998 11:05

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
50 Acetonitrile	41	6.895	6.881	(0.655)	1243238	1000.00	1000
6 Methylene Chloride	84	7.190	7.162	(0.683)	1527217	50.0000	46
51 TBA	59	7.294	7.280	(0.693)	954612	1000.00	1000
52 Acrylonitrile	53	7.515	7.502	(0.714)	796339	150.000	150
53 MTBE	73	7.604	7.590	(0.722)	2647906	50.0000	50
12 trans-1,2-Dichloroethene	96	7.619	7.605	(0.724)	1460048	50.0000	48
11 1,1-Dichloroethane	63	8.224	8.211	(0.781)	2727651	50.0000	49
57 Vinyl Acetate	43	8.283	8.270	(0.787)	2086715	50.0000	49
55 DIPE	45	8.283	8.270	(0.787)	4949568	50.0000	50
18 2-Butanone	72	9.007	8.979	(0.855)	94447	50.0000	49
13 cis-1,2-Dichloroethene	96	9.037	9.023	(0.858)	1579450	50.0000	49
104 2,2-Dichloropropane	77	9.052	9.038	(0.860)	1964248	50.0000	49
108 Bromochloromethane	128	9.362	9.348	(0.889)	1357380	50.0000	49
15 Chloroform	83	9.436	9.422	(0.896)	3247364	50.0000	50
96 Methyl Acrylate	55	9.849	9.849	(0.935)	651417	50.0000	(a)
20 1,1,1-Trichloroethane	97	9.746	9.732	(0.926)	2278097	50.0000	48
59 Cyclohexane	56	9.849	9.836	(0.935)	1794702	50.0000	51
92 1,1-Dichloropropene	75	9.938	9.924	(0.944)	1915718	50.0000	49
21 Carbon Tetrachloride	117	9.982	9.969	(0.948)	2343378	50.0000	49
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.101	10.087	(0.959)	1627220	50.0000	49
63 n-Butanol	56	9.849	9.849	(0.935)	1794702	3000.00	(a)
61 Isopropyl Acetate	43	10.145	10.131	(0.964)	4224204	100.000	94
17 1,2-Dichloroethane	62	10.189	10.176	(0.968)	1816916	50.0000	50
28 Benzene	78	10.219	10.205	(0.971)	3428998	50.0000	48
* 19 Fluorobenzene	96	10.529	10.530	(1.000)	4357358	50.0000	
25 Trichloroethene	95	11.002	10.988	(1.045)	1866045	50.0000	47
23 1,2-Dichloropropane	63	11.268	11.254	(1.070)	1695722	50.0000	47
120 Methyl methacrylate	69	11.297	11.284	(1.073)	794700	50.0000	50
109 Dibromomethane	93	11.415	11.402	(1.084)	2228906	50.0000	50
95 1,4-Dioxane	88	11.401	11.387	(1.083)	426608	3000.00	3200
22 Bromodichloromethane	83	11.563	11.564	(1.098)	3552529	50.0000	50
30 2-Chloroethyl Vinyl Ether	63	11.859	11.845	(1.126)	413056	50.0000	50(H)
118 Epichlorohydrin	57	11.962	11.948	(1.136)	1788594	1000.00	980
24 cis-1,3-Dichloropropene	75	12.095	12.081	(1.149)	2350679	50.0000	49
33 4-Methyl-2-Pentanone	43	12.213	12.200	(1.160)	1207014	50.0000	52
$ 37 Toluene-d8 (SUR)	98	12.450	12.436	(0.881)	3963485	50.0000	54
38 Toluene	91	12.538	12.525	(0.887)	3850008	50.0000	55
29 trans-1,3-Dichloropropene	75	12.715	12.702	(0.900)	1984031	50.0000	57
27 1,1,2-Trichloroethane	83	12.952	12.938	(0.916)	1531033	50.0000	58
103 1,3-Dichloropropane	76	13.159	13.145	(0.931)	2344434	50.0000	58
35 Tetrachloroethene	166	13.203	13.204	(0.934)	2322482	50.0000	52
34 2-Hexanone	43	12.213	12.200	(0.864)	1208619	50.0000	59
26 Dibromochloromethane	129	13.454	13.441	(0.952)	3530608	50.0000	57
66 1,2-Dibromoethane	107	13.631	13.618	(0.964)	2994817	50.0000	57
* 32 Chlorobenzene-d5	117	14.134	14.135	(1.000)	3599272	50.0000	
39 Chlorobenzene	112	14.178	14.164	(1.003)	3266383	50.0000	56
40 Ethylbenzene	106	14.252	14.238	(1.008)	1230978	50.0000	56

304852

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Report Date: 12-Nov-1998 11:05

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
43 m+p-Xylene	106	14.370	14.356	(1.017)	2957121	100.000	110(H)
97 1,1,1,2-Tetrachloroethane	131	14.237	14.223	(1.007)	2041151	50.0000	57
44 o-Xylene	106	14.828	14.814	(1.049)	1479346	50.0000	56
42 Styrene	104	14.828	14.829	(1.049)	2510597	50.0000	55
31 Bromoform	173	15.094	15.095	(1.068)	2692209	50.0000	59
110 Isopropylbenzene	105	15.212	15.199	(1.076)	2976258	50.0000	51
$ 41 Bromofluorobenzene (SUR)	174	15.419	15.405	(0.925)	2235726	50.0000	48
36 1,1,2,2-Tetrachloroethane	83	15.493	15.479	(0.929)	2768073	50.0000	49
99 1,2,3-Trichloropropane	75	15.581	15.568	(0.934)	1842123	50.0000	50
107 Bromobenzene	156	15.626	15.612	(0.937)	2134567	50.0000	50
112 n-Propylbenzene	91	15.655	15.642	(0.939)	4791241	50.0000	50
105 2-Chlorotoluene	91	15.803	15.789	(0.948)	3697367	50.0000	50
102 1,3,5-Trimethylbenzene	105	15.803	15.804	(0.948)	3216088	50.0000	49
106 4-Chlorotoluene	91	15.906	15.893	(0.954)	3858194	50.0000	49
115 tert-Butylbenzene	119	16.187	16.188	(0.971)	3319174	50.0000	49
100 1,2,4-Trimethylbenzene	105	16.232	16.218	(0.973)	3357362	50.0000	49
114 sec-Butylbenzene	105	16.424	16.410	(0.985)	4208977	50.0000	49
113 p-Isopropyltoluene	119	16.542	16.543	(0.992)	3548640	50.0000	50
67 1,3-Dichlorobenzene	146	16.616	16.617	(0.996)	2914395	50.0000	48
* 91 1,4-Dichlorobenzene-d4	152	16.675	16.676	(1.000)	2099904	50.0000	
68 1,4-Dichlorobenzene	146	16.704	16.705	(1.002)	3538742	50.0000	51
117 Benzyl chloride	91	16.822	16.809	(1.009)	2308357	50.0000	50
111 n-Butylbenzene	91	17.000	17.001	(1.019)	3402748	50.0000	50
69 1,2-Dichlorobenzene	146	17.147	17.149	(1.028)	2967813	50.0000	50
101 1,2-Dibromo-3-chloropropane	75	18.004	17.991	(1.080)	454273	50.0000	52
93 1,2,4-Trichlorobenzene	180	19.009	18.995	(1.140)	2100546	50.0000	51
94 Hexachlorobutadiene	225	19.157	19.158	(1.149)	1224170	50.0000	49
70 Naphthalene	128	19.349	19.350	(1.160)	2417244	50.0000	49
98 1,2,3-Trichlorobenzene	180	19.659	19.660	(1.179)	1738866	50.0000	51
M 14 1,2-Dichloroethene (total)	100				3039498	100.000	97
M 45 Xylene (Total)	100				4436467	150.000	160

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

304853

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Date : 07-OCT-1998 08:01
Client ID:
Sample Info: ASTD050

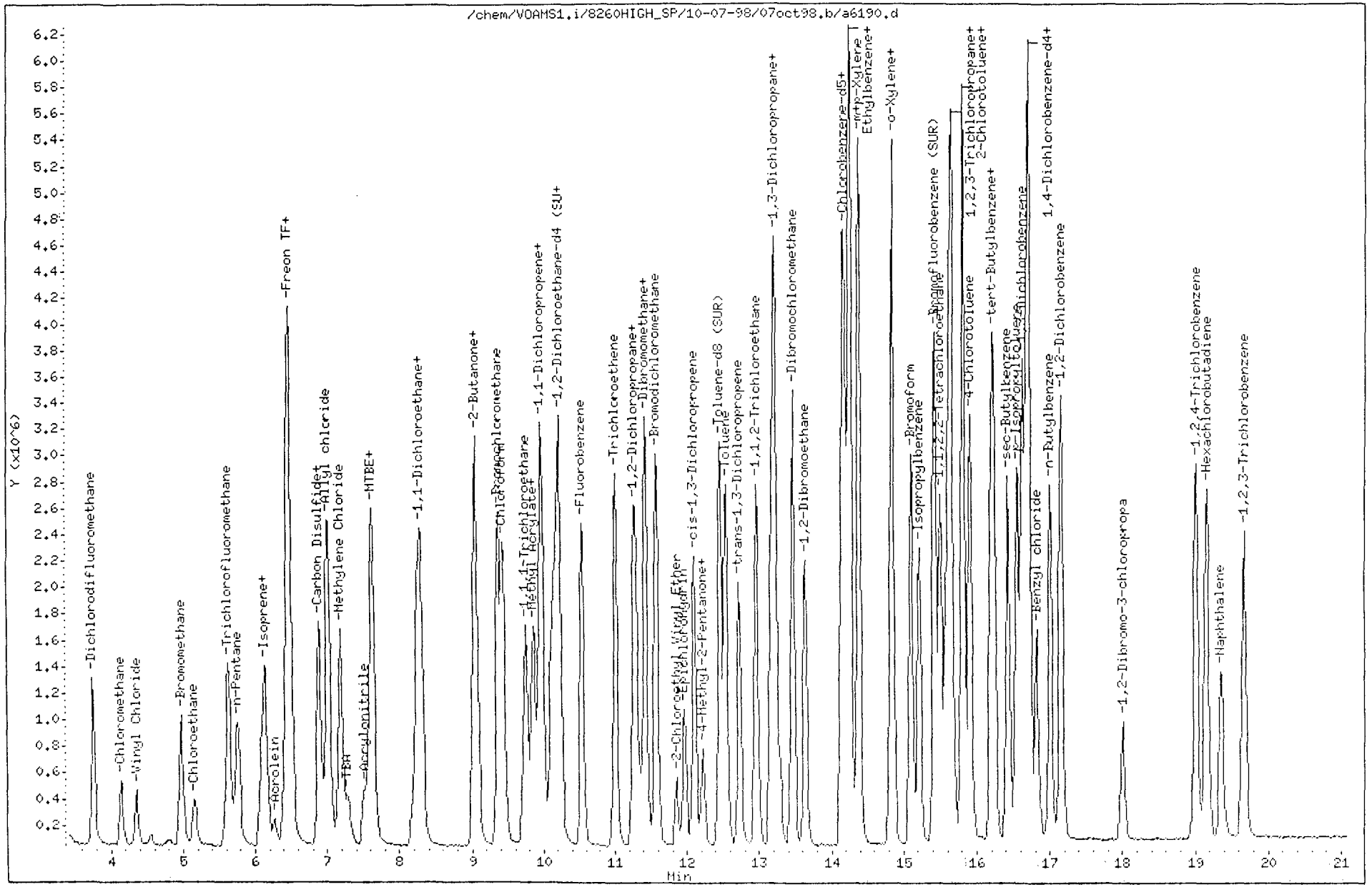
Instrument: VOAMS1.i

Operator: VOAMS 3

304854

Column phase: DB624

Column diameter: 0.53



Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Report Date: 12-Nov-1998 11:04

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Lab Smp Id: ASTD020
Inj Date : 07-OCT-1998 07:32
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD020
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 08-Oct-98 11:28:48 maryb Quant Type: ISTD
Cal Date : 07-OCT-1998 07:32 Cal File: a6189.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.748	3.734	(0.356)	722079	20.0000	17
1 Chloromethane	50	4.133	4.118	(0.392)	364471	20.0000	19(H)
4 Vinyl Chloride	62	4.354	4.340	(0.413)	296535	20.0000	19
3 Bromomethane	94	4.960	4.946	(0.471)	540864	20.0000	19
5 Chloroethane	64	5.152	5.138	(0.489)	266799	20.0000	20
9 Trichlorofluoromethane	101	5.625	5.611	(0.534)	1069323	20.0000	19
121 n-Pentane	72	5.743	5.743	(0.545)	67838	20.0000	18
46 Ethyl Ether	59	6.083	6.068	(0.578)	342073	20.0000	20(H)
119 Isoprene	67	6.127	6.128	(0.582)	478644	20.0000	19
47 Acrolein	56	6.275	6.261	(0.596)	278756	200.000	190
48 Freon TF	101	6.452	6.453	(0.613)	1461584	20.0000	20
10 1,1-Dichloroethene	96	6.481	6.467	(0.616)	575748	20.0000	20
7 Acetone	43	6.511	6.497	(0.618)	163136	20.0000	20
8 Carbon Disulfide	76	6.866	6.866	(0.652)	1461541	20.0000	18
116 Allyl chloride	76	6.999	6.999	(0.665)	303462	20.0000	20(H)

304855

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Report Date: 12-Nov-1998 11:04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	50 Acetonitrile	41	6.895	6.881	(0.655)	555953	400.000	430
	6 Methylene Chloride	84	7.176	7.162	(0.681)	641247	20.0000	18
	51 TBA	59	7.279	7.280	(0.691)	410541	400.000	410
	52 Acrylonitrile	53	7.501	7.502	(0.712)	531202	100.000	97
	53 MTBE	73	7.590	7.590	(0.721)	1099026	20.0000	20
	12 trans-1,2-Dichloroethene	96	7.619	7.605	(0.724)	621184	20.0000	19
	11 1,1-Dichloroethane	63	8.225	8.211	(0.781)	1110710	20.0000	19
	57 Vinyl Acetate	43	8.269	8.270	(0.785)	849387	20.0000	19
	55 DIPE	45	8.284	8.270	(0.787)	1981974	20.0000	19
	18 2-Butanone	72	9.008	8.979	(0.855)	40772	20.0000	20
	13 cis-1,2-Dichloroethene	96	9.023	9.023	(0.857)	625182	20.0000	18
	104 2,2-Dichloropropane	77	9.052	9.038	(0.860)	810514	20.0000	19
	108 Bromochloromethane	128	9.362	9.348	(0.889)	554127	20.0000	19
	15 Chloroform	83	9.421	9.422	(0.895)	1293883	20.0000	19
	20 1,1,1-Trichloroethane	97	9.732	9.732	(0.924)	934621	20.0000	19
	59 Cyclohexane	56	9.850	9.836	(0.935)	718282	20.0000	20
	92 1,1-Dichloropropene	75	9.938	9.924	(0.944)	778974	20.0000	19
	21 Carbon Tetrachloride	117	9.968	9.969	(0.947)	956134	20.0000	19
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.101	10.087	(0.959)	753708	20.0000	21
	61 Isopropyl Acetate	43	10.145	10.131	(0.964)	2134815	40.0000	45
	17 1,2-Dichloroethane	62	10.190	10.176	(0.968)	734325	20.0000	19
	28 Benzene	78	10.219	10.205	(0.971)	1391556	20.0000	18
*	19 Fluorobenzene	96	10.529	10.530	(1.000)	4586163	50.0000	
	25 Trichloroethene	95	11.002	10.988	(1.045)	774943	20.0000	18
	23 1,2-Dichloropropane	63	11.268	11.254	(1.070)	688411	20.0000	18
	120 Methyl methacrylate	69	11.298	11.284	(1.073)	331611	20.0000	20
	109 Dibromomethane	93	11.416	11.402	(1.084)	914382	20.0000	19
	95 1,4-Dioxane	88	11.386	11.387	(1.081)	290075	2000.00	2000
	22 Bromodichloromethane	83	11.564	11.564	(1.098)	1385268	20.0000	18
	30 2-Chloroethyl Vinyl Ether	63	11.859	11.845	(1.126)	158299	20.0000	18(H)
	118 Epichlorohydrin	57	11.962	11.948	(1.136)	810522	400.000	420
	24 cis-1,3-Dichloropropene	75	12.095	12.081	(1.149)	944867	20.0000	19
	33 4-Methyl-2-Pentanone	43	12.214	12.200	(1.160)	488754	20.0000	20
$	37 Toluene-d8 (SUR)	98	12.450	12.436	(0.881)	1792950	20.0000	22
	38 Toluene	91	12.539	12.525	(0.887)	1550318	20.0000	20
	29 trans-1,3-Dichloropropene	75	12.716	12.702	(0.900)	765962	20.0000	20
	27 1,1,2-Trichloroethane	83	12.952	12.938	(0.916)	613876	20.0000	21
	103 1,3-Dichloropropane	76	13.159	13.145	(0.931)	932745	20.0000	21
	35 Tetrachloroethene	166	13.203	13.204	(0.934)	970001	20.0000	20
	34 2-Hexanone	43	12.214	12.200	(0.864)	488754	20.0000	22
	26 Dibromochloromethane	129	13.455	13.441	(0.952)	1340739	20.0000	20
	66 1,2-Dibromoethane	107	13.617	13.618	(0.963)	1172326	20.0000	21
*	32 Chlorobenzene-d5	117	14.134	14.135	(1.000)	3908910	50.0000	
	39 Chlorobenzene	112	14.179	14.164	(1.003)	1323633	20.0000	21
	40 Ethylbenzene	106	14.252	14.238	(1.008)	513666	20.0000	21
	43 m+p-Xylene	106	14.371	14.356	(1.017)	1207418	40.0000	41(H)
	97 1,1,1,2-Tetrachloroethane	131	14.238	14.223	(1.007)	810480	20.0000	21

304856

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Report Date: 12-Nov-1998 11:04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	44 o-Xylene	106	14.829	14.814	(1.049)	601362	20.0000	21
	42 Styrene	104	14.829	14.829	(1.049)	1029336	20.0000	21
	31 Bromoform	173	15.094	15.095	(1.068)	1021480	20.0000	21
	110 Isopropylbenzene	105	15.213	15.199	(1.076)	1654880	20.0000	26
$	41 Bromofluorobenzene (SUR)	174	15.419	15.405	(0.924)	1007173	20.0000	20
	36 1,1,2,2-Tetrachloroethane	83	15.493	15.479	(0.928)	1090641	20.0000	18
	99 1,2,3-Trichloropropane	75	15.567	15.568	(0.933)	750072	20.0000	19
	107 Bromobenzene	156	15.626	15.612	(0.936)	860808	20.0000	19
	112 n-Propylbenzene	91	15.656	15.642	(0.938)	1976076	20.0000	19
	105 2-Chlorotoluene	91	15.804	15.789	(0.947)	1626369	20.0000	21
	102 1,3,5-Trimethylbenzene	105	15.804	15.804	(0.947)	1339394	20.0000	19
	106 4-Chlorotoluene	91	15.907	15.893	(0.953)	1567539	20.0000	19
	115 tert-Butylbenzene	119	16.188	16.188	(0.970)	1376381	20.0000	19
	100 1,2,4-Trimethylbenzene	105	16.232	16.218	(0.973)	1379971	20.0000	19
	114 sec-Butylbenzene	105	16.424	16.410	(0.984)	1678478	20.0000	18
	113 p-Isopropyltoluene	119	16.557	16.543	(0.992)	1404306	20.0000	19
	67 1,3-Dichlorobenzene	146	16.616	16.617	(0.996)	1230978	20.0000	19
*	91 1,4-Dichlorobenzene-d4	152	16.690	16.676	(1.000)	2233108	50.0000	
	68 1,4-Dichlorobenzene	146	16.705	16.705	(1.001)	1316854	20.0000	18
	117 Benzyl chloride	91	16.823	16.809	(1.008)	953259	20.0000	20
	111 n-Butylbenzene	91	17.015	17.001	(1.019)	1362204	20.0000	19
	69 1,2-Dichlorobenzene	146	17.148	17.149	(1.027)	1190416	20.0000	19
	101 1,2-Dibromo-3-chloropropane	75	18.005	17.991	(1.079)	184093	20.0000	20
	93 1,2,4-Trichlorobenzene	180	19.009	18.995	(1.139)	835046	20.0000	19
	94 Hexachlorobutadiene	225	19.157	19.158	(1.148)	491251	20.0000	19
	70 Naphthalene	128	19.364	19.350	(1.160)	976431	20.0000	19
	98 1,2,3-Trichlorobenzene	180	19.660	19.660	(1.178)	700804	20.0000	19
M	14 1,2-Dichloroethene (total)	100				1246366	40.0000	38
M	45 Xylene (Total)	100				1808780	60.0000	62

QC Flag Legend

H - Operator selected an alternate compound hit.

304857

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Date : 07-OCT-1998 07:32
Client ID:
Sample Info: ASTD020

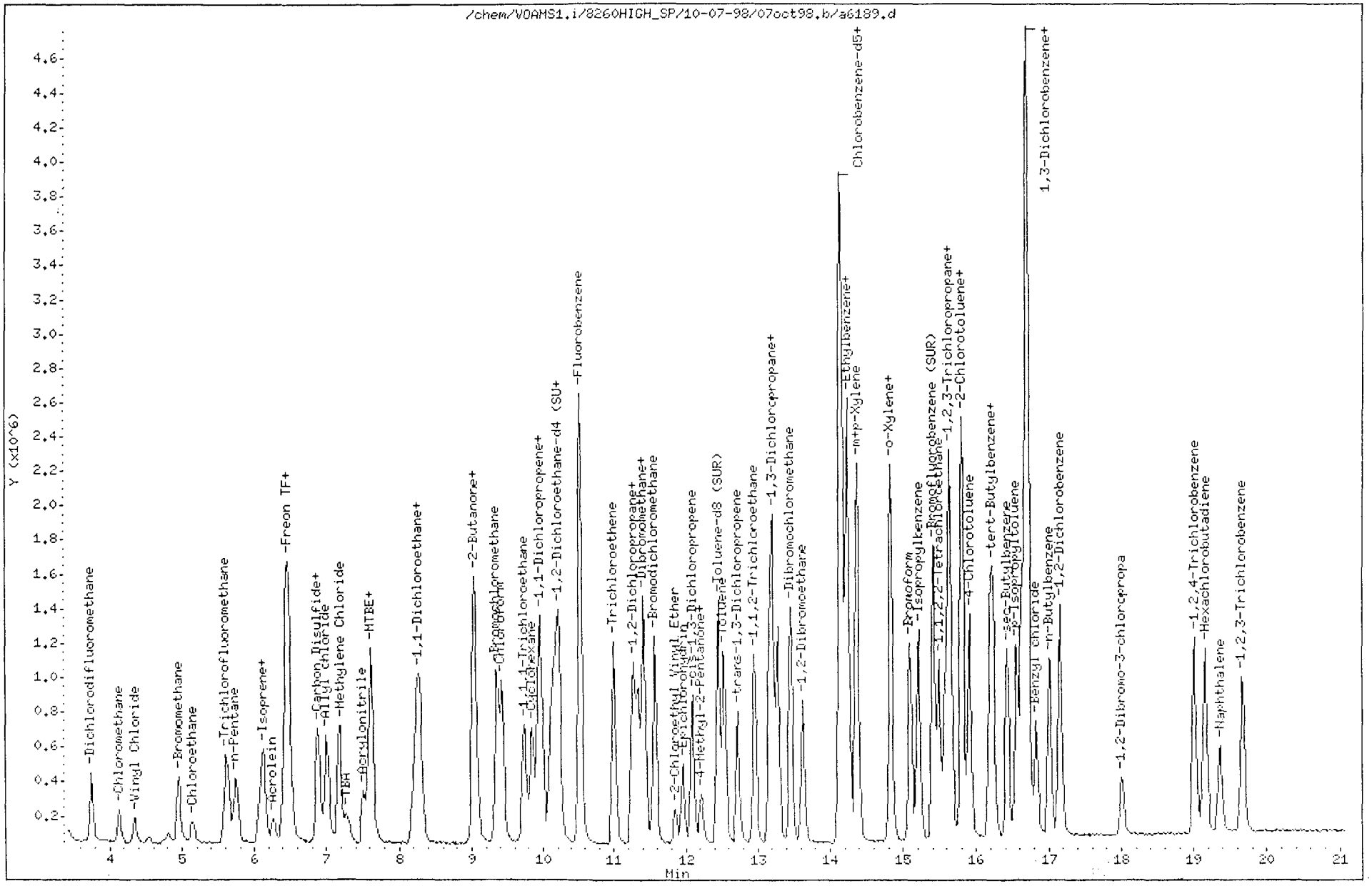
Instrument: VOAMS1.i

Operator: VOAMS 3

304858

Column phase: DB624

Column diameter: 0.53



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Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Report Date: 12-Nov-1998 11:04

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Lab Smp Id: ASTD005
Inj Date : 07-OCT-1998 06:15
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD005
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 08-Oct-98 11:28:48 maryb Quant Type: ISTD
Cal Date : 07-OCT-1998 06:15 Cal File: a6187.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.691	3.734	(0.352)	179495	5.00000	4.3(a)
1 Chloromethane	50	4.060	4.118	(0.387)	82841	5.00000	4.4(a)
4 Vinyl Chloride	62	4.281	4.340	(0.408)	71697	5.00000	4.7(a)
3 Bromomethane	94	4.917	4.946	(0.469)	116449	5.00000	4.2(a)
5 Chloroethane	64	5.079	5.138	(0.484)	64114	5.00000	4.8(a)
9 Trichlorofluoromethane	101	5.552	5.611	(0.529)	257982	5.00000	4.8(a)
121 n-Pentane	72	5.670	5.743	(0.541)	21510	5.00000	6.0
46 Ethyl Ether	59	5.995	6.068	(0.572)	85079	5.00000	5.1
119 Isoprene	67	6.054	6.128	(0.577)	126381	5.00000	5.2
47 Acrolein	56	6.202	6.261	(0.591)	127745	100.000	89(a)
48 Freon TF	101	6.394	6.453	(0.610)	394459	5.00000	5.4
10 1,1-Dichloroethene	96	6.394	6.467	(0.610)	69972	2.00000	2.4
7 Acetone	43	6.438	6.497	(0.614)	63649	5.00000	8.1
8 Carbon Disulfide	76	6.808	6.866	(0.649)	396168	5.00000	5.0
116 Allyl chloride	76	6.941	6.999	(0.662)	74857	5.00000	5.1(H)

304859

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Report Date: 12-Nov-1998 11:04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	50 Acetonitrile	41	6.837	6.881	(0.652)	108659	100.000	86(a)
	6 Methylene Chloride	84	7.118	7.162	(0.679)	123854	3.00000	3.7
	51 TBA	59	7.236	7.280	(0.690)	88877	100.000	91(a)
	52 Acrylonitrile	53	7.458	7.502	(0.711)	229483	50.0000	43(a)
	53 MTBE	73	7.546	7.590	(0.720)	268860	5.00000	4.9(a)
	12 trans-1,2-Dichloroethene	96	7.561	7.605	(0.721)	169705	5.00000	5.4
	11 1,1-Dichloroethane	63	8.167	8.211	(0.779)	290462	5.00000	5.1
	57 Vinyl Acetate	43	8.211	8.270	(0.783)	229415	5.00000	5.3
	55 DIPE	45	8.226	8.270	(0.784)	512552	5.00000	5.0
	18 2-Butanone	72	8.950	8.979	(0.853)	10892	5.00000	5.5(M)
	13 cis-1,2-Dichloroethene	96	8.979	9.023	(0.856)	186565	5.00000	5.6
	104 2,2-Dichloropropane	77	8.994	9.038	(0.858)	216019	5.00000	5.3
	108 Bromochloromethane	128	9.304	9.348	(0.887)	156405	5.00000	5.5
	15 Chloroform	83	9.378	9.422	(0.894)	359940	5.00000	5.3
	20 1,1,1-Trichloroethane	97	9.689	9.732	(0.924)	275707	5.00000	5.6
	59 Cyclohexane	56	9.807	9.836	(0.935)	200755	5.00000	5.6
	92 1,1-Dichloropropene	75	9.895	9.924	(0.944)	219008	5.00000	5.5
	21 Carbon Tetrachloride	117	9.925	9.969	(0.946)	105663	2.00000	2.1
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.043	10.087	(0.958)	188033	5.00000	5.5
	63 n-Butanol	56	9.807	9.849	(0.935)	200755	5.00000	(a)
	61 Isopropyl Acetate	43	10.102	10.131	(0.963)	484110	10.0000	10
	17 1,2-Dichloroethane	62	10.147	10.176	(0.968)	77842	2.00000	2.1
	28 Benzene	78	10.176	10.205	(0.970)	89929	1.00000	1.2
*	19 Fluorobenzene	96	10.486	10.530	(1.000)	4479163	50.0000	
	25 Trichloroethene	95	10.944	10.988	(1.044)	52671	1.00000	1.3
	23 1,2-Dichloropropane	63	11.225	11.254	(1.070)	47731	1.00000	1.3
	120 Methyl methacrylate	69	11.269	11.284	(1.075)	84247	5.00000	5.1
	109 Dibromomethane	93	11.373	11.402	(1.085)	242864	5.00000	5.3
	95 1,4-Dioxane	88	11.358	11.387	(1.083)	109136	1000.00	790(a)
	22 Bromodichloromethane	83	11.521	11.564	(1.099)	77018	1.00000	1.0
	30 2-Chloroethyl Vinyl Ether	63	11.816	11.845	(1.127)	34713	5.00000	4.0(aH)
	118 Epichlorohydrin	57	11.934	11.948	(1.138)	179546	100.000	95(a)
	24 cis-1,3-Dichloropropene	75	12.052	12.081	(1.149)	260455	5.00000	5.3
	33 4-Methyl-2-Pentanone	43	12.185	12.200	(1.162)	103854	5.00000	4.3(a)
$	37 Toluene-d8 (SUR)	98	12.422	12.436	(0.881)	498478	5.00000	6.1
	38 Toluene	91	12.496	12.525	(0.886)	449775	5.00000	5.8
	29 trans-1,3-Dichloropropene	75	12.688	12.702	(0.899)	212361	5.00000	5.4
	27 1,1,2-Trichloroethane	83	12.924	12.938	(0.916)	88683	3.00000	3.0
	103 1,3-Dichloropropane	76	13.131	13.145	(0.931)	242407	5.00000	5.3
	35 Tetrachloroethene	166	13.175	13.204	(0.934)	66787	1.00000	1.3
	34 2-Hexanone	43	12.185	12.200	(0.864)	103854	5.00000	4.5(a)
	26 Dibromochloromethane	129	13.426	13.441	(0.952)	358578	5.00000	5.2
	66 1,2-Dibromoethane	107	13.604	13.618	(0.964)	307321	5.00000	5.3
*	32 Chlorobenzene-d5	117	14.106	14.135	(1.000)	4020588	50.0000	
	39 Chlorobenzene	112	14.150	14.164	(1.003)	380694	5.00000	5.8
	40 Ethylbenzene	106	14.224	14.238	(1.008)	112849	4.00000	4.6
	43 m+p-Xylene	106	14.342	14.356	(1.017)	358853	10.0000	12(H)

304860

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Report Date: 12-Nov-1998 11:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
97 1,1,1,2-Tetrachloroethane	131	14.209	14.223	(1.007)	219288	5.00000	5.5
44 o-Xylene	106	14.800	14.814	(1.049)	170972	5.00000	5.8
42 Styrene	104	14.815	14.829	(1.050)	304730	5.00000	6.0
31 Bromoform	173	15.081	15.095	(1.069)	182469	4.00000	3.6(a)
110 Isopropylbenzene	105	15.184	15.199	(1.076)	360154	5.00000	5.5
$ 41 Bromofluorobenzene (SUR)	174	15.391	15.405	(0.924)	286738	5.00000	5.9
36 1,1,2,2-Tetrachloroethane	83	15.480	15.479	(0.929)	70869	1.00000	1.2
99 1,2,3-Trichloropropane	75	15.554	15.568	(0.933)	202222	5.00000	5.2
107 Bromobenzene	156	15.613	15.612	(0.937)	249076	5.00000	5.5
112 n-Propylbenzene	91	15.628	15.642	(0.938)	558716	5.00000	5.5
105 2-Chlorotoluene	91	15.790	15.789	(0.948)	403008	5.00000	5.1
102 1,3,5-Trimethylbenzene	105	15.790	15.804	(0.948)	400423	5.00000	5.8
106 4-Chlorotoluene	91	15.879	15.893	(0.953)	458129	5.00000	5.5
115 tert-Butylbenzene	119	16.174	16.188	(0.971)	403230	5.00000	5.6
100 1,2,4-Trimethylbenzene	105	16.219	16.218	(0.973)	419767	5.00000	5.8
114 sec-Butylbenzene	105	16.411	16.410	(0.985)	509259	5.00000	5.6
113 p-Isopropyltoluene	119	16.529	16.543	(0.992)	405569	5.00000	5.4
67 1,3-Dichlorobenzene	146	16.603	16.617	(0.996)	359393	5.00000	5.6
* 91 1,4-Dichlorobenzene-d4	152	16.662	16.676	(1.000)	2222372	50.0000	
68 1,4-Dichlorobenzene	146	16.691	16.705	(1.002)	415399	5.00000	5.6
117 Benzyl chloride	91	16.809	16.809	(1.009)	229814	5.00000	4.7(a)
111 n-Butylbenzene	91	16.987	17.001	(1.020)	390125	5.00000	5.4
69 1,2-Dichlorobenzene	146	17.134	17.149	(1.028)	342107	5.00000	5.4
101 1,2-Dibromo-3-chloropropane	75	17.991	17.991	(1.080)	41216	5.00000	4.4(a)
93 1,2,4-Trichlorobenzene	180	18.996	18.995	(1.140)	233020	5.00000	5.3
94 Hexachlorobutadiene	225	19.144	19.158	(1.149)	153707	5.00000	5.8
70 Naphthalene	128	19.351	19.350	(1.161)	282485	5.00000	5.4
98 1,2,3-Trichlorobenzene	180	19.661	19.660	(1.180)	187785	5.00000	5.2
M 14 1,2-Dichloroethene (total)	100				356270	10.0000	11
M 45 Xylene (Total)	100				529825	15.0000	18

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304861

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Date : 07-OCT-1998 06:15
Client ID:
Sample Info: ASTD005

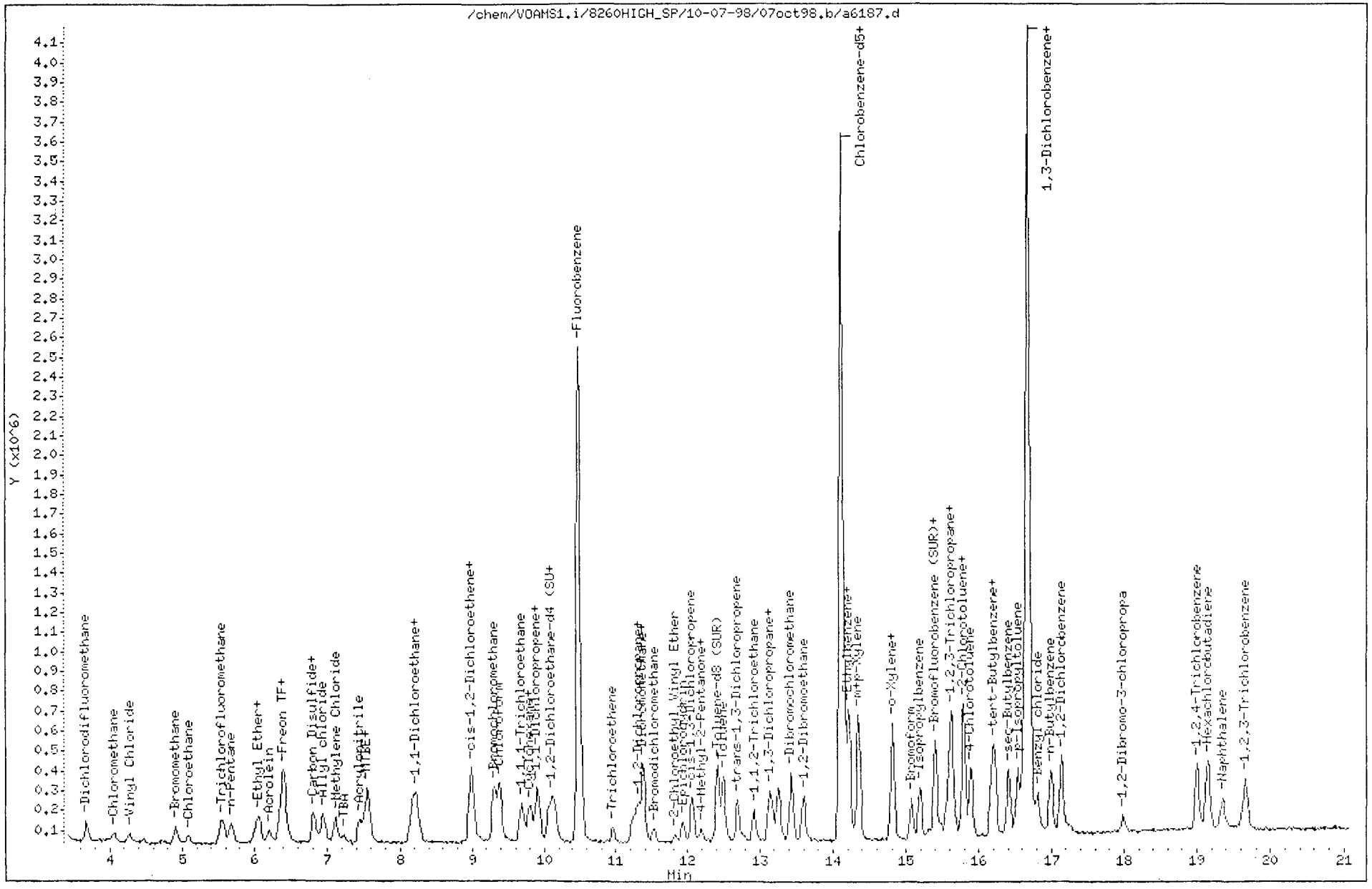
Instrument: VOAMS1.i

Operator: VOAMS 3

304862

Column phase: DB624

Column diameter: 0.53



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VOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date: 10/20/98 Time: 1106

Lab File ID: A6469 Init. Calib. Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Init. Calib. Times: 0615 0900

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.208	0.213	0.1	-2.4	50.0
Bromomethane	0.308	0.196		36.4	50.0
Vinyl Chloride	0.170	0.190		-11.6	20.0
Chloroethane	0.149	0.170		-13.9	50.0
Methylene Chloride	0.377	0.375		0.5	50.0
Acetone	0.088	0.081		8.0	50.0
Carbon Disulfide	0.876	0.969		-10.6	50.0
Trichlorofluoromethane	0.601	0.663		-10.3	50.0
1,1-Dichloroethene	0.322	0.342		-6.2	20.0
1,1-Dichloroethane	0.636	0.687	0.1	-8.0	50.0
trans-1,2-Dichloroethene	0.349	0.361		-3.4	50.0
cis-1,2-Dichloroethene	0.369	0.388		-5.1	50.0
Chloroform	0.752	0.791		-5.0	20.0
1,2-Dichloroethane	0.417	0.424		-1.5	50.0
2-Butanone	0.022	0.026		-18.0	50.0
1,1,1-Trichloroethane	0.545	0.554		-1.6	50.0
Carbon Tetrachloride	0.551	0.566		-2.7	50.0
Bromodichloromethane	0.817	0.842		-3.0	50.0
1,2-Dichloropropane	0.416	0.391		6.0	20.0
cis-1,3-Dichloropropene	0.548	0.547		0.2	50.0
Trichloroethene	0.458	0.432		5.7	50.0
Dibromochloromethane	0.937	0.914		2.4	50.0
1,1,2-Trichloroethane	0.400	0.393		1.8	50.0
Benzene	0.824	0.786		4.6	50.0
trans-1,3-Dichloropropene	0.532	0.506		4.9	50.0
2-Chloroethyl Vinyl Ether	0.095	0.063		33.7	50.0
Bromoform	0.692	0.703	0.1	-1.4	50.0
4-Methyl-2-Pentanone	0.268	0.301		-12.3	50.0
2-Hexanone	0.314	0.340		-8.1	50.0
Tetrachloroethene	0.667	0.627		6.0	50.0
1,1,2,2-Tetrachloroethane	1.345	1.270	0.3	5.6	50.0
Toluene	1.052	1.019		3.1	20.0
Chlorobenzene	0.887	0.864	0.3	2.6	50.0
Ethylbenzene	0.332	0.330		0.6	20.0
Styrene	0.692	0.682		1.4	50.0
Xylene (Total)	0.404	0.386		4.4	50.0
Ethyl Ether	0.188	0.197		-4.6	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date: 10/20/98 Time: 1106

Lab File ID: A6469 Init. Calib. Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Init. Calib. Times: 0615 0900

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Acrolein	0.016	0.009		43.8	50.0
Freon TF	0.810	0.892		-10.1	50.0
Isopropanol					50.0
Acetonitrile	0.014	0.018		-28.4	50.0
TBA	0.011	0.017		-54.5	50.0
Acrylonitrile	0.059	0.068		-15.2	50.0
MTBE	0.611	0.673		-10.1	50.0
Hexane					50.0
DIPE	1.132	1.243		-9.8	50.0
Ethyl Acetate					50.0
Vinyl Acetate	0.485	0.530		-9.1	50.0
Tetrahydrofuran					50.0
Cyclohexane	0.401	0.418		-4.2	50.0
Isobutanol					50.0
Isopropyl Acetate	0.515	0.506		1.7	50.0
n-Heptane					50.0
n-Butanol					50.0
Propyl Acetate					50.0
Butyl Acetate					50.0
1,2-Dibromoethane	0.792	0.766		3.3	50.0
1,3-Dichlorobenzene	1.437	1.320		8.1	50.0
1,4-Dichlorobenzene	1.655	1.487		10.2	50.0
1,2-Dichlorobenzene	1.418	1.302		8.2	50.0
Naphthalene	1.169	1.150		1.6	50.0
Methylnaphthalene (total)					50.0
Dimethylnaphthalene (total)					50.0
Dichlorodifluoromethane	0.462	0.542		-17.3	50.0
1,1-Dichloropropene	0.445	0.440		1.1	50.0
1,2,4-Trichlorobenzene	0.986	0.951		3.5	50.0
Hexachlorobutadiene	0.591	0.554		6.3	50.0
1,4-Dioxane	0.002	0.003		-50.0	50.0
Methyl Acrylate					50.0
1,1,1,2-Tetrachloroethane	0.543	0.549		-1.1	50.0
1,2,3-Trichlorobenzene	0.816	0.803		1.6	50.0
1,2,3-Trichloropropane	0.872	0.856		1.8	50.0
1,2,4-Trimethylbenzene	1.628	1.515		6.9	50.0
1,2-Dibromo-3-chloropropane	0.210	0.215		-2.2	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date: 10/20/98 Time: 1106

Lab File ID: A6469 Init. Calib. Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Init. Calib. Times: 0615 0900

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3,5-Trimethylbenzene	1.557	1.462		6.1	50.0
1,3-Dichloropropane	0.614	0.620		0.1	50.0
2,2-Dichloropropane	0.457	0.525		-14.7	50.0
2-Chlorotoluene	1.766	1.673		5.3	50.0
4-Chlorotoluene	1.867	1.768		5.3	50.0
Bromobenzene	1.019	0.971		4.7	50.0
Bromochloromethane	0.317	0.335		-5.5	50.0
Dibromomethane	0.512	0.518		-1.0	50.0
Isopropylbenzene	0.881	1.085		-23.0	50.0
n-Butylbenzene	1.621	1.515		6.5	50.0
n-Propylbenzene	2.297	2.148		6.5	50.0
p-Isopropyltoluene	1.685	1.586		5.9	50.0
sec-Butylbenzene	2.043	1.854		9.2	50.0
tert-Butylbenzene	1.617	1.498		7.4	50.0
Allyl chloride	0.163	0.187		-14.7	50.0
Benzyl chloride	1.094	1.071		2.1	50.0
Epichlorohydrin	0.021	0.024		-14.1	50.0
Isoprene	0.268	0.279		-4.1	50.0
Methyl methacrylate	0.184	0.194		-5.4	50.0
n-Pentane	0.040	0.043		-7.5	50.0
Allyl alcohol					50.0
Amyl Acetate					50.0
1,2-Dichloroethane-d4 (SUR)	0.384	0.372		3.1	50.0
Toluene-d8 (SUR)	1.100	1.029		6.4	50.0
Bromofluorobenzene (SUR)	1.099	1.024		6.8	50.0

304865

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Report Date: 12-Nov-1998 11:06

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Lab Smp Id: ASTD293
Inj Date : 20-OCT-1998 11:06
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD293
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/new8260HIGH.m
Meth Date : 23-Oct-98 15:24:04 riaz Quant Type: ISTD
Cal Date : 07-OCT-1998 09:00 Cal File: a6192.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.690	3.734	(0.351)	1976116	50.0000	59
1 Chloromethane	50	4.089	4.118	(0.389)	775725	50.0000	51
4 Vinyl Chloride	62	4.296	4.340	(0.409)	691441	50.0000	56
3 Bromomethane	94	4.916	4.946	(0.468)	716183	50.0000	32
5 Chloroethane	64	5.093	5.138	(0.484)	618559	50.0000	57
9 Trichlorofluoromethane	101	5.566	5.611	(0.529)	2415227	50.0000	55
121 n-Pentane	72	5.699	5.743	(0.542)	155562	50.0000	54
46 Ethyl Ether	59	6.024	6.068	(0.573)	718117	50.0000	52
119 Isoprene	67	6.083	6.128	(0.579)	1017713	50.0000	52
47 Acrolein	56	6.231	6.261	(0.593)	192301	300.000	160
48 Freon TF	101	6.408	6.453	(0.609)	3252151	50.0000	55
10 1,1-Dichloroethene	96	6.423	6.467	(0.611)	1245097	50.0000	53
7 Acetone	43	6.453	6.497	(0.614)	295738	50.0000	46
8 Carbon Disulfide	76	6.822	6.866	(0.649)	3532062	50.0000	55
116 Allyl chloride	76	6.955	6.999	(0.661)	683132	50.0000	57

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Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Report Date: 12-Nov-1998 11:06

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
50 Acetonitrile	41	6.852	6.881	(0.652)	1337680	1000.00	1300
6 Methylene Chloride	84	7.132	7.162	(0.678)	1366004	50.0000	50
51 TBA	59	7.250	7.280	(0.690)	1245828	1000.00	1600(M)
52 Acrylonitrile	53	7.457	7.502	(0.709)	747189	150.000	170
53 MTBE	73	7.561	7.590	(0.719)	2454060	50.0000	55
12 trans-1,2-Dichloroethene	96	7.575	7.605	(0.720)	1316922	50.0000	52
11 1,1-Dichloroethane	63	8.196	8.211	(0.779)	2505321	50.0000	54
57 Vinyl Acetate	43	8.240	8.270	(0.784)	1932997	50.0000	55
55 DIPE	45	8.240	8.270	(0.784)	4531541	50.0000	55
18 2-Butanone	72	8.964	8.979	(0.852)	96918	50.0000	60
13 cis-1,2-Dichloroethene	96	8.994	9.023	(0.855)	1412465	50.0000	52
104 2,2-Dichloropropane	77	9.023	9.038	(0.858)	1912575	50.0000	57
108 Bromochloromethane	128	9.319	9.348	(0.886)	1220523	50.0000	53
15 Chloroform	83	9.393	9.422	(0.893)	2882024	50.0000	53
20 1,1,1-Trichloroethane	97	9.718	9.732	(0.924)	2020439	50.0000	51
59 Cyclohexane	56	9.821	9.836	(0.934)	1525296	50.0000	52
92 1,1-Dichloropropene	75	9.910	9.924	(0.942)	1605170	50.0000	50
21 Carbon Tetrachloride	117	9.954	9.969	(0.947)	2064456	50.0000	51
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.072	10.087	(0.958)	1354520	50.0000	48
61 Isopropyl Acetate	43	10.117	10.131	(0.962)	3688991	100.000	98
17 1,2-Dichloroethane	62	10.161	10.176	(0.966)	1543922	50.0000	51
28 Benzene	78	10.190	10.205	(0.969)	2866652	50.0000	48
* 19 Fluorobenzene	96	10.515	10.530	(1.000)	3644575	50.0000	
25 Trichloroethene	95	10.973	10.988	(1.044)	1572640	50.0000	47
23 1,2-Dichloropropane	63	11.239	11.254	(1.069)	1426707	50.0000	47
120 Methyl methacrylate	69	11.284	11.284	(1.073)	708125	50.0000	53
109 Dibromomethane	93	11.402	11.402	(1.084)	1886800	50.0000	50
95 1,4-Dioxane	88	11.372	11.387	(1.081)	588517	3000.00	5200(A)
22 Bromodichloromethane	83	11.550	11.564	(1.098)	3067520	50.0000	52
30 2-Chloroethyl Vinyl Ether	63	11.845	11.845	(1.126)	228873	50.0000	33
118 Epichlorohydrin	57	11.948	11.948	(1.136)	1758012	1000.00	1100
24 cis-1,3-Dichloropropene	75	12.081	12.081	(1.149)	1995023	50.0000	50
33 4-Methyl-2-Pentanone	43	12.200	12.200	(1.160)	1096502	50.0000	56
$ 37 Toluene-d8 (SUR)	98	12.436	12.436	(0.880)	3318767	50.0000	47
38 Toluene	91	12.525	12.525	(0.886)	3286802	50.0000	48
29 trans-1,3-Dichloropropene	75	12.702	12.702	(0.899)	1631821	50.0000	48
27 1,1,2-Trichloroethane	83	12.938	12.938	(0.915)	1268418	50.0000	49
103 1,3-Dichloropropane	76	13.145	13.145	(0.930)	1998186	50.0000	50
35 Tetrachloroethene	166	13.204	13.204	(0.934)	2021990	50.0000	47
34 2-Hexanone	43	12.200	12.200	(0.863)	1096502	50.0000	54
26 Dibromochloromethane	129	13.455	13.441	(0.952)	2946273	50.0000	49
66 1,2-Dibromoethane	107	13.618	13.618	(0.963)	2470691	50.0000	48
* 32 Chlorobenzene-d5	117	14.135	14.135	(1.000)	3224925	50.0000	
39 Chlorobenzene	112	14.164	14.164	(1.002)	2787204	50.0000	49
40 Ethylbenzene	106	14.253	14.238	(1.008)	1063382	50.0000	50
43 m+p-Xylene	106	14.371	14.356	(1.017)	2504196	100.000	96
97 1,1,1,2-Tetrachloroethane	131	14.238	14.223	(1.007)	1772058	50.0000	50

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Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Report Date: 12-Nov-1998 11:06

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
44 o-Xylene	106	14.829	14.814	(1.049)	1234376	50.0000	48
42 Styrene	104	14.829	14.829	(1.049)	2198057	50.0000	49
31 Bromoform	173	15.095	15.095	(1.068)	2267593	50.0000	51
110 Isopropylbenzene	105	15.213	15.199	(1.076)	3498189	50.0000	62
$ 41 Bromofluorobenzene (SUR)	174	15.420	15.405	(0.924)	1913289	50.0000	46
36 1,1,2,2-Tetrachloroethane	83	15.494	15.479	(0.928)	2373114	50.0000	47
99 1,2,3-Trichloropropane	75	15.583	15.568	(0.934)	1600083	50.0000	49
107 Bromobenzene	156	15.627	15.612	(0.936)	1814914	50.0000	48
112 n-Propylbenzene	91	15.657	15.642	(0.938)	4014633	50.0000	47
105 2-Chlorotoluene	91	15.804	15.789	(0.947)	3126712	50.0000	47
102 1,3,5-Trimethylbenzene	105	15.819	15.804	(0.948)	2732671	50.0000	47
106 4-Chlorotoluene	91	15.908	15.893	(0.953)	3303264	50.0000	47
115 tert-Butylbenzene	119	16.203	16.188	(0.971)	2800597	50.0000	46
100 1,2,4-Trimethylbenzene	105	16.248	16.218	(0.973)	2830945	50.0000	46
114 sec-Butylbenzene	105	16.440	16.410	(0.985)	3464260	50.0000	45
113 p-Isopropyltoluene	119	16.558	16.543	(0.992)	2964134	50.0000	47
67 1,3-Dichlorobenzene	146	16.632	16.617	(0.996)	2466354	50.0000	46
* 91 1,4-Dichlorobenzene-d4	152	16.691	16.676	(1.000)	1868847	50.0000	
68 1,4-Dichlorobenzene	146	16.720	16.705	(1.002)	2778278	50.0000	45
117 Benzyl chloride	91	16.824	16.809	(1.008)	2001822	50.0000	49
111 n-Butylbenzene	91	17.016	17.001	(1.019)	2830738	50.0000	47
69 1,2-Dichlorobenzene	146	17.163	17.149	(1.028)	2433375	50.0000	46
101 1,2-Dibromo-3-chloropropane	75	18.020	17.991	(1.080)	402181	50.0000	51
93 1,2,4-Trichlorobenzene	180	19.025	18.995	(1.140)	1777419	50.0000	48
94 Hexachlorobutadiene	225	19.173	19.158	(1.149)	1036212	50.0000	47
70 Naphthalene	128	19.380	19.350	(1.161)	2149069	50.0000	49
98 1,2,3-Trichlorobenzene	180	19.690	19.660	(1.180)	1500542	50.0000	49
M 14 1,2-Dichloroethene (total)	100				2729387	100.000	100
M 45 Xylene (Total)	100				3738572	150.000	140

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

304868

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Date : 20-OCT-1998 11:06
Client ID:
Sample Info: ASTD293

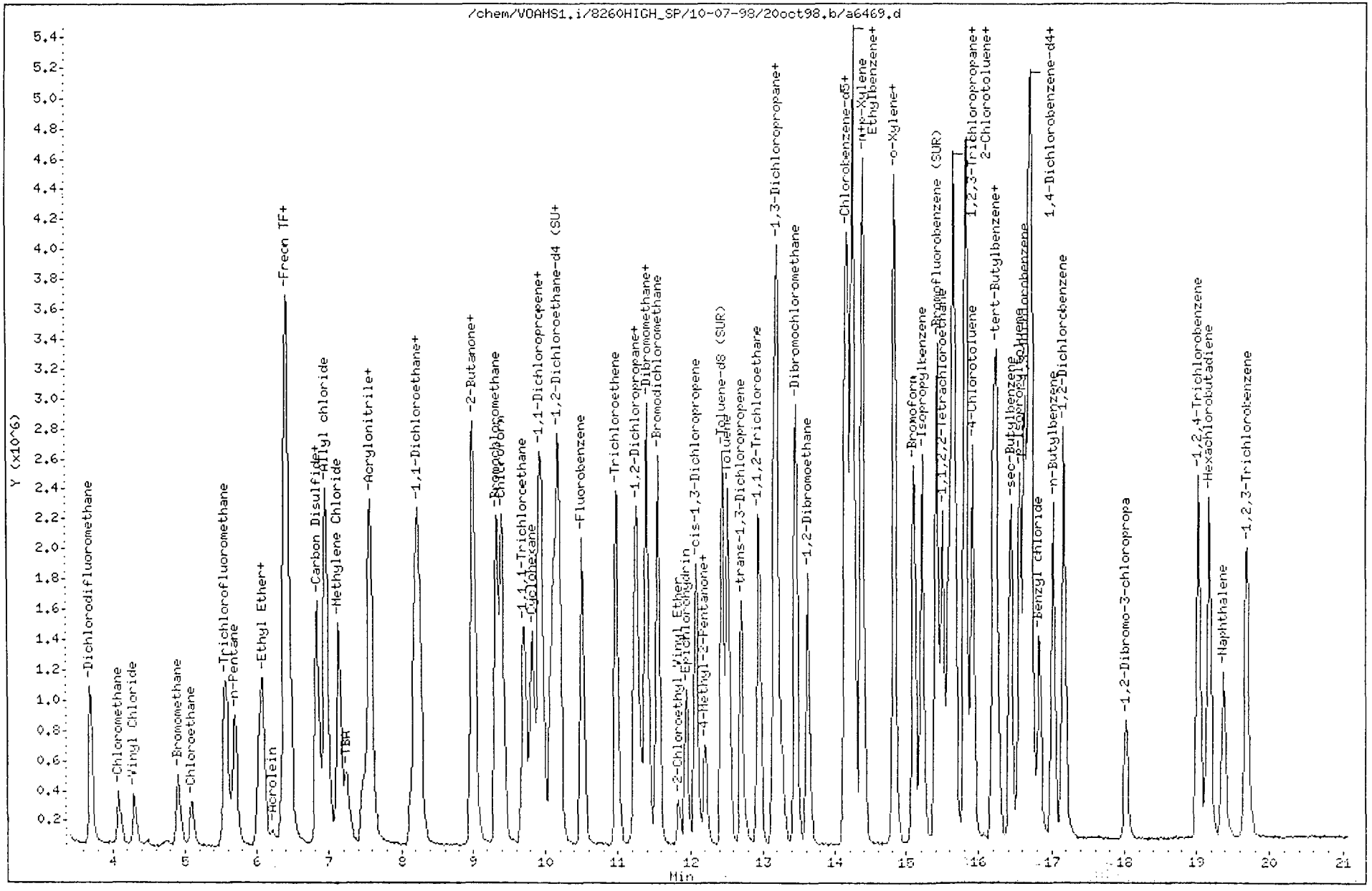
Instrument: VOAMS1.i

Operator: VOAMS 3

304869

Column phase: DB624

Column diameter: 0.53



VOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8260B

Instrument ID: VOAMS3 Calibration Date(s): 10/17/98 10/17/98

Heated Purge: (Y/N) N Calibration Time(s): 1135 1401

LAB FILE ID: RRF5: C2197 RRF20: C2199 RRF50: C2200
RRF100: C2201 RRF200: C2202

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Chloromethane	0.217	0.156	0.178	0.149	0.148
Bromomethane	0.243	0.220	0.248	0.198	0.196
Vinyl Chloride	0.189	0.165	0.194	0.160	0.157
Chloroethane	0.176	0.144	0.166	0.138	0.131
Methylene Chloride	0.430	0.285	0.278	0.257	0.243
Acetone	0.139	0.094	0.077	0.079	0.077
Carbon Disulfide	0.666	0.653	0.667	0.636	0.687
Trichlorofluoromethane	0.540	0.447	0.526	0.423	0.404
1,1-Dichloroethene	0.412	0.275	0.276	0.262	0.237
1,1-Dichloroethane	0.611	0.588	0.589	0.553	0.510
trans-1,2-Dichloroethene	0.351	0.306	0.302	0.286	0.264
cis-1,2-Dichloroethene	0.372	0.306	0.312	0.296	0.270
Chloroform	0.640	0.586	0.589	0.553	0.519
1,2-Dichloroethane	0.471	0.407	0.410	0.391	0.360
2-Butanone	0.037	0.029	0.030	0.027	0.029
1,1,1-Trichloroethane	0.537	0.462	0.465	0.441	0.416
Carbon Tetrachloride	0.483	0.411	0.416	0.402	0.370
Bromodichloromethane	0.685	0.525	0.536	0.524	0.490
1,2-Dichloropropane	0.404	0.359	0.360	0.337	0.316
cis-1,3-Dichloropropene	0.558	0.507	0.512	0.483	0.447
Trichloroethene	0.585	0.362	0.359	0.342	0.312
Dibromochloromethane	0.632	0.532	0.669	0.667	0.689
1,1,2-Trichloroethane	0.405	0.349	0.437	0.420	0.423
Benzene	1.272	0.839	0.845	0.788	0.743
trans-1,3-Dichloropropene	0.637	0.510	0.635	0.615	0.627
2-Chloroethyl Vinyl Ether	0.175	0.208	0.193	0.210	0.224
Bromoform	0.376	0.335	0.450	0.439	0.466
4-Methyl-2-Pentanone	0.300	0.322	0.333	0.321	0.336
2-Hexanone	0.248	0.220	0.314	0.288	0.337
Tetrachloroethene	0.868	0.486	0.568	0.546	0.545
1,1,2,2-Tetrachloroethane	2.388	1.336	1.535	1.383	1.338
Toluene	1.584	1.249	1.484	1.428	1.432
Chlorobenzene	1.113	0.866	1.055	1.007	0.999
Ethylbenzene	0.520	0.392	0.477	0.438	0.425
Styrene	0.993	0.798	0.942	0.915	0.907
Xylene (Total)	0.606	0.508	0.599	0.583	0.567
Ethyl Ether	0.210	0.208	0.236	0.193	0.196
Acrolein	0.015	0.013	0.016	0.015	0.017
Freon TF	0.731	0.658	0.758	0.616	0.605

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VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS3 Calibration Date(s): 10/17/98 10/17/98

Heated Purge: (Y/N) N Calibration Time(s): 1135 1401

LAB FILE ID: RRF5: C2197 RRF20: C2199 RRF50: C2200
RRF100: C2201 RRF200: C2202

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Isopropanol					
Acetonitrile	0.033	0.033	0.037	0.031	0.032
TBA	0.023	0.022	0.023	0.022	0.024
Acrylonitrile	0.047	0.058	0.061	0.061	0.066
MTBE	0.758	0.772	0.800	0.747	0.792
Hexane					
DIPE	1.304	1.272	1.420	1.186	1.215
Ethyl Acetate					
Vinyl Acetate	0.582	0.584	0.642	0.536	0.533
Tetrahydrofuran					
Cyclohexane	0.553	0.514	0.558	0.459	0.462
Isobutanol					
Isopropyl Acetate					
n-Heptane					
n-Butanol					
Propyl Acetate					
Butyl Acetate					
1,2-Dibromoethane	0.672	0.548	0.686	0.651	0.668
1,3-Dichlorobenzene	1.736	1.306	1.328	1.194	1.251
1,4-Dichlorobenzene	2.735	2.267	2.230	2.157	1.798
1,2-Dichlorobenzene	1.917	1.599	1.636	1.498	1.381
Naphthalene	2.570	1.718	2.135	1.931	1.961
Methylnaphthalene (total)					
Dimethylnaphthalene (total)					
Dichlorodifluoromethane	0.469	0.364	0.478	0.391	0.376
1,1-Dichloropropene	0.500	0.431	0.431	0.406	0.372
1,2,4-Trichlorobenzene	1.311	1.020	1.106	1.007	0.936
Hexachlorobutadiene	0.931	0.743	0.767	0.708	0.652
1,4-Dioxane	0.003	0.003	0.003	0.003	0.003
Methyl Acrylate					
1,1,1,2-Tetrachloroethane	0.481	0.395	0.500	0.484	0.487
1,2,3-Trichlorobenzene	1.223	0.814	1.000	0.880	0.851
1,2,3-Trichloropropane	1.216	1.097	1.241	1.130	1.048
1,2,4-Trimethylbenzene	2.891	2.508	2.461	2.314	2.051
1,2-Dibromo-3-chloropropane	0.293	0.238	0.270	0.245	0.243
1,3,5-Trimethylbenzene	3.007	2.613	2.562	2.444	2.171
1,3-Dichloropropane	0.745	0.632	0.787	0.744	0.754
2,2-Dichloropropane	0.537	0.460	0.463	0.428	0.390
2-Chlorotoluene	2.441	2.622	1.923	1.712	1.584

304871

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS3 Calibration Date(s): 10/17/98 10/17/98

Heated Purge: (Y/N) N Calibration Time(s): 1135 1401

LAB FILE ID: RRF5: C2197 RRF20: C2199 RRF50: C2200
RRF100: C2201 RRF200: C2202

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
4-Chlorotoluene	2.988	2.983	3.026	2.919	2.657
Bromobenzene	1.286	1.022	1.091	0.972	0.916
Bromochloromethane	0.244	0.210	0.208	0.195	0.186
Dibromomethane	0.344	0.305	0.307	0.294	0.272
Isopropylbenzene	1.283	1.401	1.696	1.610	1.614
n-Butylbenzene	3.309	3.222	3.190	2.985	2.721
n-Propylbenzene	4.162	3.958	3.908	3.719	3.396
p-Isopropyltoluene	3.031	2.976	2.971	2.865	2.599
sec-Butylbenzene	4.008	3.742	3.714	3.528	3.298
tert-Butylbenzene	2.889	2.739	2.755	2.574	2.386
Allyl chloride	0.189	0.182	0.191	0.172	0.168
Benzyl chloride	1.756	1.586	1.885	1.453	1.492
Epichlorohydrin	0.029	0.028	0.032	0.027	0.028
Isoprene	0.318	0.304	0.347	0.288	0.291
Methyl methacrylate	0.212	0.233	0.259	0.222	0.225
n-Pentane	0.071	0.062	0.067	0.055	0.054
Allyl alcohol					
Amyl Acetate					
1,2-Dichloroethane-d4 (SUR)	0.351	0.354	0.339	0.349	0.332
Toluene-d8 (SUR)	1.270	1.193	1.287	1.379	1.454
Bromofluorobenzene (SUR)	1.149	0.995	0.924	0.980	0.955

304872

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS3 Calibration Date(s): 10/17/98 10/17/98

Heated Purge: (Y/N) N Calibration Time(s): 1135 1401

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Chloromethane	AVRG	0.16973685	17.0**
Bromomethane	AVRG	0.22118746	10.9*
Vinyl Chloride	AVRG	0.17296437	10.1*
Chloroethane	AVRG	0.15087523	12.7*
Methylene Chloride	AVRG	0.29860392	25.3*
Acetone	AVRG	0.09314600	28.5*
Carbon Disulfide	AVRG	0.66189740	2.9*
Trichlorofluoromethane	AVRG	0.46816629	13.1*
1,1-Dichloroethene	AVRG	0.29239748	23.5*
1,1-Dichloroethane	AVRG	0.57026556	6.9**
trans-1,2-Dichloroethene	AVRG	0.30169513	10.6*
cis-1,2-Dichloroethene	AVRG	0.31105691	12.0*
Chloroform	AVRG	0.57747951	7.8*
1,2-Dichloroethane	AVRG	0.40766390	9.9*
2-Butanone	AVRG	0.03049790	13.0*
1,1,1-Trichloroethane	AVRG	0.46435583	9.7*
Carbon Tetrachloride	AVRG	0.41641036	9.9*
Bromodichloromethane	AVRG	0.55214257	13.8*
1,2-Dichloropropane	AVRG	0.35512129	9.3*
cis-1,3-Dichloropropene	AVRG	0.50116573	8.1*
Trichloroethene	AVRG	0.39198900	28.0*
Dibromochloromethane	AVRG	0.63773065	9.8*
1,1,2-Trichloroethane	AVRG	0.40673357	8.4*
Benzene	AVRG	0.89756451	23.8*
trans-1,3-Dichloropropene	AVRG	0.60485834	8.9*
2-Chloroethyl Vinyl Ether	AVRG	0.20179592	9.2*
Bromoform	AVRG	0.41326181	13.4**
4-Methyl-2-Pentanone	AVRG	0.32264615	4.4*
2-Hexanone	AVRG	0.28123298	17.0*
Tetrachloroethene	AVRG	0.60258336	25.2*
1,1,2,2-Tetrachloroethane	AVRG	1.59587517	28.2**
Toluene	AVRG	1.43549661	8.5*
Chlorobenzene	AVRG	1.00792013	9.1**
Ethylbenzene	AVRG	0.45035828	10.9*
Styrene	AVRG	0.91091950	7.9*
Xylene (Total)	AVRG	0.57256344	6.8*
Ethyl Ether	AVRG	0.20850579	8.1*
Acrolein	AVRG	0.01543787	8.4*
Freon TF	AVRG	0.67355823	10.1*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304873

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS3 Calibration Date(s): 10/17/98 10/17/98

Heated Purge: (Y/N) N Calibration Time(s): 1135 1401

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Isopropanol	AVRG		
Acetonitrile	AVRG	0.03323208	7.3*
TBA	AVRG	0.02267083	3.5*
Acrylonitrile	AVRG	0.05867799	12.3*
MTBE	AVRG	0.77372528	2.8*
Hexane	AVRG		
DIPE	AVRG	1.27927981	7.1*
Ethyl Acetate	AVRG		
Vinyl Acetate	AVRG	0.57527707	7.7*
Tetrahydrofuran	AVRG		
Cyclohexane	AVRG	0.50938165	9.4*
Isobutanol	AVRG		
Isopropyl Acetate	AVRG		
n-Heptane	AVRG		
n-Butanol	AVRG		
Propyl Acetate	AVRG		
Butyl Acetate	AVRG		
1,2-Dibromoethane	AVRG	0.64489587	8.6*
1,3-Dichlorobenzene	AVRG	1.36306247	15.8*
1,4-Dichlorobenzene	AVRG	2.23753889	15.0*
1,2-Dichlorobenzene	AVRG	1.60642172	12.4*
Naphthalene	AVRG	2.06308883	15.5*
Methylnaphthalene (total)	AVRG		
Dimethylnaphthalene (total)	AVRG		
Dichlorodifluoromethane	AVRG	0.41571054	12.9*
1,1-Dichloropropene	AVRG	0.42797774	11.0*
1,2,4-Trichlorobenzene	AVRG	1.07596484	13.4*
Hexachlorobutadiene	AVRG	0.76029143	13.8*
1,4-Dioxane	AVRG	0.00303861	2.7*
Methyl Acrylate	AVRG		
1,1,1,2-Tetrachloroethane	AVRG	0.46934019	9.0*
1,2,3-Trichlorobenzene	AVRG	0.95346567	17.4*
1,2,3-Trichloropropane	AVRG	1.14639042	7.0*
1,2,4-Trimethylbenzene	AVRG	2.44497607	12.5*
1,2-Dibromo-3-chloropropane	AVRG	0.25783009	9.0*
1,3,5-Trimethylbenzene	AVRG	2.55935368	11.8*
1,3-Dichloropropane	AVRG	0.73249355	8.0*
2,2-Dichloropropane	AVRG	0.45541778	11.9*
2-Chlorotoluene	AVRG	2.05652658	22.1*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304874

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS3 Calibration Date(s): 10/17/98 10/17/98

Heated Purge: (Y/N) N Calibration Time(s): 1135 1401

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
4-Chlorotoluene	AVRG	2.91475308	5.1*
Bromobenzene	AVRG	1.05702071	13.5*
Bromochloromethane	AVRG	0.20900662	10.6*
Dibromomethane	AVRG	0.30437264	8.7*
Isopropylbenzene	AVRG	1.52097284	11.3*
n-Butylbenzene	AVRG	3.08556966	7.6*
n-Propylbenzene	AVRG	3.82859723	7.5*
p-Isopropyltoluene	AVRG	2.88838465	6.0*
sec-Butylbenzene	AVRG	3.65812775	7.2*
tert-Butylbenzene	AVRG	2.66865196	7.2*
Allyl chloride	AVRG	0.18039496	5.6*
Benzyl chloride	AVRG	1.63418885	11.2*
Epichlorohydrin	AVRG	0.02875523	7.1*
Isoprene	AVRG	0.30966405	7.8*
Methyl methacrylate	AVRG	0.22996258	7.8*
n-Pentane	AVRG	0.06177073	11.9*
Allyl alcohol	AVRG		
Amyl Acetate	AVRG		
1,2-Dichloroethane-d4 (SUR)	AVRG	0.34508061	2.6*
Toluene-d8 (SUR)	AVRG	1.31660021	7.7*
Bromofluorobenzene (SUR)	AVRG	1.00039746	8.7*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304875

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2202.d
Report Date: 12-Nov-1998 11:15

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2202.d
Lab Smp Id: CSTD200
Inj Date : 17-OCT-1998 14:01
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : CSTD200
Misc Info :
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 10:35:34 wu Quant Type: ISTD
Cal Date : 17-OCT-1998 14:01 Cal File: c2202.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.454	3.454	(0.346)	8842233	200.000	180
1 Chloromethane	50	3.785	3.785	(0.379)	3485444	200.000	170
4 Vinyl Chloride	62	3.987	3.987	(0.399)	3686215	200.000	180
3 Bromomethane	94	4.520	4.520	(0.453)	4608251	200.000	180
5 Chloroethane	64	4.678	4.678	(0.469)	3069214	200.000	170
9 Trichlorofluoromethane	101	5.125	5.125	(0.514)	9504218	200.000	170
121 n-Pentane	72	5.240	5.240	(0.525)	1269298	200.000	170
46 Ethyl Ether	59	5.586	5.586	(0.560)	4609196	200.000	190
119 Isoprene	67	5.615	5.615	(0.563)	6826923	200.000	190
47 Acrolein	56	5.759	5.759	(0.577)	994783	500.000	550(A)
48 Freon TF	101	5.917	5.917	(0.593)	14213450	200.000	180
10 1,1-Dichloroethene	96	5.931	5.931	(0.594)	5570172	200.000	160
7 Acetone	43	6.004	6.004	(0.602)	1802432	200.000	160
8 Carbon Disulfide	76	6.306	6.306	(0.632)	16150452	200.000	210(A)
116 Allyl chloride	76	6.450	6.450	(0.646)	3954449	200.000	190

304876

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2202.d
Report Date: 12-Nov-1998 11:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
50 Acetonitrile	41	6.436	6.436	(0.645)	14871471	4000.00	3800
6 Methylene Chloride	84	6.623	6.623	(0.664)	5712234	200.000	160
51 TBA	59	6.796	6.796	(0.681)	11194881	4000.00	4200(A)
52 Acrylonitrile	53	6.954	6.954	(0.697)	1942239	250.000	280(A)
53 MTBE	73	7.041	7.041	(0.706)	18600117	200.000	200(A)
12 trans-1,2-Dichloroethene	96	7.041	7.041	(0.706)	6199013	200.000	170
11 1,1-Dichloroethane	63	7.646	7.646	(0.766)	11983249	200.000	180
57 Vinyl Acetate	43	7.718	7.718	(0.773)	12517518	200.000	180
55 DIPE	45	7.718	7.718	(0.773)	28540965	200.000	190
18 2-Butanone	72	8.453	8.453	(0.847)	687346	200.000	190
13 cis-1,2-Dichloroethene	96	8.467	8.467	(0.848)	6341258	200.000	170
104 2,2-Dichloropropane	77	8.481	8.481	(0.850)	9156847	200.000	170
108 Bromochloromethane	128	8.798	8.798	(0.882)	4382462	200.000	180
15 Chloroform	83	8.870	8.870	(0.889)	12198642	200.000	180
20 1,1,1-Trichloroethane	97	9.173	9.173	(0.919)	9762877	200.000	180
59 Cyclohexane	56	9.274	9.274	(0.929)	10856854	200.000	180
92 1,1-Dichloropropene	75	9.375	9.375	(0.939)	8731220	200.000	170
21 Carbon Tetrachloride	117	9.403	9.403	(0.942)	8690484	200.000	180
$ 16 1,2-Dichloroethane-d4 (SUR)	65	9.533	9.533	(0.955)	7802518	200.000	190
17 1,2-Dichloroethane	62	9.634	9.634	(0.965)	8455515	200.000	180
28 Benzene	78	9.648	9.648	(0.967)	17450175	200.000	160
* 19 Fluorobenzene	96	9.980	9.980	(1.000)	5873010	50.0000	
25 Trichloroethene	95	10.455	10.455	(1.048)	7328948	200.000	160
23 1,2-Dichloropropane	63	10.729	10.729	(1.075)	7413715	200.000	180
120 Methyl methacrylate	69	10.772	10.772	(1.079)	5278936	200.000	200
109 Dibromomethane	93	10.887	10.887	(1.091)	6378269	200.000	180
95 1,4-Dioxane	88	10.873	10.873	(1.089)	1853961	5000.00	5200(A)
22 Bromodichloromethane	83	11.046	11.046	(1.107)	11520726	200.000	180
30 2-Chloroethyl Vinyl Ether	63	11.348	11.348	(1.137)	5250613	200.000	220(A)
118 Epichlorohydrin	57	11.449	11.449	(1.147)	12957668	4000.00	3800
24 cis-1,3-Dichloropropene	75	11.579	11.579	(1.160)	10492203	200.000	180
33 4-Methyl-2-Pentanone	43	11.708	11.708	(1.173)	7894070	200.000	210(A)
$ 37 Toluene-d8 (SUR)	98	11.924	11.924	(0.867)	20547722	200.000	220(A)
38 Toluene	91	12.011	12.011	(0.873)	20243056	200.000	200
29 trans-1,3-Dichloropropene	75	12.213	12.213	(0.888)	8866412	200.000	210(A)
27 1,1,2-Trichloroethane	83	12.457	12.457	(0.906)	5976397	200.000	210(A)
103 1,3-Dichloropropane	76	12.659	12.659	(0.920)	10653196	200.000	200(A)
35 Tetrachloroethene	166	12.702	12.702	(0.924)	7707169	200.000	180
34 2-Hexanone	43	12.688	12.688	(0.922)	4761032	200.000	240(AH)
26 Dibromochloromethane	129	12.962	12.962	(0.942)	9739552	200.000	220(A)
66 1,2-Dibromoethane	107	13.134	13.134	(0.955)	9436657	200.000	210(A)
* 32 Chlorobenzene-d5	117	13.653	13.653	(1.000)	3533739	50.0000	(H)
39 Chlorobenzene	112	13.682	13.682	(0.995)	14117210	200.000	200
40 Ethylbenzene	106	13.768	13.768	(1.001)	6011733	200.000	190(H)
43 m+p-Xylene	106	13.884	13.884	(1.009)	16442043	400.000	400
97 1,1,1,2-Tetrachloroethane	131	13.754	13.754	(1.000)	6881084	200.000	210(A)
44 o-Xylene	106	14.359	14.359	(1.044)	7589383	200.000	200

304877

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2202.d
Report Date: 12-Nov-1998 11:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
42 Styrene	104	14.359	14.359	(1.044)	12816955	200.000	200
31 Bromoform	173	14.618	14.618	(1.063)	6590391	200.000	220(A)
110 Isopropylbenzene	105	14.734	14.734	(1.071)	22811272	200.000	210(A)
$ 41 Bromofluorobenzene (SUR)	174	14.935	14.935	(0.923)	7510901	200.000	190
36 1,1,2,2-Tetrachloroethane	83	15.036	15.036	(0.929)	10520954	200.000	170
99 1,2,3-Trichloropropane	75	15.108	15.108	(0.933)	8240380	200.000	180
107 Bromobenzene	156	15.137	15.137	(0.935)	7199403	200.000	170
112 n-Propylbenzene	91	15.180	15.180	(0.938)	26709965	200.000	180
105 2-Chlorotoluene	91	15.324	15.324	(0.947)	12458064	200.000	150
102 1,3,5-Trimethylbenzene	105	15.339	15.339	(0.947)	17071438	200.000	170
106 4-Chlorotoluene	91	15.425	15.425	(0.953)	20894309	200.000	180
115 tert-Butylbenzene	119	15.713	15.713	(0.971)	18763557	200.000	180
100 1,2,4-Trimethylbenzene	105	15.756	15.756	(0.973)	16125989	200.000	170
114 sec-Butylbenzene	105	15.944	15.944	(0.985)	25934554	200.000	180
113 p-Isopropyltoluene	119	16.059	16.059	(0.992)	20437968	200.000	180
67 1,3-Dichlorobenzene	146	16.131	16.131	(0.996)	9841050	200.000	180
* 91 1,4-Dichlorobenzene-d4	152	16.189	16.189	(1.000)	1965936	50.0000	
68 1,4-Dichlorobenzene	146	16.217	16.217	(1.002)	14141764	200.000	160
117 Benzyl chloride	91	16.318	16.318	(1.008)	11729450	200.000	180
111 n-Butylbenzene	91	16.505	16.505	(1.020)	21394692	200.000	180
69 1,2-Dichlorobenzene	146	16.635	16.635	(1.028)	10859931	200.000	170
101 1,2-Dibromo-3-chloropropane	75	17.471	17.471	(1.079)	1912026	200.000	190
93 1,2,4-Trichlorobenzene	180	18.436	18.436	(1.139)	7360064	200.000	170
94 Hexachlorobutadiene	225	18.580	18.580	(1.148)	5131743	200.000	170
70 Naphthalene	128	18.753	18.753	(1.158)	15421903	200.000	190
98 1,2,3-Trichlorobenzene	180	19.041	19.041	(1.176)	6691934	200.000	180
M 14 1,2-Dichloroethene (total)	100				12540271	400.000	350
M 45 Xylene (Total)	100				24031426	600.000	590

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

304878

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2202.d
Date : 17-OCT-1998 14:01
Client ID:
Sample Info: CSTD200

Instrument: VOAMS3.i

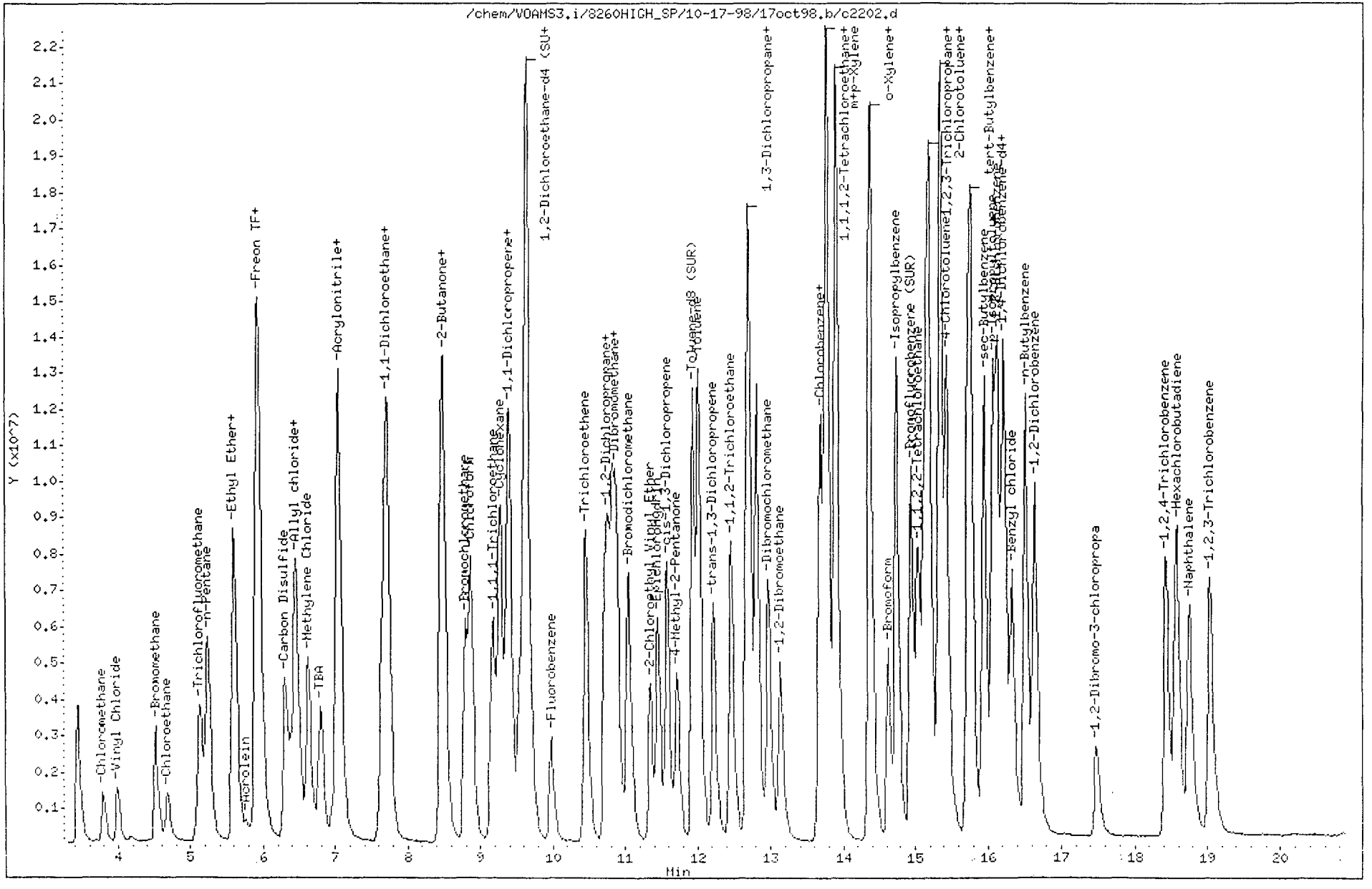
Operator: VOAMS 3

Column phase: DB624

Column diameter: 0.53

304879

220



Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2201.d
Report Date: 12-Nov-1998 11:15

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2201.d
Lab Smp Id: CSTD100
Inj Date : 17-OCT-1998 13:32
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : CSTD100
Misc Info :
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 10:35:34 wu Quant Type: ISTD
Cal Date : 17-OCT-1998 13:32 Cal File: c2201.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.454	3.454	(0.346)	4839118	100.000	92
1 Chloromethane	50	3.800	3.785	(0.381)	1841191	100.000	85
4 Vinyl Chloride	62	3.987	3.987	(0.399)	1976389	100.000	90
3 Bromomethane	94	4.520	4.520	(0.453)	2454347	100.000	87
5 Chloroethane	64	4.693	4.678	(0.470)	1712523	100.000	89
9 Trichlorofluoromethane	101	5.139	5.125	(0.515)	5234545	100.000	87
121 n-Pentane	72	5.255	5.240	(0.527)	676792	100.000	86
46 Ethyl Ether	59	5.586	5.586	(0.560)	2387946	100.000	91
119 Isoprene	67	5.629	5.615	(0.564)	3566282	100.000	92
47 Acrolein	56	5.773	5.759	(0.578)	751143	400.000	400
48 Freon TF	101	5.932	5.917	(0.594)	7621048	100.000	89
10 1,1-Dichloroethene	96	5.946	5.931	(0.596)	3242117	100.000	86
7 Acetone	43	6.004	6.004	(0.602)	981387	100.000	82
8 Carbon Disulfide	76	6.306	6.306	(0.632)	7872834	100.000	97
116 Allyl chloride	76	6.450	6.450	(0.646)	2122861	100.000	94

304880

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2201.d
Report Date: 12-Nov-1998 11:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
50 Acetonitrile	41	6.450	6.436	(0.646)	7769043	2000.00	1900
6 Methylene Chloride	84	6.623	6.623	(0.664)	3176428	100.000	82
51 TBA	59	6.796	6.796	(0.681)	5374138	2000.00	1900
52 Acrylonitrile	53	6.955	6.954	(0.697)	1501720	200.000	210
53 MTBE	73	7.041	7.041	(0.706)	9248233	100.000	97
12 trans-1,2-Dichloroethene	96	7.041	7.041	(0.706)	3536561	100.000	92
122 Allyl alcohol	57	7.632	7.646	(0.765)	1536056	4000.00	(a)
11 1,1-Dichloroethane	63	7.646	7.646	(0.766)	6842229	100.000	94
57 Vinyl Acetate	43	7.718	7.718	(0.773)	6633375	100.000	92
55 DIPE	45	7.718	7.718	(0.773)	14669585	100.000	92
58 Tetrahydrofuran	42	8.496	8.496	(0.851)	639621	100.000	(a)
18 2-Butanone	72	8.453	8.453	(0.847)	336922	100.000	88
13 cis-1,2-Dichloroethene	96	8.467	8.467	(0.848)	3659722	100.000	92
56 Ethyl Acetate	43	8.496	8.496	(0.851)	6764855	200.000	(a)
104 2,2-Dichloropropane	77	8.482	8.481	(0.850)	5290028	100.000	91
108 Bromochloromethane	128	8.799	8.798	(0.882)	2411935	100.000	91
15 Chloroform	83	8.871	8.870	(0.889)	6839816	100.000	93
96 Methyl Acrylate	55	9.274	9.259	(0.929)	2152470	100.000	(a)
20 1,1,1-Trichloroethane	97	9.173	9.173	(0.919)	5461320	100.000	93
59 Cyclohexane	56	9.274	9.274	(0.929)	5679945	100.000	88
92 1,1-Dichloropropene	75	9.375	9.375	(0.939)	5019549	100.000	92
21 Carbon Tetrachloride	117	9.404	9.403	(0.942)	4973739	100.000	94
$ 16 1,2-Dichloroethane-d4 (SUR)	65	9.533	9.533	(0.955)	4322230	100.000	100
63 n-Butanol	56	9.980	9.994	(1.000)	47700	4000.00	(a)
61 Isopropyl Acetate	43	9.605	9.605	(0.962)	16585536	200.000	(a)
17 1,2-Dichloroethane	62	9.634	9.634	(0.965)	4836791	100.000	93
28 Benzene	78	9.648	9.648	(0.967)	9756335	100.000	84
* 19 Fluorobenzene	96	9.980	9.980	(1.000)	6186681	50.0000	
25 Trichloroethene	95	10.455	10.455	(1.048)	4228423	100.000	83
23 1,2-Dichloropropane	63	10.729	10.729	(1.075)	4171695	100.000	92
120 Methyl methacrylate	69	10.787	10.772	(1.081)	2740770	100.000	96
64 Propyl Acetate	43	10.830	10.830	(1.085)	10138218	200.000	(a)
109 Dibromomethane	93	10.887	10.887	(1.091)	3635248	100.000	94
95 1,4-Dioxane	88	10.873	10.873	(1.089)	1490730	4000.00	4000
22 Bromodichloromethane	83	11.046	11.046	(1.107)	6489871	100.000	92
30 2-Chloroethyl Vinyl Ether	63	11.334	11.348	(1.136)	2594999	100.000	110
118 Epichlorohydrin	57	11.449	11.449	(1.147)	6643234	2000.00	1800
24 cis-1,3-Dichloropropene	75	11.579	11.579	(1.160)	5971750	100.000	94
33 4-Methyl-2-Pentanone	43	11.709	11.708	(1.173)	3969749	100.000	100
$ 37 Toluene-d8 (SUR)	98	11.925	11.924	(0.873)	11221508	100.000	110
38 Toluene	91	12.011	12.011	(0.880)	11619140	100.000	99
29 trans-1,3-Dichloropropene	75	12.213	12.213	(0.894)	5002697	100.000	100
27 1,1,2-Trichloroethane	83	12.458	12.457	(0.912)	3416927	100.000	100
103 1,3-Dichloropropane	76	12.659	12.659	(0.927)	6053774	100.000	100
35 Tetrachloroethene	166	12.703	12.702	(0.930)	4439701	100.000	88
34 2-Hexanone	43	12.688	12.688	(0.929)	2340734	100.000	110
26 Dibromochloromethane	129	12.962	12.962	(0.949)	5424608	100.000	110

304881

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2201.d
Report Date: 12-Nov-1998 11:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	65 Butyl Acetate	43	12.803	12.803	(0.938)	12120871	200.000	(a)
	66 1,2-Dibromoethane	107	13.135	13.134	(0.962)	5297174	100.000	100
*	32 Chlorobenzene-d5	117	13.653	13.653	(1.000)	4067571	50.0000	
	39 Chlorobenzene	112	13.682	13.682	(1.002)	8194078	100.000	100
	40 Ethylbenzene	106	13.769	13.768	(1.008)	3561126	100.000	96
	43 m+p-Xylene	106	13.884	13.884	(1.017)	9729905	200.000	200
	97 1,1,1,2-Tetrachloroethane	131	13.754	13.754	(1.007)	3935662	100.000	100
	44 o-Xylene	106	14.345	14.359	(1.051)	4506188	100.000	100
	42 Styrene	104	14.359	14.359	(1.052)	7444319	100.000	100
	31 Bromoform	173	14.619	14.618	(1.071)	3573398	100.000	110
	110 Isopropylbenzene	105	14.734	14.734	(1.079)	13100803	100.000	110
$	41 Bromofluorobenzene (SUR)	174	14.935	14.935	(0.923)	4129962	100.000	97
	36 1,1,2,2-Tetrachloroethane	83	15.036	15.036	(0.929)	5828136	100.000	83
	123 Amyl Acetate	43	11.709	11.708	(0.858)	3917755	200.000	(a)
	99 1,2,3-Trichloropropane	75	15.108	15.108	(0.933)	4763603	100.000	96
	107 Bromobenzene	156	15.152	15.137	(0.936)	4095866	100.000	89
	112 n-Propylbenzene	91	15.180	15.180	(0.938)	15673845	100.000	94
	105 2-Chlorotoluene	91	15.324	15.324	(0.947)	7217869	100.000	79
	102 1,3,5-Trimethylbenzene	105	15.339	15.339	(0.947)	10302799	100.000	92
	106 4-Chlorotoluene	91	15.425	15.425	(0.953)	12304676	100.000	98
	115 tert-Butylbenzene	119	15.713	15.713	(0.971)	10849466	100.000	94
	100 1,2,4-Trimethylbenzene	105	15.757	15.756	(0.973)	9751260	100.000	91
	114 sec-Butylbenzene	105	15.944	15.944	(0.985)	14870908	100.000	94
	113 p-Isopropyltoluene	119	16.074	16.059	(0.993)	12075481	100.000	97
	67 1,3-Dichlorobenzene	146	16.131	16.131	(0.996)	5034028	100.000	86
*	91 1,4-Dichlorobenzene-d4	152	16.189	16.189	(1.000)	2107415	50.0000	
	68 1,4-Dichlorobenzene	146	16.203	16.217	(1.001)	9093357	100.000	92
	117 Benzyl chloride	91	16.318	16.318	(1.008)	6125257	100.000	87
	111 n-Butylbenzene	91	16.506	16.505	(1.020)	12581661	100.000	94
	69 1,2-Dichlorobenzene	146	16.635	16.635	(1.028)	6314775	100.000	90
	101 1,2-Dibromo-3-chloropropane	75	17.471	17.471	(1.079)	1032598	100.000	94
	93 1,2,4-Trichlorobenzene	180	18.422	18.436	(1.138)	4242742	100.000	91
	94 Hexachlorobutadiene	225	18.580	18.580	(1.148)	2982286	100.000	90
	70 Naphthalene	128	18.753	18.753	(1.158)	8139092	100.000	92
	98 1,2,3-Trichlorobenzene	180	19.041	19.041	(1.176)	3710141	100.000	90
M	14 1,2-Dichloroethene (total)	100				7196284	200.000	180
M	45 Xylene (Total)	100				14236094	300.000	300

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

304882

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2201.d
Date : 17-OCT-1998 13:32
Client ID:
Sample Info: CSTD100

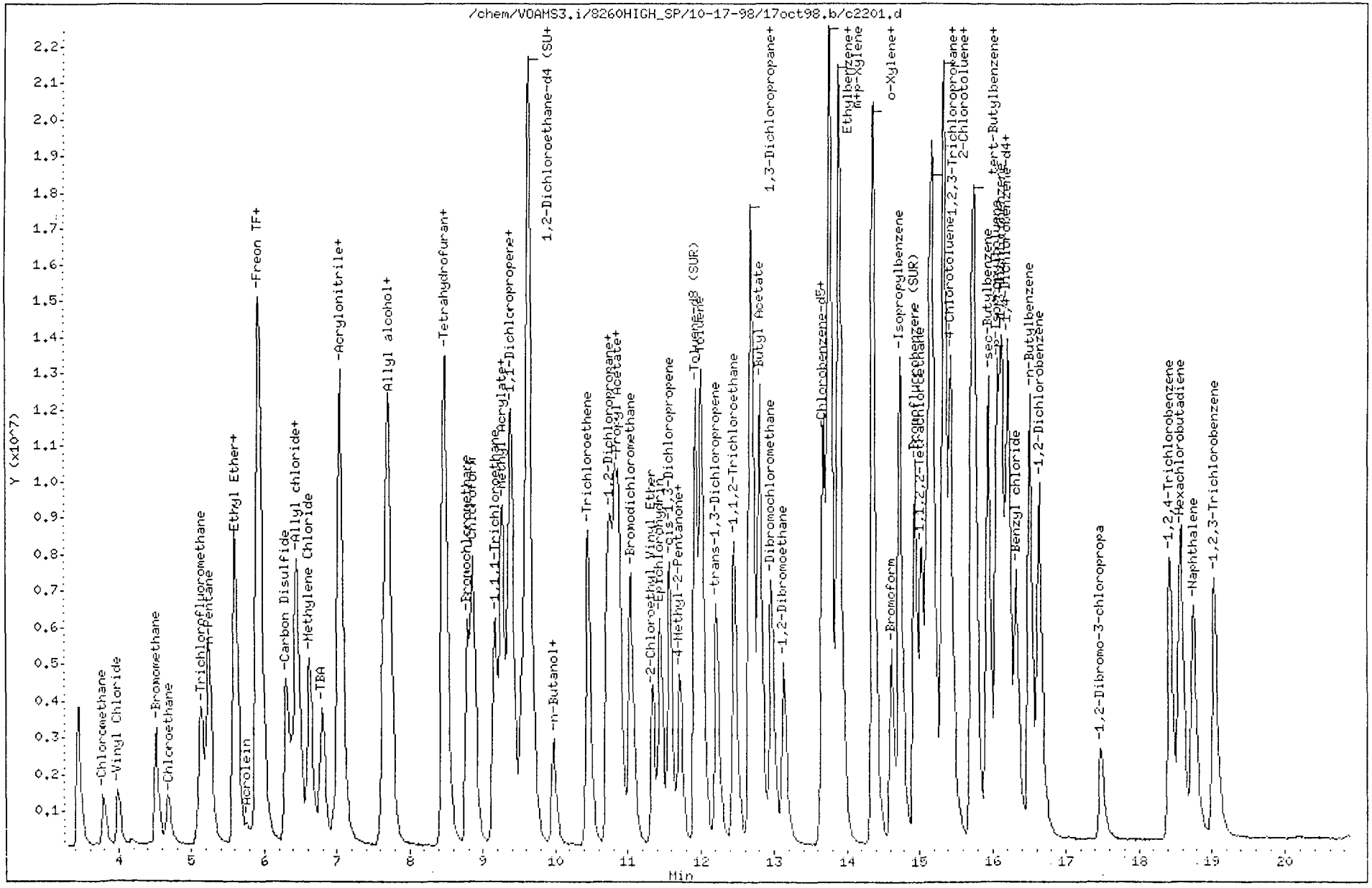
Column phase: DB624

Instrument: VOAMS3.i

Operator: VOAMS 3
Column diameter: 0.53

304883

224



Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2200.d
Report Date: 12-Nov-1998 11:15

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2200.d
Lab Smp Id: CSTD050
Inj Date : 17-OCT-1998 13:03
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : CSTD050
Misc Info :
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 10:35:34 wu Quant Type: ISTD
Cal Date : 17-OCT-1998 13:03 Cal File: c2200.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.457	3.454	(0.346)	3032342	50.0000	55
1 Chloromethane	50	3.788	3.785	(0.379)	1132247	50.0000	48
4 Vinyl Chloride	62	3.990	3.987	(0.400)	1232131	50.0000	53
3 Bromomethane	94	4.523	4.520	(0.453)	1573849	50.0000	52
5 Chloroethane	64	4.710	4.678	(0.472)	1052645	50.0000	51
9 Trichlorofluoromethane	101	5.157	5.125	(0.517)	3336633	50.0000	52
121 n-Pentane	72	5.272	5.240	(0.528)	424733	50.0000	50
46 Ethyl Ether	59	5.589	5.586	(0.560)	1495925	50.0000	54
119 Isoprene	67	5.632	5.615	(0.564)	2204333	50.0000	54
47 Acrolein	56	5.776	5.759	(0.579)	616337	300.000	320
48 Freon TF	101	5.920	5.917	(0.593)	4808504	50.0000	53
10 1,1-Dichloroethene	96	5.949	5.931	(0.596)	1750761	50.0000	43
7 Acetone	43	6.007	6.004	(0.602)	488159	50.0000	37
8 Carbon Disulfide	76	6.309	6.306	(0.632)	4231855	50.0000	50
116 Allyl chloride	76	6.453	6.450	(0.646)	1213577	50.0000	51

304884

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2200.d
Report Date: 12-Nov-1998 11:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
50 Acetonitrile	41	6.453	6.436	(0.646)	4744343	1000.00	1100
6 Methylene Chloride	84	6.626	6.623	(0.664)	1762685	50.0000	42
51 TBA	59	6.785	6.796	(0.680)	2894786	1000.00	1000
52 Acrylonitrile	53	6.957	6.954	(0.697)	1167508	150.000	160
53 MTBE	73	7.044	7.041	(0.706)	5074028	50.0000	51
12 trans-1,2-Dichloroethene	96	7.044	7.041	(0.706)	1915558	50.0000	47
122 Allyl alcohol	57	7.620	7.646	(0.763)	1099142	3000.00	(a)
11 1,1-Dichloroethane	63	7.649	7.646	(0.766)	3736129	50.0000	49
57 Vinyl Acetate	43	7.721	7.718	(0.773)	4072132	50.0000	53
55 DIPE	45	7.721	7.718	(0.773)	9010207	50.0000	53
58 Tetrahydrofuran	42	8.499	8.496	(0.851)	400642	50.0000	(a)
18 2-Butanone	72	8.456	8.453	(0.847)	189170	50.0000	46
13 cis-1,2-Dichloroethene	96	8.470	8.467	(0.848)	1981210	50.0000	47
56 Ethyl Acetate	43	8.499	8.496	(0.851)	3980854	100.000	(a)
104 2,2-Dichloropropane	77	8.484	8.481	(0.850)	2939793	50.0000	48
108 Bromochloromethane	128	8.801	8.798	(0.882)	1323438	50.0000	47
15 Chloroform	83	8.873	8.870	(0.889)	3738756	50.0000	49
96 Methyl Acrylate	55	9.277	9.259	(0.929)	1336223	50.0000	(a)
20 1,1,1-Trichloroethane	97	9.176	9.173	(0.919)	2953571	50.0000	48
59 Cyclohexane	56	9.277	9.274	(0.929)	3543707	50.0000	52
92 1,1-Dichloropropene	75	9.378	9.375	(0.939)	2733416	50.0000	47
21 Carbon Tetrachloride	117	9.406	9.403	(0.942)	2640894	50.0000	48
$ 16 1,2-Dichloroethane-d4 (SUR)	65	9.536	9.533	(0.955)	2151437	50.0000	49
63 n-Butanol	56	9.983	9.994	(1.000)	51308	3000.00	(a)
61 Isopropyl Acetate	43	9.608	9.605	(0.962)	10177498	100.000	(a)
17 1,2-Dichloroethane	62	9.637	9.634	(0.965)	2599561	50.0000	48
28 Benzene	78	9.651	9.648	(0.967)	5362852	50.0000	43
* 19 Fluorobenzene	96	9.983	9.980	(1.000)	6346003	50.0000	
25 Trichloroethene	95	10.458	10.455	(1.048)	2277347	50.0000	41
23 1,2-Dichloropropane	63	10.717	10.729	(1.074)	2281661	50.0000	48
120 Methyl methacrylate	69	10.775	10.772	(1.079)	1644631	50.0000	55
64 Propyl Acetate	43	10.833	10.830	(1.085)	6312980	100.000	(a)
109 Dibromomethane	93	10.876	10.887	(1.089)	1950208	50.0000	48
95 1,4-Dioxane	88	10.876	10.873	(1.089)	1158136	3000.00	3000
22 Bromodichloromethane	83	11.034	11.046	(1.105)	3398760	50.0000	46
30 2-Chloroethyl Vinyl Ether	63	11.337	11.348	(1.136)	1222443	50.0000	50
118 Epichlorohydrin	57	11.452	11.449	(1.147)	4077657	1000.00	1100
24 cis-1,3-Dichloropropene	75	11.567	11.579	(1.159)	3249119	50.0000	49
33 4-Methyl-2-Pentanone	43	11.711	11.708	(1.173)	2116048	50.0000	52
$ 37 Toluene-d8 (SUR)	98	11.927	11.924	(0.874)	5405120	50.0000	51
38 Toluene	91	12.014	12.011	(0.881)	6232393	50.0000	52
29 trans-1,3-Dichloropropene	75	12.216	12.213	(0.895)	2668974	50.0000	53
27 1,1,2-Trichloroethane	83	12.460	12.457	(0.913)	1835868	50.0000	55
103 1,3-Dichloropropane	76	12.662	12.659	(0.928)	3305023	50.0000	54
35 Tetrachloroethene	166	12.691	12.702	(0.930)	2384126	50.0000	44
34 2-Hexanone	43	12.691	12.688	(0.930)	1319700	50.0000	60
26 Dibromochloromethane	129	12.965	12.962	(0.950)	2808889	50.0000	55

304885

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2200.d
Report Date: 12-Nov-1998 11:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	65 Butyl Acetate	43	12.806	12.803	(0.939)	7396156	100.000	(a)
	66 1,2-Dibromoethane	107	13.123	13.134	(0.962)	2881292	50.0000	54
*	32 Chlorobenzene-d5	117	13.642	13.653	(1.000)	4199803	50.0000	
	39 Chlorobenzene	112	13.685	13.682	(1.003)	4430340	50.0000	52
	40 Ethylbenzene	106	13.771	13.768	(1.010)	2003733	50.0000	52
	43 m+p-Xylene	106	13.887	13.884	(1.018)	5171031	100.000	100
	97 1,1,1,2-Tetrachloroethane	131	13.757	13.754	(1.008)	2100654	50.0000	54
	44 o-Xylene	106	14.348	14.359	(1.052)	2373635	50.0000	52
	42 Styrene	104	14.348	14.359	(1.052)	3955167	50.0000	52
	31 Bromoform	173	14.621	14.618	(1.072)	1888707	50.0000	58
	110 Isopropylbenzene	105	14.737	14.734	(1.080)	7124664	50.0000	58
$	41 Bromofluorobenzene (SUR)	174	14.938	14.935	(0.923)	1946271	50.0000	45
	36 1,1,2,2-Tetrachloroethane	83	15.025	15.036	(0.929)	3234719	50.0000	44
	123 Amyl Acetate	43	11.711	11.708	(0.858)	2078343	100.000	(a)
	99 1,2,3-Trichloropropane	75	15.111	15.108	(0.934)	2615894	50.0000	52
	107 Bromobenzene	156	15.140	15.137	(0.936)	2298736	50.0000	48
	112 n-Propylbenzene	91	15.183	15.180	(0.939)	8235882	50.0000	49
	105 2-Chlorotoluene	91	15.327	15.324	(0.947)	4052278	50.0000	41
	102 1,3,5-Trimethylbenzene	105	15.342	15.339	(0.948)	5399146	50.0000	47
	106 4-Chlorotoluene	91	15.428	15.425	(0.954)	6378173	50.0000	50
	115 tert-Butylbenzene	119	15.716	15.713	(0.972)	5806969	50.0000	49
	100 1,2,4-Trimethylbenzene	105	15.759	15.756	(0.974)	5186706	50.0000	47
	114 sec-Butylbenzene	105	15.947	15.944	(0.986)	7827503	50.0000	48
	113 p-Isopropyltoluene	119	16.062	16.059	(0.993)	6261547	50.0000	50
	67 1,3-Dichlorobenzene	146	16.120	16.131	(0.996)	2797878	50.0000	46
*	91 1,4-Dichlorobenzene-d4	152	16.177	16.189	(1.000)	2107449	50.0000	
	68 1,4-Dichlorobenzene	146	16.206	16.217	(1.002)	4699172	50.0000	46
	117 Benzyl chloride	91	16.321	16.318	(1.009)	3971863	50.0000	54
	111 n-Butylbenzene	91	16.509	16.505	(1.020)	6723194	50.0000	49
	69 1,2-Dichlorobenzene	146	16.638	16.635	(1.028)	3447918	50.0000	48
	101 1,2-Dibromo-3-chloropropane	75	17.474	17.471	(1.080)	570048	50.0000	51
	93 1,2,4-Trichlorobenzene	180	18.425	18.436	(1.139)	2331058	50.0000	48
	94 Hexachlorobutadiene	225	18.569	18.580	(1.148)	1616992	50.0000	47
	70 Naphthalene	128	18.756	18.753	(1.159)	4499434	50.0000	50
	98 1,2,3-Trichlorobenzene	180	19.044	19.041	(1.177)	2106887	50.0000	49
M	14 1,2-Dichloroethene (total)	100				3896768	100.000	94
M	45 Xylene (Total)	100				7544666	150.000	160

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

304886

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/o2200.d
Date : 17-OCT-1998 13:03
Client ID:
Sample Info: CSTD050

Instrument: VOAMS3.i

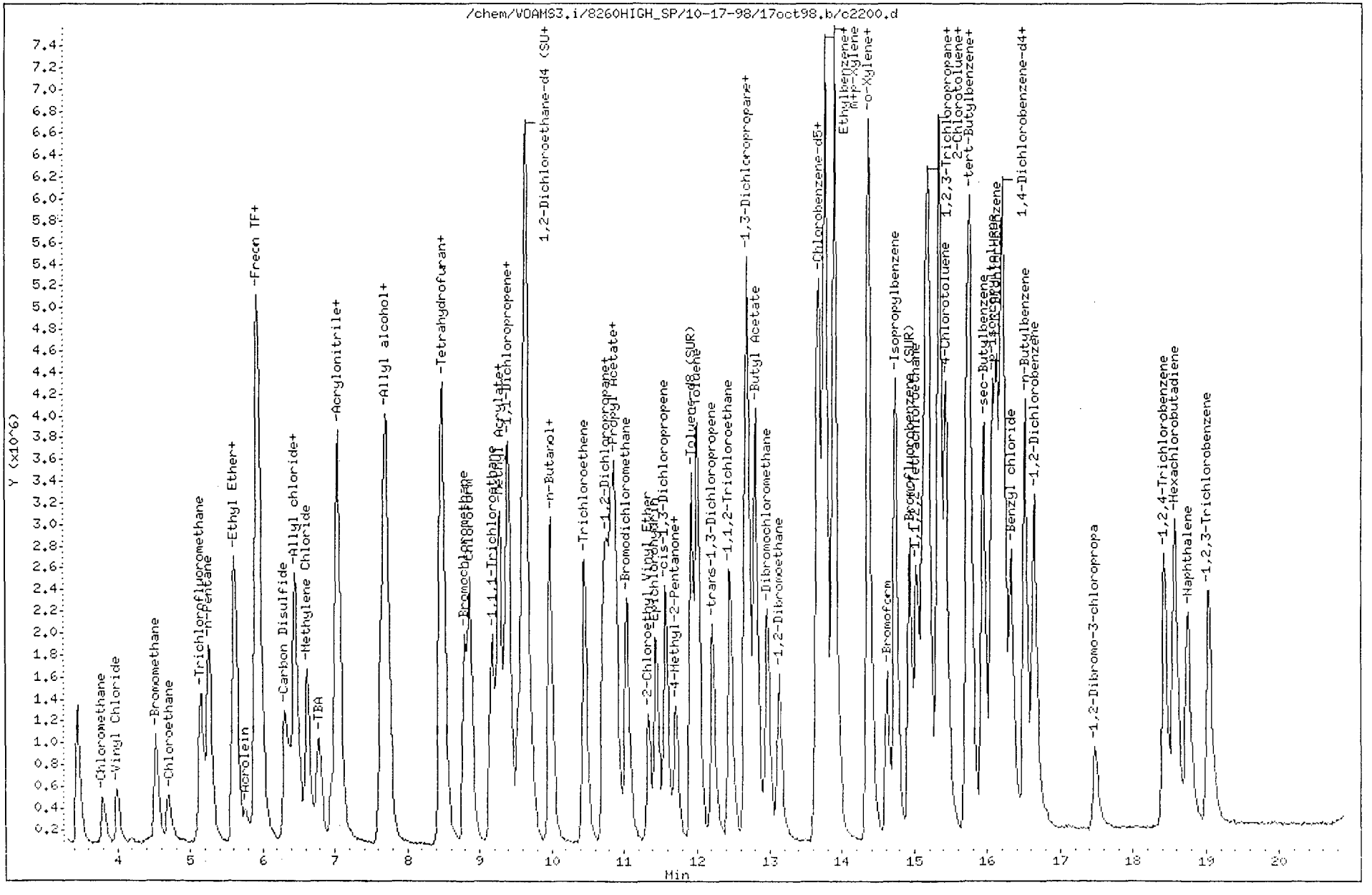
Operator: VOAMS 3

Column phase: DB624

Column diameter: 0.53

304887

228



Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2199.d
Report Date: 12-Nov-1998 11:15

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2199.d
Lab Smp Id: CSTD020
Inj Date : 17-OCT-1998 12:34
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : CSTD020
Misc Info :
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 10:35:34 wu Quant Type: ISTD
Cal Date : 17-OCT-1998 11:35 Cal File: c2197.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.457	3.454	(0.346)	950492	20.0000	17
1 Chloromethane	50	3.802	3.785	(0.381)	408098	20.0000	17
4 Vinyl Chloride	62	3.990	3.987	(0.400)	429721	20.0000	18
3 Bromomethane	94	4.523	4.520	(0.453)	575428	20.0000	19
5 Chloroethane	64	4.696	4.678	(0.470)	374718	20.0000	18
9 Trichlorofluoromethane	101	5.142	5.125	(0.515)	1167112	20.0000	18
121 n-Pentane	72	5.257	5.240	(0.527)	162869	20.0000	19
46 Ethyl Ether	59	5.589	5.586	(0.560)	542112	20.0000	19
119 Isoprene	67	5.618	5.615	(0.563)	792167	20.0000	19
47 Acrolein	56	5.776	5.759	(0.579)	350983	200.000	180
48 Freon TF	101	5.935	5.917	(0.594)	1716917	20.0000	18
10 1,1-Dichloroethene	96	5.935	5.931	(0.594)	716911	20.0000	17
7 Acetone	43	6.007	6.004	(0.602)	244547	20.0000	18
8 Carbon Disulfide	76	6.309	6.306	(0.632)	1702650	20.0000	20
116 Allyl chloride	76	6.453	6.450	(0.646)	474682	20.0000	19

304888

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2199.d
Report Date: 12-Nov-1998 11:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
50 Acetonitrile	41	6.453	6.436	(0.646)	1723073	400.000	380
6 Methylene Chloride	84	6.626	6.623	(0.664)	743785	20.0000	17
51 TBA	59	6.799	6.796	(0.681)	1158652	400.000	390
52 Acrylonitrile	53	6.972	6.954	(0.698)	761740	100.000	100
53 MTBE	73	7.058	7.041	(0.707)	2014717	20.0000	20
12 trans-1,2-Dichloroethene	96	7.044	7.041	(0.706)	798586	20.0000	19
122 Allyl alcohol	57	7.634	7.646	(0.765)	738901	2000.00	(a)
11 1,1-Dichloroethane	63	7.649	7.646	(0.766)	1534815	20.0000	20
57 Vinyl Acetate	43	7.721	7.718	(0.773)	1522685	20.0000	19
55 DIPE	45	7.721	7.718	(0.773)	3318055	20.0000	19
18 2-Butanone	72	8.456	8.453	(0.847)	75208	20.0000	18
13 cis-1,2-Dichloroethene	96	8.470	8.467	(0.848)	797499	20.0000	18
104 2,2-Dichloropropane	77	8.484	8.481	(0.850)	1199108	20.0000	19
108 Bromochloromethane	128	8.787	8.798	(0.880)	548945	20.0000	19
15 Chloroform	83	8.873	8.870	(0.889)	1528377	20.0000	19
20 1,1,1-Trichloroethane	97	9.176	9.173	(0.919)	1206667	20.0000	19
59 Cyclohexane	56	9.277	9.274	(0.929)	1340848	20.0000	19
92 1,1-Dichloropropene	75	9.378	9.375	(0.939)	1124971	20.0000	19
21 Carbon Tetrachloride	117	9.406	9.403	(0.942)	1072209	20.0000	19
$ 16 1,2-Dichloroethane-d4 (SUR)	65	9.536	9.533	(0.955)	923809	20.0000	20
63 n-Butanol	56	9.983	9.994	(1.000)	54436	2000.00	(a)
61 Isopropyl Acetate	43	9.622	9.605	(0.964)	3501222	40.0000	(a)
17 1,2-Dichloroethane	62	9.637	9.634	(0.965)	1062133	20.0000	19
28 Benzene	78	9.651	9.648	(0.967)	2188924	20.0000	17
* 19 Fluorobenzene	96	9.983	9.980	(1.000)	6521369	50.0000	
25 Trichloroethene	95	10.458	10.455	(1.048)	944512	20.0000	17
23 1,2-Dichloropropane	63	10.732	10.729	(1.075)	936324	20.0000	19
120 Methyl methacrylate	69	10.775	10.772	(1.079)	607480	20.0000	20
64 Propyl Acetate	43	10.833	10.830	(1.085)	1771212	40.0000	(a)
109 Dibromomethane	93	10.890	10.887	(1.091)	794849	20.0000	19
95 1,4-Dioxane	88	10.876	10.873	(1.089)	764521	2000.00	1900
22 Bromodichloromethane	83	11.034	11.046	(1.105)	1369152	20.0000	18
30 2-Chloroethyl Vinyl Ether	63	11.337	11.348	(1.136)	542430	20.0000	22
118 Epichlorohydrin	57	11.452	11.449	(1.147)	1478290	400.000	380
24 cis-1,3-Dichloropropene	75	11.582	11.579	(1.160)	1322126	20.0000	19
33 4-Methyl-2-Pentanone	43	11.711	11.708	(1.173)	841078	20.0000	20
$ 37 Toluene-d8 (SUR)	98	11.927	11.924	(0.874)	2506733	20.0000	19
38 Toluene	91	12.014	12.011	(0.881)	2624087	20.0000	17
29 trans-1,3-Dichloropropene	75	12.216	12.213	(0.895)	1071362	20.0000	17
27 1,1,2-Trichloroethane	83	12.460	12.457	(0.913)	733530	20.0000	18
103 1,3-Dichloropropane	76	12.662	12.659	(0.928)	1329113	20.0000	18
35 Tetrachloroethene	166	12.691	12.702	(0.930)	1020914	20.0000	15
34 2-Hexanone	43	12.691	12.688	(0.930)	461292	20.0000	17
26 Dibromochloromethane	129	12.965	12.962	(0.950)	1117319	20.0000	17
66 1,2-Dibromoethane	107	13.123	13.134	(0.962)	1151822	20.0000	17
* 32 Chlorobenzene-d5	117	13.642	13.653	(1.000)	5253735	50.0000	
39 Chlorobenzene	112	13.685	13.682	(1.003)	1818950	20.0000	17

304889

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2199.d
Report Date: 12-Nov-1998 11:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
40 Ethylbenzene	106	13.771	13.768	(1.010)	824034	20.0000	17
43 m+p-Xylene	106	13.887	13.884	(1.018)	2182358	40.0000	36
97 1,1,1,2-Tetrachloroethane	131	13.743	13.754	(1.007)	829838	20.0000	17
44 o-Xylene	106	14.348	14.359	(1.052)	1018945	20.0000	18
42 Styrene	104	14.348	14.359	(1.052)	1676703	20.0000	18
31 Bromoform	173	14.621	14.618	(1.072)	703321	20.0000	17
110 Isopropylbenzene	105	14.737	14.734	(1.080)	2944488	20.0000	19
$ 41 Bromofluorobenzene (SUR)	174	14.938	14.935	(0.906)	891635	20.0000	19(H)
36 1,1,2,2-Tetrachloroethane	83	15.025	15.036	(0.912)	1197364	20.0000	15
99 1,2,3-Trichloropropane	75	15.111	15.108	(0.917)	983350	20.0000	18(H)
107 Bromobenzene	156	15.154	15.137	(0.920)	915607	20.0000	18(H)
112 n-Propylbenzene	91	15.183	15.180	(0.921)	3547685	20.0000	20(H)
105 2-Chlorotoluene	91	15.327	15.324	(0.930)	2350286	20.0000	22(H)
102 1,3,5-Trimethylbenzene	105	15.342	15.339	(0.931)	2341874	20.0000	19
106 4-Chlorotoluene	91	15.428	15.425	(0.936)	2673682	20.0000	20
115 tert-Butylbenzene	119	15.716	15.713	(0.954)	2454786	20.0000	20
100 1,2,4-Trimethylbenzene	105	15.759	15.756	(0.956)	2248007	20.0000	19
114 sec-Butylbenzene	105	15.947	15.944	(0.968)	3354261	20.0000	20
113 p-Isopropyltoluene	119	16.062	16.059	(0.975)	2667137	20.0000	20
67 1,3-Dichlorobenzene	146	16.120	16.131	(0.978)	1170487	20.0000	18(H)
* 91 1,4-Dichlorobenzene-d4	152	16.192	16.189	(1.000)	2240816	50.0000	(H)
68 1,4-Dichlorobenzene	146	16.206	16.217	(0.983)	2031933	20.0000	19
117 Benzyl chloride	91	16.321	16.318	(0.990)	1421462	20.0000	18
111 n-Butylbenzene	91	16.509	16.505	(1.002)	2888310	20.0000	20
69 1,2-Dichlorobenzene	146	16.638	16.635	(1.010)	1433545	20.0000	19
101 1,2-Dibromo-3-chloropropane	75	17.474	17.471	(1.060)	213237	20.0000	18
93 1,2,4-Trichlorobenzene	180	18.425	18.436	(1.118)	914103	20.0000	18
94 Hexachlorobutadiene	225	18.583	18.580	(1.128)	666194	20.0000	18
70 Naphthalene	128	18.756	18.753	(1.138)	1539652	20.0000	16
98 1,2,3-Trichlorobenzene	180	19.044	19.041	(1.156)	729172	20.0000	16
M 14 1,2-Dichloroethene (total)	100				1596085	40.0000	38
M 45 Xylene (Total)	100				3201303	60.0000	53

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

304890

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/o2199.d
Date : 17-OCT-1998 12:34
Client ID:
Sample Info: CSTD020

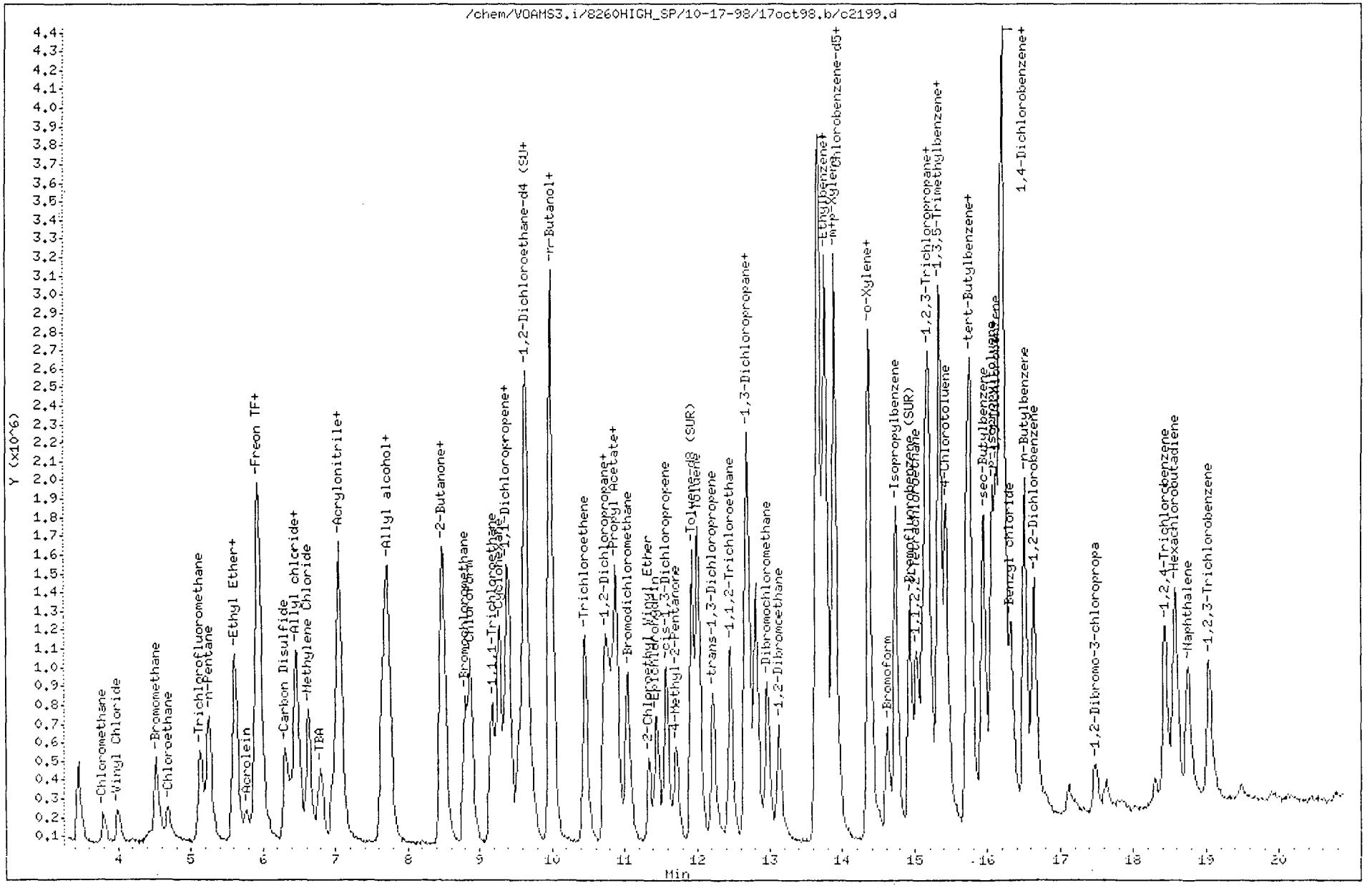
Instrument: VOAMS3.i

Operator: VOAMS 3

304891

Column phase: DB624

Column diameter: 0.53



Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2197.d
Report Date: 12-Nov-1998 11:15

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2197.d
Lab Smp Id: CSTD005
Inj Date : 17-OCT-1998 11:35
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : CSTD005
Misc Info :
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 10:35:34 wu Quant Type: ISTD
Cal Date : 17-OCT-1998 11:35 Cal File: c2197.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.416	3.454	(0.344)	336579	5.00000	5.4
1 Chloromethane	50	3.747	3.785	(0.377)	155526	5.00000	5.9
4 Vinyl Chloride	62	3.949	3.987	(0.397)	135882	5.00000	5.2
3 Bromomethane	94	4.482	4.520	(0.451)	174312	5.00000	5.1
5 Chloroethane	64	4.654	4.678	(0.468)	126200	5.00000	5.4
9 Trichlorofluoromethane	101	5.101	5.125	(0.513)	387655	5.00000	5.4
121 n-Pentane	72	5.216	5.240	(0.525)	50796	5.00000	5.3
46 Ethyl Ether	59	5.533	5.586	(0.557)	150600	5.00000	4.8(a)
119 Isoprene	67	5.576	5.615	(0.561)	228608	5.00000	4.9(a)
47 Acrolein	56	5.735	5.759	(0.577)	221569	100.000	100
48 Freon TF	101	5.879	5.917	(0.591)	524709	5.00000	5.1
10 1,1-Dichloroethene	96	5.893	5.931	(0.593)	118345	2.00000	2.6
7 Acetone	43	5.937	6.004	(0.597)	99797	5.00000	6.7(M)
8 Carbon Disulfide	76	6.253	6.306	(0.629)	478213	5.00000	5.0
116 Allyl chloride	76	6.398	6.450	(0.644)	135584	5.00000	5.0

304892

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2197.d
Report Date: 12-Nov-1998 11:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
50 Acetonitrile	41	6.398	6.436	(0.644)	469574	100.000	95(a)
6 Methylene Chloride	84	6.585	6.623	(0.662)	185319	3.00000	3.9
51 TBA	59	6.743	6.796	(0.678)	327262	100.000	100
52 Acrylonitrile	53	6.916	6.954	(0.696)	336227	50.0000	42(a)
53 MTBE	73	7.003	7.041	(0.704)	543800	5.00000	4.9(a)
12 trans-1,2-Dichloroethene	96	7.003	7.041	(0.704)	251817	5.00000	5.5
11 1,1-Dichloroethane	63	7.608	7.646	(0.765)	438714	5.00000	5.1
57 Vinyl Acetate	43	7.665	7.718	(0.771)	417822	5.00000	4.8(a)
55 DIPE	45	7.680	7.718	(0.772)	936163	5.00000	4.9(a)
18 2-Butanone	72	8.443	8.453	(0.849)	26820	5.00000	5.8(M)
13 cis-1,2-Dichloroethene	96	8.429	8.467	(0.848)	266800	5.00000	5.6
104 2,2-Dichloropropane	77	8.458	8.481	(0.851)	385378	5.00000	5.5
108 Bromochloromethane	128	8.760	8.798	(0.881)	175566	5.00000	5.5
15 Chloroform	83	8.832	8.870	(0.888)	459640	5.00000	5.3
20 1,1,1-Trichloroethane	97	9.135	9.173	(0.919)	385364	5.00000	5.5
59 Cyclohexane	56	9.236	9.274	(0.929)	397180	5.00000	5.1
92 1,1-Dichloropropene	75	9.336	9.375	(0.939)	359333	5.00000	5.5
21 Carbon Tetrachloride	117	9.380	9.403	(0.943)	138681	2.00000	2.2
$ 16 1,2-Dichloroethane-d4 (SUR)	65	9.509	9.533	(0.957)	251816	5.00000	5.0
17 1,2-Dichloroethane	62	9.610	9.634	(0.967)	135153	2.00000	2.2
28 Benzene	78	9.624	9.648	(0.968)	182670	1.00000	1.3
* 19 Fluorobenzene	96	9.941	9.980	(1.000)	7178706	50.0000	
25 Trichloroethene	95	10.417	10.455	(1.048)	84032	1.00000	1.3
23 1,2-Dichloropropane	63	10.705	10.729	(1.077)	58059	1.00000	1.1
120 Methyl methacrylate	69	10.763	10.772	(1.083)	151869	5.00000	4.5(a)
109 Dibromomethane	93	10.863	10.887	(1.093)	247333	5.00000	5.4
95 1,4-Dioxane	88	10.849	10.873	(1.091)	438169	1000.00	1000
22 Bromodichloromethane	83	11.022	11.046	(1.109)	98399	1.00000	1.2
30 2-Chloroethyl Vinyl Ether	63	11.324	11.348	(1.139)	125752	5.00000	4.6(a)
118 Epichlorohydrin	57	11.425	11.449	(1.149)	414773	100.000	97(a)
24 cis-1,3-Dichloropropene	75	11.555	11.579	(1.162)	400380	5.00000	5.3
33 4-Methyl-2-Pentanone	43	11.699	11.708	(1.177)	215714	5.00000	4.7(a)
$ 37 Toluene-d8 (SUR)	98	11.901	11.924	(0.873)	685460	5.00000	5.1
38 Toluene	91	11.987	12.011	(0.879)	855103	5.00000	5.5
29 trans-1,3-Dichloropropene	75	12.203	12.213	(0.895)	343654	5.00000	5.4
27 1,1,2-Trichloroethane	83	12.434	12.457	(0.912)	131032	3.00000	3.0
103 1,3-Dichloropropane	76	12.650	12.659	(0.928)	402192	5.00000	5.2
35 Tetrachloroethene	166	12.664	12.702	(0.929)	93737	1.00000	1.4
34 2-Hexanone	43	12.679	12.688	(0.930)	133773	5.00000	4.8(a)
26 Dibromochloromethane	129	12.938	12.962	(0.949)	341249	5.00000	5.2
66 1,2-Dibromoethane	107	13.111	13.134	(0.962)	362438	5.00000	5.3
* 32 Chlorobenzene-d5	117	13.629	13.653	(1.000)	5396875	50.0000	
39 Chlorobenzene	112	13.658	13.682	(1.002)	600763	5.00000	5.5
40 Ethylbenzene	106	13.745	13.768	(1.008)	224301	4.00000	4.5
43 m+p-Xylene	106	13.874	13.884	(1.018)	666322	10.0000	10
97 1,1,1,2-Tetrachloroethane	131	13.730	13.754	(1.007)	259613	5.00000	5.2
44 o-Xylene	106	14.335	14.359	(1.052)	315143	5.00000	5.4

304893

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2197.d
Report Date: 12-Nov-1998 11:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
42 Styrene	104	14.335	14.359	(1.052)	535989	5.00000	5.4
31 Bromoform	173	14.609	14.618	(1.072)	162518	4.00000	3.9(a)
110 Isopropylbenzene	105	14.724	14.734	(1.080)	692462	5.00000	4.4(a)
$ 41 Bromofluorobenzene (SUR)	174	14.926	14.935	(0.910)	283395	5.00000	5.6(H)
36 1,1,2,2-Tetrachloroethane	83	15.012	15.036	(0.916)	117825	1.00000	1.4(MH)
123 Amyl Acetate	43	11.699	11.708	(0.858)	215714	10.0000	(a)
99 1,2,3-Trichloropropane	75	15.099	15.108	(0.921)	299875	5.00000	5.1(H)
107 Bromobenzene	156	15.128	15.137	(0.923)	317151	5.00000	5.7(H)
112 n-Propylbenzene	91	15.171	15.180	(0.925)	1026709	5.00000	5.2(H)
105 2-Chlorotoluene	91	15.315	15.324	(0.934)	602197	5.00000	5.2(H)
102 1,3,5-Trimethylbenzene	105	15.329	15.339	(0.935)	741793	5.00000	5.5(H)
106 4-Chlorotoluene	91	15.416	15.425	(0.940)	737144	5.00000	5.0(H)
115 tert-Butylbenzene	119	15.704	15.713	(0.958)	712712	5.00000	5.2(H)
100 1,2,4-Trimethylbenzene	105	15.747	15.756	(0.960)	713354	5.00000	5.5(H)
114 sec-Butylbenzene	105	15.920	15.944	(0.971)	988799	5.00000	5.2(H)
113 p-Isopropyltoluene	119	16.050	16.059	(0.979)	747804	5.00000	5.1(H)
67 1,3-Dichlorobenzene	146	16.107	16.131	(0.982)	428290	5.00000	6.0(H)
* 91 1,4-Dichlorobenzene-d4	152	16.165	16.189	(1.000)	2467079	50.0000	(H)
68 1,4-Dichlorobenzene	146	16.194	16.217	(0.988)	674778	5.00000	5.7(H)
117 Benzyl chloride	91	16.309	16.318	(0.995)	433106	5.00000	5.0(H)
111 n-Butylbenzene	91	16.496	16.505	(1.006)	816477	5.00000	5.1(H)
69 1,2-Dichlorobenzene	146	16.626	16.635	(1.014)	473050	5.00000	5.6(H)
101 1,2-Dibromo-3-chloropropane	75	17.476	17.471	(1.066)	72192	5.00000	5.5(MH)
93 1,2,4-Trichlorobenzene	180	18.427	18.436	(1.124)	323512	5.00000	5.7(H)
94 Hexachlorobutadiene	225	18.571	18.580	(1.133)	229631	5.00000	5.7
70 Naphthalene	128	18.743	18.753	(1.143)	634161	5.00000	6.0(H)
98 1,2,3-Trichlorobenzene	180	19.032	19.041	(1.161)	301684	5.00000	6.0(H)
M 14 1,2-Dichloroethene (total)	100				518617	10.0000	11
M 45 Xylene (Total)	100				981465	15.0000	16

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304894

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/17oct98.b/c2197.d
Date : 17-OCT-1998 11:35
Client ID:
Sample Info: CSTD005

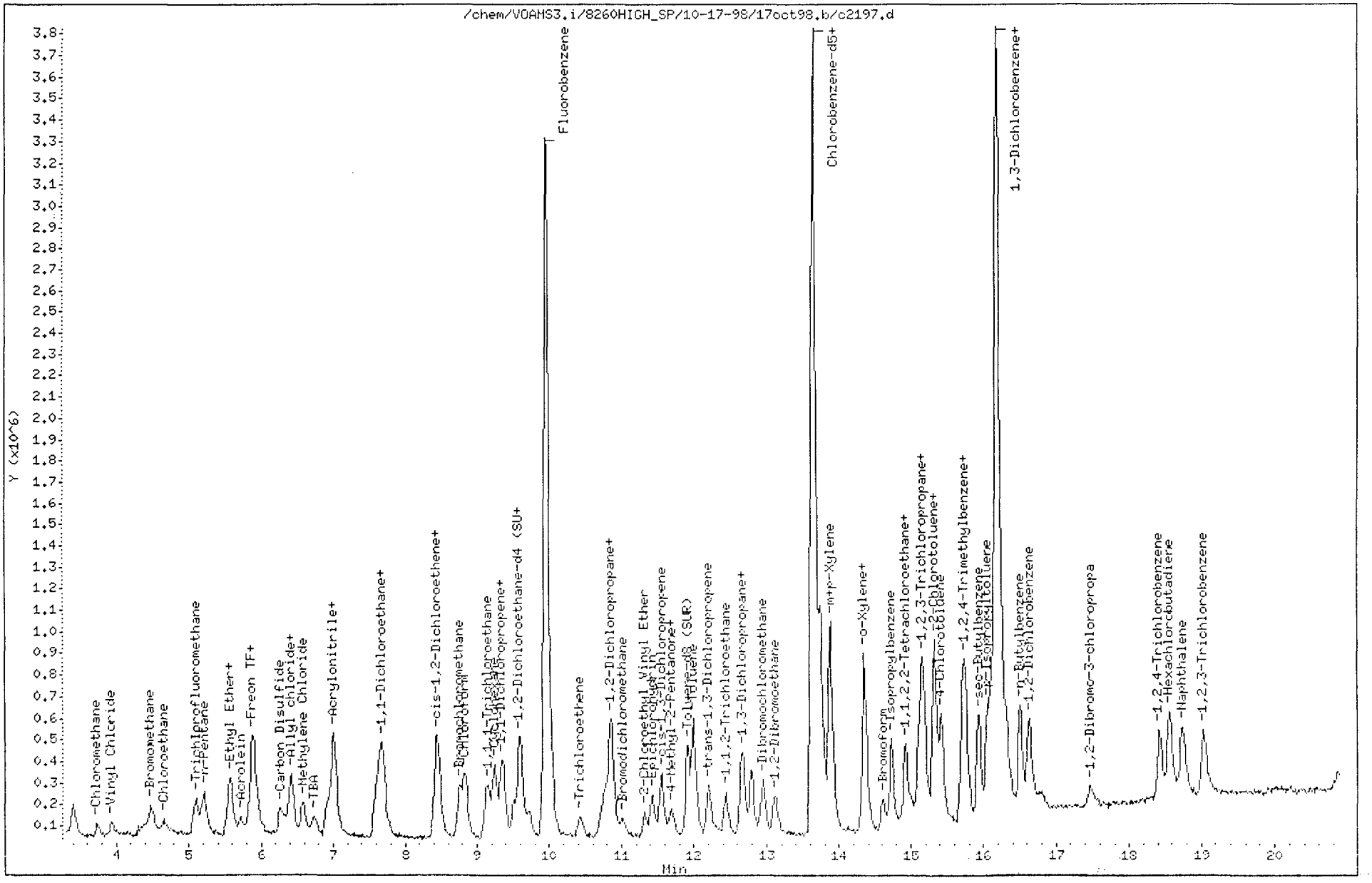
Instrument: VOAMS3.i

Operator: VOAMS 3

304895

Column phase: DB624

Column diameter: 0.53



VOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8260B

Instrument ID: VOAMS3 Calibration Date: 10/19/98 Time: 1126

Lab File ID: C2232 Init. Calib. Date(s): 10/17/98 10/17/98

Heated Purge: (Y/N) N Init. Calib. Times: 1135 1401

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.170	0.163	0.1	4.1	50.0
Bromomethane	0.221	0.146		33.9	50.0
Vinyl Chloride	0.173	0.154		11.0	20.0
Chloroethane	0.151	0.136		9.9	50.0
Methylene Chloride	0.299	0.260		13.0	50.0
Acetone	0.093	0.066		29.0	50.0
Carbon Disulfide	0.662	0.639		3.5	50.0
Trichlorofluoromethane	0.468	0.418		10.7	50.0
1,1-Dichloroethene	0.292	0.259		11.3	20.0
1,1-Dichloroethane	0.570	0.543	0.1	4.7	50.0
trans-1,2-Dichloroethene	0.302	0.298		1.3	50.0
cis-1,2-Dichloroethene	0.311	0.299		3.8	50.0
Chloroform	0.577	0.541		6.2	20.0
1,2-Dichloroethane	0.408	0.371		9.1	50.0
2-Butanone	0.030	0.028		6.7	50.0
1,1,1-Trichloroethane	0.464	0.434		6.5	50.0
Carbon Tetrachloride	0.416	0.391		6.0	50.0
Bromodichloromethane	0.552	0.506		8.3	50.0
1,2-Dichloropropane	0.355	0.332		6.5	20.0
cis-1,3-Dichloropropene	0.501	0.474		5.4	50.0
Trichloroethene	0.392	0.338		13.8	50.0
Dibromochloromethane	0.638	0.617		3.3	50.0
1,1,2-Trichloroethane	0.407	0.383		5.9	50.0
Benzene	0.897	0.786		12.4	50.0
trans-1,3-Dichloropropene	0.605	0.591		2.3	50.0
2-Chloroethyl Vinyl Ether	0.202	0.207		-2.3	50.0
Bromoform	0.413	0.413	0.1	0.0	50.0
4-Methyl-2-Pentanone	0.322	0.309		4.0	50.0
2-Hexanone	0.281	0.261		7.1	50.0
Tetrachloroethene	0.603	0.555		8.0	50.0
1,1,2,2-Tetrachloroethane	1.596	1.291	0.3	19.1	50.0
Toluene	1.435	1.359		5.3	20.0
Chlorobenzene	1.008	0.955	0.3	5.2	50.0
Ethylbenzene	0.450	0.437		2.9	20.0
Styrene	0.911	0.912		-0.0	50.0
Xylene (Total)	0.573	0.564		1.6	50.0
Ethyl Ether	0.209	0.192		8.1	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS3 Calibration Date: 10/19/98 Time: 1126

Lab File ID: C2232 Init. Calib. Date(s): 10/17/98 10/17/98

Heated Purge: (Y/N) N Init. Calib. Times: 1135 1401

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Acrolein	0.015	0.015		0.0	50.0
Freon TF	0.674	0.617		8.4	50.0
Isopropanol					50.0
Acetonitrile	0.033	0.031		6.1	50.0
TBA	0.023	0.022		4.3	50.0
Acrylonitrile	0.059	0.059		0.0	50.0
MTBE	0.774	0.749		3.2	50.0
Hexane					50.0
DIPE	1.279	1.147		10.3	50.0
Ethyl Acetate					50.0
Vinyl Acetate	0.575	0.507		11.8	50.0
Tetrahydrofuran					50.0
Cyclohexane	0.509	0.466		8.4	50.0
Isobutanol					50.0
Isopropyl Acetate					50.0
n-Heptane					50.0
n-Butanol					50.0
Propyl Acetate					50.0
Butyl Acetate					50.0
1,2-Dibromoethane	0.645	0.610		5.4	50.0
1,3-Dichlorobenzene	1.363	1.186		13.0	50.0
1,4-Dichlorobenzene	2.237	2.085		6.8	50.0
1,2-Dichlorobenzene	1.606	1.458		9.2	50.0
Naphthalene	2.063	1.966		4.7	50.0
Methylnaphthalene (total)					50.0
Dimethylnaphthalene (total)					50.0
Dichlorodifluoromethane	0.416	0.346		16.8	50.0
1,1-Dichloropropene	0.428	0.414		3.3	50.0
1,2,4-Trichlorobenzene	1.076	1.048		2.6	50.0
Hexachlorobutadiene	0.760	0.747		1.7	50.0
1,4-Dioxane	0.003	0.003		0.0	50.0
Methyl Acrylate					50.0
1,1,1,2-Tetrachloroethane	0.469	0.457		2.6	50.0
1,2,3-Trichlorobenzene	0.954	0.934		2.1	50.0
1,2,3-Trichloropropane	1.146	1.049		8.5	50.0
1,2,4-Trimethylbenzene	2.445	2.218		9.3	50.0
1,2-Dibromo-3-chloropropane	0.258	0.236		8.5	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS3 Calibration Date: 10/19/98 Time: 1126

Lab File ID: C2232 Init. Calib. Date(s): 10/17/98 10/17/98

Heated Purge: (Y/N) N Init. Calib. Times: 1135 1401

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3,5-Trimethylbenzene	2.559	2.356		7.9	50.0
1,3-Dichloropropane	0.732	0.706		3.6	50.0
2,2-Dichloropropane	0.456	0.459		0.1	50.0
2-Chlorotoluene	2.056	1.642		20.1	50.0
4-Chlorotoluene	2.915	2.745		5.8	50.0
Bromobenzene	1.057	0.966		8.6	50.0
Bromochloromethane	0.209	0.198		5.3	50.0
Dibromomethane	0.304	0.290		4.6	50.0
Isopropylbenzene	1.521	1.586		-4.1	50.0
n-Butylbenzene	3.085	2.801		9.2	50.0
n-Propylbenzene	3.829	3.554		7.2	50.0
p-Isopropyltoluene	2.888	2.659		7.9	50.0
sec-Butylbenzene	3.658	3.367		8.0	50.0
tert-Butylbenzene	2.669	2.472		7.4	50.0
Allyl chloride	0.180	0.199		-10.4	50.0
Benzyl chloride	1.634	1.499		8.3	50.0
Epichlorohydrin	0.029	0.027		6.9	50.0
Isoprene	0.310	0.294		5.2	50.0
Methyl methacrylate	0.230	0.217		5.6	50.0
n-Pentane	0.062	0.061		1.6	50.0
Allyl alcohol					50.0
Amyl Acetate					50.0
1,2-Dichloroethane-d4 (SUR)	0.345	0.317		8.1	50.0
Toluene-d8 (SUR)	1.317	1.274		3.3	50.0
Bromofluorobenzene (SUR)	1.001	0.934		6.7	50.0

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2232.d
Report Date: 12-Nov-1998 11:15

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2232.d
Lab Smp Id: CSTD292 Client Smp ID: CSTD292
Inj Date : 19-OCT-1998 11:26
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : CSTD292
Misc Info :
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/new8260HIGH.m
Meth Date : 19-Oct-98 12:05:49 Quant Type: ISTD
Cal Date : 17-OCT-1998 14:01 Cal File: c2202.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.429	3.454	(0.343)	1999058	50.0000	42
1 Chloromethane	50	3.761	3.785	(0.377)	942599	50.0000	48
4 Vinyl Chloride	62	3.977	3.987	(0.398)	890906	50.0000	44
3 Bromomethane	94	4.496	4.520	(0.450)	846577	50.0000	33
5 Chloroethane	64	4.654	4.678	(0.466)	783213	50.0000	45
9 Trichlorofluoromethane	101	5.101	5.125	(0.511)	2417005	50.0000	45
121 n-Pentane	72	5.216	5.240	(0.522)	351618	50.0000	49
46 Ethyl Ether	59	5.576	5.586	(0.558)	1108447	50.0000	46
119 Isoprene	67	5.590	5.615	(0.560)	1699402	50.0000	47
47 Acrolein	56	5.763	5.759	(0.577)	530709	300.000	300
48 Freon TF	101	5.893	5.917	(0.590)	3563352	50.0000	46
10 1,1-Dichloroethene	96	5.922	5.931	(0.593)	1499052	50.0000	44
7 Acetone	43	5.994	6.004	(0.600)	381187	50.0000	35
8 Carbon Disulfide	76	6.296	6.306	(0.631)	3693491	50.0000	48
116 Allyl chloride	76	6.440	6.450	(0.645)	1151387	50.0000	55

304899

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2232.d
Report Date: 12-Nov-1998 11:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	50 Acetonitrile	41	6.440	6.436	(0.645)	3611690	1000.00	940
	6 Methylene Chloride	84	6.628	6.623	(0.664)	1504244	50.0000	44
	51 TBA	59	6.801	6.796	(0.681)	2596123	1000.00	990
	52 Acrylonitrile	53	6.959	6.954	(0.697)	1021688	150.000	150
	53 MTBE	73	7.045	7.041	(0.706)	4328564	50.0000	48
	12 trans-1,2-Dichloroethene	96	7.045	7.041	(0.706)	1720765	50.0000	49
	11 1,1-Dichloroethane	63	7.650	7.646	(0.766)	3134903	50.0000	48
	57 Vinyl Acetate	43	7.722	7.718	(0.773)	2930773	50.0000	44
	55 DIPE	45	7.722	7.718	(0.773)	6624634	50.0000	45
	18 2-Butanone	72	8.472	8.453	(0.848)	164242	50.0000	47
	13 cis-1,2-Dichloroethene	96	8.472	8.467	(0.848)	1725238	50.0000	48
	104 2,2-Dichloropropane	77	8.486	8.481	(0.850)	2653447	50.0000	50
	108 Bromochloromethane	128	8.803	8.798	(0.882)	1142562	50.0000	47
	15 Chloroform	83	8.875	8.870	(0.889)	3124354	50.0000	47
	20 1,1,1-Trichloroethane	97	9.177	9.173	(0.919)	2507505	50.0000	47
	59 Cyclohexane	56	9.278	9.274	(0.929)	2692095	50.0000	46
	92 1,1-Dichloropropene	75	9.379	9.375	(0.939)	2391157	50.0000	48
	21 Carbon Tetrachloride	117	9.408	9.403	(0.942)	2259475	50.0000	47
$	16 1,2-Dichloroethane-d4 (SUR)	65	9.552	9.533	(0.957)	1831354	50.0000	46
	17 1,2-Dichloroethane	62	9.653	9.634	(0.967)	2141248	50.0000	45
	28 Benzene	78	9.653	9.648	(0.967)	4539577	50.0000	44
*	19 Fluorobenzene	96	9.984	9.980	(1.000)	5776742	50.0000	
	25 Trichloroethene	95	10.474	10.455	(1.049)	1952472	50.0000	43
	23 1,2-Dichloropropane	63	10.748	10.729	(1.076)	1920931	50.0000	47
	120 Methyl methacrylate	69	10.791	10.772	(1.081)	1253674	50.0000	47
	109 Dibromomethane	93	10.906	10.887	(1.092)	1674184	50.0000	48
	95 1,4-Dioxane	88	10.892	10.873	(1.091)	1010652	3000.00	2900
	22 Bromodichloromethane	83	11.065	11.046	(1.108)	2922416	50.0000	46
	30 2-Chloroethyl Vinyl Ether	63	11.367	11.348	(1.139)	1198099	50.0000	51
	118 Epichlorohydrin	57	11.468	11.449	(1.149)	3132569	1000.00	940
	24 cis-1,3-Dichloropropene	75	11.598	11.579	(1.162)	2740996	50.0000	47
	33 4-Methyl-2-Pentanone	43	11.727	11.708	(1.175)	1783563	50.0000	48
$	37 Toluene-d8 (SUR)	98	11.943	11.924	(0.874)	5039746	50.0000	48
	38 Toluene	91	12.030	12.011	(0.880)	5373998	50.0000	47
	29 trans-1,3-Dichloropropene	75	12.232	12.213	(0.895)	2338877	50.0000	49
	27 1,1,2-Trichloroethane	83	12.476	12.457	(0.913)	1514338	50.0000	47
	103 1,3-Dichloropropane	76	12.678	12.659	(0.927)	2794538	50.0000	48
	35 Tetrachloroethene	166	12.721	12.702	(0.930)	2194002	50.0000	46
	34 2-Hexanone	43	12.721	12.688	(0.930)	1031555	50.0000	46
	26 Dibromochloromethane	129	12.981	12.962	(0.949)	2439038	50.0000	48
	66 1,2-Dibromoethane	107	13.154	13.134	(0.962)	2413154	50.0000	47
*	32 Chlorobenzene-d5	117	13.672	13.653	(1.000)	3955537	50.0000	
	39 Chlorobenzene	112	13.701	13.682	(1.002)	3778845	50.0000	47
	40 Ethylbenzene	106	13.787	13.768	(1.008)	1727916	50.0000	48
	43 m+p-Xylene	106	13.917	13.884	(1.018)	4593229	100.000	99
	97 1,1,1,2-Tetrachloroethane	131	13.773	13.754	(1.007)	1807050	50.0000	49
	44 o-Xylene	106	14.378	14.359	(1.052)	2093649	50.0000	48

304900

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2232.d
Report Date: 12-Nov-1998 11:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
42 Styrene	104	14.378	14.359	(1.052)	3607124	50.0000	50
31 Bromoform	173	14.652	14.618	(1.072)	1633055	50.0000	50
110 Isopropylbenzene	105	14.767	14.734	(1.080)	6273091	50.0000	52
$ 41 Bromofluorobenzene (SUR)	174	14.969	14.935	(0.924)	1936279	50.0000	47
36 1,1,2,2-Tetrachloroethane	83	15.055	15.036	(0.929)	2677700	50.0000	40
99 1,2,3-Trichloropropane	75	15.142	15.108	(0.934)	2176400	50.0000	46
107 Bromobenzene	156	15.170	15.137	(0.936)	2003082	50.0000	46
112 n-Propylbenzene	91	15.214	15.180	(0.939)	7372169	50.0000	46
105 2-Chlorotoluene	91	15.358	15.324	(0.948)	3406384	50.0000	40
102 1,3,5-Trimethylbenzene	105	15.372	15.339	(0.948)	4886098	50.0000	46
106 4-Chlorotoluene	91	15.459	15.425	(0.954)	5693624	50.0000	47
115 tert-Butylbenzene	119	15.747	15.713	(0.972)	5126421	50.0000	46
100 1,2,4-Trimethylbenzene	105	15.790	15.756	(0.974)	4599353	50.0000	45
114 sec-Butylbenzene	105	15.977	15.944	(0.986)	6983591	50.0000	46
113 p-Isopropyltoluene	119	16.092	16.059	(0.993)	5515020	50.0000	46
67 1,3-Dichlorobenzene	146	16.150	16.131	(0.996)	2461051	50.0000	44
* 91 1,4-Dichlorobenzene-d4	152	16.208	16.189	(1.000)	2074040	50.0000	
68 1,4-Dichlorobenzene	146	16.236	16.217	(1.002)	4324590	50.0000	46
117 Benzyl chloride	91	16.352	16.318	(1.009)	3108925	50.0000	46
111 n-Butylbenzene	91	16.539	16.505	(1.020)	5809247	50.0000	45
69 1,2-Dichlorobenzene	146	16.669	16.635	(1.028)	3023908	50.0000	45
101 1,2-Dibromo-3-chloropropane	75	17.519	17.471	(1.081)	490121	50.0000	46
93 1,2,4-Trichlorobenzene	180	18.469	18.436	(1.140)	2173233	50.0000	49
94 Hexachlorobutadiene	225	18.613	18.580	(1.148)	1549040	50.0000	49
70 Naphthalene	128	18.801	18.753	(1.160)	4077651	50.0000	48
98 1,2,3-Trichlorobenzene	180	19.089	19.041	(1.178)	1937734	50.0000	49
M 14 1,2-Dichloroethene (total)	100				3446003	100.000	97
M 45 Xylene (Total)	100				6686878	150.000	150

304901

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/19oct98.b/c2232.d
Date : 19-OCT-1998 11:26
Client ID: CSTD292
Sample Info: CSTD292

Column phase: DB624

Instrument: VOAMS3.i

Operator: VOAMS 3
Column diameter: 0.53

304902

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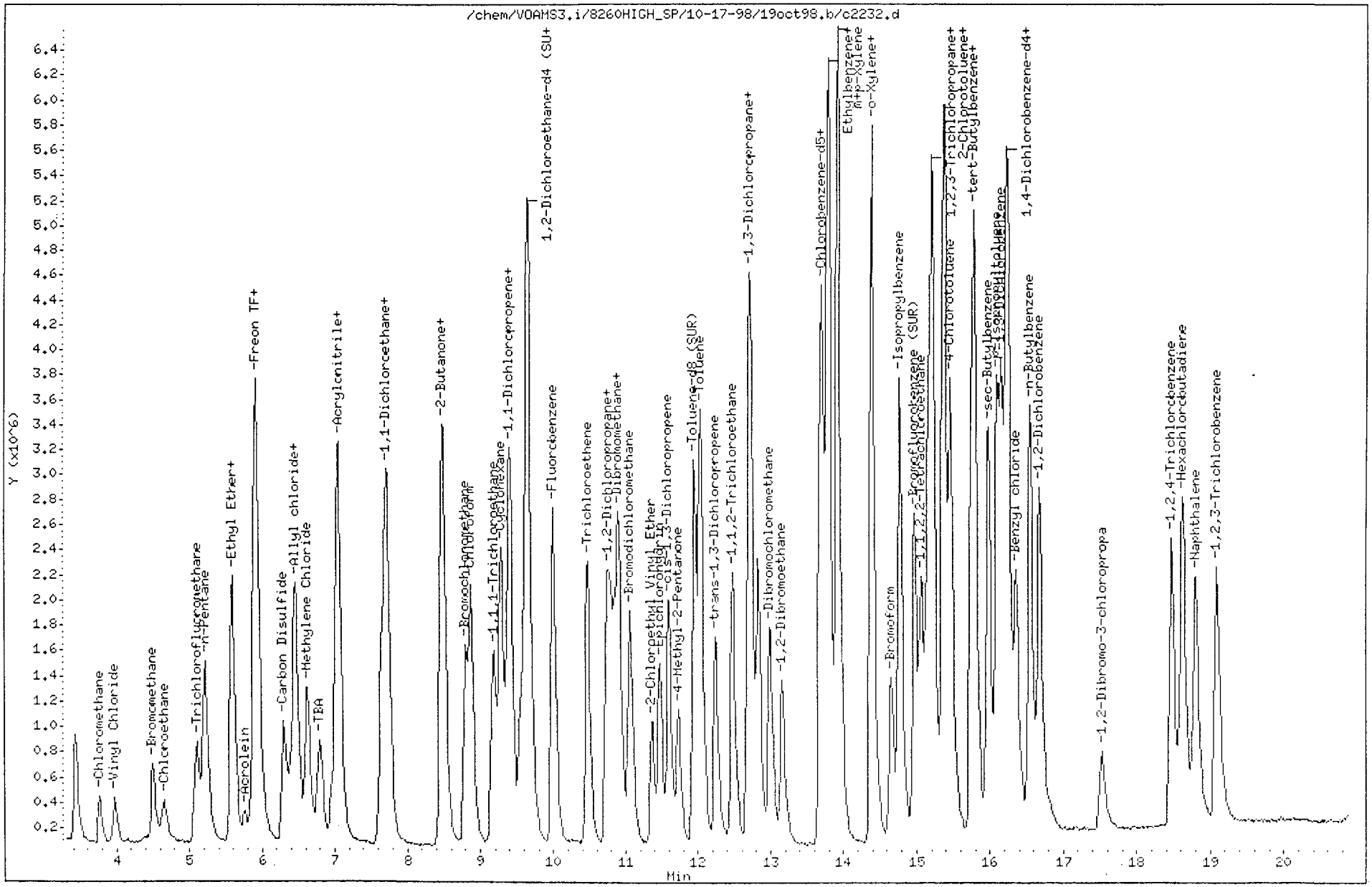


VOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

LAB FILE ID: RRF5: E4609 RRF20: E4610 RRF50: E4611
RRF100: E4613 RRF200: E4614

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Chloromethane	0.192	0.199	0.226	0.234	0.234
Bromomethane	0.218	0.205	0.199	0.207	0.209
Vinyl Chloride	0.149	0.154	0.189	0.196	0.190
Chloroethane	0.153	0.151	0.164	0.170	0.171
Methylene Chloride	0.266	0.274	0.240	0.261	0.264
Acetone	0.048	0.053	0.043	0.045	0.042
Carbon Disulfide	0.661	0.637	0.678	0.712	0.680
Trichlorofluoromethane	0.401	0.376	0.454	0.462	0.455
1,1-Dichloroethene	0.252	0.244	0.234	0.256	0.251
1,1-Dichloroethane	0.628	0.666	0.597	0.644	0.643
trans-1,2-Dichloroethene	0.274	0.293	0.265	0.287	0.287
cis-1,2-Dichloroethene	0.318	0.320	0.282	0.302	0.305
Chloroform	0.577	0.602	0.527	0.567	0.566
1,2-Dichloroethane	0.366	0.398	0.335	0.365	0.363
2-Butanone	0.014	0.020	0.017	0.020	0.020
1,1,1-Trichloroethane	0.500	0.511	0.479	0.514	0.504
Carbon Tetrachloride	0.452	0.503	0.489	0.523	0.513
Bromodichloromethane	0.601	0.574	0.501	0.548	0.547
1,2-Dichloropropane	0.445	0.414	0.355	0.393	0.394
cis-1,3-Dichloropropene	0.492	0.486	0.418	0.456	0.459
Trichloroethene	0.346	0.338	0.306	0.328	0.323
Dibromochloromethane	0.516	0.551	0.474	0.532	0.549
1,1,2-Trichloroethane	0.222	0.274	0.236	0.258	0.260
Benzene	1.020	0.842	0.742	0.803	0.804
trans-1,3-Dichloropropene	0.451	0.461	0.397	0.440	0.452
2-Chloroethyl Vinyl Ether	0.210	0.228	0.196	0.220	0.217
Bromoform	0.244	0.279	0.247	0.285	0.300
4-Methyl-2-Pentanone	0.214	0.226	0.198	0.222	0.221
2-Hexanone	0.148	0.166	0.140	0.164	0.170
Tetrachloroethene	0.367	0.341	0.319	0.347	0.351
1,1,2,2-Tetrachloroethane	1.432	1.126	0.956	1.011	1.022
Toluene	1.075	1.106	0.962	1.038	1.030
Chlorobenzene	0.883	0.917	0.798	0.873	0.880
Ethylbenzene	0.360	0.397	0.357	0.399	0.388
Styrene	0.792	0.822	0.702	0.784	0.794
Xylene (Total)	0.482	0.498	0.442	0.487	0.495
Ethyl Ether	0.224	0.242	0.206	0.227	0.230
Acrolein	0.019	0.020	0.019	0.020	0.020
Freon TF	0.434	0.509	0.460	0.545	0.558

304903

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

LAB FILE ID: RRF5: E4609 RRF20: E4610 RRF50: E4611
RRF100: E4613 RRF200: E4614

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Isopropanol					
Acetonitrile	0.026	0.027	0.022	0.024	0.024
TBA	0.015	0.016	0.014	0.016	0.016
Acrylonitrile	0.055	0.059	0.059	0.060	0.062
MTBE	0.659	0.704	0.613	0.667	0.660
Hexane					
DIPE	1.275	1.390	1.160	1.288	1.274
Ethyl Acetate	0.146	0.144	0.176	0.198	0.199
Vinyl Acetate	0.508	0.552	0.461	0.507	0.503
Tetrahydrofuran					
Cyclohexane	0.404	0.428	0.381	0.458	0.472
Isobutanol					
Isopropyl Acetate	0.475	0.517	0.458	0.499	0.495
n-Heptane					
n-Butanol					
Propyl Acetate	0.254	0.244	0.264	0.290	0.289
Butyl Acetate	0.290	0.331	0.373	0.424	0.436
1,2-Dibromoethane	0.476	0.504	0.422	0.473	0.482
1,3-Dichlorobenzene	1.483	1.271	1.158	1.296	1.192
1,4-Dichlorobenzene	1.778	1.670	1.418	1.476	1.566
1,2-Dichlorobenzene	1.234	1.201	1.025	1.110	1.103
Naphthalene					
Methylnaphthalene (total)					
Dimethylnaphthalene (total)					
Dichlorodifluoromethane	0.277	0.241	0.346	0.351	0.344
1,1-Dichloropropene	0.350	0.359	0.342	0.367	0.357
1,2,4-Trichlorobenzene					
Hexachlorobutadiene	0.197	0.216	0.202	0.250	0.236
1,4-Dioxane	0.002	0.002	0.002	0.002	0.002
Methyl Acrylate					
1,1,1,2-Tetrachloroethane	0.391	0.414	0.369	0.409	0.421
1,2,3-Trichlorobenzene					
1,2,3-Trichloropropane	0.976	0.905	0.772	0.819	0.818
1,2,4-Trimethylbenzene	3.214	2.855	2.509	2.667	2.596
1,2-Dibromo-3-chloropropane	0.088	0.069	0.064	0.071	0.069
1,3,5-Trimethylbenzene	3.269	2.814	2.521	2.653	2.579
1,3-Dichloropropane	0.472	0.525	0.440	0.488	0.500
2,2-Dichloropropane	0.408	0.431	0.399	0.426	0.415
2-Chlorotoluene	2.454	2.458	2.142	2.296	2.240

304904

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

LAB FILE ID: RRF5: E4609 RRF20: E4610 RRF50: E4611
RRF100: E4613 RRF200: E4614

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
4-Chlorotoluene	3.313	2.990	2.759	2.872	2.801
Bromobenzene	1.060	1.012	0.880	0.930	0.936
Bromochloromethane	0.204	0.198	0.170	0.191	0.192
Dibromomethane	0.284	0.285	0.243	0.268	0.270
Isopropylbenzene	0.886	1.184	1.077	1.175	1.180
n-Butylbenzene	1.851	1.896	1.792	1.930	1.876
n-Propylbenzene	3.884	3.538	3.229	3.441	3.352
p-Isopropyltoluene	2.790	2.705	2.434	2.605	2.518
sec-Butylbenzene	3.326	2.985	2.704	2.916	2.803
tert-Butylbenzene	3.057	2.730	2.435	2.582	2.519
Allyl chloride	0.136	0.154	0.140	0.152	0.156
Benzyl chloride	1.194	1.337	1.085	1.216	1.212
Epichlorohydrin	0.022	0.025	0.019	0.022	0.022
Isoprene	0.245	0.287	0.260	0.306	0.321
Methyl methacrylate	0.188	0.188	0.154	0.172	0.175
n-Pentane	0.035	0.041	0.037	0.044	0.046
Allyl alcohol	0.002	0.002	0.002	0.002	0.002
Amyl Acetate					
1,2-Dichloroethane-d4 (SUR)	0.314	0.329	0.298	0.303	0.304
Toluene-d8 (SUR)	1.072	1.114	1.045	1.045	1.047
Bromofluorobenzene (SUR)	1.091	1.064	0.988	0.987	1.004

304905

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Chloromethane	AVRG	0.21725078	9.2**
Bromomethane	AVRG	0.20778826	3.3*
Vinyl Chloride	AVRG	0.17539942	12.5*
Chloroethane	AVRG	0.16173182	5.7*
Methylene Chloride	AVRG	0.26086257	4.9*
Acetone	AVRG	0.04639774	9.3*
Carbon Disulfide	AVRG	0.67360640	4.1*
Trichlorofluoromethane	AVRG	0.42965594	9.0*
1,1-Dichloroethene	AVRG	0.24742959	3.5*
1,1-Dichloroethane	AVRG	0.63561219	4.0**
trans-1,2-Dichloroethene	AVRG	0.28128304	4.0*
cis-1,2-Dichloroethene	AVRG	0.30563862	5.1*
Chloroform	AVRG	0.56782929	4.8*
1,2-Dichloroethane	AVRG	0.36553503	6.2*
2-Butanone	AVRG	0.01838251	13.6*
1,1,1-Trichloroethane	AVRG	0.50154922	2.8*
Carbon Tetrachloride	AVRG	0.49634317	5.5*
Bromodichloromethane	AVRG	0.55430208	6.7*
1,2-Dichloropropane	AVRG	0.40039429	8.2*
cis-1,3-Dichloropropene	AVRG	0.46211763	6.4*
Trichloroethene	AVRG	0.32843767	4.7*
Dibromochloromethane	AVRG	0.52445767	6.0*
1,1,2-Trichloroethane	AVRG	0.25017057	8.2*
Benzene	AVRG	0.84232145	12.5*
trans-1,3-Dichloropropene	AVRG	0.44035382	5.8*
2-Chloroethyl Vinyl Ether	AVRG	0.21417030	5.6*
Bromoform	AVRG	0.27106887	9.1**
4-Methyl-2-Pentanone	AVRG	0.21625254	5.0*
2-Hexanone	AVRG	0.15759263	8.3*
Tetrachloroethene	AVRG	0.34506907	5.1*
1,1,2,2-Tetrachloroethane	AVRG	1.10939615	17.2**
Toluene	AVRG	1.04217119	5.2*
Chlorobenzene	AVRG	0.87015969	5.0**
Ethylbenzene	AVRG	0.38041221	5.4*
Styrene	AVRG	0.77913544	5.8*
Xylene (Total)	AVRG	0.48074486	4.7*
Ethyl Ether	AVRG	0.22577476	5.8*
Acrolein	AVRG	0.01948263	1.5*
Freon TF	AVRG	0.50147582	10.7*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304906

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Isopropanol	AVRG		
Acetonitrile	AVRG	0.02465354	7.7*
TBA	AVRG	0.01528007	6.1*
Acrylonitrile	AVRG	0.05914956	4.2*
MTBE	AVRG	0.66070925	4.9*
Hexane	AVRG		
DIPE	AVRG	1.27717200	6.4*
Ethyl Acetate	AVRG	0.17248365	15.5*
Vinyl Acetate	AVRG	0.50643677	6.4*
Tetrahydrofuran	AVRG		
Cyclohexane	AVRG	0.42885273	8.7*
Isobutanol	AVRG		
Isopropyl Acetate	AVRG	0.48886795	4.6*
n-Heptane	AVRG		
n-Butanol	AVRG		
Propyl Acetate	AVRG	0.26799472	7.8*
Butyl Acetate	AVRG	0.37083720	16.6*
1,2-Dibromoethane	AVRG	0.47151664	6.4*
1,3-Dichlorobenzene	AVRG	1.28000508	9.9*
1,4-Dichlorobenzene	AVRG	1.58132010	9.2*
1,2-Dichlorobenzene	AVRG	1.13482466	7.3*
Naphthalene	AVRG		
Methylnaphthalene (total)	AVRG		
Dimethylnaphthalene (total)	AVRG		
Dichlorodifluoromethane	AVRG	0.31179469	16.0*
1,1-Dichloropropene	AVRG	0.35489448	2.7*
1,2,4-Trichlorobenzene	AVRG		
Hexachlorobutadiene	AVRG	0.22007165	10.2*
1,4-Dioxane	AVRG	0.00173053	3.3*
Methyl Acrylate	AVRG		
1,1,1,2-Tetrachloroethane	AVRG	0.40100337	5.2*
1,2,3-Trichlorobenzene	AVRG		
1,2,3-Trichloropropane	AVRG	0.85801736	9.5*
1,2,4-Trimethylbenzene	AVRG	2.76812791	10.1*
1,2-Dibromo-3-chloropropane	AVRG	0.07232784	12.7*
1,3,5-Trimethylbenzene	AVRG	2.76745387	10.9*
1,3-Dichloropropane	AVRG	0.48504301	6.6*
2,2-Dichloropropane	AVRG	0.41578164	3.2*
2-Chlorotoluene	AVRG	2.31812061	5.9*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304907

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
4-Chlorotoluene	AVRG	2.94696669	7.5*
Bromobenzene	AVRG	0.96360185	7.4*
Bromochloromethane	AVRG	0.19126257	6.7*
Dibromomethane	AVRG	0.27027230	6.2*
Isopropylbenzene	AVRG	1.10028177	11.6*
n-Butylbenzene	AVRG	1.86894028	2.8*
n-Propylbenzene	AVRG	3.48896343	7.1*
p-Isopropyltoluene	AVRG	2.61055013	5.4*
sec-Butylbenzene	AVRG	2.94691418	8.1*
tert-Butylbenzene	AVRG	2.66472854	9.2*
Allyl chloride	AVRG	0.14758058	6.1*
Benzyl chloride	AVRG	1.20902152	7.4*
Epichlorohydrin	AVRG	0.02215982	9.1*
Isoprene	AVRG	0.28379365	11.0*
Methyl methacrylate	AVRG	0.17565960	8.0*
n-Pentane	AVRG	0.04070180	11.4*
Allyl alcohol	AVRG	0.00232670	7.8*
Amyl Acetate	AVRG		
1,2-Dichloroethane-d4 (SUR)	AVRG	0.30943109	4.0*
Toluene-d8 (SUR)	AVRG	1.06456668	2.8*
Bromofluorobenzene (SUR)	AVRG	1.02674904	4.6*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304908

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Report Date: 12-Nov-1998 11:49

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Lab Smp Id: ESTD200 Client Smp ID: ESTD200
Inj Date : 14-OCT-1998 12:21
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD200
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.967	2.967	(0.324)	3809336	200.000	220(A)
1 Chloromethane	50	3.201	3.201	(0.350)	2593685	200.000	220(A)
4 Vinyl Chloride	62	3.419	3.419	(0.374)	2098820	200.000	220(A)
3 Bromomethane	94	3.903	3.903	(0.427)	2314557	200.000	200(A)
5 Chloroethane	64	4.043	4.043	(0.442)	1887978	200.000	210(A)
9 Trichlorofluoromethane	101	4.464	4.464	(0.488)	5034879	200.000	210(AMH)
121 n-Pentane	72	4.543	4.543	(0.497)	512747	200.000	230(A)
46 Ethyl Ether	59	4.808	4.808	(0.526)	2549603	200.000	200(A)
119 Isoprene	67	4.870	4.870	(0.532)	3547897	200.000	230(A)
47 Acrolein	56	4.979	4.979	(0.544)	544958	500.000	500(A)
48 Freon TF	101	5.214	5.214	(0.570)	6177926	200.000	220(A)
10 1,1-Dichloroethene	96	5.167	5.167	(0.565)	2772876	200.000	200(A)
7 Acetone	43	5.183	5.183	(0.566)	470530	200.000	180
8 Carbon Disulfide	76	5.511	5.511	(0.602)	7527446	200.000	200(A)
116 Allyl chloride	76	5.651	5.651	(0.618)	1729273	200.000	210(A)
50 Acetonitrile	41	5.651	5.651	(0.618)	5338216	4000.00	3900
6 Methylene Chloride	84	5.807	5.807	(0.635)	2924849	200.000	200(A)

304909

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Report Date: 12-Nov-1998 11:49

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
51 TBA	59	5.917	5.917	(0.647)	3464851	4000.00	4100(A)
52 Acrylonitrile	53	6.088	6.088	(0.665)	860756	250.000	260(A)
53 MTBE	73	6.198	6.198	(0.677)	7306340	200.000	200
12 trans-1,2-Dichloroethene	96	6.213	6.213	(0.679)	3172825	200.000	200(A)
122 Allyl alcohol	57	6.728	6.728	(0.735)	702512	5000.00	5400(A)
11 1,1-Dichloroethane	63	6.759	6.759	(0.739)	7116984	200.000	200(A)
57 Vinyl Acetate	43	6.838	6.838	(0.747)	5566170	200.000	200
55 DIPE	45	6.838	6.838	(0.747)	14087092	200.000	200
18 2-Butanone	72	7.524	7.524	(0.822)	222059	200.000	220(A)
13 cis-1,2-Dichloroethene	96	7.571	7.571	(0.828)	3376058	200.000	200
56 Ethyl Acetate	43	7.602	7.602	(0.831)	4397324	400.000	460(A)
104 2,2-Dichloropropane	77	7.602	7.602	(0.831)	4586652	200.000	200
108 Bromochloromethane	128	7.914	7.914	(0.865)	2126056	200.000	200(A)
15 Chloroform	83	7.992	7.992	(0.874)	6267100	200.000	200
20 1,1,1-Trichloroethane	97	8.320	8.320	(0.909)	5571199	200.000	200(A)
59 Cyclohexane	56	8.430	8.430	(0.921)	5222559	200.000	220(A)
92 1,1-Dichloropropene	75	8.524	8.524	(0.932)	3945036	200.000	200(A)
21 Carbon Tetrachloride	117	8.570	8.570	(0.937)	5676734	200.000	210(A)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.680	8.680	(0.949)	3360849	200.000	200
61 Isopropyl Acetate	43	8.789	8.789	(0.961)	10943220	400.000	400(A)
17 1,2-Dichloroethane	62	8.789	8.789	(0.961)	4014002	200.000	200
28 Benzene	78	8.805	8.805	(0.962)	8897258	200.000	190
* 19 Fluorobenzene	96	9.149	9.149	(1.000)	2765353	50.0000	
25 Trichloroethene	95	9.632	9.632	(1.053)	3571551	200.000	200
23 1,2-Dichloropropane	63	9.898	9.898	(1.082)	4361152	200.000	200
120 Methyl methacrylate	69	9.976	9.976	(1.090)	1935044	200.000	200
64 Propyl Acetate	43	10.023	10.023	(1.096)	6390848	400.000	430(A)
109 Dibromomethane	93	10.054	10.054	(1.099)	2992993	200.000	200(A)
95 1,4-Dioxane	88	10.039	10.039	(1.097)	477785	5000.00	5000
22 Bromodichloromethane	83	10.226	10.226	(1.118)	6055338	200.000	200
30 2-Chloroethyl Vinyl Ether	63	10.539	10.539	(1.152)	2399109	200.000	200(A)
118 Epichlorohydrin	57	10.632	10.632	(1.162)	4911526	4000.00	4000(A)
24 cis-1,3-Dichloropropene	75	10.757	10.757	(1.176)	5073328	200.000	200
33 4-Methyl-2-Pentanone	43	10.898	10.898	(1.191)	2440258	200.000	200(A)
$ 37 Toluene-d8 (SUR)	98	11.117	11.117	(0.861)	9240081	200.000	200
38 Toluene	91	11.195	11.195	(0.867)	9084829	200.000	200
29 trans-1,3-Dichloropropene	75	11.398	11.398	(0.883)	3992536	200.000	200(A)
27 1,1,2-Trichloroethane	83	11.632	11.632	(0.901)	2294618	200.000	210(A)
103 1,3-Dichloropropane	76	11.835	11.835	(0.916)	4416476	200.000	210(A)
35 Tetrachloroethene	166	11.882	11.882	(0.920)	3096630	200.000	200(A)
34 2-Hexanone	43	11.882	11.882	(0.920)	1502121	200.000	220(AH)
26 Dibromochloromethane	129	12.133	12.133	(0.940)	4848057	200.000	210(A)
65 Butyl Acetate	43	12.008	12.008	(0.930)	7699237	400.000	470(A)
66 1,2-Dibromoethane	107	12.289	12.289	(0.952)	4253339	200.000	200(A)
* 32 Chlorobenzene-d5	117	12.804	12.804	(1.000)	2205862	50.0000	(H)
39 Chlorobenzene	112	12.836	12.836	(0.994)	7763186	200.000	200(AH)
40 Ethylbenzene	106	12.930	12.930	(1.001)	3424058	200.000	200(AH)

304910

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Report Date: 12-Nov-1998 11:49

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	43	m+p-Xylene	106	13.055	13.055	(1.011)	8765043	400.000	410(A)
	97	1,1,1,2-Tetrachloroethane	131	12.914	12.914	(1.000)	3715867	200.000	210(AH)
	44	o-Xylene	106	13.508	13.508	(1.046)	4329265	200.000	210(AH)
	42	Styrene	104	13.508	13.508	(1.046)	7010622	200.000	200(AH)
	31	Bromoform	173	13.742	13.742	(1.064)	2650912	200.000	220(AH)
	110	Isopropylbenzene	105	13.883	13.883	(1.075)	10408620	200.000	210(A)
$	41	Bromofluorobenzene (SUR)	174	14.071	14.071	(0.921)	3135743	200.000	200
	36	1,1,2,2-Tetrachloroethane	83	14.165	14.165	(0.927)	3191276	200.000	180
	99	1,2,3-Trichloropropane	75	14.243	14.243	(0.932)	2553169	200.000	190(H)
	107	Bromobenzene	156	14.259	14.259	(0.933)	2921462	200.000	190
	112	n-Propylbenzene	91	14.321	14.321	(0.937)	10467976	200.000	190
	105	2-Chlorotoluene	91	14.447	14.447	(0.946)	6995164	200.000	190
	102	1,3,5-Trimethylbenzene	105	14.478	14.478	(0.948)	8054066	200.000	190
	106	4-Chlorotoluene	91	14.556	14.556	(0.953)	8747309	200.000	190
	115	tert-Butylbenzene	119	14.838	14.838	(0.971)	7866944	200.000	190
	100	1,2,4-Trimethylbenzene	105	14.885	14.885	(0.974)	8105916	200.000	190
	114	sec-Butylbenzene	105	15.073	15.073	(0.987)	8752924	200.000	190
	113	p-Isopropyltoluene	119	15.198	15.198	(0.995)	7863459	200.000	190
	67	1,3-Dichlorobenzene	146	15.229	15.229	(0.997)	3722069	200.000	190
*	91	1,4-Dichlorobenzene-d4	152	15.276	15.276	(1.000)	780655	50.0000	
	68	1,4-Dichlorobenzene	146	15.308	15.308	(1.002)	4890628	200.000	200
	117	Benzyl chloride	91	15.417	15.417	(1.009)	3786463	200.000	200(A)
	111	n-Butylbenzene	91	15.605	15.605	(1.022)	5857982	200.000	200(A)
	69	1,2-Dichlorobenzene	146	15.699	15.699	(1.028)	3445096	200.000	190
	101	1,2-Dibromo-3-chloropropane	75	16.449	16.449	(1.077)	216780	200.000	190
	94	Hexachlorobutadiene	225	17.496	17.496	(1.145)	735996	200.000	210(A)
	70	Naphthalene	128	17.621	17.621	(1.153)	871506	200.000	260(AH)
M	14	1,2-Dichloroethene (total)	100				6548883	400.000	400(A)
M	45	Xylene (Total)	100				13094308	600.000	620(A)

QC Flag Legend

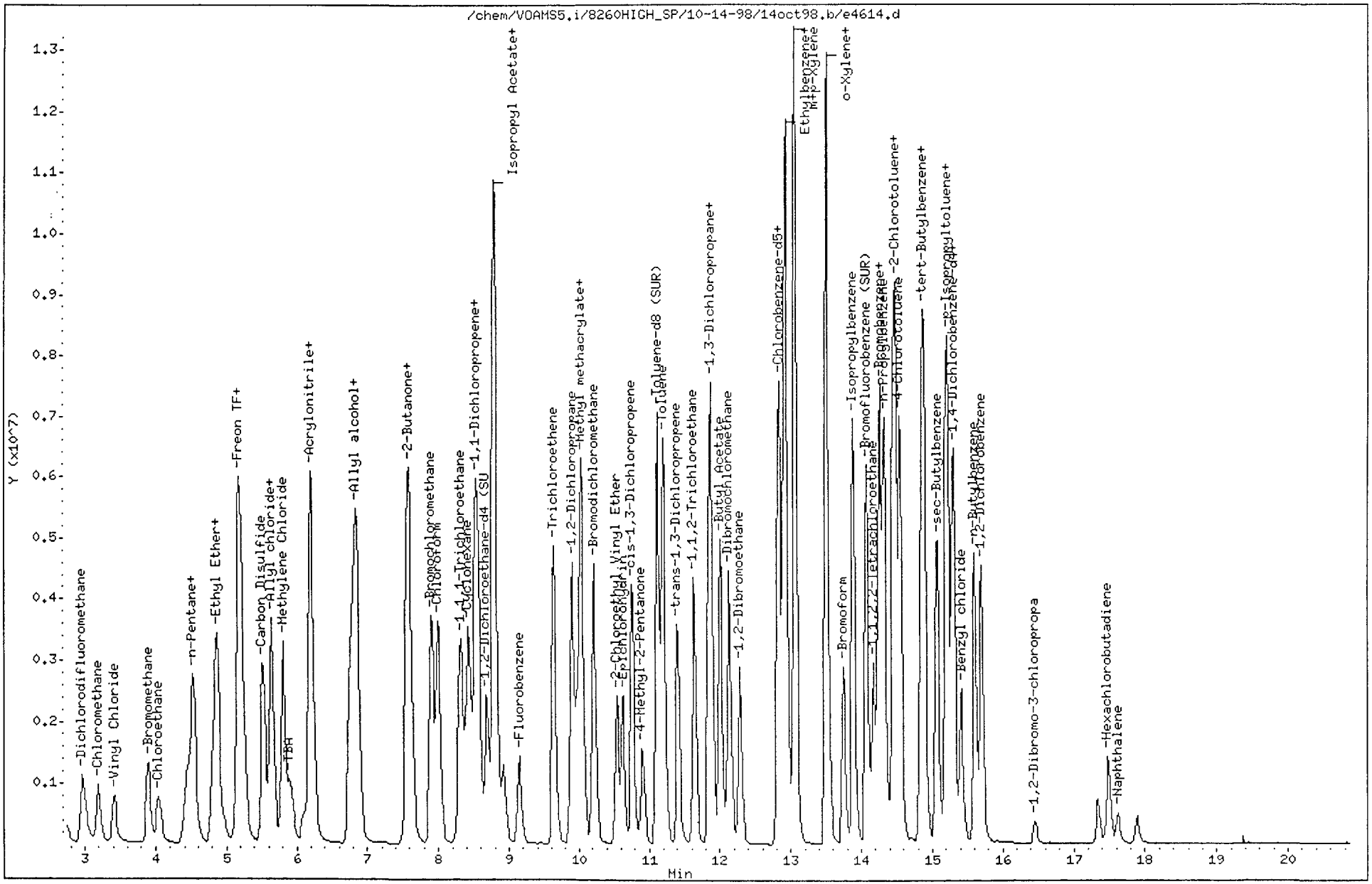
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304911

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Date : 14-OCT-1998 12:21
Client ID: ESTD200
Sample Info: ESTD200
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

304912



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Report Date: 12-Nov-1998 11:49

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Lab Smp Id: ESTD100 Client Smp ID: ESTD100
Inj Date : 14-OCT-1998 11:53
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD100
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.967	2.967	(0.324)	1943716	100.000	110
1 Chloromethane	50	3.185	3.201	(0.348)	1296454	100.000	110
4 Vinyl Chloride	62	3.403	3.419	(0.372)	1083459	100.000	110
3 Bromomethane	94	3.902	3.903	(0.427)	1149814	100.000	100
5 Chloroethane	64	4.043	4.043	(0.442)	940571	100.000	100
9 Trichlorofluoromethane	101	4.464	4.464	(0.488)	2561774	100.000	110(M)
121 n-Pentane	72	4.542	4.543	(0.497)	242415	100.000	110
46 Ethyl Ether	59	4.807	4.808	(0.526)	1260171	100.000	100
119 Isoprene	67	4.870	4.870	(0.532)	1694552	100.000	110
47 Acrolein	56	4.979	4.979	(0.544)	436710	400.000	400
48 Freon TF	101	5.213	5.214	(0.570)	3022576	100.000	110
10 1,1-Dichloroethene	96	5.166	5.167	(0.565)	1421930	100.000	100
7 Acetone	43	5.182	5.183	(0.567)	248734	100.000	97
8 Carbon Disulfide	76	5.510	5.511	(0.602)	3943783	100.000	100
116 Allyl chloride	76	5.650	5.651	(0.618)	841800	100.000	100
50 Acetonitrile	41	5.650	5.651	(0.618)	2667465	2000.00	2000
6 Methylene Chloride	84	5.806	5.807	(0.635)	1444527	100.000	100

304913

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Report Date: 12-Nov-1998 11:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	51 TBA	59	5.916	5.917	(0.647)	1747111	2000.00	2100
	52 Acrylonitrile	53	6.087	6.088	(0.666)	664917	200.000	200
	53 MTBE	73	6.196	6.198	(0.677)	3694367	100.000	100
	12 trans-1,2-Dichloroethene	96	6.212	6.213	(0.679)	1592383	100.000	100
	122 Allyl alcohol	57	6.711	6.728	(0.734)	536140	4000.00	4200
	11 1,1-Dichloroethane	63	6.758	6.759	(0.739)	3567718	100.000	100
	57 Vinyl Acetate	43	6.836	6.838	(0.747)	2811512	100.000	100
	55 DIPE	45	6.836	6.838	(0.747)	7135384	100.000	100
	18 2-Butanone	72	7.522	7.524	(0.822)	111331	100.000	110
	13 cis-1,2-Dichloroethene	96	7.569	7.571	(0.828)	1676306	100.000	99
	56 Ethyl Acetate	43	7.600	7.602	(0.831)	2190460	200.000	230
	104 2,2-Dichloropropane	77	7.600	7.602	(0.831)	2363251	100.000	100
	108 Bromochloromethane	128	7.912	7.914	(0.865)	1058231	100.000	100
	15 Chloroform	83	8.006	7.992	(0.875)	3143679	100.000	100
	20 1,1,1-Trichloroethane	97	8.318	8.320	(0.909)	2849059	100.000	100
	59 Cyclohexane	56	8.428	8.430	(0.921)	2540755	100.000	110
	92 1,1-Dichloropropene	75	8.521	8.524	(0.932)	2034211	100.000	100
	21 Carbon Tetrachloride	117	8.568	8.570	(0.937)	2900896	100.000	100
$	16 1,2-Dichloroethane-d4 (SUR)	65	8.678	8.680	(0.949)	1678223	100.000	98
	61 Isopropyl Acetate	43	8.787	8.789	(0.961)	5535906	200.000	200
	17 1,2-Dichloroethane	62	8.787	8.789	(0.961)	2022441	100.000	100
	28 Benzene	78	8.803	8.805	(0.962)	4451152	100.000	95
*	19 Fluorobenzene	96	9.146	9.149	(1.000)	2770780	50.0000	
	25 Trichloroethene	95	9.630	9.632	(1.053)	1820282	100.000	100
	23 1,2-Dichloropropane	63	9.895	9.898	(1.082)	2178888	100.000	98
	120 Methyl methacrylate	69	9.973	9.976	(1.090)	956454	100.000	98
	64 Propyl Acetate	43	10.020	10.023	(1.096)	3213956	200.000	220
	109 Dibromomethane	93	10.052	10.054	(1.099)	1486690	100.000	99
	95 1,4-Dioxane	88	10.020	10.039	(1.096)	384969	4000.00	4000
	22 Bromodichloromethane	83	10.223	10.226	(1.118)	3036355	100.000	99
	30 2-Chloroethyl Vinyl Ether	63	10.536	10.539	(1.152)	1218568	100.000	100
	118 Epichlorohydrin	57	10.629	10.632	(1.162)	2424524	2000.00	2000
	24 cis-1,3-Dichloropropene	75	10.754	10.757	(1.176)	2526047	100.000	99
	33 4-Methyl-2-Pentanone	43	10.895	10.898	(1.191)	1230975	100.000	100
$	37 Toluene-d8 (SUR)	98	11.113	11.117	(0.868)	4679960	100.000	98
	38 Toluene	91	11.192	11.195	(0.874)	4647885	100.000	100
	29 trans-1,3-Dichloropropene	75	11.410	11.398	(0.891)	1972579	100.000	100
	27 1,1,2-Trichloroethane	83	11.629	11.632	(0.908)	1156944	100.000	100
	103 1,3-Dichloropropane	76	11.832	11.835	(0.924)	2184221	100.000	100
	35 Tetrachloroethene	166	11.879	11.882	(0.928)	1554517	100.000	100
	34 2-Hexanone	43	11.879	11.882	(0.928)	732600	100.000	100
	26 Dibromochloromethane	129	12.129	12.133	(0.948)	2383980	100.000	100
	65 Butyl Acetate	43	12.004	12.008	(0.938)	3795513	200.000	230
	66 1,2-Dibromoethane	107	12.285	12.289	(0.960)	2118387	100.000	100
*	32 Chlorobenzene-d5	117	12.800	12.804	(1.000)	2239373	50.0000	
	39 Chlorobenzene	112	12.831	12.836	(1.002)	3912022	100.000	100
	40 Ethylbenzene	106	12.925	12.930	(1.010)	1789212	100.000	100

304914

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Report Date: 12-Nov-1998 11:49

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
43 m+p-Xylene	106	13.051	13.055	(1.020)	4370658	200.000	200
97 1,1,1,2-Tetrachloroethane	131	12.910	12.914	(1.009)	1832847	100.000	100
44 o-Xylene	106	13.503	13.508	(1.055)	2172348	100.000	100
42 Styrene	104	13.503	13.508	(1.055)	3512707	100.000	100
31 Bromoform	173	13.753	13.742	(1.074)	1278019	100.000	100
110 Isopropylbenzene	105	13.878	13.883	(1.084)	5261389	100.000	110
$ 41 Bromofluorobenzene (SUR)	174	14.066	14.071	(0.920)	1528540	100.000	96
36 1,1,2,2-Tetrachloroethane	83	14.160	14.165	(0.926)	1564746	100.000	91
99 1,2,3-Trichloropropane	75	14.238	14.243	(0.931)	1267797	100.000	95
107 Bromobenzene	156	14.269	14.259	(0.933)	1440061	100.000	96
112 n-Propylbenzene	91	14.316	14.321	(0.937)	5327112	100.000	99
105 2-Chlorotoluene	91	14.442	14.447	(0.945)	3554729	100.000	99
102 1,3,5-Trimethylbenzene	105	14.489	14.478	(0.948)	4107088	100.000	96
106 4-Chlorotoluene	91	14.551	14.556	(0.952)	4445756	100.000	97
115 tert-Butylbenzene	119	14.848	14.838	(0.971)	3997194	100.000	97
100 1,2,4-Trimethylbenzene	105	14.879	14.885	(0.973)	4127989	100.000	96
114 sec-Butylbenzene	105	15.067	15.073	(0.986)	4513470	100.000	99
113 p-Isopropyltoluene	119	15.192	15.198	(0.994)	4032424	100.000	100
67 1,3-Dichlorobenzene	146	15.224	15.229	(0.996)	2006883	100.000	100
* 91 1,4-Dichlorobenzene-d4	152	15.286	15.276	(1.000)	773965	50.0000	
68 1,4-Dichlorobenzene	146	15.302	15.308	(1.001)	2284018	100.000	93
117 Benzyl chloride	91	15.412	15.417	(1.008)	1882521	100.000	100
111 n-Butylbenzene	91	15.599	15.605	(1.020)	2987049	100.000	100
69 1,2-Dichlorobenzene	146	15.693	15.699	(1.027)	1718705	100.000	98
101 1,2-Dibromo-3-chloropropane	75	16.458	16.449	(1.077)	110224	100.000	98
94 Hexachlorobutadiene	225	17.489	17.496	(1.144)	386917	100.000	110
70 Naphthalene	128	17.629	17.621	(1.153)	426946	100.000	140(H)
M 14 1,2-Dichloroethene (total)	100				3268689	200.000	200
M 45 Xylene (Total)	100				6543006	300.000	300

QC Flag Legend

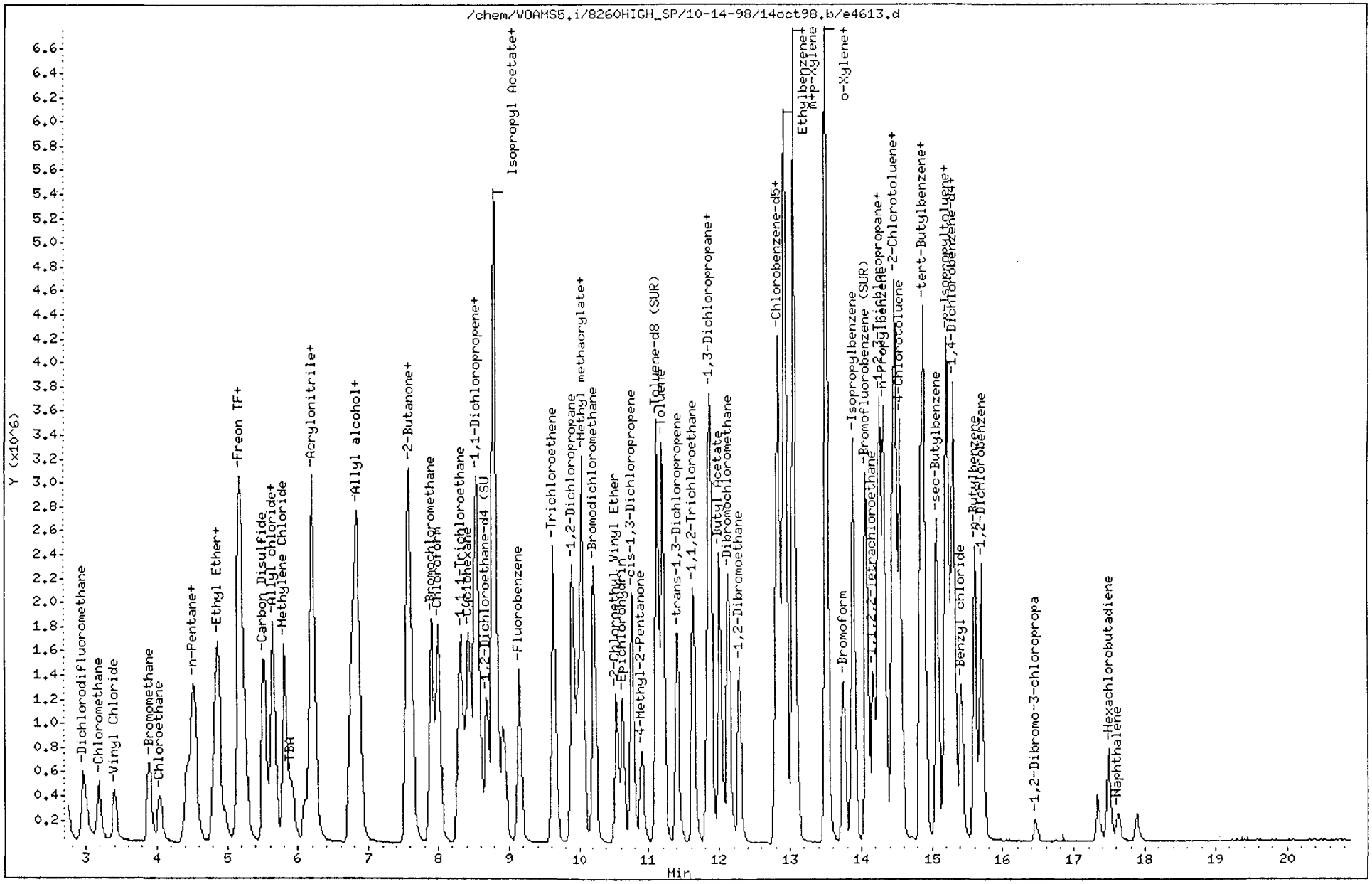
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304915

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Date : 14-OCT-1998 11:53
Client ID: ESTD100
Sample Info: ESTD100
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

304916



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Report Date: 12-Nov-1998 11:49

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Lab Smp Id: ESTD050 Client Smp ID: ESTD050
Inj Date : 14-OCT-1998 10:57
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD050
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.967	2.967	(0.324)	939525	50.0000	55
1 Chloromethane	50	3.170	3.201	(0.347)	614023	50.0000	52
4 Vinyl Chloride	62	3.388	3.419	(0.370)	512344	50.0000	54
3 Bromomethane	94	3.887	3.903	(0.425)	540475	50.0000	48
5 Chloroethane	64	4.043	4.043	(0.442)	445855	50.0000	51
9 Trichlorofluoromethane	101	4.463	4.464	(0.488)	1232356	50.0000	53(M)
121 n-Pentane	72	4.541	4.543	(0.497)	101307	50.0000	46
46 Ethyl Ether	59	4.807	4.808	(0.526)	558210	50.0000	46
119 Isoprene	67	4.869	4.870	(0.532)	706652	50.0000	46
47 Acrolein	56	4.978	4.979	(0.544)	314928	300.000	300
48 Freon TF	101	5.212	5.214	(0.570)	1248962	50.0000	46
10 1,1-Dichloroethene	96	5.165	5.167	(0.565)	635560	50.0000	47
7 Acetone	43	5.181	5.183	(0.567)	117296	50.0000	46
8 Carbon Disulfide	76	5.509	5.511	(0.602)	1842014	50.0000	50
116 Allyl chloride	76	5.649	5.651	(0.618)	380411	50.0000	47
50 Acetonitrile	41	5.649	5.651	(0.618)	1202124	1000.00	900
6 Methylene Chloride	84	5.805	5.807	(0.635)	651058	50.0000	46

304917

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Report Date: 12-Nov-1998 11:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	51 TBA	59	5.899	5.917	(0.645)	758615	1000.00	910
	52 Acrylonitrile	53	6.086	6.088	(0.666)	483410	150.000	150
	53 MTBE	73	6.195	6.198	(0.678)	1665738	50.0000	46
	12 trans-1,2-Dichloroethene	96	6.211	6.213	(0.679)	719574	50.0000	47
	122 Allyl alcohol	57	6.725	6.728	(0.736)	384854	3000.00	3000
	11 1,1-Dichloroethane	63	6.772	6.759	(0.741)	1620999	50.0000	47
	57 Vinyl Acetate	43	6.835	6.838	(0.747)	1252316	50.0000	46
	55 DIPE	45	6.835	6.838	(0.747)	3149841	50.0000	45
	18 2-Butanone	72	7.552	7.524	(0.826)	46857	50.0000	47
	13 cis-1,2-Dichloroethene	96	7.567	7.571	(0.828)	765015	50.0000	46
	56 Ethyl Acetate	43	7.598	7.602	(0.831)	956683	100.000	100
	104 2,2-Dichloropropane	77	7.598	7.602	(0.831)	1082590	50.0000	48
	108 Bromochloromethane	128	7.910	7.914	(0.865)	463186	50.0000	44
	15 Chloroform	83	8.004	7.992	(0.875)	1430348	50.0000	46
	20 1,1,1-Trichloroethane	97	8.316	8.320	(0.909)	1299673	50.0000	48
	59 Cyclohexane	56	8.425	8.430	(0.921)	1035937	50.0000	44
	92 1,1-Dichloropropene	75	8.519	8.524	(0.932)	927674	50.0000	48
	21 Carbon Tetrachloride	117	8.566	8.570	(0.937)	1328469	50.0000	49
$	16 1,2-Dichloroethane-d4 (SUR)	65	8.691	8.680	(0.950)	807956	50.0000	48
	61 Isopropyl Acetate	43	8.785	8.789	(0.961)	2487995	100.000	94
	17 1,2-Dichloroethane	62	8.785	8.789	(0.961)	909637	50.0000	46
	28 Benzene	78	8.800	8.805	(0.962)	2016095	50.0000	44
*	19 Fluorobenzene	96	9.144	9.149	(1.000)	2715493	50.0000	
	25 Trichloroethene	95	9.627	9.632	(1.053)	831637	50.0000	47
	23 1,2-Dichloropropane	63	9.892	9.898	(1.082)	964311	50.0000	44
	120 Methyl methacrylate	69	9.970	9.976	(1.090)	418328	50.0000	44
	64 Propyl Acetate	43	10.033	10.023	(1.097)	1432651	100.000	98
	109 Dibromomethane	93	10.049	10.054	(1.099)	660769	50.0000	45
	95 1,4-Dioxane	88	10.033	10.039	(1.097)	274209	3000.00	2900
	22 Bromodichloromethane	83	10.220	10.226	(1.118)	1360508	50.0000	45
	30 2-Chloroethyl Vinyl Ether	63	10.548	10.539	(1.154)	532372	50.0000	46
	118 Epichlorohydrin	57	10.626	10.632	(1.162)	1055683	1000.00	880
	24 cis-1,3-Dichloropropene	75	10.766	10.757	(1.177)	1134839	50.0000	45
	33 4-Methyl-2-Pentanone	43	10.907	10.898	(1.193)	538516	50.0000	46
$	37 Toluene-d8 (SUR)	98	11.110	11.117	(0.868)	2314587	50.0000	49
	38 Toluene	91	11.203	11.195	(0.876)	2131374	50.0000	46
	29 trans-1,3-Dichloropropene	75	11.406	11.398	(0.891)	878596	50.0000	45
	27 1,1,2-Trichloroethane	83	11.640	11.632	(0.910)	523849	50.0000	47
	103 1,3-Dichloropropane	76	11.843	11.835	(0.926)	973988	50.0000	45
	35 Tetrachloroethene	166	11.875	11.882	(0.928)	706987	50.0000	46
	34 2-Hexanone	43	11.875	11.882	(0.928)	309056	50.0000	44
	26 Dibromochloromethane	129	12.125	12.133	(0.948)	1050125	50.0000	45
	65 Butyl Acetate	43	12.015	12.008	(0.939)	1653185	100.000	100
	66 1,2-Dibromoethane	107	12.281	12.289	(0.960)	934338	50.0000	45
*	32 Chlorobenzene-d5	117	12.795	12.804	(1.000)	2215046	50.0000	
	39 Chlorobenzene	112	12.842	12.836	(1.004)	1766655	50.0000	46
	40 Ethylbenzene	106	12.936	12.930	(1.011)	790056	50.0000	47

304918

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Report Date: 12-Nov-1998 11:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	43 m+p-Xylene	106	13.061	13.055	(1.021)	1963870	100.000	92
	97 1,1,1,2-Tetrachloroethane	131	12.905	12.914	(1.009)	818077	50.0000	46
	44 o-Xylene	106	13.498	13.508	(1.055)	972313	50.0000	46
	42 Styrene	104	13.498	13.508	(1.055)	1556122	50.0000	45
	31 Bromoform	173	13.748	13.742	(1.074)	546732	50.0000	46
	110 Isopropylbenzene	105	13.888	13.883	(1.085)	2385407	50.0000	49
$	41 Bromofluorobenzene (SUR)	174	14.076	14.071	(0.921)	726486	50.0000	48
	36 1,1,2,2-Tetrachloroethane	83	14.170	14.165	(0.927)	703445	50.0000	43
	99 1,2,3-Trichloropropane	75	14.232	14.243	(0.931)	568037	50.0000	45
	107 Bromobenzene	156	14.264	14.259	(0.933)	647333	50.0000	46
	112 n-Propylbenzene	91	14.311	14.321	(0.937)	2375194	50.0000	46
	105 2-Chlorotoluene	91	14.451	14.447	(0.946)	1575206	50.0000	46
	102 1,3,5-Trimethylbenzene	105	14.483	14.478	(0.948)	1854490	50.0000	46
	106 4-Chlorotoluene	91	14.545	14.556	(0.952)	2029102	50.0000	47
	115 tert-Butylbenzene	119	14.842	14.838	(0.971)	1791215	50.0000	46
	100 1,2,4-Trimethylbenzene	105	14.889	14.885	(0.974)	1845685	50.0000	45
	114 sec-Butylbenzene	105	15.061	15.073	(0.986)	1989370	50.0000	46
	113 p-Isopropyltoluene	119	15.186	15.198	(0.994)	1790664	50.0000	47
	67 1,3-Dichlorobenzene	146	15.217	15.229	(0.996)	851766	50.0000	45
*	91 1,4-Dichlorobenzene-d4	152	15.280	15.276	(1.000)	735553	50.0000	
	68 1,4-Dichlorobenzene	146	15.311	15.308	(1.002)	1042782	50.0000	45
	117 Benzyl chloride	91	15.421	15.417	(1.009)	798090	50.0000	45
	111 n-Butylbenzene	91	15.608	15.605	(1.021)	1318449	50.0000	48
	69 1,2-Dichlorobenzene	146	15.702	15.699	(1.028)	754269	50.0000	45
	101 1,2-Dibromo-3-chloropropane	75	16.451	16.449	(1.077)	47049	50.0000	44
	94 Hexachlorobutadiene	225	17.496	17.496	(1.145)	148324	50.0000	46
	70 Naphthalene	128	17.621	17.621	(1.153)	121103	50.0000	46(H)
M	14 1,2-Dichloroethene (total)	100				1484589	100.000	93
M	45 Xylene (Total)	100				2936183	150.000	140

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

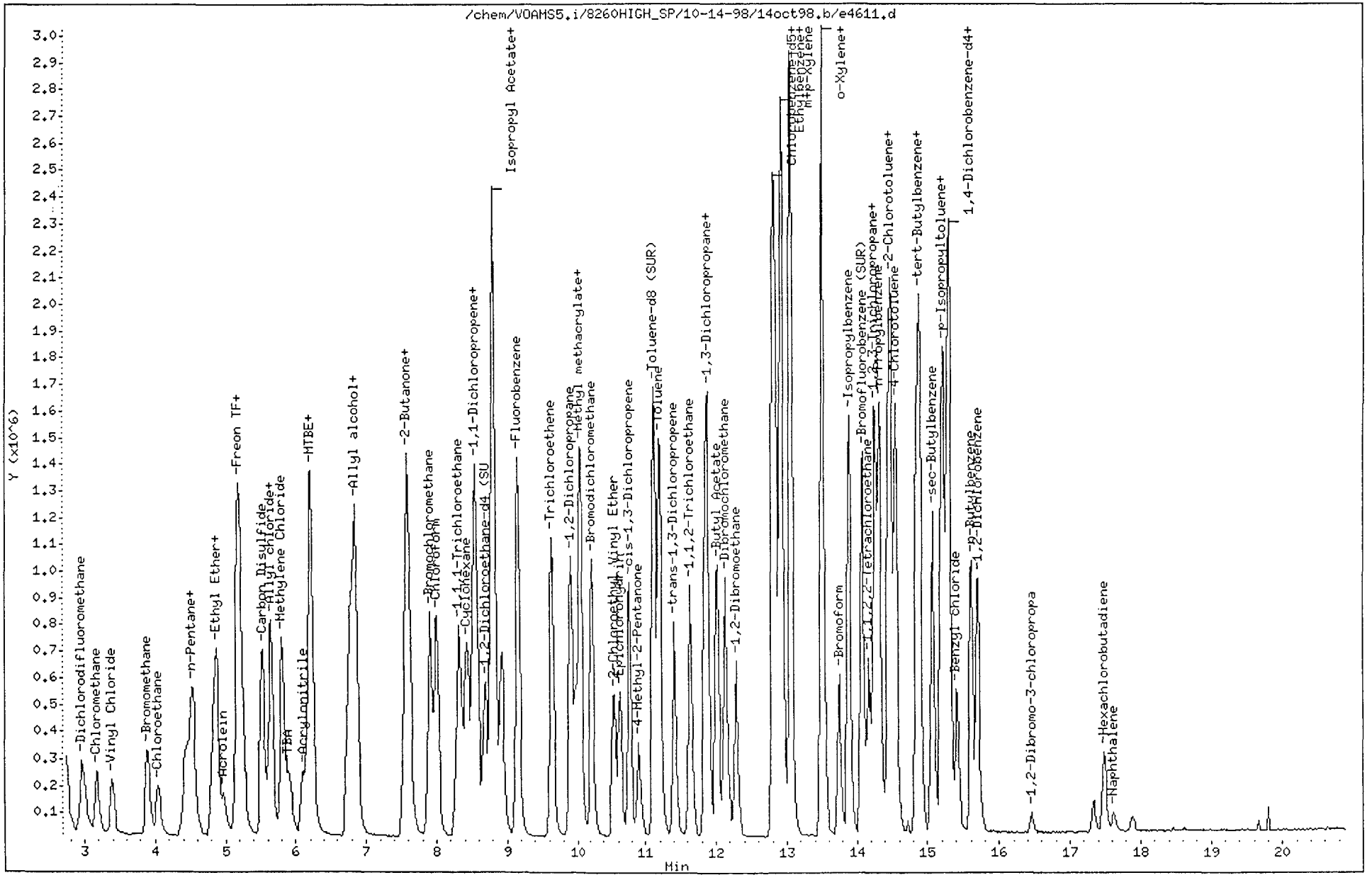
304919

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Date : 14-OCT-1998 10:57
Client ID: ESTD050
Sample Info: ESTD050
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

304920

261



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Report Date: 12-Nov-1998 11:49

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Lab Smp Id: ESTD020 Client Smp ID: ESTD020
Inj Date : 14-OCT-1998 10:29
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD020
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.967	2.967	(0.325)	254044	20.0000	15
1 Chloromethane	50	3.169	3.201	(0.347)	210190	20.0000	18
4 Vinyl Chloride	62	3.388	3.419	(0.371)	162398	20.0000	18
3 Bromomethane	94	3.871	3.903	(0.423)	216475	20.0000	20
5 Chloroethane	64	4.042	4.043	(0.442)	159416	20.0000	19
9 Trichlorofluoromethane	101	4.447	4.464	(0.486)	396468	20.0000	17(M)
121 n-Pentane	72	4.541	4.543	(0.497)	43390	20.0000	20
46 Ethyl Ether	59	4.822	4.808	(0.527)	255182	20.0000	21
119 Isoprene	67	4.868	4.870	(0.533)	302703	20.0000	20
47 Acrolein	56	4.978	4.979	(0.544)	207355	200.000	200
48 Freon TF	101	5.212	5.214	(0.570)	537371	20.0000	20
10 1,1-Dichloroethene	96	5.165	5.167	(0.565)	257844	20.0000	20
7 Acetone	43	5.196	5.183	(0.568)	55938	20.0000	23(M)
8 Carbon Disulfide	76	5.508	5.511	(0.603)	672090	20.0000	19
116 Allyl chloride	76	5.648	5.651	(0.618)	162133	20.0000	21
50 Acetonitrile	41	5.648	5.651	(0.618)	573334	400.000	440
6 Methylene Chloride	84	5.804	5.807	(0.635)	288936	20.0000	21

304921

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Report Date: 12-Nov-1998 11:49

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
51 TBA	59	5.913	5.917	(0.647)	344233	400.000	430
52 Acrylonitrile	53	6.100	6.088	(0.667)	310657	100.000	100
53 MTBE	73	6.194	6.198	(0.678)	743392	20.0000	21
12 trans-1,2-Dichloroethene	96	6.210	6.213	(0.679)	309258	20.0000	21
122 Allyl alcohol	57	6.724	6.728	(0.736)	237443	2000.00	1900
11 1,1-Dichloroethane	63	6.771	6.759	(0.741)	703317	20.0000	21
57 Vinyl Acetate	43	6.849	6.838	(0.749)	583160	20.0000	22
55 DIPE	45	6.849	6.838	(0.749)	1467150	20.0000	22
18 2-Butanone	72	7.534	7.524	(0.824)	21123	20.0000	22
13 cis-1,2-Dichloroethene	96	7.566	7.571	(0.828)	338316	20.0000	21
56 Ethyl Acetate	43	7.613	7.602	(0.833)	303169	40.0000	33
104 2,2-Dichloropropane	77	7.597	7.602	(0.831)	455330	20.0000	21
108 Bromochloromethane	128	7.909	7.914	(0.865)	209036	20.0000	21
15 Chloroform	83	8.002	7.992	(0.875)	635126	20.0000	21
20 1,1,1-Trichloroethane	97	8.314	8.320	(0.909)	539144	20.0000	20
59 Cyclohexane	56	8.424	8.430	(0.921)	451312	20.0000	20
92 1,1-Dichloropropene	75	8.533	8.524	(0.933)	379437	20.0000	20
21 Carbon Tetrachloride	117	8.564	8.570	(0.937)	531143	20.0000	20
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.689	8.680	(0.950)	347522	20.0000	21
61 Isopropyl Acetate	43	8.798	8.789	(0.962)	1091405	40.0000	42
17 1,2-Dichloroethane	62	8.783	8.789	(0.961)	420579	20.0000	22
28 Benzene	78	8.798	8.805	(0.962)	888525	20.0000	20
* 19 Fluorobenzene	96	9.141	9.149	(1.000)	2638693	50.0000	
25 Trichloroethene	95	9.625	9.632	(1.053)	357072	20.0000	21
23 1,2-Dichloropropane	63	9.890	9.898	(1.082)	437321	20.0000	21
120 Methyl methacrylate	69	9.968	9.976	(1.090)	198844	20.0000	21
64 Propyl Acetate	43	10.030	10.023	(1.097)	514387	40.0000	36
109 Dibromomethane	93	10.046	10.054	(1.099)	301243	20.0000	21
95 1,4-Dioxane	88	10.030	10.039	(1.097)	192310	2000.00	2100
22 Bromodichloromethane	83	10.218	10.226	(1.118)	605793	20.0000	21
30 2-Chloroethyl Vinyl Ether	63	10.545	10.539	(1.154)	240551	20.0000	21
118 Epichlorohydrin	57	10.623	10.632	(1.162)	530190	400.000	450
24 cis-1,3-Dichloropropene	75	10.764	10.757	(1.177)	513506	20.0000	21
33 4-Methyl-2-Pentanone	43	10.904	10.898	(1.193)	238682	20.0000	21
$ 37 Toluene-d8 (SUR)	98	11.122	11.117	(0.868)	950340	20.0000	21
38 Toluene	91	11.200	11.195	(0.875)	943785	20.0000	21
29 trans-1,3-Dichloropropene	75	11.403	11.398	(0.890)	393388	20.0000	21
27 1,1,2-Trichloroethane	83	11.637	11.632	(0.909)	233545	20.0000	22
103 1,3-Dichloropropane	76	11.840	11.835	(0.924)	448045	20.0000	22
35 Tetrachloroethene	166	11.871	11.882	(0.927)	290713	20.0000	20
34 2-Hexanone	43	11.887	11.882	(0.928)	142042	20.0000	21
26 Dibromochloromethane	129	12.136	12.133	(0.948)	469878	20.0000	21
65 Butyl Acetate	43	12.012	12.008	(0.938)	564531	40.0000	36
66 1,2-Dibromoethane	107	12.277	12.289	(0.959)	430582	20.0000	21
* 32 Chlorobenzene-d5	117	12.807	12.804	(1.000)	2133320	50.0000	
39 Chlorobenzene	112	12.838	12.836	(1.002)	782209	20.0000	21
40 Ethylbenzene	106	12.932	12.930	(1.010)	339128	20.0000	21

304922

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Report Date: 12-Nov-1998 11:49

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
43 m+p-Xylene	106	13.057	13.055	(1.020)	848536	40.0000	41
97 1,1,1,2-Tetrachloroethane	131	12.916	12.914	(1.009)	353729	20.0000	21
44 o-Xylene	106	13.494	13.508	(1.054)	427297	20.0000	21
42 Styrene	104	13.509	13.508	(1.055)	701740	20.0000	21
31 Bromoform	173	13.743	13.742	(1.073)	237974	20.0000	20
110 Isopropylbenzene	105	13.884	13.883	(1.084)	1010010	20.0000	22
$ 41 Bromofluorobenzene (SUR)	174	14.071	14.071	(0.921)	302838	20.0000	21
36 1,1,2,2-Tetrachloroethane	83	14.165	14.165	(0.927)	320644	20.0000	20
99 1,2,3-Trichloropropane	75	14.243	14.243	(0.932)	257821	20.0000	21
107 Bromobenzene	156	14.259	14.259	(0.934)	288272	20.0000	21
112 n-Propylbenzene	91	14.321	14.321	(0.938)	1007394	20.0000	20
105 2-Chlorotoluene	91	14.446	14.447	(0.946)	700003	20.0000	21
102 1,3,5-Trimethylbenzene	105	14.477	14.478	(0.948)	801324	20.0000	20
106 4-Chlorotoluene	91	14.540	14.556	(0.952)	851466	20.0000	20
115 tert-Butylbenzene	119	14.836	14.838	(0.971)	777249	20.0000	20
100 1,2,4-Trimethylbenzene	105	14.883	14.885	(0.974)	812901	20.0000	21
114 sec-Butylbenzene	105	15.071	15.073	(0.987)	849930	20.0000	20
113 p-Isopropyltoluene	119	15.196	15.198	(0.995)	770326	20.0000	21
67 1,3-Dichlorobenzene	146	15.227	15.229	(0.997)	361824	20.0000	20
* 91 1,4-Dichlorobenzene-d4	152	15.274	15.276	(1.000)	711887	50.0000	
68 1,4-Dichlorobenzene	146	15.305	15.308	(1.002)	475408	20.0000	21
117 Benzyl chloride	91	15.415	15.417	(1.009)	380728	20.0000	22
111 n-Butylbenzene	91	15.602	15.605	(1.021)	539859	20.0000	20
69 1,2-Dichlorobenzene	146	15.696	15.699	(1.028)	341981	20.0000	21
101 1,2-Dibromo-3-chloropropane	75	16.444	16.449	(1.077)	19652	20.0000	19
94 Hexachlorobutadiene	225	17.489	17.496	(1.145)	61420	20.0000	20
70 Naphthalene	128	17.614	17.621	(1.153)	39079	20.0000	15(H)
M 14 1,2-Dichloroethene (total)	100				647574	40.0000	42
M 45 Xylene (Total)	100				1275833	60.0000	62

QC Flag Legend

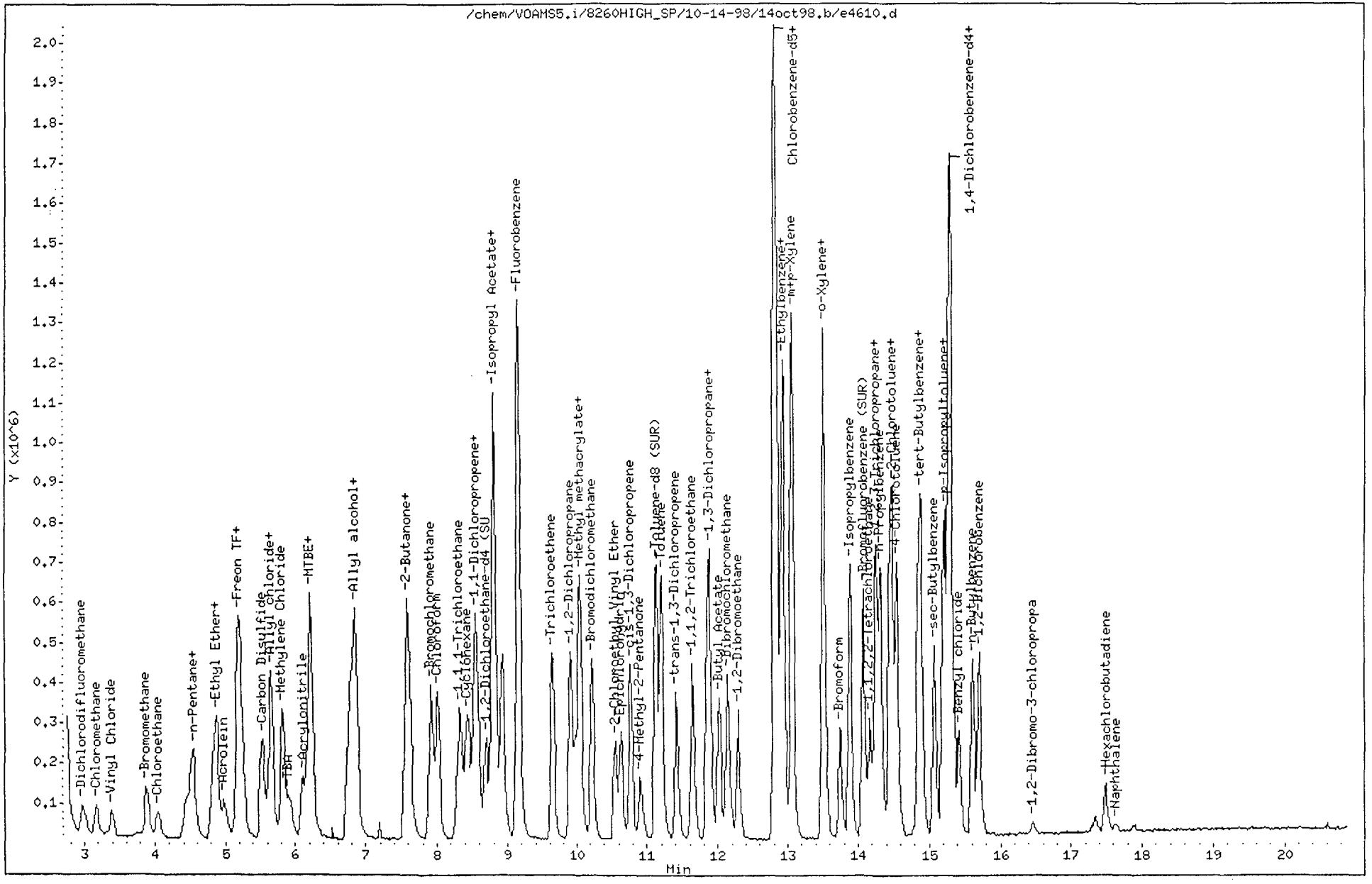
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304923

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Date : 14-OCT-1998 10:29
Client ID: ESTD020
Sample Info: ESTD020
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

304924



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Report Date: 12-Nov-1998 11:49

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Lab Smp Id: ESTD005 Client Smp ID: ESTD005
Inj Date : 14-OCT-1998 10:01
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD005
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.982	2.967	(0.326)	77890	5.00000	4.4(M)
1 Chloromethane	50	3.169	3.201	(0.346)	54115	5.00000	4.4(a)
4 Vinyl Chloride	62	3.388	3.419	(0.370)	41930	5.00000	4.2(a)
3 Bromomethane	94	3.886	3.903	(0.425)	61285	5.00000	5.2
5 Chloroethane	64	4.042	4.043	(0.442)	43003	5.00000	4.7(a)
9 Trichlorofluoromethane	101	4.463	4.464	(0.487)	112795	5.00000	4.7(a)
121 n-Pentane	72	4.556	4.543	(0.498)	9834	5.00000	4.3(a)
46 Ethyl Ether	59	4.821	4.808	(0.527)	62849	5.00000	5.0
119 Isoprene	67	4.883	4.870	(0.533)	68967	5.00000	4.3(a)
47 Acrolein	56	4.993	4.979	(0.545)	106960	100.000	98(a)
48 Freon TF	101	5.211	5.214	(0.569)	122068	5.00000	4.3(a)
10 1,1-Dichloroethene	96	5.180	5.167	(0.566)	28275	2.00000	2.0
7 Acetone	43	5.195	5.183	(0.568)	13594	5.00000	5.2(M)
8 Carbon Disulfide	76	5.522	5.511	(0.603)	185687	5.00000	4.9(a)
116 Allyl chloride	76	5.647	5.651	(0.617)	38209	5.00000	4.6(a)
50 Acetonitrile	41	5.647	5.651	(0.617)	144872	100.000	100
6 Methylene Chloride	84	5.819	5.807	(0.636)	44804	3.00000	3.0(M)

304925

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Report Date: 12-Nov-1998 11:49

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
51 TBA	59	5.912	5.917	(0.646)	82619	100.000	96(a)
52 Acrylonitrile	53	6.099	6.088	(0.666)	155396	50.0000	47(a)
53 MTBE	73	6.208	6.198	(0.678)	185089	5.00000	5.0
12 trans-1,2-Dichloroethene	96	6.208	6.213	(0.678)	77067	5.00000	4.9(a)
122 Allyl alcohol	57	6.738	6.728	(0.736)	115932	1000.00	890(a)
11 1,1-Dichloroethane	63	6.769	6.759	(0.739)	176358	5.00000	4.9(a)
57 Vinyl Acetate	43	6.847	6.838	(0.748)	142746	5.00000	5.0(T)
55 DIPE	45	6.847	6.838	(0.748)	358232	5.00000	5.0
18 2-Butanone	72	7.595	7.524	(0.830)	4069	5.00000	3.9(aM)
13 cis-1,2-Dichloroethene	96	7.579	7.571	(0.828)	89431	5.00000	5.2
56 Ethyl Acetate	43	7.626	7.602	(0.833)	82195	10.0000	8.5(a)
104 2,2-Dichloropropane	77	7.611	7.602	(0.831)	114582	5.00000	4.9(a)
108 Bromochloromethane	128	7.907	7.914	(0.864)	57477	5.00000	5.3
15 Chloroform	83	8.000	7.992	(0.874)	162097	5.00000	5.1
20 1,1,1-Trichloroethane	97	8.312	8.320	(0.908)	140665	5.00000	5.0
59 Cyclohexane	56	8.437	8.430	(0.922)	113689	5.00000	4.7(a)
92 1,1-Dichloropropene	75	8.530	8.524	(0.932)	98254	5.00000	4.9(a)
21 Carbon Tetrachloride	117	8.561	8.570	(0.935)	50876	2.00000	1.8(a)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.686	8.680	(0.949)	88154	5.00000	5.1
61 Isopropyl Acetate	43	8.795	8.789	(0.961)	267010	10.0000	9.7(a)
17 1,2-Dichloroethane	62	8.795	8.789	(0.961)	41185	2.00000	2.0
28 Benzene	78	8.811	8.805	(0.963)	57316	1.00000	1.2
* 19 Fluorobenzene	96	9.154	9.149	(1.000)	2810267	50.0000	
25 Trichloroethene	95	9.637	9.632	(1.053)	19462	1.00000	1.0
23 1,2-Dichloropropane	63	9.902	9.898	(1.082)	25015	1.00000	1.1
120 Methyl methacrylate	69	9.980	9.976	(1.090)	52923	5.00000	5.4
64 Propyl Acetate	43	10.043	10.023	(1.097)	142559	10.0000	9.5(a)
109 Dibromomethane	93	10.058	10.054	(1.099)	79744	5.00000	5.2
95 1,4-Dioxane	88	10.027	10.039	(1.095)	94603	1000.00	970(a)
22 Bromodichloromethane	83	10.230	10.226	(1.117)	33790	1.00000	1.1
30 2-Chloroethyl Vinyl Ether	63	10.557	10.539	(1.153)	59046	5.00000	4.9(a)
118 Epichlorohydrin	57	10.635	10.632	(1.162)	124595	100.000	100
24 cis-1,3-Dichloropropene	75	10.760	10.757	(1.175)	138173	5.00000	5.3
33 4-Methyl-2-Pentanone	43	10.916	10.898	(1.192)	60159	5.00000	4.9(a)
$ 37 Toluene-d8 (SUR)	98	11.118	11.117	(0.868)	248244	5.00000	5.0
38 Toluene	91	11.196	11.195	(0.875)	248979	5.00000	5.2
29 trans-1,3-Dichloropropene	75	11.414	11.398	(0.892)	104477	5.00000	5.1
27 1,1,2-Trichloroethane	83	11.633	11.632	(0.909)	30884	3.00000	2.7(a)
103 1,3-Dichloropropane	76	11.835	11.835	(0.924)	109346	5.00000	4.9(a)
35 Tetrachloroethene	166	11.882	11.882	(0.928)	17017	1.00000	1.1
34 2-Hexanone	43	11.898	11.882	(0.929)	34309	5.00000	4.7(a)
26 Dibromochloromethane	129	12.132	12.133	(0.948)	119442	5.00000	4.9(a)
65 Butyl Acetate	43	12.023	12.008	(0.939)	134402	10.0000	7.8(a)
66 1,2-Dibromoethane	107	12.287	12.289	(0.960)	110254	5.00000	5.0
* 32 Chlorobenzene-d5	117	12.802	12.804	(1.000)	2315573	50.0000	
39 Chlorobenzene	112	12.833	12.836	(1.002)	204528	5.00000	5.1
40 Ethylbenzene	106	12.942	12.930	(1.011)	66765	4.00000	3.8(a)

304926

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Report Date: 12-Nov-1998 11:49

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
43 m+p-Xylene	106	13.052	13.055	(1.020)	227427	10.0000	10
97 1,1,1,2-Tetrachloroethane	131	12.911	12.914	(1.009)	90491	5.00000	4.9(a)
44 o-Xylene	106	13.504	13.508	(1.055)	107300	5.00000	4.9(a)
42 Styrene	104	13.504	13.508	(1.055)	183381	5.00000	5.1
31 Bromoform	173	13.753	13.742	(1.074)	45172	4.00000	3.6(a)
110 Isopropylbenzene	105	13.893	13.883	(1.085)	205272	5.00000	4.0(a)
$ 41 Bromofluorobenzene (SUR)	174	14.081	14.071	(0.921)	76174	5.00000	5.3
36 1,1,2,2-Tetrachloroethane	83	14.174	14.165	(0.927)	19995	1.00000	1.3
99 1,2,3-Trichloropropane	75	14.237	14.243	(0.932)	68134	5.00000	5.7
107 Bromobenzene	156	14.268	14.259	(0.934)	73996	5.00000	5.5
112 n-Propylbenzene	91	14.315	14.321	(0.937)	271222	5.00000	5.6
105 2-Chlorotoluene	91	14.440	14.447	(0.945)	171371	5.00000	5.3
102 1,3,5-Trimethylbenzene	105	14.486	14.478	(0.948)	228295	5.00000	5.9
106 4-Chlorotoluene	91	14.549	14.556	(0.952)	231318	5.00000	5.6
115 tert-Butylbenzene	119	14.845	14.838	(0.971)	213482	5.00000	5.7
100 1,2,4-Trimethylbenzene	105	14.876	14.885	(0.973)	224425	5.00000	5.8
114 sec-Butylbenzene	105	15.064	15.073	(0.986)	232268	5.00000	5.6
113 p-Isopropyltoluene	119	15.188	15.198	(0.994)	194805	5.00000	5.3
67 1,3-Dichlorobenzene	146	15.220	15.229	(0.996)	103548	5.00000	5.8
* 91 1,4-Dichlorobenzene-d4	152	15.282	15.276	(1.000)	698273	50.0000	
68 1,4-Dichlorobenzene	146	15.313	15.308	(1.002)	124129	5.00000	5.6
117 Benzyl chloride	91	15.407	15.417	(1.008)	83395	5.00000	4.9(a)
111 n-Butylbenzene	91	15.610	15.605	(1.021)	129228	5.00000	5.0
69 1,2-Dichlorobenzene	146	15.704	15.699	(1.028)	86175	5.00000	5.4
101 1,2-Dibromo-3-chloropropane	75	16.468	16.449	(1.078)	6147	5.00000	6.1
94 Hexachlorobutadiene	225	17.497	17.496	(1.145)	13781	5.00000	4.5(a)
70 Naphthalene	128	17.622	17.621	(1.153)	16188	5.00000	5.0(H)
M 14 1,2-Dichloroethene (total)	100				166498	10.0000	10
M 45 Xylene (Total)	100				334727	15.0000	15

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304927

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Date : 14-OCT-1998 10:01
Client ID: ESTD005
Sample Info: ESTD005
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

304928

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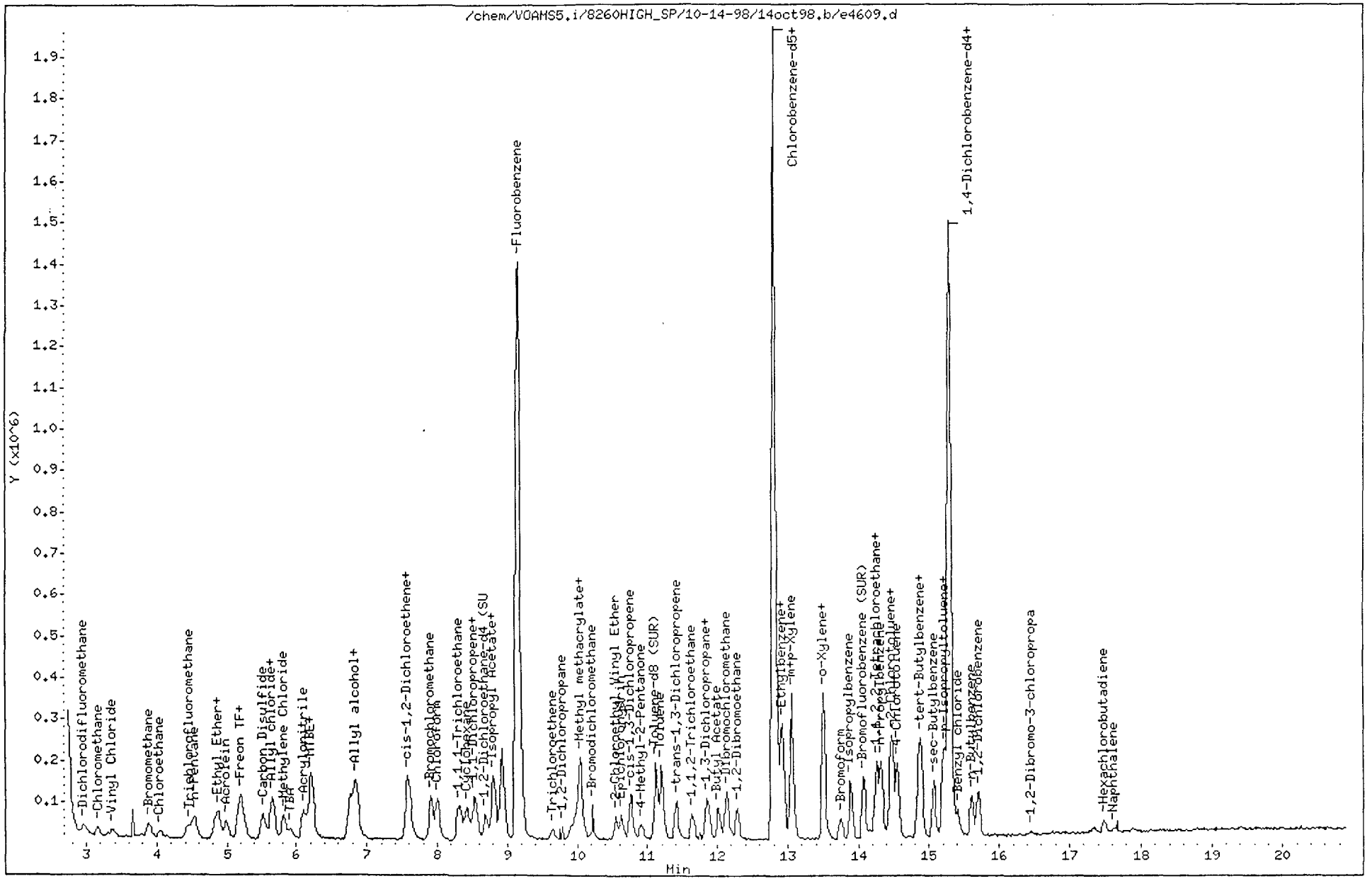


VOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date: 10/15/98 Time: 1023

Lab File ID: E4643 Init. Calib. Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Init. Calib. Times: 0933 1221

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.217	0.237	0.1	-9.2	50.0
Bromomethane	0.208	0.215		-3.2	50.0
Vinyl Chloride	0.176	0.200		-13.6	20.0
Chloroethane	0.162	0.183		-12.8	50.0
Methylene Chloride	0.261	0.273		-4.4	50.0
Acetone	0.046	0.042		8.7	50.0
Carbon Disulfide	0.674	0.707		-4.7	50.0
Trichlorofluoromethane	0.430	0.492		-14.4	50.0
1,1-Dichloroethene	0.247	0.262		-5.9	20.0
1,1-Dichloroethane	0.636	0.686	0.1	-7.7	50.0
trans-1,2-Dichloroethene	0.281	0.298		-6.0	50.0
cis-1,2-Dichloroethene	0.305	0.317		-3.9	50.0
Chloroform	0.568	0.588		-3.5	20.0
1,2-Dichloroethane	0.365	0.373		-2.0	50.0
2-Butanone	0.018	0.019		-5.4	50.0
1,1,1-Trichloroethane	0.502	0.522		-3.8	50.0
Carbon Tetrachloride	0.496	0.538		-8.3	50.0
Bromodichloromethane	0.554	0.565		-1.8	50.0
1,2-Dichloropropane	0.400	0.418		-4.5	20.0
cis-1,3-Dichloropropene	0.462	0.480		-3.7	50.0
Trichloroethene	0.328	0.341		-3.8	50.0
Dibromochloromethane	0.524	0.534		-1.9	50.0
1,1,2-Trichloroethane	0.250	0.259		-3.6	50.0
Benzene	0.842	0.835		0.8	50.0
trans-1,3-Dichloropropene	0.440	0.448		-1.8	50.0
2-Chloroethyl Vinyl Ether	0.214	0.216		0.1	50.0
Bromoform	0.271	0.262	0.1	3.3	50.0
4-Methyl-2-Pentanone	0.216	0.207		4.2	50.0
2-Hexanone	0.158	0.152		3.8	50.0
Tetrachloroethene	0.345	0.351		-1.7	50.0
1,1,2,2-Tetrachloroethane	1.109	1.100	0.3	0.8	50.0
Toluene	1.042	1.089		-4.5	20.0
Chlorobenzene	0.870	0.907	0.3	-4.2	50.0
Ethylbenzene	0.380	0.391		-2.7	20.0
Styrene	0.779	0.789		-1.1	50.0
Xylene (Total)	0.481	0.492		-2.1	50.0
Ethyl Ether	0.226	0.225		0.4	50.0

304929

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date: 10/15/98 Time: 1023

Lab File ID: E4643 Init. Calib. Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Init. Calib. Times: 0933 1221

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Acrolein	0.020	0.018		10.0	50.0
Freon TF	0.501	0.546		-8.8	50.0
Isopropanol					50.0
Acetonitrile	0.025	0.025		0.0	50.0
TBA	0.015	0.014		6.7	50.0
Acrylonitrile	0.059	0.056		5.1	50.0
MTBE	0.661	0.645		2.4	50.0
Hexane					50.0
DIPE	1.277	1.308		-2.4	50.0
Ethyl Acetate	0.173	0.186		-7.5	50.0
Vinyl Acetate	0.506	0.504		0.4	50.0
Tetrahydrofuran					50.0
Cyclohexane	0.429	0.447		-4.0	50.0
Isobutanol					50.0
Isopropyl Acetate	0.489	0.480		1.8	50.0
n-Heptane					50.0
n-Butanol					50.0
Propyl Acetate	0.268	0.275		-2.6	50.0
Butyl Acetate	0.371	0.394		-6.0	50.0
1,2-Dibromoethane	0.471	0.471		0.0	50.0
1,3-Dichlorobenzene	1.280	1.344		-5.0	50.0
1,4-Dichlorobenzene	1.582	1.684		-6.4	50.0
1,2-Dichlorobenzene	1.135	1.171		-3.0	50.0
Naphthalene		0.108			50.0
Methylnaphthalene (total)					50.0
Dimethylnaphthalene (total)					50.0
Dichlorodifluoromethane	0.312	0.356		-14.1	50.0
1,1-Dichloropropene	0.355	0.382		-7.6	50.0
1,2,4-Trichlorobenzene		0.071			50.0
Hexachlorobutadiene	0.220	0.194		11.8	50.0
1,4-Dioxane	0.002	0.002		0.0	50.0
Methyl Acrylate					50.0
1,1,1,2-Tetrachloroethane	0.401	0.419		-4.3	50.0
1,2,3-Trichlorobenzene		0.053			50.0
1,2,3-Trichloropropane	0.858	0.913		-6.4	50.0
1,2,4-Trimethylbenzene	2.768	2.911		-5.0	50.0
1,2-Dibromo-3-chloropropane	0.072	0.064		11.1	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date: 10/15/98 Time: 1023

Lab File ID: E4643 Init. Calib. Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Init. Calib. Times: 0933 1221

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3,5-Trimethylbenzene	2.767	2.878		-4.0	50.0
1,3-Dichloropropane	0.485	0.499		-2.7	50.0
2,2-Dichloropropane	0.416	0.442		-6.2	50.0
2-Chlorotoluene	2.318	2.512		-8.2	50.0
4-Chlorotoluene	2.947	3.335		-13.0	50.0
Bromobenzene	0.964	1.058		-9.6	50.0
Bromochloromethane	0.191	0.200		-4.7	50.0
Dibromomethane	0.270	0.268		0.7	50.0
Isopropylbenzene	1.100	1.167		-5.9	50.0
n-Butylbenzene	1.869	2.093		-11.8	50.0
n-Propylbenzene	3.489	3.785		-8.3	50.0
p-Isopropyltoluene	2.610	2.884		-10.3	50.0
sec-Butylbenzene	2.947	3.175		-7.7	50.0
tert-Butylbenzene	2.665	2.905		-9.0	50.0
Allyl chloride	0.148	0.157		-5.9	50.0
Benzyl chloride	1.209	1.249		-3.3	50.0
Epichlorohydrin	0.022	0.021		4.5	50.0
Isoprene	0.284	0.313		-10.2	50.0
Methyl methacrylate	0.175	0.161		8.0	50.0
n-Pentane	0.041	0.045		-9.6	50.0
Allyl alcohol	0.002	0.002		0.0	50.0
Amyl Acetate					50.0
1,2-Dichloroethane-d4 (SUR)	0.310	0.314		-1.1	50.0
Toluene-d8 (SUR)	1.065	1.085		-1.7	50.0
Bromofluorobenzene (SUR)	1.027	1.125		-9.5	50.0

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Report Date: 12-Nov-1998 12:12

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Lab Smp Id: ESTD288 Client Smp ID: ESTD288
Inj Date : 15-OCT-1998 10:23
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD288
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/8260newHIGH.m
Meth Date : 23-Oct-98 15:30:21 riaz Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.951	2.967	(0.324)	999763	50.0000	57
1 Chloromethane	50	3.169	3.201	(0.348)	667128	50.0000	55
4 Vinyl Chloride	62	3.372	3.419	(0.370)	561143	50.0000	57
3 Bromomethane	94	3.871	3.903	(0.425)	602873	50.0000	52
5 Chloroethane	64	4.027	4.043	(0.442)	513794	50.0000	56
9 Trichlorofluoromethane	101	4.448	4.464	(0.488)	1383677	50.0000	57
121 n-Pentane	72	4.510	4.543	(0.495)	127494	50.0000	56
46 Ethyl Ether	59	4.775	4.808	(0.524)	632183	50.0000	50
119 Isoprene	67	4.838	4.870	(0.531)	878836	50.0000	55
47 Acrolein	56	4.947	4.979	(0.543)	306550	300.000	280
48 Freon TF	101	5.181	5.214	(0.569)	1532593	50.0000	54
10 1,1-Dichloroethene	96	5.134	5.167	(0.563)	735681	50.0000	53
7 Acetone	43	5.150	5.183	(0.565)	118527	50.0000	45
8 Carbon Disulfide	76	5.478	5.511	(0.601)	1985762	50.0000	52
116 Allyl chloride	76	5.618	5.651	(0.617)	441883	50.0000	53(T)
50 Acetonitrile	41	5.602	5.651	(0.615)	1403783	1000.00	1000
6 Methylene Chloride	84	5.774	5.807	(0.634)	766424	50.0000	52

304932

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Report Date: 12-Nov-1998 12:12

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
51 TBA	59	5.867	5.917	(0.644)	775395	1000.00	900
52 Acrylonitrile	53	6.055	6.088	(0.664)	469431	150.000	140
53 MTBE	73	6.164	6.198	(0.676)	1810799	50.0000	49
12 trans-1,2-Dichloroethene	96	6.164	6.213	(0.676)	838783	50.0000	53
122 Allyl alcohol	57	6.678	6.728	(0.733)	363179	3000.00	2800
11 1,1-Dichloroethane	63	6.725	6.759	(0.738)	1926553	50.0000	54
57 Vinyl Acetate	43	6.803	6.838	(0.747)	1414948	50.0000	50
55 DIPE	45	6.803	6.838	(0.747)	3675637	50.0000	51
18 2-Butanone	72	7.489	7.524	(0.822)	52714	50.0000	51
13 cis-1,2-Dichloroethene	96	7.536	7.571	(0.827)	891468	50.0000	52
56 Ethyl Acetate	43	7.567	7.602	(0.830)	1045971	100.000	110
104 2,2-Dichloropropane	77	7.551	7.602	(0.829)	1242988	50.0000	53
108 Bromochloromethane	128	7.863	7.914	(0.863)	561877	50.0000	52
15 Chloroform	83	7.957	7.992	(0.873)	1652277	50.0000	52
20 1,1,1-Trichloroethane	97	8.269	8.320	(0.907)	1467976	50.0000	52
59 Cyclohexane	56	8.394	8.430	(0.921)	1255442	50.0000	52
92 1,1-Dichloropropene	75	8.488	8.524	(0.931)	1073241	50.0000	54
21 Carbon Tetrachloride	117	8.519	8.570	(0.935)	1510936	50.0000	54
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.644	8.680	(0.949)	883106	50.0000	51
61 Isopropyl Acetate	43	8.753	8.789	(0.961)	2696414	100.000	98
17 1,2-Dichloroethane	62	8.753	8.789	(0.961)	1048180	50.0000	51
28 Benzene	78	8.769	8.805	(0.962)	2345129	50.0000	50
* 19 Fluorobenzene	96	9.112	9.149	(1.000)	2809110	50.0000	
25 Trichloroethene	95	9.596	9.632	(1.053)	957825	50.0000	52
23 1,2-Dichloropropane	63	9.861	9.898	(1.082)	1175616	50.0000	52
120 Methyl methacrylate	69	9.939	9.976	(1.091)	451180	50.0000	46
64 Propyl Acetate	43	10.001	10.023	(1.098)	1546331	100.000	100
109 Dibromomethane	93	10.017	10.054	(1.099)	754145	50.0000	50
95 1,4-Dioxane	88	10.001	10.039	(1.098)	266486	3000.00	2700
22 Bromodichloromethane	83	10.189	10.226	(1.118)	1586485	50.0000	51
30 2-Chloroethyl Vinyl Ether	63	10.516	10.539	(1.154)	605490	50.0000	50
118 Epichlorohydrin	57	10.594	10.632	(1.163)	1199732	1000.00	960
24 cis-1,3-Dichloropropene	75	10.735	10.757	(1.178)	1349712	50.0000	52
33 4-Methyl-2-Pentanone	43	10.875	10.898	(1.193)	582284	50.0000	48
$ 37 Toluene-d8 (SUR)	98	11.078	11.117	(0.868)	2472844	50.0000	51
38 Toluene	91	11.172	11.195	(0.875)	2480814	50.0000	52
29 trans-1,3-Dichloropropene	75	11.375	11.398	(0.891)	1021400	50.0000	51
27 1,1,2-Trichloroethane	83	11.609	11.632	(0.910)	590423	50.0000	52
103 1,3-Dichloropropane	76	11.812	11.835	(0.925)	1136118	50.0000	51
35 Tetrachloroethene	166	11.843	11.882	(0.928)	799590	50.0000	51
34 2-Hexanone	43	11.843	11.882	(0.928)	345511	50.0000	48
26 Dibromochloromethane	129	12.093	12.133	(0.947)	1216368	50.0000	51
65 Butyl Acetate	43	11.984	12.008	(0.939)	1797087	100.000	110
66 1,2-Dibromoethane	107	12.249	12.289	(0.960)	1074020	50.0000	50
* 32 Chlorobenzene-d5	117	12.764	12.804	(1.000)	2278567	50.0000	
39 Chlorobenzene	112	12.810	12.836	(1.004)	2065986	50.0000	52
40 Ethylbenzene	106	12.904	12.930	(1.011)	890818	50.0000	51

304933

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Report Date: 12-Nov-1998 12:12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	43 m+p-Xylene	106	13.030	13.055	(1.021)	2238517	100.000	100
	97 1,1,1,2-Tetrachloroethane	131	12.873	12.914	(1.009)	955389	50.0000	52
	44 o-Xylene	106	13.466	13.508	(1.055)	1121519	50.0000	52
	42 Styrene	104	13.482	13.508	(1.056)	1798926	50.0000	51
	31 Bromoform	173	13.716	13.742	(1.075)	596199	50.0000	48
	110 Isopropylbenzene	105	13.857	13.883	(1.086)	2658862	50.0000	53
$	41 Bromofluorobenzene (SUR)	174	14.044	14.071	(0.921)	783084	50.0000	55
	36 1,1,2,2-Tetrachloroethane	83	14.138	14.165	(0.927)	765831	50.0000	50
	99 1,2,3-Trichloropropane	75	14.200	14.243	(0.931)	635890	50.0000	53
	107 Bromobenzene	156	14.232	14.259	(0.933)	736677	50.0000	55
	112 n-Propylbenzene	91	14.294	14.321	(0.937)	2634867	50.0000	54
	105 2-Chlorotoluene	91	14.419	14.447	(0.946)	1748583	50.0000	54
	102 1,3,5-Trimethylbenzene	105	14.451	14.478	(0.948)	2003121	50.0000	52
	106 4-Chlorotoluene	91	14.513	14.556	(0.952)	2321342	50.0000	56
	115 tert-Butylbenzene	119	14.810	14.838	(0.971)	2022187	50.0000	54
	100 1,2,4-Trimethylbenzene	105	14.857	14.885	(0.974)	2026213	50.0000	52
	114 sec-Butylbenzene	105	15.029	15.073	(0.986)	2210046	50.0000	54
	113 p-Isopropyltoluene	119	15.154	15.198	(0.994)	2007898	50.0000	55
	67 1,3-Dichlorobenzene	146	15.201	15.229	(0.997)	935689	50.0000	52
*	91 1,4-Dichlorobenzene-d4	152	15.248	15.276	(1.000)	696113	50.0000	
	68 1,4-Dichlorobenzene	146	15.280	15.308	(1.002)	1172241	50.0000	53
	117 Benzyl chloride	91	15.389	15.417	(1.009)	869690	50.0000	52
	111 n-Butylbenzene	91	15.577	15.605	(1.022)	1456978	50.0000	56
	69 1,2-Dichlorobenzene	146	15.671	15.699	(1.028)	815020	50.0000	52
	101 1,2-Dibromo-3-chloropropane	75	16.421	16.449	(1.077)	44886	50.0000	44
	94 Hexachlorobutadiene	225	17.453	17.496	(1.145)	135055	50.0000	44
M	14 1,2-Dichloroethene (total)	100				1730251	100.000	100
M	45 Xylene (Total)	100				3360036	150.000	150

QC Flag Legend

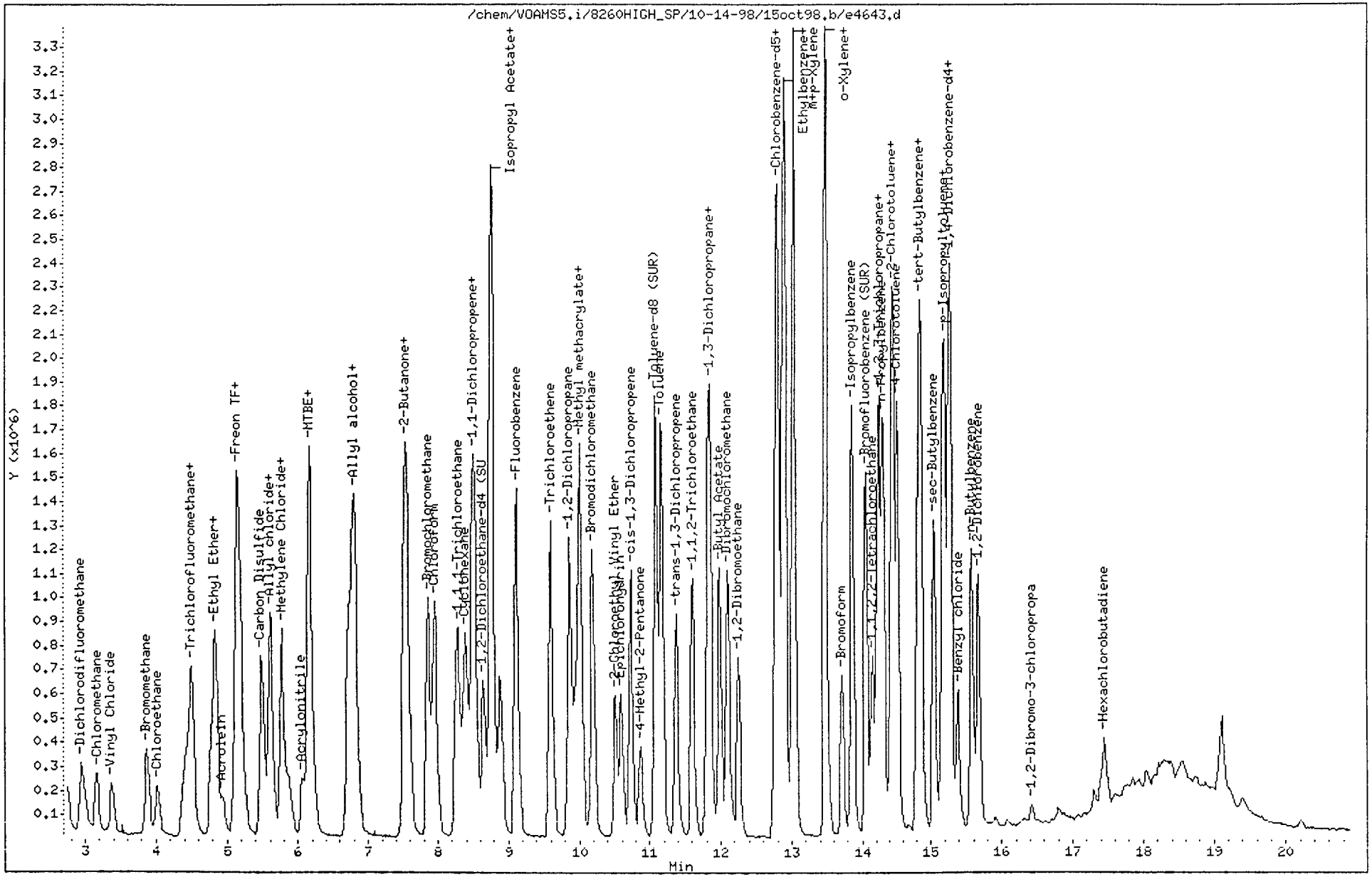
T - Target compound detected outside RT window.

304934

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Date : 15-OCT-1998 10:23
Client ID: ESTD288
Sample Info: ESTD288
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

304935



SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

LAB FILE ID: RRF5: S7732 RRF20: S7730 RRF50: S7727
RRF80: S7729 RRF120: S7728

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol	2.346	2.269	2.026	1.825	1.655
2-Chlorophenol	1.382	1.402	1.344	1.271	1.224
2-Methylphenol	1.449	1.454	1.352	1.272	1.226
4-Methylphenol	1.476	1.375	1.193	1.041	0.932
2-Nitrophenol	0.252	0.269	0.255	0.247	0.229
2,4-Dimethylphenol	0.388	0.386	0.366	0.349	0.324
2,4-Dichlorophenol	0.365	0.371	0.346	0.339	0.299
4-Chloro-3-methylphenol	0.383	0.373	0.348	0.337	0.299
2,4,6-Trichlorophenol	0.380	0.384	0.364	0.349	0.325
2,4,5-Trichlorophenol	0.411	0.408	0.384	0.370	0.321
2,4-Dinitrophenol	0.223	0.293	0.297	0.295	0.286
4-Nitrophenol	0.255	0.256	0.255	0.252	0.249
4,6-Dinitro-2-methylphenol	0.175	0.182	0.178	0.175	0.169
Pentachlorophenol	0.164	0.168	0.161	0.154	0.153
Benzoic Acid	0.172	0.260	0.248	0.289	0.258
N-Nitrosodimethylamine	0.947	1.047	1.073	1.045	1.009
bis(2-Chloroethyl)ether	1.966	1.704	1.634	1.541	1.493
1,3-Dichlorobenzene	1.780	1.646	1.489	1.431	1.340
1,4-Dichlorobenzene	1.653	1.609	1.449	1.369	1.273
1,2-Dichlorobenzene	1.537	1.596	1.438	1.355	1.194
bis(2-chloroisopropyl)ether	2.149	1.882	1.851	1.680	1.625
N-Nitroso-di-n-propylamine	0.985	0.918	0.830	0.778	0.751
Hexachloroethane	0.649	0.629	0.588	0.560	0.521
Nitrobenzene	0.646	0.561	0.502	0.468	0.436
Isophorone	0.900	0.875	0.861	0.853	0.824
bis(2-Chloroethoxy)methane	0.635	0.498	0.458	0.451	0.415
1,2,4-Trichlorobenzene	0.448	0.354	0.327	0.319	0.292
Naphthalene	1.214	1.078	0.985	0.910	0.818
4-Chloroaniline	0.570	0.529	0.486	0.454	0.416
Hexachlorobutadiene	0.146	0.147	0.136	0.126	0.111
2-Methylnaphthalene	0.864	0.787	0.684	0.645	0.581
Hexachlorocyclopentadiene	0.242	0.209	0.216	0.214	0.207
2-Chloronaphthalene	1.361	1.248	1.141	1.051	0.967
2-Nitroaniline	0.413	0.432	0.372	0.343	0.324
Dimethylphthalate	1.678	1.604	1.467	1.369	1.278
Acenaphthylene	2.180	2.154	1.898	1.737	1.578
2,6-Dinitrotoluene	0.368	0.403	0.382	0.369	0.356
3-Nitroaniline	0.445	0.293	0.292	0.284	0.265
Acenaphthene	1.340	1.254	1.099	1.015	0.904

304936

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

LAB FILE ID: RRF5: S7732 RRF20: S7730 RRF50: S7727
RRF80: S7729 RRF120: S7728

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	2.011	1.796	1.585	1.485	1.298
2,4-Dinitrotoluene	0.601	0.564	0.533	0.518	0.471
Diethylphthalate	1.992	1.581	1.443	1.368	1.207
4-Chlorophenyl-phenylether	0.597	0.544	0.480	0.418	0.337
Fluorene	1.604	1.385	1.165	1.072	0.911
4-Nitroaniline	0.459	0.442	0.430	0.420	0.390
N-Nitrosodiphenylamine	0.755	0.622	0.574	0.541	0.503
4-Bromophenyl-phenylether	0.234	0.203	0.182	0.170	0.157
Hexachlorobenzene	0.286	0.248	0.220	0.214	0.197
Phenanthrene	1.386	1.205	1.052	0.970	0.878
Anthracene	1.345	1.296	1.079	0.992	0.881
Carbazole	1.443	1.278	1.106	1.038	0.951
Di-n-butylphthalate	2.000	1.711	1.441	1.321	1.178
Fluoranthene	1.258	1.086	0.903	0.865	0.767
Pyrene	1.807	1.734	1.531	1.493	1.375
Benzidine	0.874	0.778	0.460	0.596	0.526
Butylbenzylphthalate	1.385	1.245	1.095	1.086	1.007
3,3'-Dichlorobenzidine	0.622	0.627	0.565	0.550	0.445
Benzo(a)anthracene	1.599	1.358	1.259	1.219	1.094
Chrysene	1.318	1.275	1.187	1.160	1.068
bis(2-Ethylhexyl)phthalate	1.572	1.625	1.340	1.212	0.990
Di-n-octylphthalate	2.610	2.646	2.393	2.310	2.210
Benzo(b)fluoranthene	1.522	1.377	1.256	1.345	1.430
Benzo(k)fluoranthene	1.556	1.414	1.306	1.320	1.057
Benzo(a)pyrene	1.358	1.332	1.250	1.281	1.248
Indeno(1,2,3-cd)pyrene	1.243	1.290	1.230	1.337	1.330
Dibenz(a,h)anthracene	1.235	1.249	1.180	1.252	1.218
Benzo(g,h,i)perylene	1.322	1.366	1.292	1.326	1.216
Pyridine	1.381	1.545	1.582	1.566	1.607
Aniline	2.595	2.503	2.244	2.045	1.493
Benzyl Alcohol	1.115	1.100	1.075	0.987	0.951
1,2-Diphenylhydrazine	1.158	0.966	0.866	0.789	0.724
Diphenyl	1.776	1.668	1.443	1.324	1.146
Diphenyl Ether	0.992	0.868	0.783	0.732	0.672
Acetophenone	2.193	1.901	1.626	1.509	1.451
1,4-Dioxane	0.638	0.605	0.562	0.559	0.550
N,N-Dimethylaniline	2.259	2.044	1.783	1.599	1.515
2-Fluorophenol (SUR)	1.426	1.480	1.490	1.388	1.365

304937

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2

Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

LAB FILE ID: RRF5: S7732 RRF20: S7730 RRF50: S7727
RRF80: S7729 RRF120: S7728

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol-d5 (SUR)	2.034	2.040	1.991	1.871	1.756
2,4,6-Tribromophenol (SUR)	0.266	0.268	0.245	0.243	0.222
Nitrobenzene-d5 (SUR)	0.417	0.427	0.418	0.408	0.380
2-Fluorobiphenyl (SUR)	1.552	1.466	1.278	1.196	1.068
Terphenyl-d14 (SUR)	1.208	1.167	1.036	0.947	0.847

304938

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	2.02447480	14.4*
2-Chlorophenol	AVRG	1.32461449	5.7*
2-Methylphenol	AVRG	1.35057565	7.6*
4-Methylphenol	AVRG	1.20361143	18.8*
2-Nitrophenol	AVRG	0.25051423	5.8*
2,4-Dimethylphenol	AVRG	0.36268998	7.4*
2,4-Dichlorophenol	AVRG	0.34394838	8.2*
4-Chloro-3-methylphenol	AVRG	0.34824697	9.5*
2,4,6-Trichlorophenol	AVRG	0.36030413	6.6*
2,4,5-Trichlorophenol	AVRG	0.37898461	9.6*
2,4-Dinitrophenol	AVRG	0.27905642	11.2**
4-Nitrophenol	AVRG	0.25344172	1.1**
4,6-Dinitro-2-methylphenol	AVRG	0.17582622	2.8*
Pentachlorophenol	AVRG	0.15988944	3.8*
Benzoic Acid	AVRG	0.24541308	17.8*
N-Nitrosodimethylamine	AVRG	1.02431803	4.8*
bis(2-Chloroethyl)ether	AVRG	1.66753986	11.2*
1,3-Dichlorobenzene	AVRG	1.53727389	11.4*
1,4-Dichlorobenzene	AVRG	1.47077605	10.9*
1,2-Dichlorobenzene	AVRG	1.42401683	11.1*
bis(2-chloroisopropyl)ether	AVRG	1.83747882	11.2*
N-Nitroso-di-n-propylamine	AVRG	0.85248131	11.4**
Hexachloroethane	AVRG	0.58929998	8.8*
Nitrobenzene	AVRG	0.52259530	15.9*
Isophorone	AVRG	0.86286471	3.2*
bis(2-Chloroethoxy)methane	AVRG	0.49154076	17.4*
1,2,4-Trichlorobenzene	AVRG	0.34807365	17.2*
Naphthalene	AVRG	1.00106144	15.3*
4-Chloroaniline	AVRG	0.49107733	12.3*
Hexachlorobutadiene	AVRG	0.13338840	11.4*
2-Methylnaphthalene	AVRG	0.71231560	15.8*
Hexachlorocyclopentadiene	AVRG	0.21767202	6.6**
2-Chloronaphthalene	AVRG	1.15388292	13.5*
2-Nitroaniline	AVRG	0.37697358	12.1*
Dimethylphthalate	AVRG	1.47907124	11.1*
Acenaphthylene	AVRG	1.90955908	13.7*
2,6-Dinitrotoluene	AVRG	0.37575972	4.8*
3-Nitroaniline	AVRG	0.31611585	23.1*
Acenaphthene	AVRG	1.12244161	15.7*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304939

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.63514657	16.9*
2,4-Dinitrotoluene	AVRG	0.53727782	9.1*
Diethylphthalate	AVRG	1.51794059	19.6*
4-Chlorophenyl-phenylether	AVRG	0.47523038	21.5*
Fluorene	AVRG	1.22763286	22.1*
4-Nitroaniline	AVRG	0.42831474	6.0*
N-Nitrosodiphenylamine	AVRG	0.59905034	16.3*
4-Bromophenyl-phenylether	AVRG	0.18940758	15.9*
Hexachlorobenzene	AVRG	0.23301942	14.9*
Phenanthrene	AVRG	1.09843572	18.3*
Anthracene	AVRG	1.11884462	17.7*
Carbazole	AVRG	1.16300177	16.9*
Di-n-butylphthalate	AVRG	1.53040018	21.4*
Fluoranthene	AVRG	0.97558329	20.0*
Pyrene	AVRG	1.58804533	11.2*
Benzidine	AVRG	0.64686913	26.8*
Butylbenzylphthalate	AVRG	1.16385265	12.9*
3,3'-Dichlorobenzidine	AVRG	0.56193938	13.0*
Benzo(a)anthracene	AVRG	1.30562658	14.5*
Chrysene	AVRG	1.20159449	8.2*
bis(2-Ethylhexyl)phthalate	AVRG	1.34803820	19.4*
Di-n-octylphthalate	AVRG	2.43397578	7.8*
Benzo(b)fluoranthene	AVRG	1.38620910	7.1*
Benzo(k)fluoranthene	AVRG	1.33063440	13.7*
Benzo(a)pyrene	AVRG	1.29374387	3.8*
Indeno(1,2,3-cd)pyrene	AVRG	1.28590827	3.8*
Dibenz(a,h)anthracene	AVRG	1.22697829	2.4*
Benzo(g,h,i)perylene	AVRG	1.30429028	4.3*
Pyridine	AVRG	1.53611463	5.8*
Aniline	AVRG	2.17591174	20.2*
Benzyl Alcohol	AVRG	1.04586995	6.9*
1,2-Diphenylhydrazine	AVRG	0.90061739	18.9*
Diphenyl	AVRG	1.47150847	17.3*
Diphenyl Ether	AVRG	0.80921778	15.4*
Acetophenone	AVRG	1.73611853	17.8**
1,4-Dioxane	AVRG	0.58278575	6.4**
N,N-Dimethylaniline	AVRG	1.84026505	16.8**
2-Fluorophenol (SUR)	AVRG	1.42966178	3.9*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304940

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol-d5 (SUR)	AVRG	1.93856950	6.3*
2,4,6-Tribromophenol (SUR)	AVRG	0.24879583	7.6*
Nitrobenzene-d5 (SUR)	AVRG	0.41025215	4.4*
2-Fluorobiphenyl (SUR)	AVRG	1.31209515	15.0*
Terphenyl-d14 (SUR)	AVRG	1.04095605	14.4*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304941

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Report Date: 11-Nov-1998 17:16

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Lab Smp Id: SSTD120
Inj Date : 28-SEP-1998 13:56
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD120
Misc Info : 120 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 17:27:38 lisa Quant Type: ISTD
Cal Date : 28-SEP-1998 13:56 Cal File: s7728.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
106 1,4-Dioxane	88	4.784	4.712	(0.369)	944791	120.000	120
19 N-Nitrosodimethylamine	74	6.011	5.892	(0.464)	1734592	120.000	120
71 Pyridine	79	5.992	5.990	(0.463)	2761077	120.000	120(AM)
$ 16 2-Fluorophenol (SUR)	112	10.505	10.480	(0.811)	2345528	120.000	110
$ 17 Phenol-d5 (SUR)	99	12.354	12.301	(0.954)	3018148	120.000	110
1 Phenol	94	12.387	12.327	(0.956)	2844598	120.000	110
73 Aniline	93	12.519	12.347	(0.966)	2565139	120.000	96(H)
20 bis(2-Chloroethyl)ether	93	12.519	12.478	(0.966)	2565139	120.000	110
2 2-Chlorophenol	128	12.592	12.563	(0.972)	2103648	120.000	110
21 1,3-Dichlorobenzene	146	12.855	12.832	(0.992)	2301983	120.000	110
* 79 1,4-Dichlorobenzene-d4	152	12.954	12.937	(1.000)	572837	40.0000	
22 1,4-Dichlorobenzene	146	12.987	12.970	(1.003)	2187835	120.000	110
74 Benzyl Alcohol	108	13.231	13.180	(1.021)	1635126	120.000	110
23 1,2-Dichlorobenzene	146	13.250	13.233	(1.023)	2052149	120.000	110

304942

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Report Date: 11-Nov-1998 17:16

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	3 2-Methylphenol	108	13.428	13.377	(1.037)	2106400	120.000	110
	24 bis(2-chloroisopropyl)ether	45	13.442	13.410	(1.038)	2792366	120.000	110(M)
	4 4-Methylphenol	108	13.692	13.633	(1.057)	1601987	120.000	100(H)
	25 N-Nitroso-di-n-propylamine	70	13.712	13.633	(1.059)	1290213	120.000	110
	104 Acetophenone	105	13.672	13.633	(1.055)	2494077	120.000	110
	26 Hexachloroethane	117	13.831	13.816	(1.068)	894824	120.000	110
$	76 Nitrobenzene-d5 (SUR)	82	13.937	13.889	(0.921)	2181895	120.000	110
	27 Nitrobenzene	77	13.990	13.928	(0.924)	2498329	120.000	110
	107 N,N-Dimethylaniline	120	13.976	13.928	(1.079)	2604219	120.000	110
	28 Isophorone	82	14.398	14.328	(0.951)	4729059	120.000	120
	5 2-Nitrophenol	139	14.497	14.465	(0.958)	1313774	120.000	110
	6 2,4-Dimethylphenol	122	14.583	14.531	(0.963)	1858805	120.000	110
	15 Benzoic Acid	122	14.893	14.636	(0.984)	1479333	120.000	120(AMH)
	29 bis(2-Chloroethoxy)methane	93	14.728	14.695	(0.973)	2377945	120.000	110
	7 2,4-Dichlorophenol	162	14.920	14.879	(0.986)	1715956	120.000	110
	30 1,2,4-Trichlorobenzene	180	15.039	15.017	(0.993)	1677412	120.000	110
*	80 Naphthalene-d8	136	15.139	15.122	(1.000)	1911808	40.0000	
	31 Naphthalene	128	15.185	15.155	(1.003)	4689205	120.000	110
	32 4-Chloroaniline	127	15.265	15.234	(1.008)	2388182	120.000	110
	33 Hexachlorobutadiene	225	15.371	15.352	(1.015)	637263	120.000	110
	8 4-Chloro-3-methylphenol	107	16.049	16.027	(1.060)	1715493	120.000	110
	34 2-Methylnaphthalene	142	16.333	16.308	(1.079)	3334855	120.000	110
	35 Hexachlorocyclopentadiene	237	16.577	16.564	(0.918)	688565	120.000	120
	9 2,4,6-Trichlorophenol	196	16.788	16.768	(0.930)	1083835	120.000	110
	10 2,4,5-Trichlorophenol	196	16.855	16.827	(0.933)	1069954	120.000	110
$	77 2-Fluorobiphenyl (SUR)	172	16.935	16.906	(0.938)	3556308	120.000	110
	102 Diphenyl	154	17.114	17.076	(0.948)	3814383	120.000	110
	36 2-Chloronaphthalene	162	17.147	17.116	(0.949)	3220792	120.000	110
	103 Diphenyl Ether	170	17.273	17.247	(0.956)	2237989	120.000	110
	37 2-Nitroaniline	65	17.319	17.274	(0.959)	1080499	120.000	110(H)
	38 Dimethylphthalate	163	17.597	17.562	(0.974)	4255865	120.000	110
	40 2,6-Dinitrotoluene	165	17.723	17.667	(0.981)	1183945	120.000	120
	39 Acenaphthylene	152	17.842	17.805	(0.988)	5255031	120.000	110
	41 3-Nitroaniline	138	17.994	17.949	(0.996)	883938	120.000	110
*	82 Acenaphthene-d10	164	18.061	18.041	(1.000)	1109927	40.0000	
	42 Acenaphthene	153	18.127	18.094	(1.004)	3010106	120.000	110
	11 2,4-Dinitrophenol	184	18.167	18.120	(1.006)	953765	120.000	120
	12 4-Nitrophenol	65	18.266	18.213	(1.011)	829791	120.000	120
	44 2,4-Dinitrotoluene	165	18.386	18.331	(1.018)	1567029	120.000	110
	43 Dibenzofuran	168	18.412	18.377	(1.019)	4322723	120.000	110
	45 Diethylphthalate	149	18.770	18.724	(1.039)	4018048	120.000	110
	46 4-Chlorophenyl-phenylether	204	18.956	18.934	(1.050)	1122823	120.000	99
	47 Fluorene	166	18.983	18.941	(1.051)	3034482	120.000	100
	48 4-Nitroaniline	138	19.062	18.954	(1.055)	1298923	120.000	110
	13 4,6-Dinitro-2-methylphenol	198	19.082	19.007	(0.930)	879309	120.000	120(H)
	49 N-Nitrosodiphenylamine	169	19.169	19.119	(0.934)	2623661	120.000	110
	75 1,2-Diphenylhydrazine	77	19.229	19.191	(0.937)	3774489	120.000	110

304943

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Report Date: 11-Nov-1998 17:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.374	19.342	(1.073)	739347	120.000	110
50 4-Bromophenyl-phenylether	248	19.772	19.742	(0.964)	819770	120.000	110
51 Hexachlorobenzene	284	19.885	19.853	(0.969)	1027542	120.000	110
14 Pentachlorophenol	266	20.196	20.175	(0.984)	799242	120.000	120
* 83 Phenanthrene-d10	188	20.520	20.503	(1.000)	1738119	40.0000	
52 Phenanthrene	178	20.573	20.543	(1.003)	4579079	120.000	110
53 Anthracene	178	20.660	20.621	(1.007)	4595926	120.000	110
54 Carbazole	167	20.911	20.871	(1.019)	4957806	120.000	110
55 Di-n-butylphthalate	149	21.445	21.421	(1.045)	6145475	120.000	110
56 Fluoranthene	202	22.538	22.502	(1.098)	3999145	120.000	110
58 Benzidine	184	22.736	22.706	(1.108)	2743256	120.000	130(A)
57 Pyrene	202	22.922	22.877	(0.919)	4099573	120.000	110
$ 78 Terphenyl-d14 (SUR)	244	23.140	23.106	(0.928)	2524428	120.000	110
59 Butylbenzylphthalate	149	23.924	23.893	(0.959)	3003579	120.000	110
60 3,3'-Dichlorobenzidine	252	24.847	24.791	(0.996)	1328035	120.000	100
61 Benzo(a)anthracene	228	24.907	24.864	(0.999)	3261137	120.000	110
63 bis(2-Ethylhexyl)phthalate	149	24.874	24.837	(0.998)	2951628	120.000	100
* 81 Chrysene-d12	240	24.934	24.897	(1.000)	993917	40.0000	
62 Chrysene	228	24.995	24.931	(1.002)	3184022	120.000	110
64 Di-n-octylphthalate	149	26.201	26.150	(0.924)	7392060	120.000	120
65 Benzo(b)fluoranthene	252	27.289	27.179	(0.962)	4784383	120.000	130(A)
66 Benzo(k)fluoranthene	252	27.382	27.252	(0.966)	3536719	120.000	110(H)
67 Benzo(a)pyrene	252	28.232	28.104	(0.996)	4172983	120.000	120
* 84 Perylene-d12	264	28.358	28.308	(1.000)	1114896	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	32.527	32.235	(1.147)	4447923	120.000	120(AM)
69 Dibenz(a,h)anthracene	278	32.627	32.334	(1.151)	4073264	120.000	120(A)
70 Benzo(g,h,i)perylene	276	33.785	33.481	(1.191)	4065898	120.000	120(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304944

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Date : 28-SEP-1998 13:56
Client ID:
Sample Info: SSTD120

Instrument: BNAMS2.i

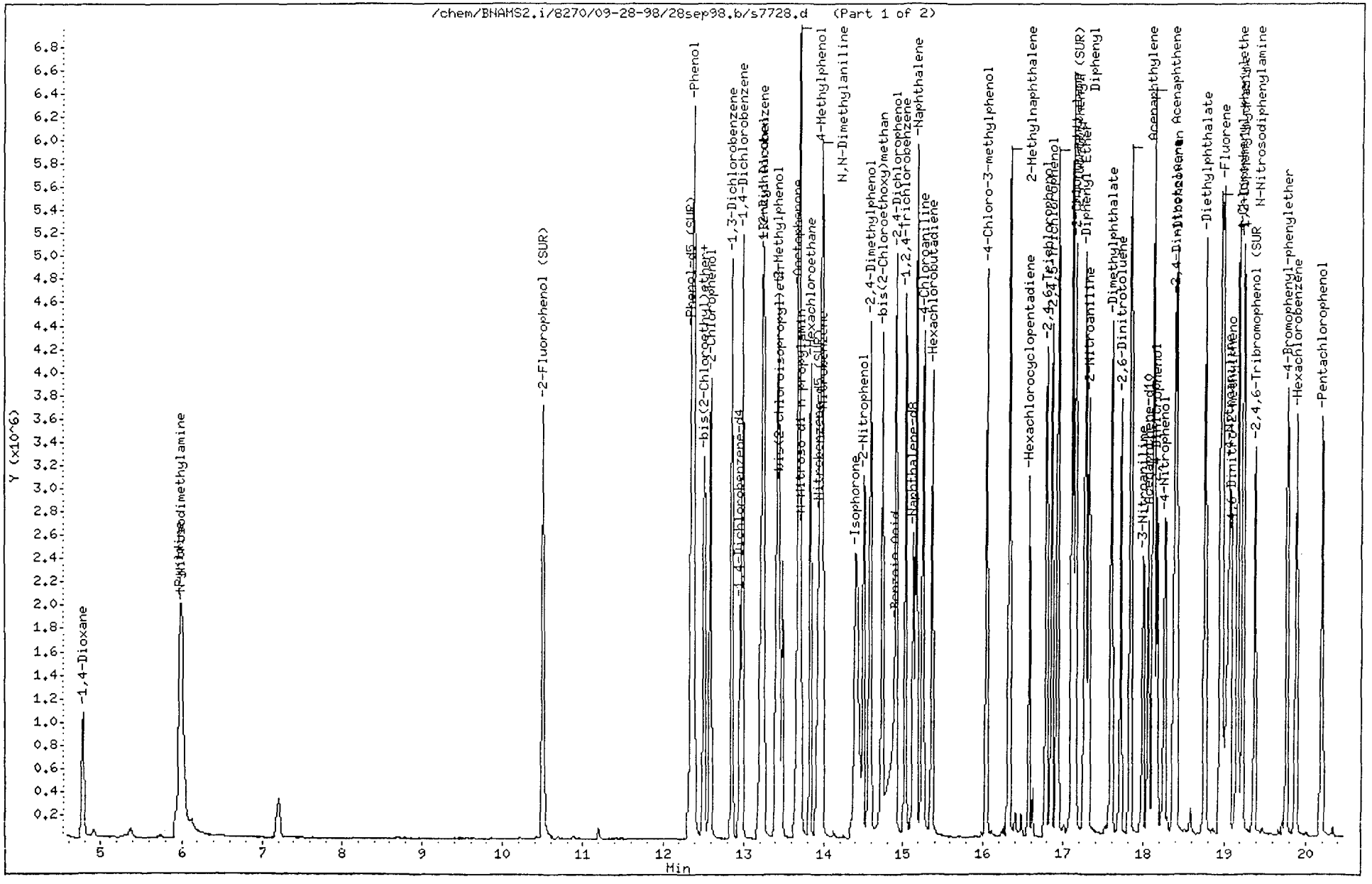
Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

304945

286



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Date : 28-SEP-1998 13:56
Client ID:
Sample Info: SSTD120

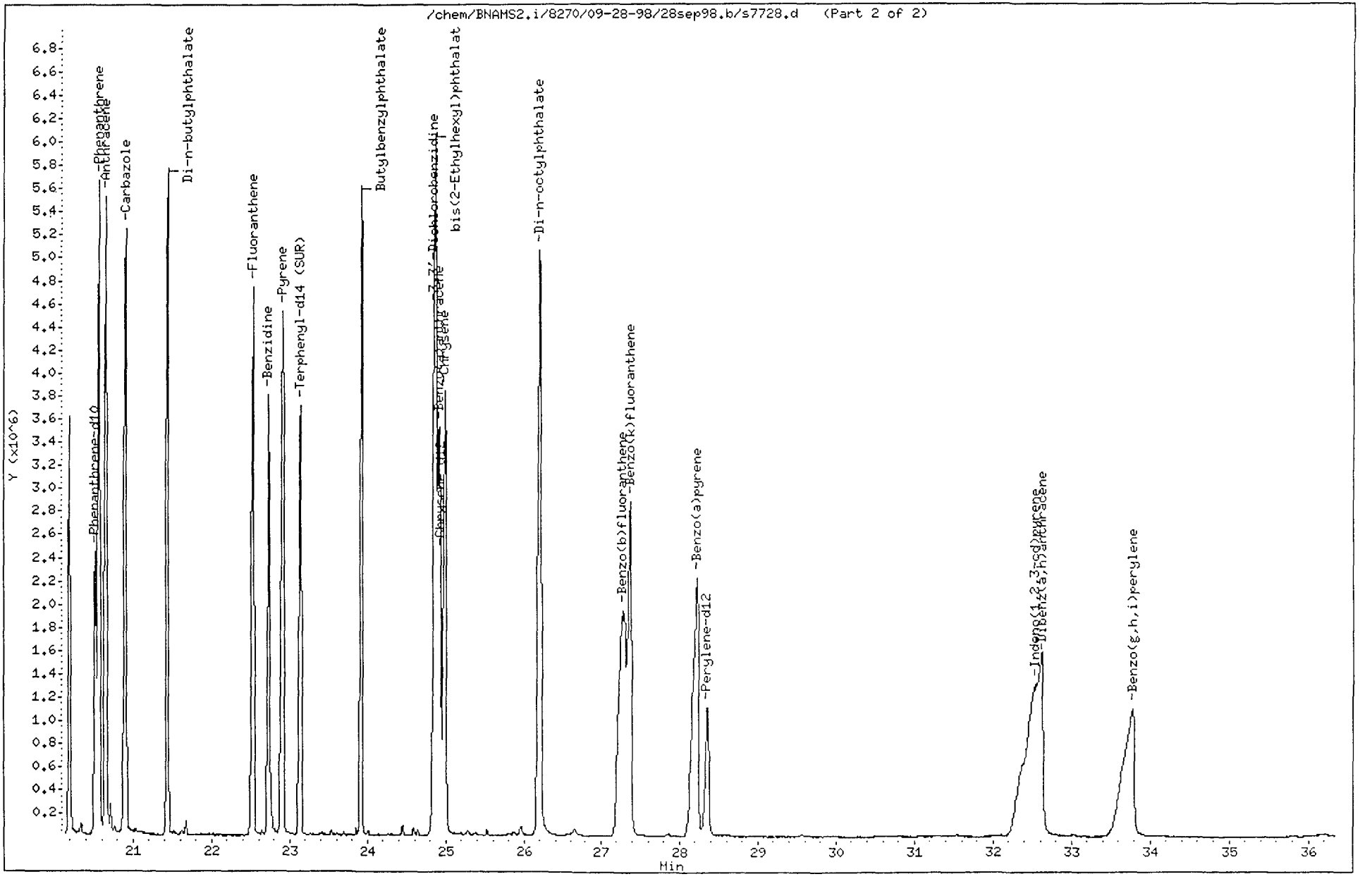
Instrument: BNAMS2.i

Operator: BNAMS3

304946

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Report Date: 28-Sep-98 16:03:54

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Lab Smp Id: SSTD080
Inj Date : 28-SEP-98 14:40:00
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD080
Misc Info : 80 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 16:02:40 ctp Quant Type: ISTD
Cal Date : 28-SEP-98 14:40:00 Cal File: s7729.d
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.758	4.719	(0.367)	601923	80	80(M)
19 N-Nitrosodimethylamine	74	5.965	5.885	(0.461)	1125166	80	79(M)
71 Pyridine	79	5.985	5.951	(0.462)	1686656	80	80(M)
$ 16 2-Fluorophenol (SUR)	112	10.494	10.485	(0.810)	1494468	80	77
$ 17 Phenol-d5 (SUR)	99	12.336	12.306	(0.953)	2014936	80	78
1 Phenol	94	12.369	12.333	(0.955)	1966160	80	76
73 Aniline	93	12.376	12.352	(0.956)	2202812	80	76
20 bis(2-Chloroethyl)ether	93	12.508	12.484	(0.966)	1659951	80	78
2 2-Chlorophenol	128	12.580	12.569	(0.972)	1369074	80	78
21 1,3-Dichlorobenzene	146	12.850	12.838	(0.992)	1541471	80	78
* 79 1,4-Dichlorobenzene-d4	152	12.948	12.943	(1.000)	538539	40	
22 1,4-Dichlorobenzene	146	12.981	12.970	(1.003)	1474864	80	78
74 Benzyl Alcohol	108	13.211	13.186	(1.020)	1063453	80	77
23 1,2-Dichlorobenzene	146	13.244	13.232	(1.023)	1459214	80	78
3 2-Methylphenol	108	13.409	13.384	(1.036)	1370326	80	78

304947

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Report Date: 28-Sep-98 16:03:54

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
24 bis(2-chloroisopropyl)ether	45	13.435	13.423	(1.038)	1809777	80	76(M)
4 4-Methylphenol	108	13.672	13.640	(1.056)	1121568	80	74
25 N-Nitroso-di-n-propylamine	70	13.686	13.640	(1.057)	838546	80	77
104 Acetophenone	105	13.666	13.640	(1.055)	1625515	80	77
26 Hexachloroethane	117	13.824	13.817	(1.068)	603028	80	78
$ 76 Nitrobenzene-d5 (SUR)	82	13.923	13.896	(0.920)	1458637	80	79
27 Nitrobenzene	77	13.963	13.936	(0.923)	1669843	80	77
107 N,N-Dimethylaniline	120	13.963	13.936	(1.078)	1722482	80	76
28 Isophorone	82	14.370	14.336	(0.950)	3046446	80	80
5 2-Nitrophenol	139	14.489	14.474	(0.958)	883261	80	79
6 2,4-Dimethylphenol	122	14.561	14.540	(0.962)	1247307	80	78
15 Benzoic Acid	122	14.845	14.711	(0.981)	1032700	80	86
29 bis(2-Chloroethoxy)methane	93	14.720	14.698	(0.973)	1610430	80	79
7 2,4-Dichlorophenol	162	14.905	14.882	(0.985)	1209350	80	79
30 1,2,4-Trichlorobenzene	180	15.030	15.020	(0.993)	1138529	80	79
* 80 Naphthalene-d8	136	15.129	15.126	(1.000)	1785038	40	
31 Naphthalene	128	15.176	15.159	(1.003)	3249968	80	77
32 4-Chloroaniline	127	15.255	15.238	(1.008)	1619091	80	77
33 Hexachlorobutadiene	225	15.361	15.357	(1.015)	450220	80	77
8 4-Chloro-3-methylphenol	107	16.038	16.026	(1.060)	1204747	80	79
34 2-Methylnaphthalene	142	16.321	16.308	(1.079)	2302408	80	78
35 Hexachlorocyclopentadiene	237	16.571	16.565	(0.918)	453031	80	80
9 2,4,6-Trichlorophenol	196	16.782	16.768	(0.930)	738169	80	78
10 2,4,5-Trichlorophenol	196	16.848	16.828	(0.933)	783948	80	78
$ 77 2-Fluorobiphenyl (SUR)	172	16.921	16.913	(0.937)	2531594	80	77
102 Diphenyl	154	17.100	17.078	(0.947)	2802935	80	76
36 2-Chloronaphthalene	162	17.140	17.124	(0.949)	2225716	80	77
103 Diphenyl Ether	170	17.266	17.249	(0.956)	1549288	80	77
37 2-Nitroaniline	65	17.305	17.276	(0.959)	725471	80	77
38 Dimethylphthalate	163	17.589	17.571	(0.974)	2897519	80	77
40 2,6-Dinitrotoluene	165	17.702	17.676	(0.981)	781999	80	79
39 Acenaphthylene	152	17.827	17.808	(0.988)	3676831	80	76
41 3-Nitroaniline	138	17.979	17.952	(0.996)	602117	80	79
* 82 Acenaphthene-d10	164	18.052	18.044	(1.000)	1058393	40	
42 Acenaphthene	153	18.118	18.097	(1.004)	2148495	80	77
11 2,4-Dinitrophenol	184	18.158	18.137	(1.006)	781117	100	100
12 4-Nitrophenol	65	18.251	18.223	(1.011)	666915	100	99
44 2,4-Dinitrotoluene	165	18.370	18.342	(1.018)	1096556	80	79
43 Dibenzofuran	168	18.403	18.381	(1.019)	3143517	80	77
45 Diethylphthalate	149	18.753	18.736	(1.039)	2895775	80	78
46 4-Chlorophenyl-phenylether	204	18.951	18.933	(1.050)	885118	80	74
47 Fluorene	166	18.971	18.953	(1.051)	2269993	80	77
48 4-Nitroaniline	138	19.031	18.973	(1.054)	890241	80	79
13 4,6-Dinitro-2-methylphenol	198	19.058	19.019	(0.929)	746412	100	99
49 N-Nitrosodiphenylamine	169	19.150	19.125	(0.933)	1845293	80	78
75 1,2-Diphenylhydrazine	77	19.217	19.197	(0.937)	2689759	80	76
$ 18 2,4,6-Tribromophenol (SUR)	330	19.362	19.342	(1.073)	513810	80	80

304948

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Report Date: 28-Sep-98 16:03:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	50 4-Bromophenyl-phenylether	248	19.764	19.749	(0.963)	581686	80	77
	51 Hexachlorobenzene	284	19.877	19.861	(0.969)	729612	80	79
	14 Pentachlorophenol	266	20.194	20.176	(0.984)	657985	100	98
*	83 Phenanthrene-d10	188	20.517	20.504	(1.000)	1705233	40	
	52 Phenanthrene	178	20.563	20.544	(1.002)	3309624	80	77
	53 Anthracene	178	20.649	20.630	(1.006)	3384400	80	77
	54 Carbazole	167	20.900	20.879	(1.019)	3540357	80	77
	55 Di-n-butylphthalate	149	21.433	21.424	(1.045)	4506293	80	76
	56 Fluoranthene	202	22.524	22.503	(1.098)	2948844	80	78
	58 Benzidine	184	22.728	22.713	(1.108)	2543186	100	110
	57 Pyrene	202	22.907	22.884	(0.919)	2976272	80	79
$	78 Terphenyl-d14 (SUR)	244	23.131	23.115	(0.928)	1887335	80	76
	59 Butylbenzylphthalate	149	23.913	23.902	(0.960)	2165432	80	80
	60 3,3'-Dichlorobenzidine	252	24.834	24.809	(0.996)	1371518	100	99
	61 Benzo(a)anthracene	228	24.888	24.870	(0.999)	2428812	80	79
	63 bis(2-Ethylhexyl)phthalate	149	24.861	24.843	(0.998)	2416449	80	76
*	81 Chrysene-d12	240	24.922	24.896	(1.000)	996450	40	
	62 Chrysene	228	24.976	24.943	(1.002)	2311718	80	79
	64 Di-n-octylphthalate	149	26.187	26.155	(0.924)	5184491	80	78
	65 Benzo(b)fluoranthene	252	27.253	27.209	(0.962)	3019016	80	83
	66 Benzo(k)fluoranthene	252	27.339	27.282	(0.965)	2961193	80	80
	67 Benzo(a)pyrene	252	28.195	28.131	(0.995)	2875557	80	81
*	84 Perylene-d12	264	28.335	28.323	(1.000)	1121964	40	
	68 Indeno(1,2,3-cd)pyrene	276	32.392	32.291	(1.143)	3001202	80	83
	69 Dibenz(a,h)anthracene	278	32.545	32.410	(1.149)	2810720	80	82
	70 Benzo(g,h,i)perylene	276	33.703	33.553	(1.189)	2975289	80	81

QC Flag Legend

M - Compound response manually integrated.

304949

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Date : 28-SEP-98 14:40:00
Client ID:
Sample Info: SSTD080

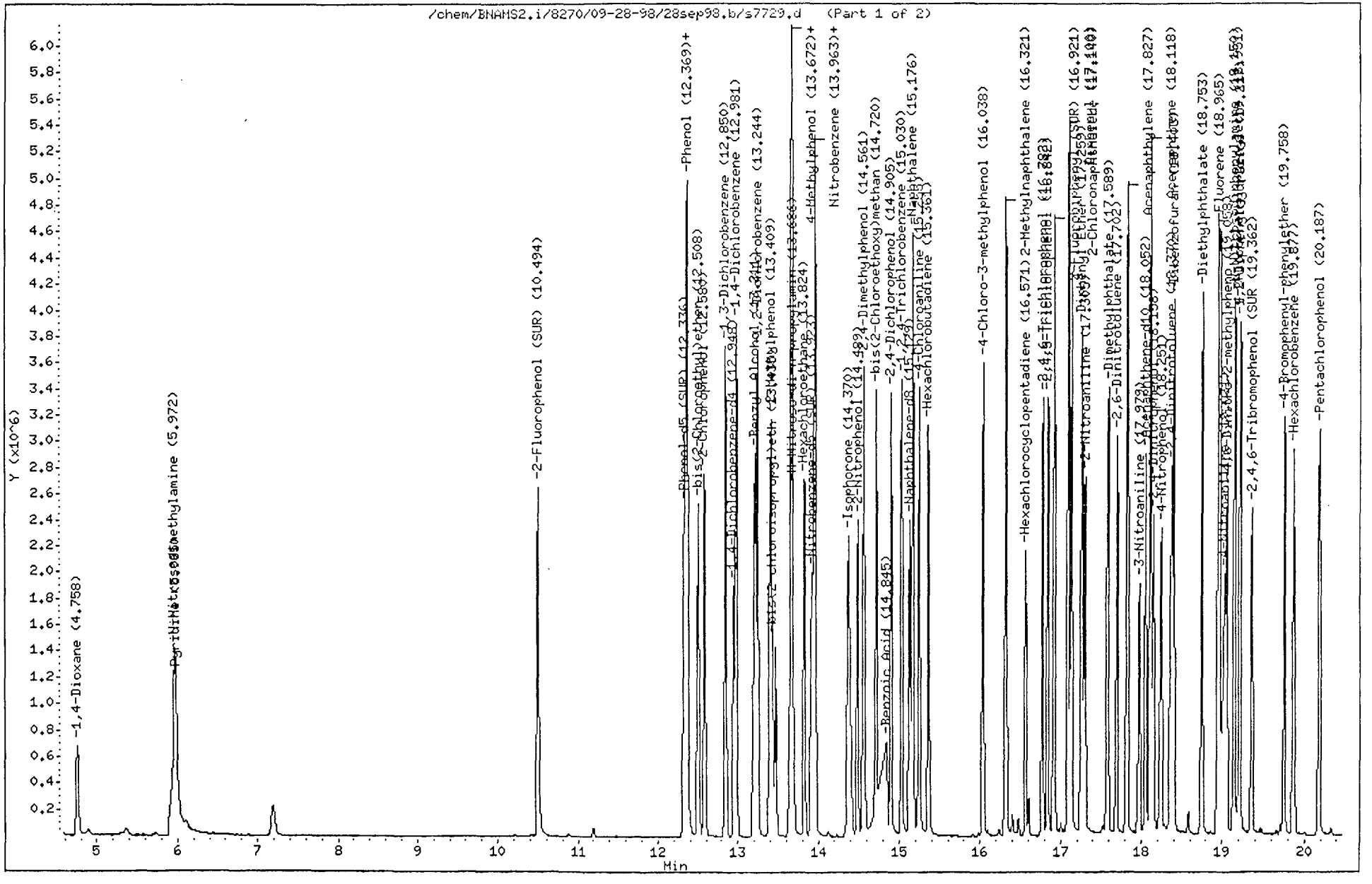
Instrument: BNAMS2.i

Operator: BNAMS3

304950

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Date : 28-SEP-98 14:40:00
Client ID:
Sample Info: SSTD080

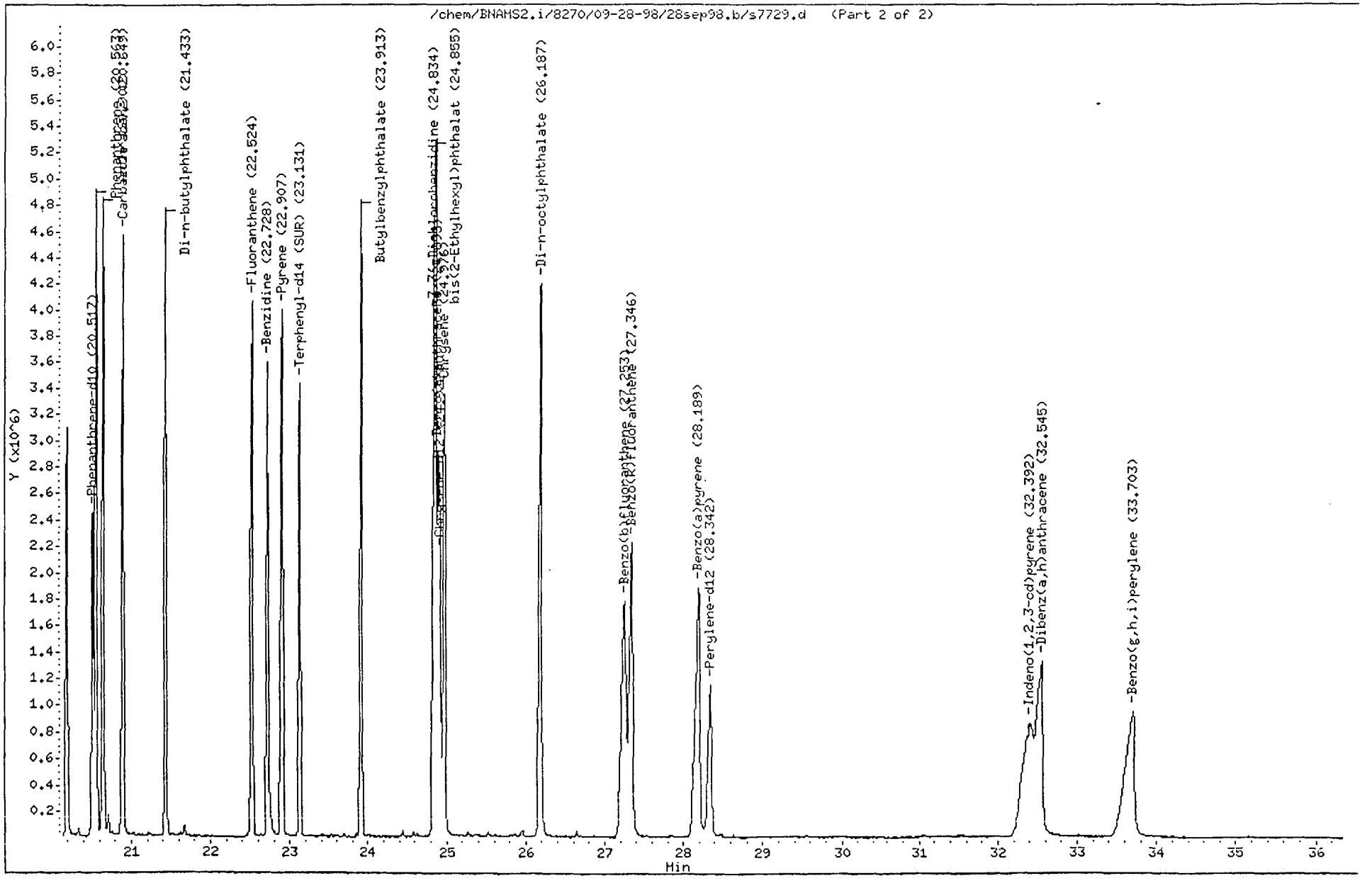
Instrument: BNAMS2.i

Operator: BNAMS3

304951

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Report Date: 28-Sep-98 14:07:59

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Lab Smp Id: SSTD050
Inj Date : 28-SEP-98 12:57:00
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD050
Misc Info : 50 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 14:02:10 lisa Quant Type: ISTD
Cal Date : 28-SEP-98 12:57:00 Cal File: s7727.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.738	4.738	(0.366)	395117	50	50(M)
19 N-Nitrosodimethylamine	74	5.932	5.932	(0.458)	754176	50	50(M)
71 Pyridine	79	5.965	5.965	(0.461)	1111820	50	50(M)
$ 16 2-Fluorophenol (SUR)	112	10.487	10.487	(0.810)	1046836	50	50
$ 17 Phenol-d5 (SUR)	99	12.328	12.328	(0.952)	1399186	50	50
1 Phenol	94	12.355	12.355	(0.954)	1423544	50	50
73 Aniline	93	12.368	12.368	(0.955)	1576563	50	50
20 bis(2-Chloroethyl)ether	93	12.499	12.499	(0.965)	1147845	50	50
2 2-Chlorophenol	128	12.578	12.578	(0.972)	944266	50	50
21 1,3-Dichlorobenzene	146	12.848	12.848	(0.992)	1046441	50	50
* 79 1,4-Dichlorobenzene-d4	152	12.946	12.946	(1.000)	562142	40	
22 1,4-Dichlorobenzene	146	12.979	12.979	(1.003)	1018376	50	50
74 Benzyl Alcohol	108	13.203	13.203	(1.020)	755279	50	50
23 1,2-Dichlorobenzene	146	13.236	13.236	(1.022)	1010498	50	50
3 2-Methylphenol	108	13.400	13.400	(1.035)	949849	50	50

304952

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Report Date: 28-Sep-98 14:07:59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.433	13.433	(1.038)	1300627	50	50(M)
	4 4-Methylphenol	108	13.657	13.657	(1.055)	838219	50	50
	25 N-Nitroso-di-n-propylamine	70	13.670	13.670	(1.056)	583524	50	50
	104 Acetophenone	105	13.657	13.657	(1.055)	1142263	50	50
	26 Hexachloroethane	117	13.822	13.822	(1.068)	413068	50	50
$	76 Nitrobenzene-d5 (SUR)	82	13.914	13.914	(0.919)	990883	50	50
	27 Nitrobenzene	77	13.953	13.953	(0.922)	1189866	50	50
	107 N,N-Dimethylaniline	120	13.947	13.947	(1.077)	1253218	50	50
	28 Isophorone	82	14.354	14.354	(0.949)	2039697	50	50
	5 2-Nitrophenol	139	14.486	14.486	(0.957)	603981	50	50
	6 2,4-Dimethylphenol	122	14.552	14.552	(0.962)	867274	50	50
	35 Benzoic Acid	122	14.795	14.795	(0.978)	586687	50	50
	29 bis(2-Chloroethoxy)methane	93	14.710	14.710	(0.972)	1085461	50	50
	7 2,4-Dichlorophenol	162	14.894	14.894	(0.984)	818686	50	50
	30 1,2,4-Trichlorobenzene	180	15.026	15.026	(0.993)	774137	50	50
*	80 Naphthalene-d8	136	15.132	15.132	(1.000)	1894724	40	
	31 Naphthalene	128	15.165	15.165	(1.002)	2332460	50	50
	32 4-Chloroaniline	127	15.244	15.244	(1.007)	1151278	50	50
	33 Hexachlorobutadiene	225	15.363	15.363	(1.015)	322039	50	50
	8 4-Chloro-3-methylphenol	107	16.033	16.033	(1.060)	825255	50	50
	34 2-Methylnaphthalene	142	16.315	16.315	(1.078)	1621074	50	50
	35 Hexachlorocyclopentadiene	237	16.565	16.565	(0.918)	299927	50	50
	9 2,4,6-Trichlorophenol	196	16.776	16.776	(0.929)	505192	50	50
	10 2,4,5-Trichlorophenol	196	16.842	16.842	(0.933)	533292	50	50
$	77 2-Fluorobiphenyl (SUR)	172	16.922	16.922	(0.937)	1775666	50	50
	102 Diphenyl	154	17.093	17.093	(0.947)	2004956	50	50
	36 2-Chloronaphthalene	162	17.133	17.133	(0.949)	1585738	50	50
	103 Diphenyl Ether	170	17.258	17.258	(0.956)	1087197	50	50
	37 2-Nitroaniline	65	17.292	17.292	(0.958)	516755	50	50
	38 Dimethylphthalate	163	17.582	17.582	(0.974)	2037459	50	50
	40 2,6-Dinitrotoluene	165	17.694	17.694	(0.980)	531205	50	50
	39 Acenaphthylene	152	17.826	17.826	(0.988)	2637184	50	50
	41 3-Nitroaniline	138	17.971	17.971	(0.996)	406430	50	50
*	82 Acenaphthene-d10	164	18.050	18.050	(1.000)	1111344	40	
	42 Acenaphthene	153	18.109	18.109	(1.003)	1526223	50	50
	11 2,4-Dinitrophenol	184	18.149	18.149	(1.006)	660199	80	80
	12 4-Nitrophenol	65	18.242	18.242	(1.011)	566689	80	80
	44 2,4-Dinitrotoluene	165	18.361	18.361	(1.017)	740576	50	50
	43 Dibenzofuran	168	18.394	18.394	(1.019)	2202276	50	50
	45 Diethylphthalate	149	18.750	18.750	(1.039)	2004167	50	50
	46 4-Chlorophenyl-phenylether	204	18.947	18.947	(1.050)	666615	50	50
	47 Fluorene	166	18.961	18.961	(1.050)	1618940	50	50
	48 4-Nitroaniline	138	19.007	19.007	(1.053)	597559	50	50
	13 4,6-Dinitro-2-methylphenol	198	19.047	19.047	(0.929)	625106	80	80
	49 N-Nitrosodiphenylamine	169	19.146	19.146	(0.933)	1257703	50	50
	75 1,2-Diphenylhydrazine	77	19.213	19.213	(0.937)	1899238	50	50
$	18 2,4,6-Tribromophenol (SUR)	330	19.358	19.358	(1.072)	341012	50	50

304953

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Report Date: 28-Sep-98 14:07:59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	50 4-Bromophenyl-phenylether	248	19.754	19.754	(0.963)	399279	50	50
	51 Hexachlorobenzene	284	19.866	19.866	(0.969)	482729	50	50
	14 Pentachlorophenol	266	20.188	20.188	(0.984)	563520	80	80
*	83 Phenanthrene-d10	188	20.511	20.511	(1.000)	1753290	40	
	52 Phenanthrene	178	20.558	20.558	(1.002)	2306574	50	50
	53 Anthracene	178	20.644	20.644	(1.006)	2365270	50	50
	54 Carbazole	167	20.894	20.894	(1.019)	2422869	50	50
	55 Di-n-butylphthalate	149	21.434	21.434	(1.045)	3158259	50	50
	56 Fluoranthene	202	22.519	22.519	(1.098)	1978565	50	50
	58 Benzidine	184	22.717	22.717	(1.108)	1614641	80	80
	57 Pyrene	202	22.903	22.903	(0.919)	2013033	50	50
$	78 Terphenyl-d14 (SUR)	244	23.127	23.127	(0.928)	1362800	50	50
	59 Butylbenzylphthalate	149	23.910	23.910	(0.960)	1440218	50	50
	60 3,3'-Dichlorobenzidine	252	24.833	24.833	(0.997)	1189034	80	80
	61 Benzo(a)anthracene	228	24.887	24.887	(0.999)	1656143	50	50
	63 bis(2-Ethylhexyl)phthalate	149	24.854	24.854	(0.998)	1762666	50	50
*	81 Chrysene-d12	240	24.914	24.914	(1.000)	1052017	40	
	62 Chrysene	228	24.968	24.968	(1.002)	1560713	50	50
	64 Di-n-octylphthalate	149	26.173	26.173	(0.924)	3493704	50	50
	65 Benzo(b)fluoranthene	252	27.239	27.239	(0.961)	1834072	50	50
	66 Benzo(k)fluoranthene	252	27.326	27.326	(0.964)	1907281	50	50
	67 Benzo(a)pyrene	252	28.169	28.169	(0.994)	1825600	50	50
*	84 Perylene-d12	264	28.335	28.335	(1.000)	1167998	40	
	68 Indeno(1,2,3-cd)pyrene	276	32.365	32.365	(1.142)	1795085	50	50
	69 Dibenz(a,h)anthracene	278	32.498	32.498	(1.147)	1723303	50	50
	70 Benzo(g,h,i)perylene	276	33.657	33.657	(1.188)	1886367	50	50

QC Flag Legend

M - Compound response manually integrated.

304954

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Date : 28-SEP-98 12:57:00
Client ID:
Sample Info: SSTD050

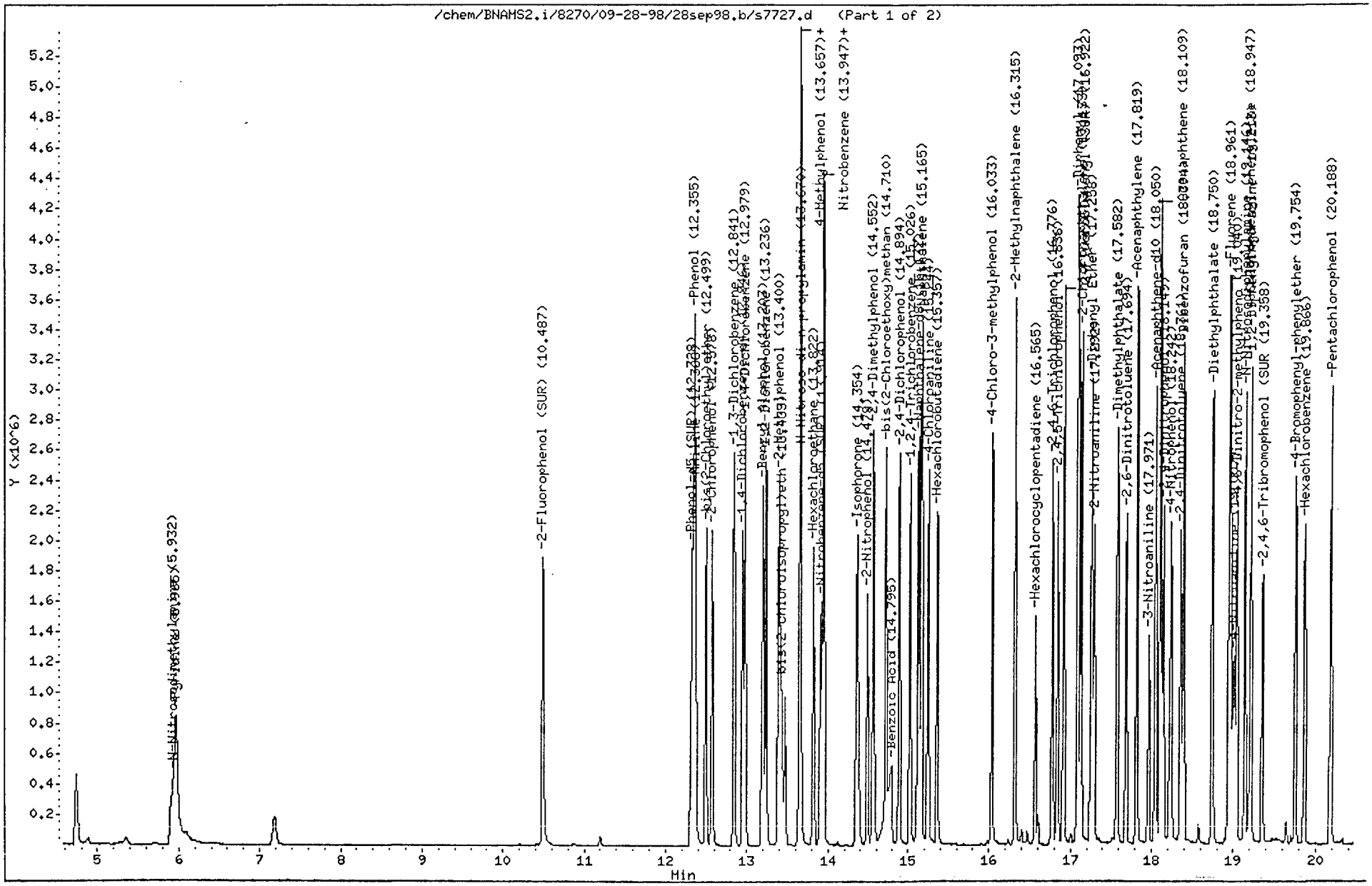
Instrument: BNAMS2.i

Operator: BNAMS3

304955

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Date : 28-SEP-98 12:57:00
Client ID:
Sample Info: SSTD050

Instrument: BNAMS2.i

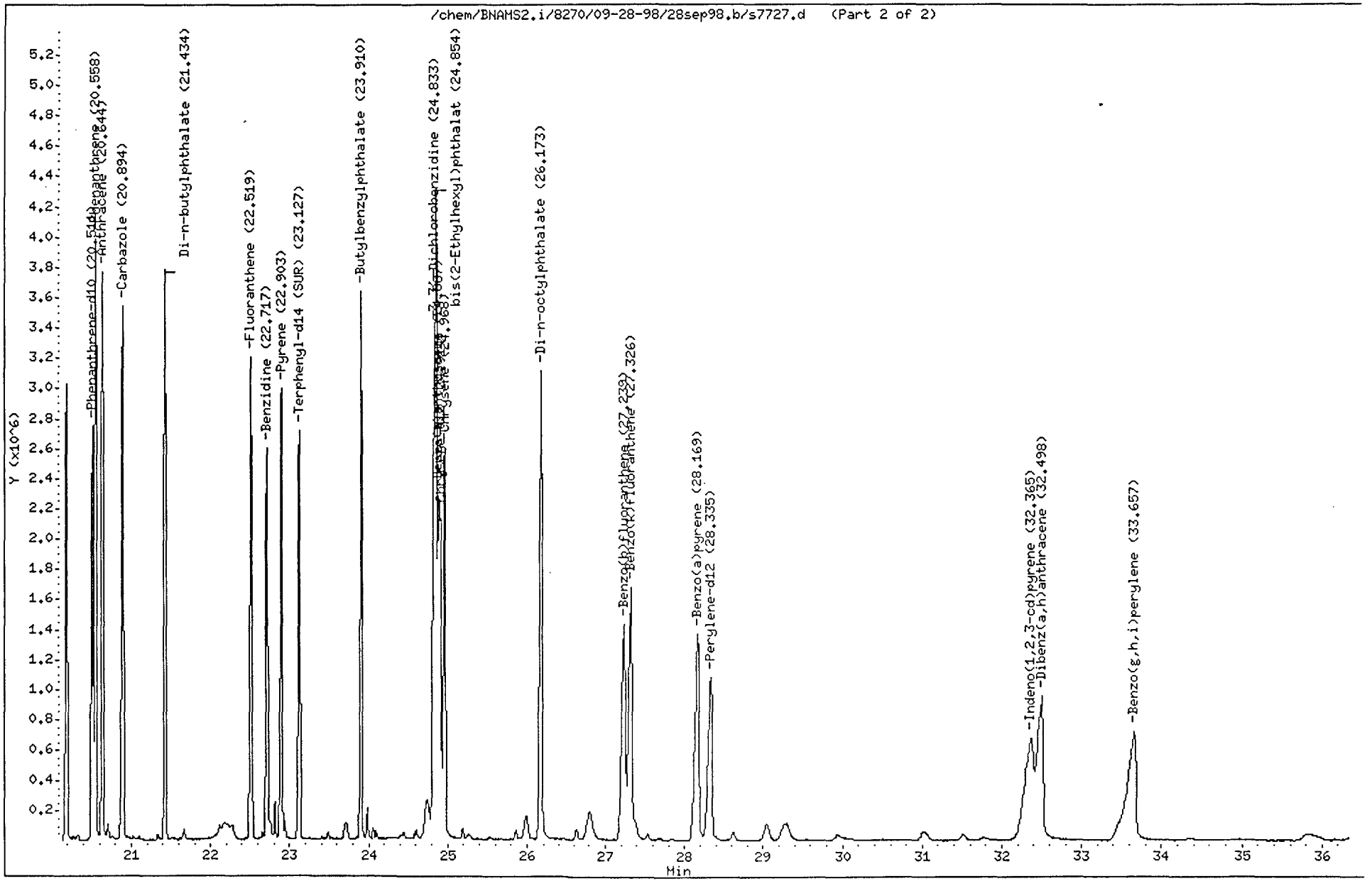
Operator: BNAMS3

304956

Column phase: DB-5

Column diameter: 0.25

297



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Report Date: 28-Sep-98 16:04:07

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Lab Smp Id: SSTD020
Inj Date : 28-SEP-98 15:24:00
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD020
Misc Info : 20 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 16:02:40 ctp Quant Type: ISTD
Cal Date : 28-SEP-98 15:24:00 Cal File: s7730.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.719	4.719	(0.365)	163991	20	21(M)
19 N-Nitrosodimethylamine	74	5.885	5.885	(0.455)	283752	20	20(M)
71 Pyridine	79	5.951	5.951	(0.460)	418759	20	20(M)
$ 16 2-Fluorophenol (SUR)	112	10.485	10.485	(0.810)	401270	20	20
$ 17 Phenol-d5 (SUR)	99	12.306	12.306	(0.951)	552953	20	21
1 Phenol	94	12.333	12.333	(0.953)	615012	20	22
73 Aniline	93	12.352	12.352	(0.954)	678293	20	22
20 bis(2-Chloroethyl)ether	93	12.484	12.484	(0.964)	461855	20	21
2 2-Chlorophenol	128	12.569	12.569	(0.971)	380035	20	21
21 1,3-Dichlorobenzene	146	12.838	12.838	(0.992)	446093	20	22
* 79 1,4-Dichlorobenzene-d4	152	12.943	12.943	(1.000)	542055	40	
22 1,4-Dichlorobenzene	146	12.970	12.970	(1.002)	436090	20	22
74 Benzyl Alcohol	108	13.186	13.186	(1.019)	298251	20	21
23 1,2-Dichlorobenzene	146	13.232	13.232	(1.022)	432566	20	22
3 2-Methylphenol	108	13.384	13.384	(1.034)	394193	20	21

304957

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Report Date: 28-Sep-98 16:04:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.423	13.423	(1.037)	510235	20	21(M)
	4 4-Methylphenol	108	13.640	13.640	(1.054)	372684	20	23
	25 N-Nitroso-di-n-propylamine	70	13.640	13.640	(1.054)	248776	20	22
	104 Acetophenone	105	13.640	13.640	(1.054)	515239	20	23
	26 Hexachloroethane	117	13.817	13.817	(1.068)	170541	20	21
$	76 Nitrobenzene-d5 (SUR)	82	13.896	13.896	(0.919)	391933	20	20
	27 Nitrobenzene	77	13.936	13.936	(0.921)	514849	20	22
	107 N,N-Dimethylaniline	120	13.936	13.936	(1.077)	554083	20	23
	28 Isophorone	82	14.336	14.336	(0.948)	802900	20	20
	5 2-Nitrophenol	139	14.474	14.474	(0.957)	246999	20	21
	6 2,4-Dimethylphenol	122	14.540	14.540	(0.961)	353932	20	21
	15 Benzoic Acid	122	14.711	14.711	(0.973)	238315	20	20(H)
	29 bis(2-Chloroethoxy)methane	93	14.698	14.698	(0.972)	457072	20	21
	7 2,4-Dichlorophenol	162	14.882	14.882	(0.984)	340486	20	21
	30 1,2,4-Trichlorobenzene	180	15.020	15.020	(0.993)	325126	20	21
*	80 Naphthalene-d8	136	15.126	15.126	(1.000)	1834891	40	
	31 Naphthalene	128	15.159	15.159	(1.002)	989441	20	22
	32 4-Chloroaniline	127	15.238	15.238	(1.007)	485677	20	22
	33 Hexachlorobutadiene	225	15.357	15.357	(1.015)	135268	20	22
	8 4-Chloro-3-methylphenol	107	16.026	16.026	(1.060)	341968	20	21
	34 2-Methylnaphthalene	142	16.308	16.308	(1.078)	722054	20	22
	35 Hexachlorocyclopentadiene	237	16.565	16.565	(0.918)	113346	20	20
	9 2,4,6-Trichlorophenol	196	16.768	16.768	(0.929)	207775	20	21
	10 2,4,5-Trichlorophenol	196	16.828	16.828	(0.933)	220971	20	21
$	77 2-Fluorobiphenyl (SUR)	172	16.913	16.913	(0.937)	794210	20	22
	102 Diphenyl	154	17.078	17.078	(0.946)	903819	20	22
	36 2-Chloronaphthalene	162	17.124	17.124	(0.949)	676281	20	22
	103 Diphenyl Ether	170	17.249	17.249	(0.956)	470099	20	22
	37 2-Nitroaniline	65	17.276	17.276	(0.957)	234371	20	23
	38 Dimethylphthalate	163	17.571	17.571	(0.974)	868914	20	22
	40 2,6-Dinitrotoluene	165	17.676	17.676	(0.980)	218316	20	21
	39 Acenaphthylene	152	17.808	17.808	(0.987)	1167282	20	22
	41 3-Nitroaniline	138	17.952	17.952	(0.995)	158570	20	20
*	82 Acenaphthene-d10	164	18.044	18.044	(1.000)	1083554	40	
	42 Acenaphthene	153	18.097	18.097	(1.003)	679636	20	22
	11 2,4-Dinitrophenol	184	18.137	18.137	(1.005)	397089	50	50
	12 4-Nitrophenol	65	18.223	18.223	(1.010)	347129	50	50
	44 2,4-Dinitrotoluene	165	18.342	18.342	(1.016)	305301	20	21
	43 Dibenzofuran	168	18.381	18.381	(1.019)	973320	20	22
	45 Diethylphthalate	149	18.736	18.736	(1.038)	856423	20	22
	46 4-Chlorophenyl-phenylether	204	18.933	18.933	(1.049)	294474	20	23
	47 Fluorene	166	18.953	18.953	(1.050)	750389	20	23
	48 4-Nitroaniline	138	18.973	18.973	(1.051)	239250	20	20
	13 4,6-Dinitro-2-methylphenol	198	19.019	19.019	(0.928)	395682	50	51
	49 N-Nitrosodiphenylamine	169	19.125	19.125	(0.933)	540858	20	21
	75 1,2-Diphenylhydrazine	77	19.197	19.197	(0.936)	839299	20	22
$	18 2,4,6-Tribromophenol (SUR)	330	19.342	19.342	(1.072)	145029	20	21

304958

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Report Date: 28-Sep-98 16:04:07

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
50 4-Bromophenyl-phenylether	248	19.749	19.749	(0.963)	176547	20	22
51 Hexachlorobenzene	284	19.861	19.861	(0.969)	215508	20	22
14 Pentachlorophenol	266	20.176	20.176	(0.984)	363887	50	52
* 83 Phenanthrene-d10	188	20.504	20.504	(1.000)	1737785	40	
52 Phenanthrene	178	20.544	20.544	(1.002)	1046691	20	22
53 Anthracene	178	20.630	20.630	(1.006)	1126207	20	23
54 Carbazole	167	20.879	20.879	(1.018)	1110300	20	22
55 Di-n-butylphthalate	149	21.424	21.424	(1.045)	1486668	20	23
56 Fluoranthene	202	22.503	22.503	(1.097)	943616	20	23
58 Benzidine	184	22.713	22.713	(1.108)	1689174	50	64
57 Pyrene	202	22.884	22.884	(0.919)	958335	20	22
$ 78 Terphenyl-d14 (SUR)	244	23.115	23.115	(0.928)	645029	20	22
59 Butylbenzylphthalate	149	23.902	23.902	(0.960)	687942	20	22
60 3,3'-Dichlorobenzidine	252	24.809	24.809	(0.996)	866194	50	54
61 Benzo(a)anthracene	228	24.870	24.870	(0.999)	750380	20	21
63 bis(2-Ethylhexyl)phthalate	149	24.843	24.843	(0.998)	898362	20	23
* 81 Chrysene-d12	240	24.896	24.896	(1.000)	1105391	40	
62 Chrysene	228	24.943	24.943	(1.002)	704873	20	21
64 Di-n-octylphthalate	149	26.155	26.155	(0.923)	1601093	20	22
65 Benzo(b)fluoranthene	252	27.209	27.209	(0.961)	833254	20	21
66 Benzo(k)fluoranthene	252	27.282	27.282	(0.963)	855439	20	21
67 Benzo(a)pyrene	252	28.131	28.131	(0.993)	805638	20	21
* 84 Perylene-d12	264	28.323	28.323	(1.000)	1210000	40	
68 Indeno(1,2,3-cd)pyrene	276	32.291	32.291	(1.140)	780341	20	20
69 Dibenz(a,h)anthracene	278	32.410	32.410	(1.144)	755897	20	20
70 Benzo(g,h,i)perylene	276	33.553	33.553	(1.185)	826253	20	20(H)

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304959

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Date : 28-SEP-98 15:24:00
Client ID:
Sample Info: SSTD020

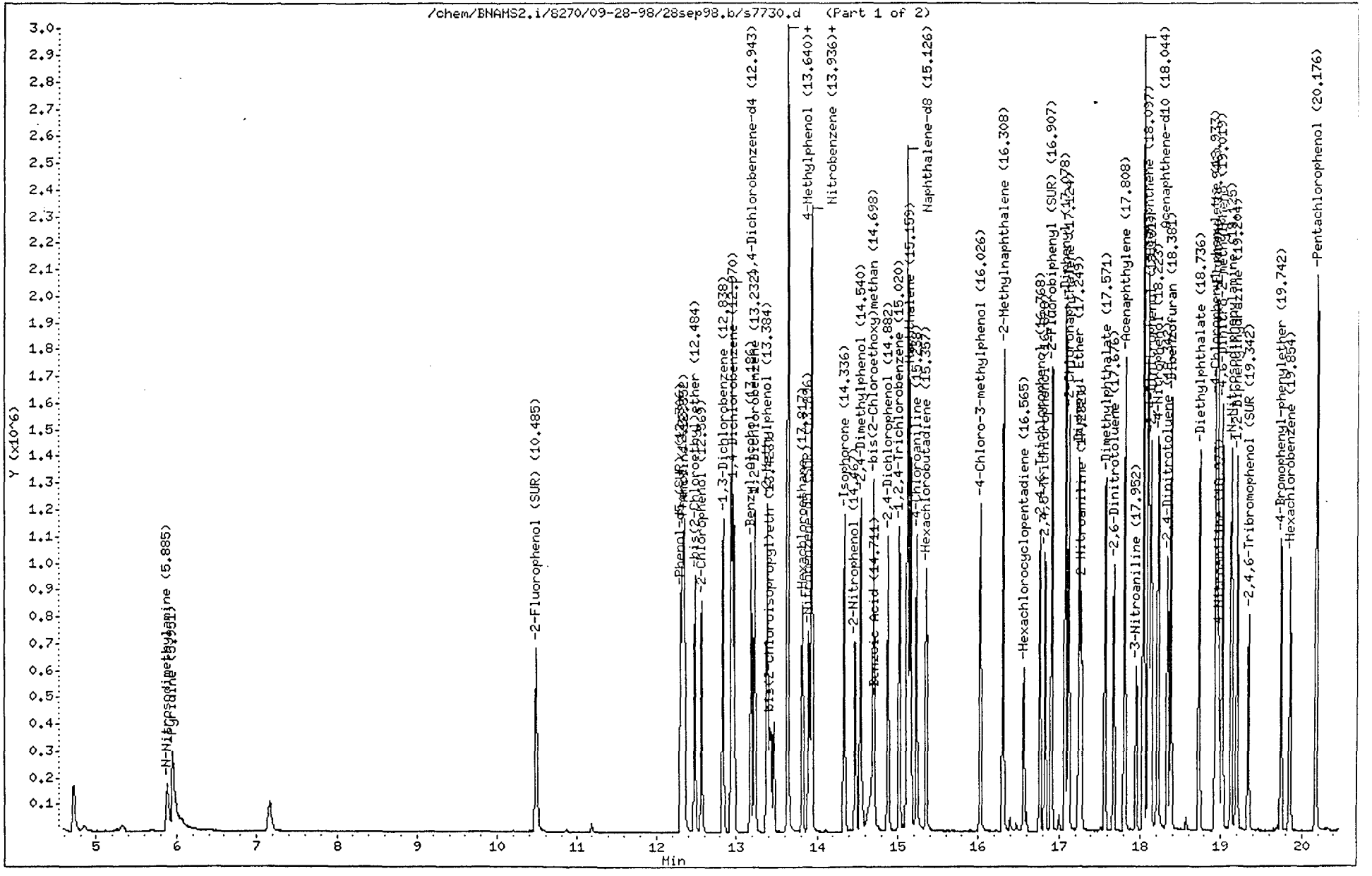
Instrument: BNAMS2.i

Operator: BNAMS3

304960

Column phase: DB-5

Column diameter: 0.25



301

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Date : 28-SEP-98 15:24:00
Client ID:
Sample Info: SSTD020

Instrument: BNAMS2.i

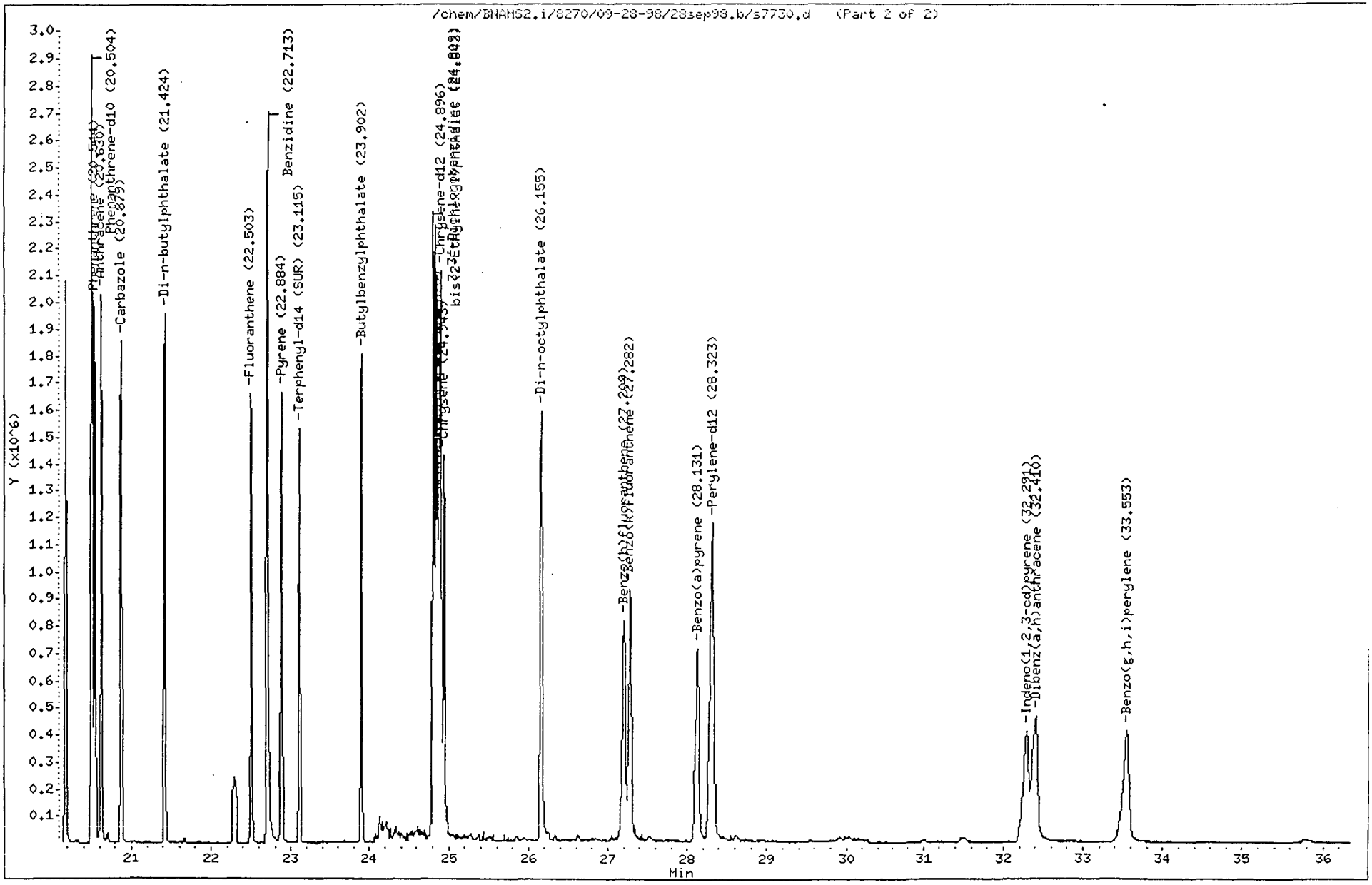
Operator: BNAMS3

304961

302

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Report Date: 28-Sep-98 17:27:08

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Lab Smp Id: SSTD005
Inj Date : 28-SEP-98 16:53:00
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD005
Misc Info : 5 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 17:23:40 lisa Quant Type: ISTD
Cal Date : 28-SEP-98 16:53:00 Cal File: s7732.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.712	4.712	(0.364)	42975	5.0	5.5(M)
19 N-Nitrosodimethylamine	74	5.892	5.892	(0.455)	63819	5.0	4.6(aM)
71 Pyridine	79	5.990	5.990	(0.463)	93006	5.0	4.5(aM)
$ 16 2-Fluorophenol (SUR)	112	10.480	10.480	(0.810)	96037	5.0	5.0(a)
$ 17 Phenol-d5 (SUR)	99	12.301	12.301	(0.951)	137051	5.0	5.2
1 Phenol	94	12.327	12.327	(0.953)	158080	5.0	5.8
73 Aniline	93	12.347	12.347	(0.954)	174843	5.0	6.0
20 bis(2-Chloroethyl)ether	93	12.478	12.478	(0.965)	13246	0.50	0.59
2 2-Chlorophenol	128	12.563	12.563	(0.971)	93090	5.0	5.2
21 1,3-Dichlorobenzene	146	12.832	12.832	(0.992)	119948	5.0	5.8
* 79 1,4-Dichlorobenzene-d4	152	12.937	12.937	(1.000)	538930	40	
22 1,4-Dichlorobenzene	146	12.970	12.970	(1.003)	111367	5.0	5.6
74 Benzyl Alcohol	108	13.180	13.180	(1.019)	75128	5.0	5.3
23 1,2-Dichlorobenzene	146	13.233	13.233	(1.023)	103546	5.0	5.4
3 2-Methylphenol	108	13.377	13.377	(1.034)	97594	5.0	5.4

304962

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Report Date: 28-Sep-98 17:27:08

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.410	13.410	(1.037)	144749	5.0	5.8(M)
	4 4-Methylphenol	108	13.633	13.633	(1.054)	99472	5.0	6.1
	25 N-Nitroso-di-n-propylamine	70	13.633	13.633	(1.054)	6634	0.50	0.58
	104 Acetophenone	105	13.633	13.633	(1.054)	147765	5.0	6.3
	26 Hexachloroethane	117	13.816	13.816	(1.068)	4371	0.50	0.55
$	76 Nitrobenzene-d5 (SUR)	82	13.889	13.889	(0.918)	97529	5.0	5.1
	27 Nitrobenzene	77	13.928	13.928	(0.921)	15122	0.50	0.62
	107 N,N-Dimethylaniline	120	13.928	13.928	(1.077)	15217	0.50	0.61
	23 Isophorone	82	14.328	14.328	(0.947)	210676	5.0	5.2
	5 2-Nitrophenol	139	14.465	14.465	(0.957)	58950	5.0	5.0
	6 2,4-Dimethylphenol	122	14.531	14.531	(0.961)	90818	5.0	5.3
	15 Benzoic Acid	122	14.636	14.636	(0.968)	40351	5.0	3.5(aH)
	29 bis(2-Chloroethoxy)methane	93	14.695	14.695	(0.972)	148743	5.0	6.5
	7 2,4-Dichlorophenol	162	14.879	14.879	(0.984)	85435	5.0	5.3
	30 1,2,4-Trichlorobenzene	180	15.017	15.017	(0.993)	10480	0.50	0.64
*	80 Naphthalene-d8	136	15.122	15.122	(1.000)	1872464	40	
	31 Naphthalene	128	15.155	15.155	(1.002)	284167	5.0	6.1
	32 4-Chloroaniline	127	15.234	15.234	(1.007)	133413	5.0	5.8
	33 Hexachlorobutadiene	225	15.352	15.352	(1.015)	6849	1.0	1.1
	8 4-Chloro-3-methylphenol	107	16.027	16.027	(1.060)	89759	5.0	5.5
	34 2-Methylnaphthalene	142	16.308	16.308	(1.078)	202162	5.0	6.1
	35 Hexachlorocyclopentadiene	237	16.564	16.564	(0.918)	33807	5.0	5.6
	9 2,4,6-Trichlorophenol	196	16.768	16.768	(0.929)	53008	5.0	5.3
	10 2,4,5-Trichlorophenol	196	16.827	16.827	(0.933)	57381	5.0	5.4
$	77 2-Fluorobiphenyl (SUR)	172	16.906	16.906	(0.937)	216467	5.0	5.9
	102 Diphenyl	154	17.076	17.076	(0.947)	247704	5.0	6.0
	36 2-Chloronaphthalene	162	17.116	17.116	(0.949)	189776	5.0	5.9
	103 Diphenyl Ether	170	17.247	17.247	(0.956)	138296	5.0	6.1
	37 2-Nitroaniline	65	17.274	17.274	(0.957)	115201	10	11
	38 Dimethylphthalate	163	17.562	17.562	(0.973)	233979	5.0	5.7
	40 2,6-Dinitrotoluene	165	17.667	17.667	(0.979)	10276	1.0	0.98(a)
	39 Acenaphthylene	152	17.805	17.805	(0.987)	303950	5.0	5.7
	41 3-Nitroaniline	138	17.949	17.949	(0.995)	124222	10	14
*	82 Acenaphthene-d10	164	18.041	18.041	(1.000)	1115567	40	
	42 Acenaphthene	153	18.094	18.094	(1.003)	186875	5.0	6.0
	11 2,4-Dinitrophenol	184	18.120	18.120	(1.004)	124629	20	16(a)
	12 4-Nitrophenol	65	18.213	18.213	(1.010)	142074	20	20(a)
	44 2,4-Dinitrotoluene	165	18.331	18.331	(1.016)	16765	1.0	1.1
	43 Dibenzofuran	168	18.377	18.377	(1.019)	280377	5.0	6.1
	45 Diethylphthalate	149	18.724	18.724	(1.038)	277711	5.0	6.6
	46 4-Chlorophenyl-phenylether	204	18.934	18.934	(1.050)	83306	5.0	6.3
	47 Fluorene	166	18.941	18.941	(1.050)	223675	5.0	6.5
	48 4-Nitroaniline	138	18.954	18.954	(1.051)	128057	10	11
	13 4,6-Dinitro-2-methylphenol	198	19.007	19.007	(0.927)	153454	20	20(a)
	49 N-Nitrosodiphenylamine	169	19.119	19.119	(0.932)	165451	5.0	6.3
	75 1,2-Diphenylhydrazine	77	19.191	19.191	(0.936)	253873	5.0	6.4
$	18 2,4,6-Tribromophenol (SUR)	330	19.342	19.342	(1.072)	37098	5.0	5.3

304963

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Report Date: 28-Sep-98 17:27:08

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	50 4-Bromophenyl-phenylether	248	19.742	19.742	(0.963)	51277	5.0	6.2
	51 Hexachlorobenzene	284	19.853	19.853	(0.968)	6266	0.50	0.61
	14 Pentachlorophenol	266	20.175	20.175	(0.984)	143469	20	20
*	83 Phenanthrene-d10	188	20.503	20.503	(1.000)	1753858	40	
	52 Phenanthrene	178	20.543	20.543	(1.002)	303965	5.0	6.3
	53 Anthracene	178	20.621	20.621	(1.006)	294887	5.0	6.0
	54 Carbazole	167	20.871	20.871	(1.018)	316302	5.0	6.2
	55 Di-n-butylphthalate	149	21.421	21.421	(1.045)	438478	5.0	6.5
	56 Fluoranthene	202	22.502	22.502	(1.098)	275692	5.0	6.4
	58 Benzidine	184	22.706	22.706	(1.107)	766091	20	27
	57 Pyrene	202	22.877	22.877	(0.919)	265103	5.0	5.7
$	78 Terphenyl-d14 (SUR)	244	23.106	23.106	(0.928)	177168	5.0	5.8
	59 Butylbenzylphthalate	149	23.893	23.893	(0.960)	203240	5.0	6.0
	60 3,3'-Dichlorobenzidine	252	24.791	24.791	(0.996)	182412	10	11
	61 Benzo(a)anthracene	228	24.864	24.864	(0.999)	23451	0.50	0.61
	63 bis(2-Ethylhexyl)phthalate	149	24.837	24.837	(0.998)	230595	5.0	5.8
*	81 Chrysene-d12	240	24.897	24.897	(1.000)	1173559	40	
	62 Chrysene	228	24.931	24.931	(1.001)	193342	5.0	5.5
	64 Di-n-octylphthalate	149	26.150	26.150	(0.924)	427710	5.0	5.4
	65 Benzo(b)fluoranthene	252	27.179	27.179	(0.960)	24937	0.50	0.55
	66 Benzo(k)fluoranthene	252	27.252	27.252	(0.963)	25496	0.50	0.58
	67 Benzo(a)pyrene	252	28.104	28.104	(0.993)	22247	0.50	0.52
*	84 Perylene-d12	264	28.308	28.308	(1.000)	1311014	40	
	68 Indeno(1,2,3-cd)pyrene	276	32.235	32.235	(1.139)	20368	0.50	0.48(a)
	69 Dibenz(a,h)anthracene	278	32.334	32.334	(1.142)	20234	0.50	0.50
	70 Benzo(g,h,i)perylene	276	33.481	33.481	(1.183)	216670	5.0	5.1

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304964

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Date : 28-SEP-98 16:53:00
Client ID:
Sample Info: SSTD005

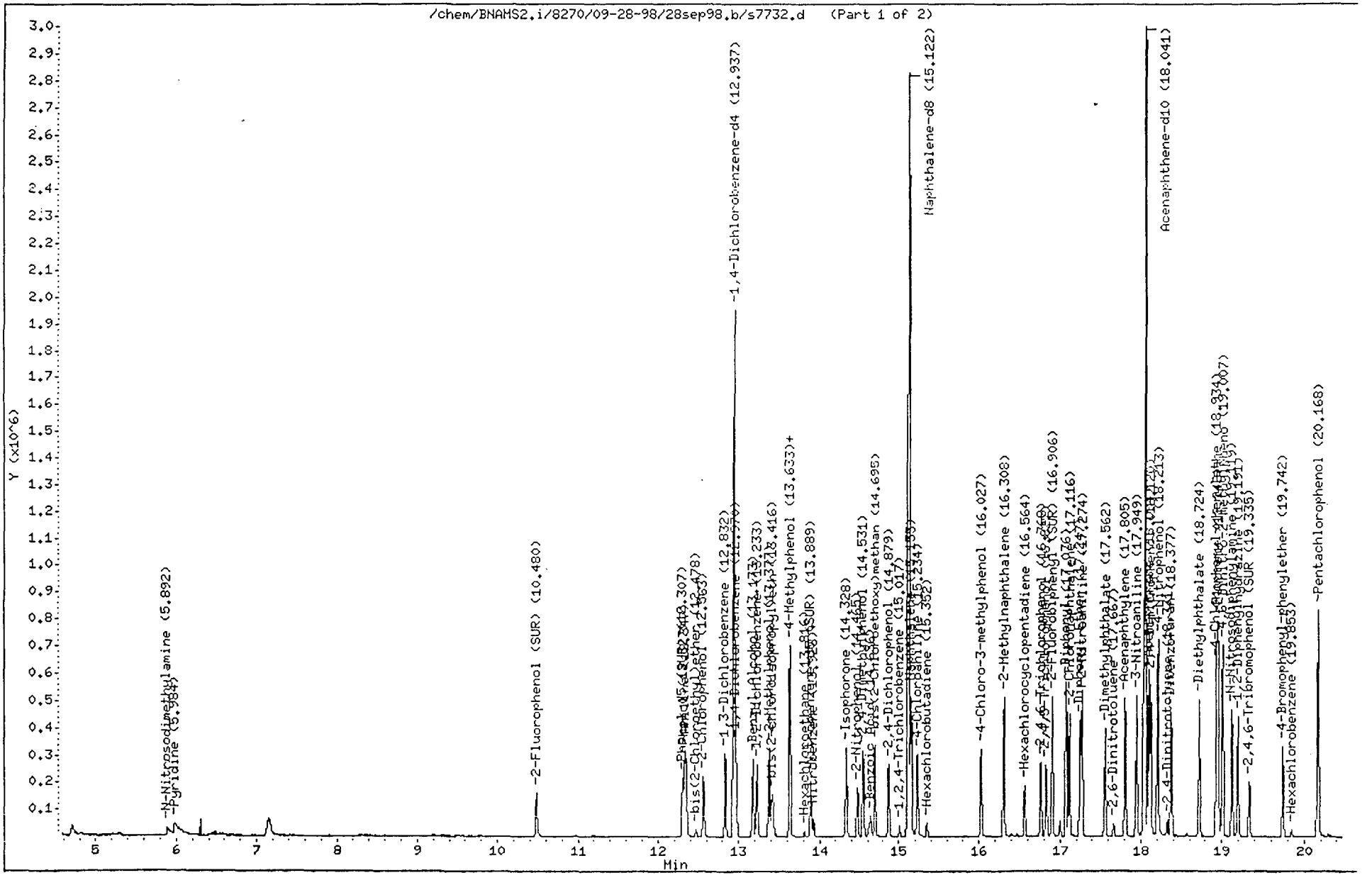
Instrument: BNAMS2.i

Operator: BNAMS3

304965

Column phase: DB-5

Column diameter: 0.25



306

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Date : 28-SEP-98 16:53:00
Client ID:
Sample Info: SSTD005

Instrument: BNAMS2.i

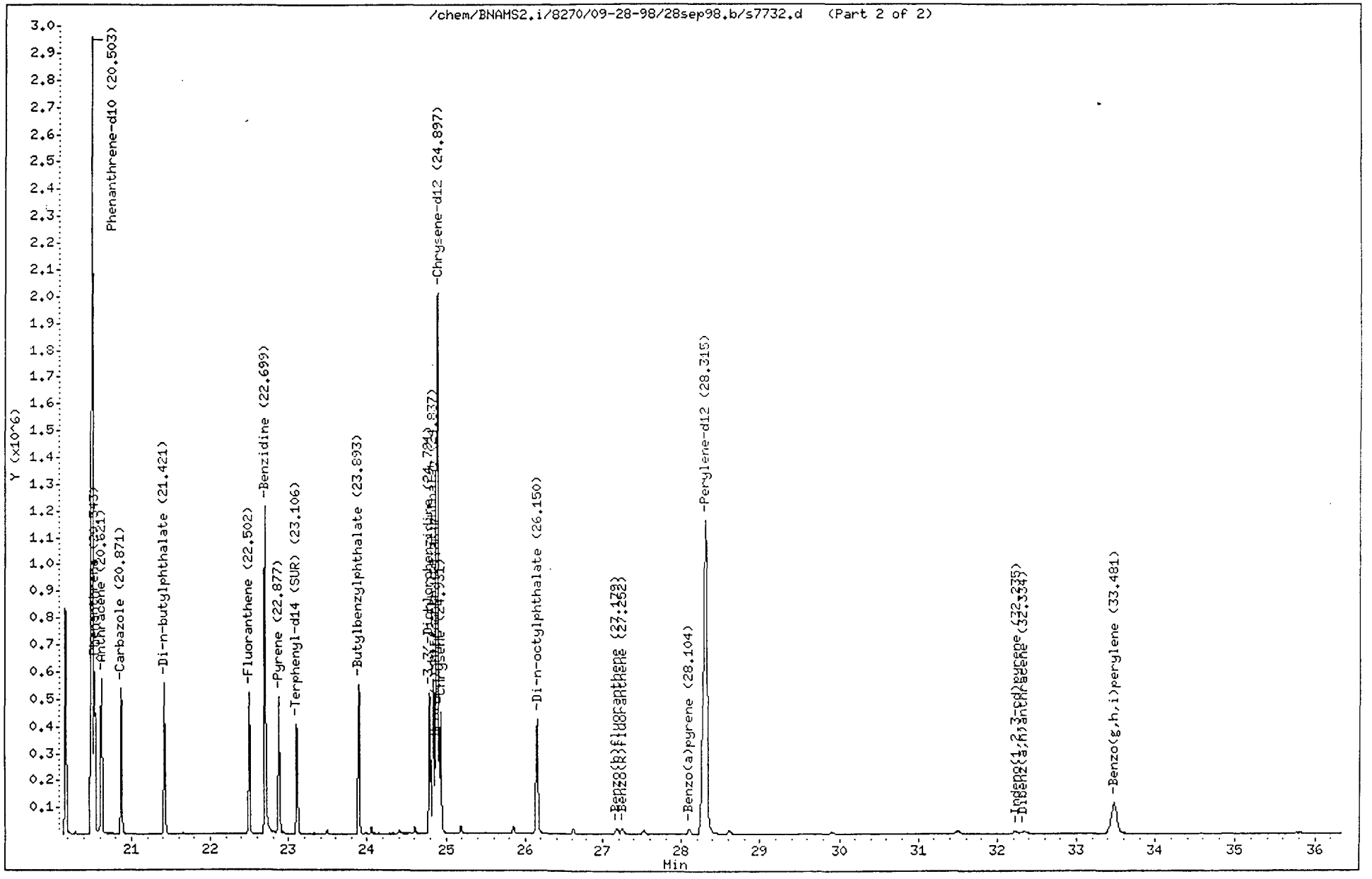
Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

304966

307



SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/16/98 Time: 0949

Lab File ID: S8212 Init. Calib. Date(s): 09/28/98 09/28/98

Init. Calib. Times: 1257 1653

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	2.024	1.990		1.7	20.0
2-Chlorophenol	1.325	1.258		5.0	20.0
2-Methylphenol	1.351	1.295		4.1	20.0
4-Methylphenol	1.203	1.170		2.7	20.0
2-Nitrophenol	0.250	0.258		-3.2	20.0
2,4-Dimethylphenol	0.363	0.338		6.9	20.0
2,4-Dichlorophenol	0.344	0.356		-3.3	20.0
4-Chloro-3-methylphenol	0.348	0.352		-1.1	20.0
2,4,6-Trichlorophenol	0.360	0.340		5.6	20.0
2,4,5-Trichlorophenol	0.379	0.356		6.1	20.0
2,4-Dinitrophenol	0.279	0.286	0.05	-2.5	20.0
4-Nitrophenol	0.253	0.229	0.05	9.5	20.0
4,6-Dinitro-2-methylphenol	0.176	0.173		1.7	20.0
Pentachlorophenol	0.160	0.147		8.1	20.0
Benzoic Acid	0.245	0.225		8.2	20.0
N-Nitrosodimethylamine	1.024	1.049		-2.4	20.0
bis(2-Chloroethyl)ether	1.668	1.604		3.8	20.0
1,3-Dichlorobenzene	1.537	1.488		3.2	20.0
1,4-Dichlorobenzene	1.471	1.444		1.8	20.0
1,2-Dichlorobenzene	1.424	1.406		1.3	20.0
bis(2-chloroisopropyl)ether	1.837	1.638		10.8	20.0
N-Nitroso-di-n-propylamine	0.852	0.798	0.05	6.3	20.0
Hexachloroethane	0.589	0.582		1.2	20.0
Nitrobenzene	0.523	0.496		5.2	20.0
Isophorone	0.863	0.870		0.1	20.0
bis(2-Chloroethoxy)methane	0.491	0.463		5.7	20.0
1,2,4-Trichlorobenzene	0.348	0.328		5.7	20.0
Naphthalene	1.001	0.928		7.3	20.0
4-Chloroaniline	0.491	0.468		4.7	20.0
Hexachlorobutadiene	0.133	0.133		0.0	20.0
2-Methylnaphthalene	0.712	0.680		4.5	20.0
Hexachlorocyclopentadiene	0.218	0.146	0.05	33.0	20.0
2-Chloronaphthalene	1.154	1.122		2.8	20.0
2-Nitroaniline	0.377	0.347		8.0	20.0
Dimethylphthalate	1.479	1.437		2.8	20.0
Acenaphthylene	1.909	1.853		2.9	20.0
2,6-Dinitrotoluene	0.376	0.378		-0.0	20.0

304967

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/16/98 Time: 0949

Lab File ID: S8212 Init. Calib. Date(s): 09/28/98 09/28/98

Init. Calib. Times: 1257 1653

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.316	0.285		9.8	20.0
Acenaphthene	1.122	1.106		1.4	20.0
Dibenzofuran	1.635	1.530		6.4	20.0
2,4-Dinitrotoluene	0.537	0.503		6.3	20.0
Diethylphthalate	1.518	1.417		6.6	20.0
4-Chlorophenyl-phenylether	0.475	0.410		13.7	20.0
Fluorene	1.227	1.130		7.9	20.0
4-Nitroaniline	0.428	0.409		4.4	20.0
N-Nitrosodiphenylamine	0.599	0.570		4.8	20.0
4-Bromophenyl-phenylether	0.189	0.184		2.6	20.0
Hexachlorobenzene	0.233	0.227		2.6	20.0
Phenanthrene	1.098	1.066		2.9	20.0
Anthracene	1.119	1.135		-1.4	20.0
Carbazole	1.163	1.188		-2.1	20.0
Di-n-butylphthalate	1.530	1.535		-0.0	20.0
Fluoranthene	0.976	0.973		0.3	20.0
Pyrene	1.588	1.543		2.8	20.0
Benzidine	0.647	0.631		2.5	20.0
Butylbenzylphthalate	1.164	1.105		5.1	20.0
3,3'-Dichlorobenzidine	0.562	0.546		2.8	20.0
Benzo(a)anthracene	1.306	1.085		16.9	20.0
Chrysene	1.202	1.141		5.1	20.0
bis(2-Ethylhexyl)phthalate	1.348	1.232		8.6	20.0
Di-n-octylphthalate	2.434	2.294		5.8	20.0
Benzo(b)fluoranthene	1.386	1.342		3.2	20.0
Benzo(k)fluoranthene	1.331	1.321		0.8	20.0
Benzo(a)pyrene	1.294	1.270		1.8	20.0
Indeno(1,2,3-cd)pyrene	1.286	1.369		-6.4	20.0
Dibenz(a,h)anthracene	1.227	1.254		-2.2	20.0
Benzo(g,h,i)perylene	1.304	1.324		-1.5	20.0
Pyridine	1.536	1.509		1.8	20.0
Aniline	2.176	2.123		2.4	20.0
Benzyl Alcohol	1.046	1.025		2.0	20.0
1,2-Diphenylhydrazine	0.901	0.845		6.2	20.0
Diphenyl	1.471	1.426		3.0	20.0
Diphenyl Ether	0.809	0.788		2.6	20.0
Acetophenone	1.736	1.750	0.01	0.1	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/16/98 Time: 0949

Lab File ID: S8212 Init. Calib. Date(s): 09/28/98 09/28/98

Init. Calib. Times: 1257 1653

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,4-Dioxane	0.583	0.608	0.01	-4.1	20.0
N,N-Dimethylaniline	1.840	1.707	0.01	7.2	20.0
2-Fluorophenol (SUR)	1.430	1.359		5.0	20.0
Phenol-d5 (SUR)	1.938	1.849		4.6	20.0
2,4,6-Tribromophenol (SUR)	0.249	0.255		-2.4	20.0
Nitrobenzene-d5 (SUR)	0.410	0.414		0.1	20.0
2-Fluorobiphenyl (SUR)	1.312	1.248		4.9	20.0
Terphenyl-d14 (SUR)	1.041	1.038		0.3	20.0

304969

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Report Date: 16-Oct-98 10:17:58

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Lab Smp Id: SSTD289
Inj Date : 16-OCT-98 09:49:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD289
Misc Info : 50 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 10:14:54 Quant Type: ISTD
Cal Date : 28-SEP-98 16:53:00 Cal File: s7732.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.287	4.287	(0.339)	509885	50	52
19 N-Nitrosodimethylamine	74	5.363	5.363	(0.424)	879320	50	51
71 Pyridine	79	5.389	5.389	(0.426)	1265150	50	49
$ 16 2-Fluorophenol (SUR)	112	10.174	10.174	(0.804)	1139088	50	48
$ 17 Phenol-d5 (SUR)	99	12.062	12.062	(0.953)	1549925	50	48
1 Phenol	94	12.095	12.095	(0.955)	1667817	50	49
73 Aniline	93	12.076	12.076	(0.954)	1779263	50	49
20 bis(2-Chloroethyl)ether	93	12.221	12.221	(0.965)	1344509	50	48
2 2-Chlorophenol	128	12.286	12.286	(0.970)	1054779	50	48
21 1,3-Dichlorobenzene	146	12.556	12.556	(0.992)	1246781	50	48
* 79 1,4-Dichlorobenzene-d4	152	12.661	12.661	(1.000)	670526	40	
22 1,4-Dichlorobenzene	146	12.688	12.688	(1.002)	1210511	50	49
74 Benzyl Alcohol	108	12.931	12.931	(1.021)	859465	50	49
23 1,2-Dichlorobenzene	146	12.951	12.951	(1.023)	1178604	50	49
3 2-Methylphenol	108	13.135	13.135	(1.037)	1085251	50	48

304970

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Report Date: 16-Oct-98 10:17:58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.155	13.155	(1.039)	1372632	50	44(M)
	4 4-Methylphenol	108	13.399	13.399	(1.058)	980630	50	49
	25 N-Nitroso-di-n-propylamine	70	13.405	13.405	(1.059)	669319	50	47
	104 Acetophenone	105	13.385	13.385	(1.057)	1467162	50	50
	26 Hexachloroethane	117	13.530	13.530	(1.069)	487687	50	49
$	76 Nitrobenzene-d5 (SUR)	82	13.636	13.636	(0.918)	1185492	50	50
	27 Nitrobenzene	77	13.675	13.675	(0.921)	1420604	50	47
	107 N,N-Dimethylaniline	120	13.675	13.675	(1.080)	1430507	50	46
	28 Isophorone	82	14.089	14.089	(0.949)	2491273	50	50
	5 2-Nitrophenol	139	14.208	14.208	(0.957)	738334	50	51
	6 2,4-Dimethylphenol	122	14.294	14.294	(0.963)	968845	50	47
	15 Benzoic Acid	122	14.564	14.564	(0.981)	644731	50	46
	29 bis(2-Chloroethoxy)methane	93	14.446	14.446	(0.973)	1325969	50	47
	7 2,4-Dichlorophenol	162	14.624	14.624	(0.985)	1020350	50	52
	30 1,2,4-Trichlorobenzene	180	14.749	14.749	(0.993)	938652	50	47
*	80 Naphthalene-d8	136	14.849	14.849	(1.000)	2290711	40	
	31 Naphthalene	128	14.888	14.888	(1.003)	2658672	50	46
	32 4-Chloroaniline	127	14.974	14.974	(1.008)	1339489	50	48
	33 Hexachlorobutadiene	225	15.080	15.080	(1.016)	380361	50	50
	8 4-Chloro-3-methylphenol	107	15.770	15.770	(1.062)	1008825	50	50
	34 2-Methylnaphthalene	142	16.033	16.033	(1.080)	1946254	50	48
	35 Hexachlorocyclopentadiene	237	16.284	16.284	(0.917)	252396	50	34
	9 2,4,6-Trichlorophenol	196	16.502	16.502	(0.929)	587470	50	47
	10 2,4,5-Trichlorophenol	196	16.568	16.568	(0.933)	615960	50	47
$	77 2-Fluorobiphenyl (SUR)	172	16.641	16.641	(0.937)	2156729	50	48
	102 Diphenyl	154	16.813	16.813	(0.946)	2464846	50	48
	36 2-Chloronaphthalene	162	16.846	16.846	(0.948)	1939713	50	49
	103 Diphenyl Ether	170	16.978	16.978	(0.956)	1362298	50	49
	37 2-Nitroaniline	65	17.018	17.018	(0.958)	599992	50	46
	38 Dimethylphthalate	163	17.308	17.308	(0.974)	2483500	50	48
	40 2,6-Dinitrotoluene	165	17.421	17.421	(0.981)	653460	50	50
	39 Acenaphthylene	152	17.533	17.533	(0.987)	3203454	50	48
	41 3-Nitroaniline	138	17.698	17.698	(0.996)	492096	50	45
*	82 Acenaphthene-d10	164	17.764	17.764	(1.000)	1382697	40	
	42 Acenaphthene	153	17.824	17.824	(1.003)	1911884	50	49
	11 2,4-Dinitrophenol	184	17.884	17.884	(1.007)	792285	80	82
	12 4-Nitrophenol	65	17.990	17.990	(1.013)	633221	80	72
	44 2,4-Dinitrotoluene	165	18.089	18.089	(1.018)	870121	50	47
	43 Dibenzofuran	168	18.109	18.109	(1.019)	2644272	50	47
	45 Diethylphthalate	149	18.479	18.479	(1.040)	2449637	50	47
	46 4-Chlorophenyl-phenylether	204	18.657	18.657	(1.050)	708666	50	43
	47 Fluorene	166	18.677	18.677	(1.051)	1953155	50	46
	48 4-Nitroaniline	138	18.744	18.744	(1.055)	707675	50	48
	13 4,6-Dinitro-2-methylphenol	198	18.777	18.777	(0.929)	746831	80	78
	49 N-Nitrosodiphenylamine	169	18.863	18.863	(0.933)	1541025	50	48
	75 1,2-Diphenylhydrazine	77	18.929	18.929	(0.936)	2284596	50	47
$	18 2,4,6-Tribromophenol (SUR)	330	19.068	19.068	(1.073)	441494	50	51

304971

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Report Date: 16-Oct-98 10:17:58

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
50 4-Bromophenyl-phenylether	248	19.471	19.471	(0.963)	498399	50	49
51 Hexachlorobenzene	284	19.577	19.577	(0.968)	614036	50	49
14 Pentachlorophenol	266	19.907	19.907	(0.985)	636875	80	74
* 83 Phenanthrene-d10	188	20.218	20.218	(1.000)	2162417	40	
52 Phenanthrene	178	20.265	20.265	(1.002)	2882249	50	48
53 Anthracene	178	20.351	20.351	(1.007)	3067528	50	51
54 Carbazole	167	20.609	20.609	(1.019)	3211845	50	51
55 Di-n-butylphthalate	149	21.155	21.155	(1.046)	4149574	50	50
56 Fluoranthene	202	22.222	22.222	(1.099)	2629239	50	50
58 Benzidine	184	22.434	22.434	(1.110)	2729449	80	78
57 Pyrene	202	22.607	22.607	(0.919)	2564285	50	48
$ 78 Terphenyl-d14 (SUR)	244	22.838	22.838	(0.929)	1724246	50	50
59 Butylbenzylphthalate	149	23.623	23.623	(0.960)	1835639	50	47
60 3,3'-Dichlorobenzidine	252	24.528	24.528	(0.997)	1453187	80	78
61 Benzo(a)anthracene	228	24.569	24.569	(0.999)	1803103	50	42
63 bis(2-Ethylhexyl)phthalate	149	24.548	24.548	(0.998)	2047276	50	46
* 81 Chrysene-d12	240	24.596	24.596	(1.000)	1329363	40	
62 Chrysene	228	24.643	24.643	(1.002)	1895975	50	47
64 Di-n-octylphthalate	149	25.778	25.778	(0.929)	4291496	50	47
65 Benzo(b)fluoranthene	252	26.747	26.747	(0.964)	2511669	50	48
66 Benzo(k)fluoranthene	252	26.834	26.834	(0.967)	2471256	50	50
67 Benzo(a)pyrene	252	27.612	27.612	(0.995)	2375676	50	49
* 84 Perylene-d12	264	27.758	27.758	(1.000)	1496801	40	
68 Indeno(1,2,3-cd)pyrene	276	31.443	31.443	(1.133)	2561495	50	53
69 Dibenz(a,h)anthracene	278	31.583	31.583	(1.138)	2346900	50	51
70 Benzo(g,h,i)perylene	276	32.650	32.650	(1.176)	2477065	50	51(M)

QC Flag Legend

M - Compound response manually integrated.

304972

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Date : 16-OCT-98 09:49:00
Client ID:
Sample Info: SSTD289

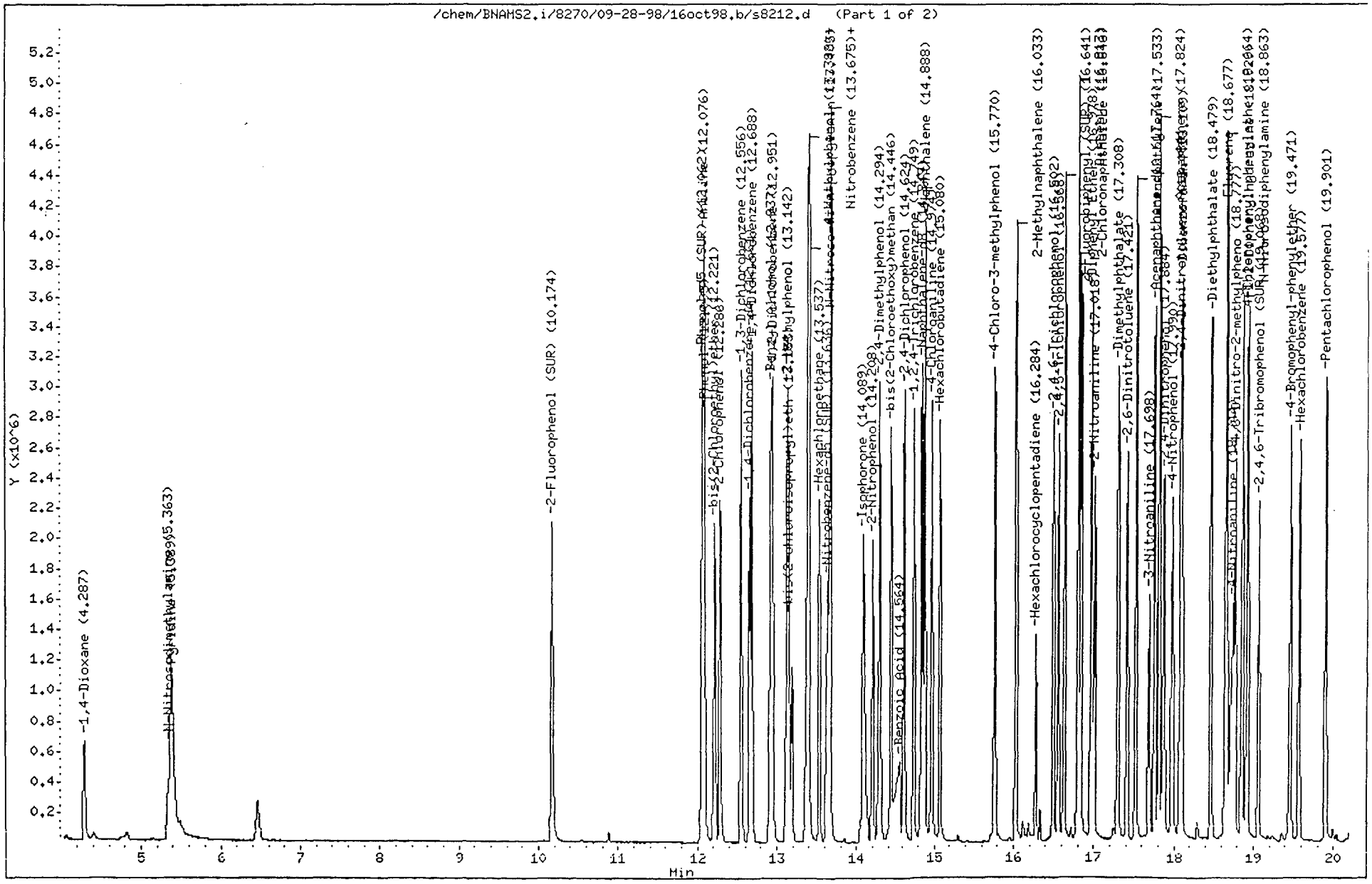
Instrument: BNAMS2.i

Operator: BNAMS 2

304973

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Date : 16-OCT-98 09:49:00
Client ID:
Sample Info: SSTD289

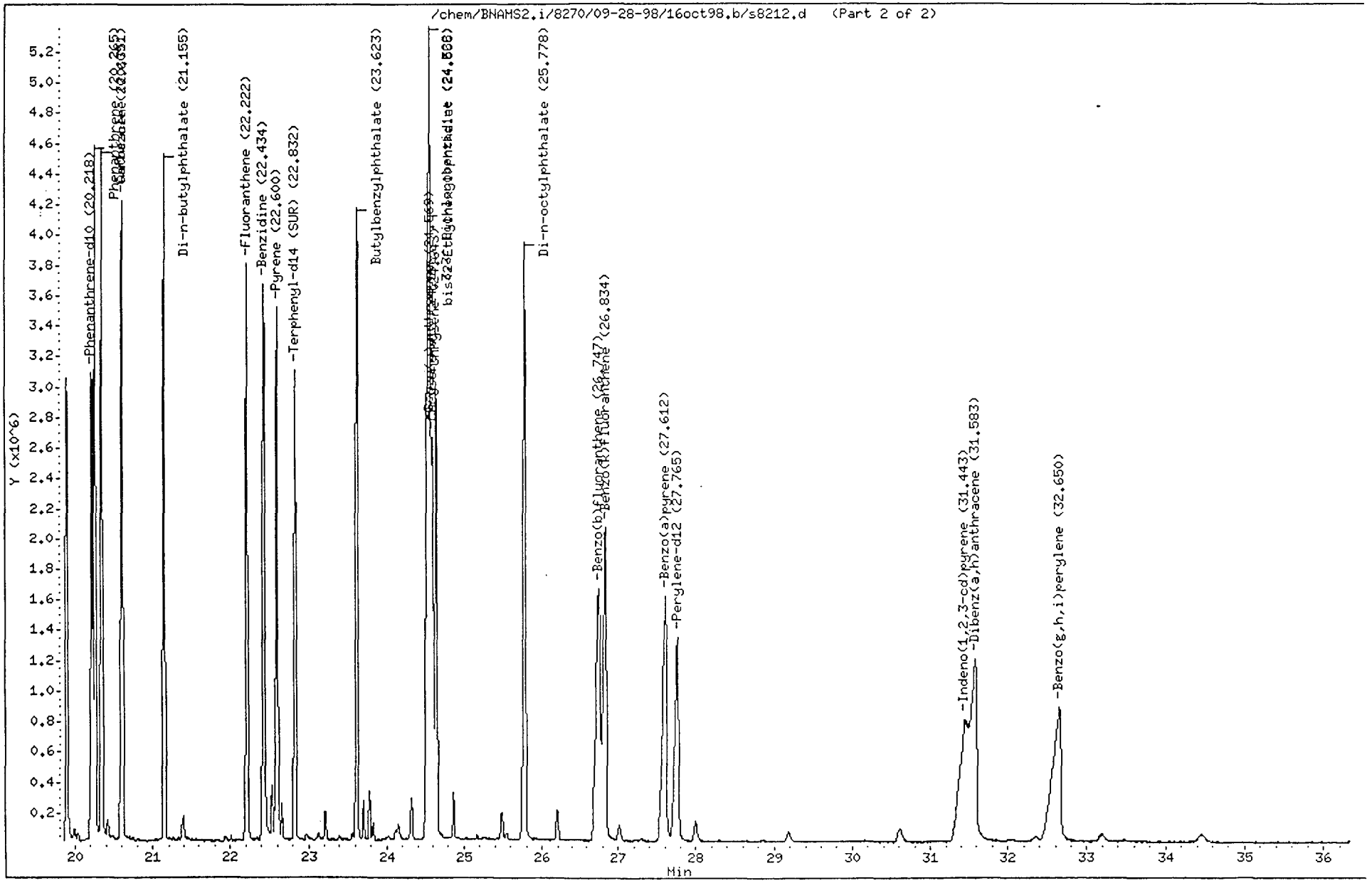
Column phase: DB-5

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

304974

315



SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

LAB FILE ID: RRF5: S8230 RRF20: S8228 RRF50: S8225
RRF80: S8227 RRF120: S8226

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol	2.150	2.156	2.029	1.878	1.564
2-Chlorophenol	1.230	1.297	1.272	1.180	1.154
2-Methylphenol	1.333	1.373	1.308	1.241	1.197
4-Methylphenol	1.336	1.348	1.203	1.082	0.940
2-Nitrophenol	0.258	0.275	0.262	0.249	0.233
2,4-Dimethylphenol	0.348	0.380	0.349	0.338	0.321
2,4-Dichlorophenol	0.365	0.393	0.364	0.353	0.313
4-Chloro-3-methylphenol	0.365	0.393	0.357	0.340	0.310
2,4,6-Trichlorophenol	0.349	0.370	0.355	0.336	0.323
2,4,5-Trichlorophenol	0.361	0.376	0.362	0.340	0.317
2,4-Dinitrophenol	0.231	0.294	0.290	0.282	0.279
4-Nitrophenol	0.213	0.234	0.224	0.221	0.200
4,6-Dinitro-2-methylphenol	0.183	0.198	0.190	0.179	0.170
Pentachlorophenol	0.132	0.154	0.153	0.150	0.152
Benzoic Acid	0.092	0.228	0.225	0.218	0.195
N-Nitrosodimethylamine	0.916	0.948	1.079	0.943	0.976
bis(2-Chloroethyl)ether	1.870	1.719	1.601	1.545	1.484
1,3-Dichlorobenzene	1.740	1.647	1.540	1.461	1.367
1,4-Dichlorobenzene	1.634	1.578	1.510	1.417	1.325
1,2-Dichlorobenzene	1.526	1.580	1.494	1.340	1.183
bis(2-chloroisopropyl)ether	2.154	1.830	1.694	1.524	1.421
N-Nitroso-di-n-propylamine	0.973	0.918	0.799	0.717	0.673
Hexachloroethane	0.700	0.632	0.614	0.559	0.530
Nitrobenzene	0.675	0.587	0.515	0.475	0.448
Isophorone	0.928	0.925	0.872	0.848	0.756
bis(2-Chloroethoxy)methane	0.660	0.540	0.477	0.460	0.403
1,2,4-Trichlorobenzene	0.440	0.378	0.350	0.322	0.306
Naphthalene	1.162	1.058	0.962	0.920	0.859
4-Chloroaniline	0.530	0.505	0.463	0.455	0.420
Hexachlorobutadiene	0.171	0.158	0.142	0.130	0.117
2-Methylnaphthalene	0.849	0.795	0.708	0.672	0.616
Hexachlorocyclopentadiene	0.095	0.116	0.147	0.154	0.162
2-Chloronaphthalene	1.346	1.249	1.190	1.068	0.972
2-Nitroaniline	0.390	0.380	0.351	0.319	0.298
Dimethylphthalate	1.636	1.586	1.487	1.397	1.292
Acenaphthylene	2.087	2.040	1.911	1.757	1.623
2,6-Dinitrotoluene	0.357	0.399	0.391	0.364	0.341
3-Nitroaniline	0.410	0.285	0.278	0.261	0.234
Acenaphthene	1.323	1.253	1.153	1.068	0.985

304975

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

LAB FILE ID: RRF5: S8230 RRF20: S8228 RRF50: S8225
RRF80: S8227 RRF120: S8226

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	1.958	1.734	1.604	1.442	1.274
2,4-Dinitrotoluene		0.564	0.528	0.473	0.409
Diethylphthalate	1.900	1.604	1.447	1.314	1.142
4-Chlorophenyl-phenylether	0.568	0.517	0.454	0.367	0.315
Fluorene	1.564	1.380	1.174	1.064	0.926
4-Nitroaniline	0.418	0.422	0.411	0.368	0.338
N-Nitrosodiphenylamine	0.788	0.679	0.631	0.598	0.544
4-Bromophenyl-phenylether	0.246	0.223	0.205	0.193	0.180
Hexachlorobenzene	0.279	0.272	0.252	0.236	0.226
Phenanthrene	1.472	1.330	1.176	1.100	1.026
Anthracene	1.473	1.406	1.253	1.132	1.046
Carbazole	1.506	1.436	1.289	1.222	1.129
Di-n-butylphthalate	2.139	1.951	1.682	1.547	1.410
Fluoranthene	1.319	1.224	1.039	0.958	0.875
Pyrene	1.655	1.628	1.583	1.570	1.584
Benzidine	0.934	0.923	0.767	0.691	0.602
Butylbenzylphthalate	1.275	1.232	1.220	1.195	1.163
3,3'-Dichlorobenzidine	0.634	0.638	0.630	0.616	0.565
Benzo(a)anthracene	1.598	1.314	1.187	1.069	1.021
Chrysene	1.321	1.306	1.205	1.150	1.105
bis(2-Ethylhexyl)phthalate	1.460	1.578	1.381	1.240	1.119
Di-n-octylphthalate	2.578	2.544	2.361	2.328	2.148
Benzo(b)fluoranthene	1.482	1.388	1.394	1.468	1.469
Benzo(k)fluoranthene	1.462	1.450	1.382	1.365	1.119
Benzo(a)pyrene	1.292	1.368	1.353	1.360	1.278
Indeno(1,2,3-cd)pyrene	1.233	1.451	1.410	1.384	1.341
Dibenz(a,h)anthracene	1.259	1.342	1.291	1.244	1.137
Benzo(g,h,i)perylene	1.355	1.436	1.410	1.336	1.214
Pyridine	1.252	1.332	1.573	1.405	1.552
Aniline	2.400	2.326	2.180	1.979	1.898
Benzyl Alcohol	1.040	1.077	1.022	0.958	0.860
1,2-Diphenylhydrazine	1.228	1.021	0.931	0.854	0.801
Diphenyl	1.740	1.620	1.482	1.341	1.126
Diphenyl Ether	0.966	0.859	0.811	0.757	0.684
Acetophenone	2.110	1.962	1.781	1.674	1.598
1,4-Dioxane	0.568	0.626	0.663	0.602	0.604
N,N-Dimethylaniline	2.043	1.948	1.738	1.613	1.514
2-Fluorophenol (SUR)	1.309	1.389	1.394	1.338	1.288

304976

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2

Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

LAB FILE ID: RRF5: S8230 RRF20: S8228 RRF50: S8225
RRF80: S8227 RRF120: S8226

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol-d5 (SUR)	1.934	1.958	1.865	1.686	1.602
2,4,6-Tribromophenol (SUR)	0.246	0.261	0.251	0.244	0.226
Nitrobenzene-d5 (SUR)	0.458	0.449	0.428	0.402	0.383
2-Fluorobiphenyl (SUR)	1.455	1.354	1.237	1.144	1.047
Terphenyl-d14 (SUR)	1.165	1.172	1.129	1.059	1.012

304977

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2

Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	1.95553614	12.6*
2-Chlorophenol	AVRG	1.22636435	4.9*
2-Methylphenol	AVRG	1.29041980	5.5*
4-Methylphenol	AVRG	1.18190918	14.7*
2-Nitrophenol	AVRG	0.25554336	6.2*
2,4-Dimethylphenol	AVRG	0.34719871	6.2*
2,4-Dichlorophenol	AVRG	0.35763542	8.0*
4-Chloro-3-methylphenol	AVRG	0.35305270	8.7*
2,4,6-Trichlorophenol	AVRG	0.34651866	5.2*
2,4,5-Trichlorophenol	AVRG	0.35144476	6.5*
2,4-Dinitrophenol	AVRG	0.27520437	9.2**
4-Nitrophenol	AVRG	0.21851041	5.9**
4,6-Dinitro-2-methylphenol	AVRG	0.18407978	5.9*
Pentachlorophenol	AVRG	0.14823085	6.0*
Benzoic Acid	AVRG	0.19172359	29.8*
N-Nitrosodimethylamine	AVRG	0.97223964	6.5*
bis(2-Chloroethyl)ether	AVRG	1.64372202	9.3*
1,3-Dichlorobenzene	AVRG	1.55119141	9.5*
1,4-Dichlorobenzene	AVRG	1.49295261	8.3*
1,2-Dichlorobenzene	AVRG	1.42435371	11.4*
bis(2-chloroisopropyl)ether	AVRG	1.72455221	16.6*
N-Nitroso-di-n-propylamine	AVRG	0.81609710	15.7**
Hexachloroethane	AVRG	0.60692744	10.9*
Nitrobenzene	AVRG	0.54021951	17.0*
Isophorone	AVRG	0.86581410	8.1*
bis(2-Chloroethoxy)methane	AVRG	0.50792424	19.3*
1,2,4-Trichlorobenzene	AVRG	0.35916278	14.7*
Naphthalene	AVRG	0.99227569	12.0*
4-Chloroaniline	AVRG	0.47467218	9.1*
Hexachlorobutadiene	AVRG	0.14370829	14.8*
2-Methylnaphthalene	AVRG	0.72808640	12.9*
Hexachlorocyclopentadiene	AVRG	0.13485677	20.8**
2-Chloronaphthalene	AVRG	1.16512993	12.7*
2-Nitroaniline	AVRG	0.34768062	11.3*
Dimethylphthalate	AVRG	1.47971836	9.4*
Acenaphthylene	AVRG	1.88369877	10.3*
2,6-Dinitrotoluene	AVRG	0.37056029	6.5*
3-Nitroaniline	AVRG	0.29365267	23.1*
Acenaphthene	AVRG	1.15635225	11.8*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304978

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.60222093	16.4*
2,4-Dinitrotoluene	AVRG	0.49341000	13.6*
Diethylphthalate	AVRG	1.48161951	19.5*
4-Chlorophenyl-phenylether	AVRG	0.44434185	23.4*
Fluorene	AVRG	1.22160623	20.7*
4-Nitroaniline	AVRG	0.39135419	9.5*
N-Nitrosodiphenylamine	AVRG	0.64819269	14.2*
4-Bromophenyl-phenylether	AVRG	0.20933190	12.3*
Hexachlorobenzene	AVRG	0.25327847	8.9*
Phenanthrene	AVRG	1.22063357	14.8*
Anthracene	AVRG	1.26194366	14.2*
Carbazole	AVRG	1.31642921	11.7*
Di-n-butylphthalate	AVRG	1.74584043	17.0*
Fluoranthene	AVRG	1.08295440	17.0*
Pyrene	AVRG	1.60392564	2.2*
Benzidine	AVRG	0.78361147	18.5*
Butylbenzylphthalate	AVRG	1.21716421	3.4*
3,3'-Dichlorobenzidine	AVRG	0.61674325	4.8*
Benzo(a)anthracene	AVRG	1.23783770	18.7*
Chrysene	AVRG	1.21739739	7.8*
bis(2-Ethylhexyl)phthalate	AVRG	1.35577814	13.3*
Di-n-octylphthalate	AVRG	2.39191569	7.3*
Benzo(b)fluoranthene	AVRG	1.44064306	3.1*
Benzo(k)fluoranthene	AVRG	1.35542201	10.2*
Benzo(a)pyrene	AVRG	1.33023188	3.2*
Indeno(1,2,3-cd)pyrene	AVRG	1.36367440	6.1*
Dibenz(a,h)anthracene	AVRG	1.25457169	6.0*
Benzo(g,h,i)perylene	AVRG	1.35027849	6.4*
Pyridine	AVRG	1.42255987	9.8*
Aniline	AVRG	2.15676763	10.0*
Benzyl Alcohol	AVRG	0.99150488	8.6*
1,2-Diphenylhydrazine	AVRG	0.96719670	17.4*
Diphenyl	AVRG	1.46172777	16.4*
Diphenyl Ether	AVRG	0.81527925	13.0*
Acetophenone	AVRG	1.82468980	11.5**
1,4-Dioxane	AVRG	0.61277612	5.7**
N,N-Dimethylaniline	AVRG	1.77121105	12.5**
2-Fluorophenol (SUR)	AVRG	1.34362701	3.5*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304979

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2

Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol-d5 (SUR)	AVRG	1.80911729	8.7*
2,4,6-Tribromophenol (SUR)	AVRG	0.24555870	5.2*
Nitrobenzene-d5 (SUR)	AVRG	0.42409497	7.5*
2-Fluorobiphenyl (SUR)	AVRG	1.24754060	13.0*
Terphenyl-d14 (SUR)	AVRG	1.10745513	6.3*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304980

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Report Date: 16-Oct-98 23:23:15

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Lab Smp Id: SSTD120
Inj Date : 16-OCT-98 21:04:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD120
Misc Info : 120 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 23:12:29 Quant Type: ISTD
Cal Date : 16-OCT-98 21:04:00 Cal File: s8226.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.280	4.247	(0.338)	939803	120	120
19 N-Nitrosodimethylamine	74	5.376	5.296	(0.425)	1517760	120	120
71 Pyridine	79	5.357	5.355	(0.424)	2414803	120	130(A)
$ 16 2-Fluorophenol (SUR)	112	10.163	10.152	(0.804)	2004433	120	110
$ 17 Phenol-d5 (SUR)	99	12.072	12.032	(0.955)	2493149	120	110
1 Phenol	94	12.098	12.059	(0.957)	2433914	120	98(H)
73 Aniline	93	12.072	12.052	(0.955)	2953478	120	110
20 bis(2-Chloroethyl)ether	93	12.217	12.190	(0.966)	2308605	120	110
2 2-Chlorophenol	128	12.283	12.269	(0.971)	1795214	120	110
21 1,3-Dichlorobenzene	146	12.546	12.532	(0.992)	2127067	120	110
* 79 1,4-Dichlorobenzene-d4	152	12.645	12.643	(1.000)	518578	40	
22 1,4-Dichlorobenzene	146	12.678	12.670	(1.003)	2061999	120	110
74 Benzyl Alcohol	108	12.935	12.900	(1.023)	1338385	120	100
23 1,2-Dichlorobenzene	146	12.941	12.933	(1.023)	1840081	120	100
3 2-Methylphenol	108	13.146	13.110	(1.040)	1861660	120	110

304981

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Report Date: 16-Oct-98 23:23:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.153	13.136	(1.040)	2210654	120	120(AM)
	4 4-Methylphenol	108	13.410	13.366	(1.060)	1462174	120	130(AH)
	25 N-Nitroso-di-n-propylamine	70	13.416	13.360	(1.061)	1047303	120	100(MH)
	104 Acetophenone	105	13.383	13.353	(1.058)	2485982	120	110
	26 Hexachloroethane	117	13.522	13.518	(1.069)	824973	120	110
$	76 Nitrobenzene-d5 (SUR)	82	13.641	13.603	(0.919)	1948620	120	110
	27 Nitrobenzene	77	13.687	13.643	(0.923)	2281297	120	110
	107 N,N-Dimethylaniline	120	13.674	13.643	(1.081)	2355757	120	110
	28 Isophorone	82	14.102	14.049	(0.951)	3850773	120	110(H)
	5 2-Nitrophenol	139	14.201	14.181	(0.957)	1186101	120	110
	6 2,4-Dimethylphenol	122	14.294	14.260	(0.963)	1635094	120	110
	15 Benzoic Acid	122	14.637	14.451	(0.987)	994502	120	220(AM)
	29 bis(2-Chloroethoxy)methane	93	14.439	14.418	(0.973)	2050465	120	100
	7 2,4-Dichlorophenol	162	14.624	14.595	(0.986)	1595048	120	100
	30 1,2,4-Trichlorobenzene	180	14.743	14.727	(0.994)	1555329	120	110
*	80 Naphthalene-d8	136	14.836	14.826	(1.000)	1696975	40	
	31 Naphthalene	128	14.883	14.859	(1.003)	4374998	120	110
	32 4-Chloroaniline	127	14.975	14.951	(1.009)	2140566	120	110
	33 Hexachlorobutadiene	225	15.068	15.063	(1.016)	597473	120	100
	8 4-Chloro-3-methylphenol	107	15.764	15.750	(1.063)	1578015	120	110
	34 2-Methylnaphthalene	142	16.027	16.012	(1.080)	3138919	120	110
	35 Hexachlorocyclopentadiene	237	16.272	16.269	(0.917)	501998	120	130(A)
	9 2,4,6-Trichlorophenol	196	16.497	16.479	(0.929)	1001067	120	110
	10 2,4,5-Trichlorophenol	196	16.563	16.545	(0.933)	984228	120	110
$	77 2-Fluorobiphenyl (SUR)	172	16.630	16.618	(0.937)	3248203	120	100
	102 Diphenyl	154	16.809	16.782	(0.947)	3491549	120	97
	36 2-Chloronaphthalene	162	16.842	16.822	(0.949)	3014770	120	100
	103 Diphenyl Ether	170	16.968	16.954	(0.956)	2119858	120	100
	37 2-Nitroaniline	65	17.014	16.987	(0.959)	922981	120	100
	38 Dimethylphthalate	163	17.305	17.282	(0.975)	4008755	120	110
	40 2,6-Dinitrotoluene	165	17.425	17.387	(0.982)	1058058	120	150(A)
	39 Acenaphthylene	152	17.531	17.506	(0.988)	5033669	120	110
	41 3-Nitroaniline	138	17.696	17.663	(0.997)	724955	120	110
*	82 Acenaphthene-d10	164	17.749	17.743	(1.000)	1033815	40	
	42 Acenaphthene	153	17.816	17.795	(1.004)	3053758	120	110
	11 2,4-Dinitrophenol	184	17.875	17.848	(1.007)	866148	120	120
	12 4-Nitrophenol	65	17.988	17.954	(1.013)	619684	120	110
	44 2,4-Dinitrotoluene	165	18.088	18.053	(1.019)	1269359	120	100
	43 Dibenzofuran	168	18.108	18.079	(1.020)	3950815	120	100
	45 Diethylphthalate	149	18.478	18.448	(1.041)	3543177	120	100
	46 4-Chlorophenyl-phenylether	204	18.650	18.638	(1.051)	976279	120	91
	47 Fluorene	166	18.670	18.645	(1.052)	2872531	120	98
	48 4-Nitroaniline	138	18.750	18.685	(1.056)	1046863	120	100
	13 4,6-Dinitro-2-methylphenol	198	18.777	18.738	(0.929)	733234	120	110
	49 N-Nitrosodiphenylamine	169	18.863	18.830	(0.934)	2355391	120	110
	75 1,2-Diphenylhydrazine	77	18.923	18.903	(0.937)	3466505	120	110
$	18 2,4,6-Tribromophenol (SUR)	330	19.062	19.041	(1.074)	701177	120	150(A)

304982

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Report Date: 16-Oct-98 23:23:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
50 4-Bromophenyl-phenylether	248	19.466	19.442	(0.964)	777637	120	110
51 Hexachlorobenzene	284	19.572	19.554	(0.969)	977475	120	110
14 Pentachlorophenol	266	19.890	19.875	(0.985)	655750	120	120
* 83 Phenanthrene-d10	188	20.201	20.197	(1.000)	1441883	40	
52 Phenanthrene	178	20.254	20.237	(1.003)	4438918	120	110
53 Anthracene	178	20.347	20.323	(1.007)	4522550	120	100
54 Carbazole	167	20.599	20.579	(1.020)	4882474	120	110
55 Di-n-butylphthalate	149	21.146	21.130	(1.047)	6099054	120	100
56 Fluoranthene	202	22.212	22.192	(1.100)	3784476	120	100
58 Benzidine	184	22.424	22.409	(1.110)	2606621	120	97
57 Pyrene	202	22.597	22.574	(0.919)	3963746	120	120
$ 78 Terphenyl-d14 (SUR)	244	22.822	22.804	(0.928)	2532930	120	110
59 Butylbenzylphthalate	149	23.620	23.598	(0.961)	2911762	120	120
60 3,3'-Dichlorobenzidine	252	24.517	24.490	(0.997)	1414727	120	110
61 Benzo(a)anthracene	228	24.564	24.537	(0.999)	2555888	120	110
63 bis(2-Ethylhexyl)phthalate	149	24.544	24.524	(0.998)	2800674	120	100
* 81 Chrysene-d12	240	24.584	24.564	(1.000)	834250	40	
62 Chrysene	228	24.638	24.604	(1.002)	2766454	120	110
64 Di-n-octylphthalate	149	25.766	25.733	(0.930)	6573425	120	110
65 Benzo(b)fluoranthene	252	26.741	26.692	(0.965)	4495586	120	120(A)
66 Benzo(k)fluoranthene	252	26.828	26.758	(0.968)	3422666	120	100
67 Benzo(a)pyrene	252	27.606	27.533	(0.996)	3910361	120	110
* 84 Perylene-d12	264	27.719	27.705	(1.000)	1019893	40	
68 Indeno(1,2,3-cd)pyrene	276	31.451	31.339	(1.135)	4102444	120	120(M)
69 Dibenz(a,h)anthracene	278	31.578	31.432	(1.139)	3478728	120	110
70 Benzo(g,h,i)perylene	276	32.638	32.482	(1.177)	3713493	120	110(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304983

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Date : 16-OCT-98 21:04:00
Client ID:
Sample Info: SSTD120

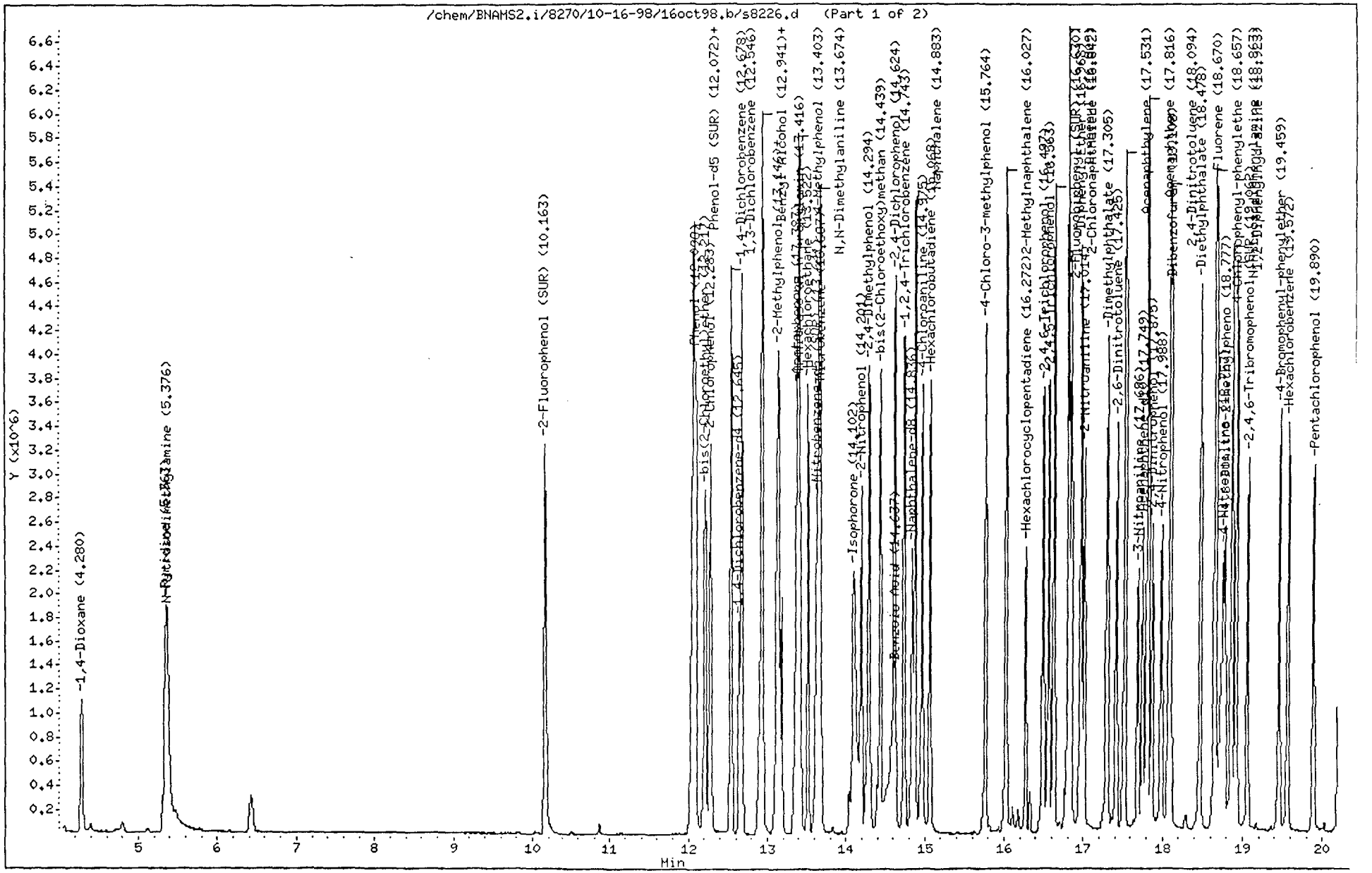
Instrument: BNAMS2.i

Operator: BNAMS 2

Column phase: DB-5

Column diameter: 0.25

304984



Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Date : 16-OCT-98 21:04:00
Client ID:
Sample Info: SSTD120

Instrument: BNAMS2.i

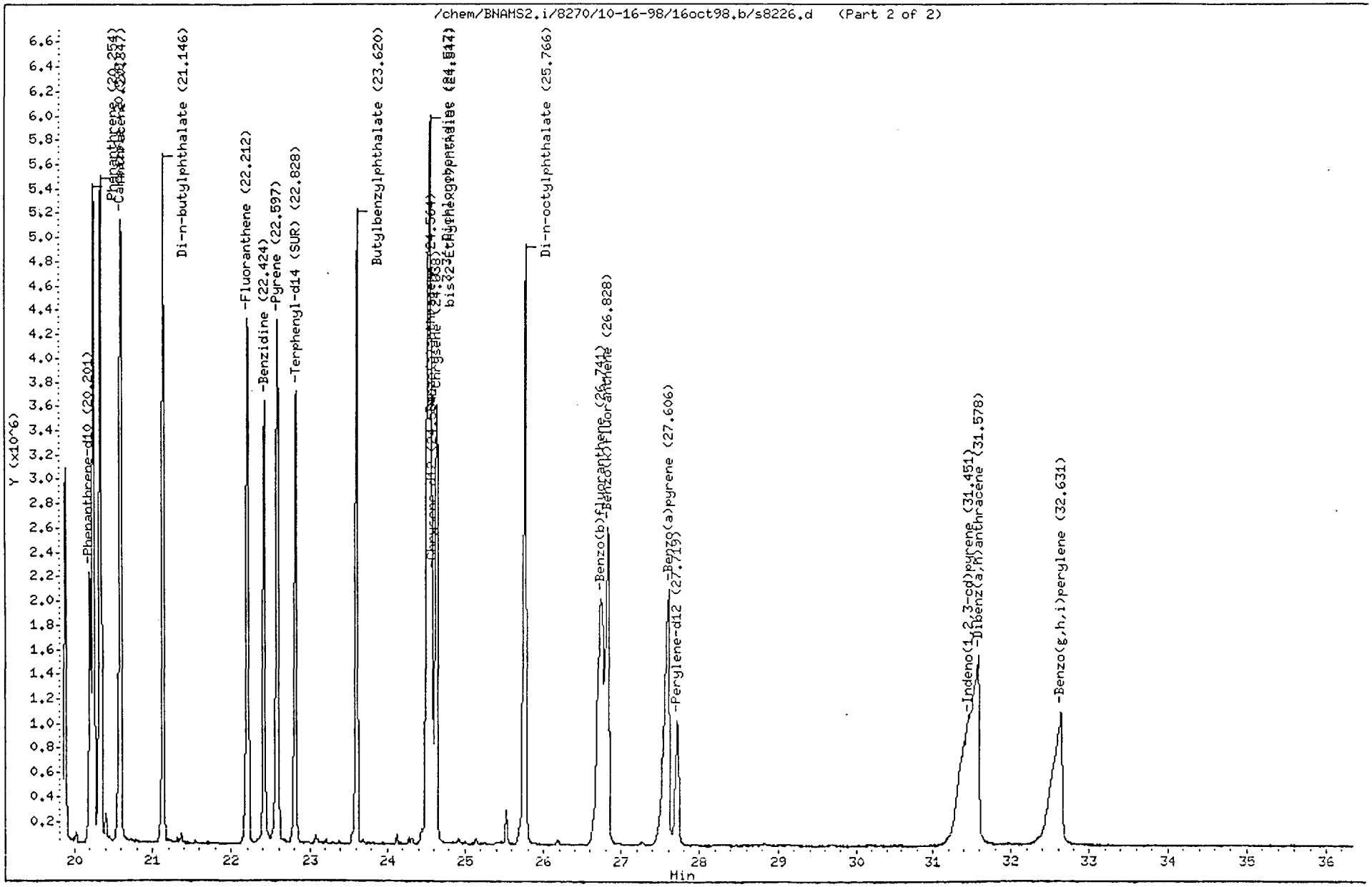
Operator: BNAMS 2

304985

Column phase: DB-5

Column diameter: 0.25

326



Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Report Date: 16-Oct-98 23:23:20

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Lab Smp Id: SSTD080
Inj Date : 16-OCT-98 21:48:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD080
Misc Info : 80 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 23:12:29 Quant Type: ISTD
Cal Date : 16-OCT-98 21:48:00 Cal File: s8227.d
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.247	4.247	(0.336)	582334	80	77
19 N-Nitrosodimethylamine	74	5.337	5.296	(0.422)	911892	80	76
71 Pyridine	79	5.343	5.355	(0.422)	1358871	80	77
$ 16 2-Fluorophenol (SUR)	112	10.154	10.152	(0.803)	1293723	80	79
$ 17 Phenol-d5 (SUR)	99	12.054	12.032	(0.953)	1631011	80	76
1 Phenol	94	12.080	12.059	(0.955)	1816957	80	79
73 Aniline	93	12.061	12.052	(0.954)	1913821	80	76
20 bis(2-Chloroethyl)ether	93	12.206	12.190	(0.965)	1494246	80	78
2 2-Chlorophenol	128	12.278	12.269	(0.971)	1140915	80	77
21 1,3-Dichlorobenzene	146	12.541	12.532	(0.992)	1412987	80	78
* 79 1,4-Dichlorobenzene-d4	152	12.646	12.643	(1.000)	483601	40	
22 1,4-Dichlorobenzene	146	12.679	12.670	(1.003)	1370683	80	78
74 Benzyl Alcohol	108	12.916	12.900	(1.021)	926966	80	78
23 1,2-Dichlorobenzene	146	12.936	12.933	(1.023)	1295597	80	77
3 2-Methylphenol	108	13.126	13.110	(1.038)	1200741	80	78

304986

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Report Date: 16-Oct-98 23:23:20

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
24 bis(2-chloroisopropyl)ether	45	13.146	13.136	(1.040)	1474060	80	82(M)
4 4-Methylphenol	108	13.390	13.366	(1.059)	1046851	80	76(H)
25 N-Nitroso-di-n-propylamine	70	13.397	13.360	(1.059)	693581	80	74
104 Acetophenone	105	13.370	13.353	(1.057)	1618685	80	76
26 Hexachloroethane	117	13.522	13.518	(1.069)	540557	80	76
$ 76 Nitrobenzene-d5 (SUR)	82	13.627	13.603	(0.919)	1281648	80	77
27 Nitrobenzene	77	13.667	13.643	(0.921)	1515029	80	75
107 N,N-Dimethylaniline	120	13.660	13.643	(1.080)	1560455	80	76
28 Isophorone	82	14.074	14.049	(0.949)	2700819	80	80
5 2-Nitrophenol	139	14.193	14.181	(0.957)	793379	80	78
6 2,4-Dimethylphenol	122	14.286	14.260	(0.963)	1076500	80	78
15 Benzoic Acid	122	14.576	14.451	(0.983)	693962	80	110(M)
29 bis(2-Chloroethoxy)methane	93	14.431	14.418	(0.973)	1466849	80	78
7 2,4-Dichlorophenol	162	14.616	14.595	(0.985)	1125473	80	79
30 1,2,4-Trichlorobenzene	180	14.734	14.727	(0.993)	1027366	80	76
* 80 Naphthalene-d8	136	14.834	14.826	(1.000)	1593272	40	
31 Naphthalene	128	14.873	14.859	(1.003)	2931161	80	77
32 4-Chloroaniline	127	14.966	14.951	(1.009)	1450477	80	79
33 Hexachlorobutadiene	225	15.065	15.063	(1.016)	415108	80	76
8 4-Chloro-3-methylphenol	107	15.762	15.750	(1.063)	1084218	80	78
34 2-Methylnaphthalene	142	16.025	16.012	(1.080)	2141919	80	77
35 Hexachlorocyclopentadiene	237	16.269	16.269	(0.917)	302807	80	85
9 2,4,6-Trichlorophenol	196	16.487	16.479	(0.929)	660685	80	78
10 2,4,5-Trichlorophenol	196	16.553	16.545	(0.933)	669478	80	78
$ 77 2-Fluorobiphenyl (SUR)	172	16.626	16.618	(0.937)	2251402	80	76
102 Diphenyl	154	16.798	16.782	(0.947)	2639913	80	77
36 2-Chloronaphthalene	162	16.838	16.822	(0.949)	2102220	80	76
103 Diphenyl Ether	170	16.963	16.954	(0.956)	1489884	80	78
37 2-Nitroaniline	65	17.003	16.987	(0.958)	628572	80	76
38 Dimethylphthalate	163	17.294	17.282	(0.975)	2750298	80	78
40 2,6-Dinitrotoluene	165	17.413	17.387	(0.981)	716853	80	110
39 Acenaphthylene	152	17.518	17.506	(0.987)	3459470	80	77
41 3-Nitroaniline	138	17.683	17.663	(0.997)	514746	80	79
* 82 Acenaphthene-d10	164	17.743	17.743	(1.000)	984274	40	
42 Acenaphthene	153	17.809	17.795	(1.004)	2102355	80	77
11 2,4-Dinitrophenol	184	17.869	17.848	(1.007)	694474	100	98
12 4-Nitrophenol	65	17.975	17.954	(1.013)	544948	100	100
44 2,4-Dinitrotoluene	165	18.074	18.053	(1.019)	931240	80	77
43 Dibenzofuran	168	18.094	18.079	(1.020)	2838116	80	76
45 Diethylphthalate	149	18.464	18.448	(1.041)	2587095	80	76
46 4-Chlorophenyl-phenylether	204	18.649	18.638	(1.051)	722943	80	71
47 Fluorene	166	18.662	18.645	(1.052)	2093636	80	75
48 4-Nitroaniline	138	18.728	18.685	(1.056)	723843	80	76
13 4,6-Dinitro-2-methylphenol	198	18.762	18.738	(0.929)	639678	100	97
49 N-Nitrosodiphenylamine	169	18.854	18.830	(0.933)	1708245	80	78
75 1,2-Diphenylhydrazine	77	18.914	18.903	(0.936)	2438484	80	76
$ 18 2,4,6-Tribromophenol (SUR)	330	19.060	19.041	(1.074)	479519	80	110

304987

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Report Date: 16-Oct-98 23:23:20

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
50 4-Bromophenyl-phenylether	248	19.456	19.442	(0.963)	550605	80	77
51 Hexachlorobenzene	284	19.568	19.554	(0.969)	675580	80	77
14 Pentachlorophenol	266	19.885	19.875	(0.984)	535551	100	99
* 83 Phenanthrene-d10	188	20.202	20.197	(1.000)	1427964	40	
52 Phenanthrene	178	20.248	20.237	(1.002)	3140165	80	76
53 Anthracene	178	20.334	20.323	(1.007)	3232696	80	75
54 Carbazole	167	20.592	20.579	(1.019)	3491131	80	77
55 Di-n-butylphthalate	149	21.138	21.130	(1.046)	4417329	80	75
56 Fluoranthene	202	22.209	22.192	(1.099)	2737289	80	75
58 Benzidine	184	22.420	22.409	(1.110)	2467223	100	93
57 Pyrene	202	22.592	22.574	(0.919)	2848763	80	79
$ 78 Terphenyl-d14 (SUR)	244	22.823	22.804	(0.929)	1921309	80	78
59 Butylbenzylphthalate	149	23.613	23.598	(0.961)	2167789	80	79
60 3,3'-Dichlorobenzidine	252	24.508	24.490	(0.997)	1397985	100	100
61 Benzo(a)anthracene	228	24.555	24.537	(0.999)	1940082	80	74
63 bis(2-Ethylhexyl)phthalate	149	24.535	24.524	(0.998)	2249741	80	75
* 81 Chrysene-d12	240	24.575	24.564	(1.000)	907150	40	
62 Chrysene	228	24.629	24.604	(1.002)	2086027	80	77
64 Di-n-octylphthalate	149	25.761	25.733	(0.929)	4779033	80	79
65 Benzo(b)fluoranthene	252	26.721	26.692	(0.964)	3014902	80	82
66 Benzo(k)fluoranthene	252	26.808	26.758	(0.967)	2803150	80	82
67 Benzo(a)pyrene	252	27.584	27.533	(0.995)	2793097	80	81
* 84 Perylene-d12	264	27.717	27.705	(1.000)	1026579	40	
68 Indeno(1,2,3-cd)pyrene	276	31.400	31.339	(1.133)	2840603	80	79
69 Dibenz(a,h)anthracene	278	31.540	31.432	(1.138)	2553321	80	79
70 Benzo(g,h,i)perylene	276	32.599	32.482	(1.176)	2742985	80	79

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304988

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Date : 16-OCT-98 21:48:00
Client ID:
Sample Info: SSTD080

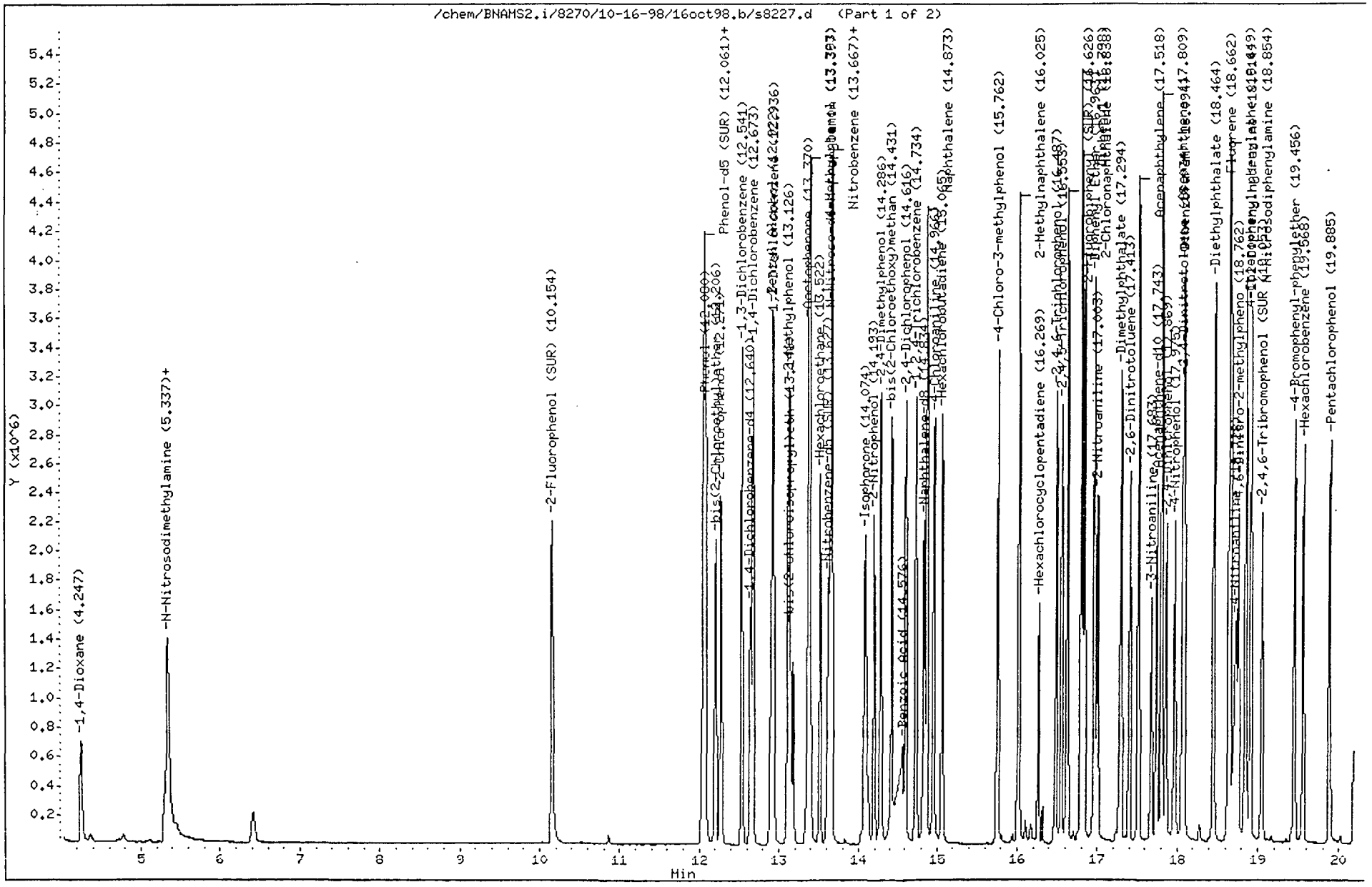
Instrument: BNAMS2.i

Operator: BNAMS 2

304989

Column phase: DB-5

Column diameter: 0.25



330

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Date : 16-OCT-98 21:48:00
Client ID:
Sample Info: SSTD080

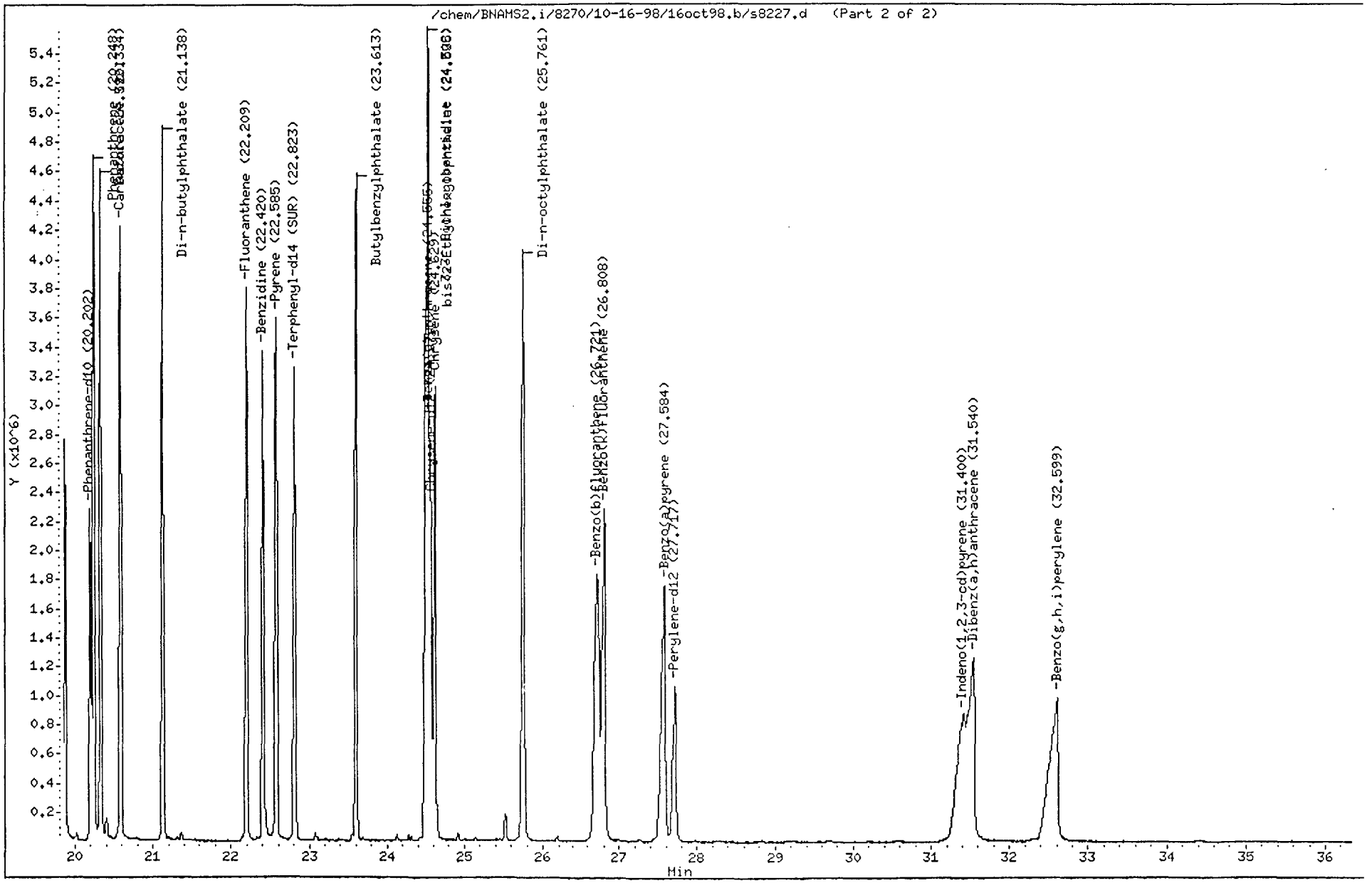
Column phase: DB-5

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

304990

331



Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Report Date: 16-Oct-98 23:23:07

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Lab Smp Id: SSTD050
Inj Date : 16-OCT-98 20:18:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD050
Misc Info : 50 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 23:12:29 Quant Type: ISTD
Cal Date : 16-OCT-98 20:18:00 Cal File: s8225.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.241	4.247	(0.336)	411244	50	50
19 N-Nitrosodimethylamine	74	5.310	5.296	(0.420)	668673	50	50
71 Pyridine	79	5.337	5.355	(0.422)	974757	50	50
$ 16 2-Fluorophenol (SUR)	112	10.147	10.152	(0.803)	864037	50	50
$ 17 Phenol-d5 (SUR)	99	12.041	12.032	(0.953)	1155801	50	50
1 Phenol	94	12.067	12.059	(0.955)	1257512	50	50
73 Aniline	93	12.054	12.052	(0.954)	1351559	50	50
20 bis(2-Chloroethyl)ether	93	12.199	12.190	(0.965)	992141	50	50
2 2-Chlorophenol	128	12.272	12.269	(0.971)	788404	50	50
21 1,3-Dichlorobenzene	146	12.534	12.532	(0.992)	954755	50	50
* 79 1,4-Dichlorobenzene-d4	152	12.639	12.643	(1.000)	495870	40	
22 1,4-Dichlorobenzene	146	12.673	12.670	(1.003)	936184	50	50
74 Benzyl Alcohol	108	12.909	12.900	(1.021)	633168	50	50
23 1,2-Dichlorobenzene	146	12.929	12.933	(1.023)	925854	50	50
3 2-Methylphenol	108	13.120	13.110	(1.038)	810760	50	50

304991

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Report Date: 16-Oct-98 23:23:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.139	13.136	(1.040)	1049909	50	50(M)
	4 4-Methylphenol	108	13.376	13.366	(1.058)	745485	50	50
	25 N-Nitroso-di-n-propylamine	70	13.376	13.360	(1.058)	495534	50	50
	104 Acetophenone	105	13.363	13.353	(1.057)	1103728	50	50
	26 Hexachloroethane	117	13.515	13.518	(1.069)	380662	50	50
$	76 Nitrobenzene-d5 (SUR)	82	13.613	13.603	(0.918)	885231	50	50
	27 Nitrobenzene	77	13.653	13.643	(0.921)	1065970	50	50
	107 N,N-Dimethylaniline	120	13.653	13.643	(1.080)	1077069	50	50
	28 Isophorone	82	14.060	14.049	(0.948)	1805825	50	50
	5 2-Nitrophenol	139	14.185	14.181	(0.956)	543463	50	50
	6 2,4-Dimethylphenol	122	14.271	14.260	(0.962)	721925	50	50
	15 Benzoic Acid	122	14.521	14.451	(0.979)	465872	50	50
	29 bis(2-Chloroethoxy)methane	93	14.429	14.418	(0.973)	986511	50	50
	7 2,4-Dichlorophenol	162	14.607	14.595	(0.985)	753032	50	50
	30 1,2,4-Trichlorobenzene	180	14.732	14.727	(0.993)	724806	50	50
*	80 Naphthalene-d8	136	14.831	14.826	(1.000)	1655695	40	
	31 Naphthalene	128	14.871	14.859	(1.003)	1991034	50	50
	32 4-Chloroaniline	127	14.957	14.951	(1.008)	957496	50	50
	33 Hexachlorobutadiene	225	15.062	15.063	(1.016)	295024	50	50
	8 4-Chloro-3-methylphenol	107	15.758	15.750	(1.062)	738171	50	50
	34 2-Methylnaphthalene	142	16.021	16.012	(1.080)	1464298	50	50
	35 Hexachlorocyclopentadiene	237	16.272	16.269	(0.917)	185229	50	50
	9 2,4,6-Trichlorophenol	196	16.482	16.479	(0.929)	447183	50	50
	10 2,4,5-Trichlorophenol	196	16.548	16.545	(0.933)	456924	50	50
$	77 2-Fluorobiphenyl (SUR)	172	16.621	16.618	(0.937)	1559281	50	50
	102 Diphenyl	154	16.793	16.782	(0.946)	1867766	50	50
	36 2-Chloronaphthalene	162	16.833	16.822	(0.949)	1500508	50	50
	103 Diphenyl Ether	170	16.958	16.954	(0.956)	1022326	50	50
	37 2-Nitroaniline	65	16.998	16.987	(0.958)	442176	50	50
	38 Dimethylphthalate	163	17.287	17.282	(0.974)	1874237	50	50
	40 2,6-Dinitrotoluene	165	17.400	17.387	(0.981)	493212	50	50
	39 Acenaphthylene	152	17.518	17.506	(0.987)	2408043	50	50
	41 3-Nitroaniline	138	17.676	17.663	(0.996)	350467	50	50
*	82 Acenaphthene-d10	164	17.742	17.743	(1.000)	1008259	40	
	42 Acenaphthene	153	17.802	17.795	(1.003)	1452763	50	50
	11 2,4-Dinitrophenol	184	17.861	17.848	(1.007)	584922	80	80
	12 4-Nitrophenol	65	17.967	17.954	(1.013)	451641	80	80
	44 2,4-Dinitrotoluene	165	18.066	18.053	(1.018)	664897	50	50
	43 Dibenzofuran	168	18.086	18.079	(1.019)	2021079	50	50
	45 Diethylphthalate	149	18.455	18.448	(1.040)	1824125	50	50
	46 4-Chlorophenyl-phenylether	204	18.640	18.638	(1.051)	572748	50	50
	47 Fluorene	166	18.653	18.645	(1.051)	1479785	50	50
	48 4-Nitroaniline	138	18.706	18.685	(1.054)	517507	50	50
	13 4,6-Dinitro-2-methylphenol	198	18.753	18.738	(0.928)	560706	80	80
	49 N-Nitrosodiphenylamine	169	18.845	18.830	(0.933)	1164460	50	50
	75 1,2-Diphenylhydrazine	77	18.911	18.903	(0.936)	1717668	50	50
$	18 2,4,6-Tribromophenol (SUR)	330	19.050	19.041	(1.074)	315922	50	50

304992

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Report Date: 16-Oct-98 23:23:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	50 4-Bromophenyl-phenylether	248	19.452	19.442	(0.963)	378752	50	50
	51 Hexachlorobenzene	284	19.557	19.554	(0.968)	465464	50	50
	14 Pentachlorophenol	266	19.880	19.875	(0.984)	450536	80	80
*	83 Phenanthrene-d10	188	20.203	20.197	(1.000)	1475215	40	
	52 Phenanthrene	178	20.243	20.237	(1.002)	2167873	50	50
	53 Anthracene	178	20.329	20.323	(1.006)	2310122	50	50
	54 Carbazole	167	20.585	20.579	(1.019)	2377483	50	50
	55 Di-n-butylphthalate	149	21.137	21.130	(1.046)	3101954	50	50
	56 Fluoranthene	202	22.200	22.192	(1.099)	1915335	50	50
	58 Benzidine	184	22.418	22.409	(1.110)	2262129	80	80
	57 Pyrene	202	22.583	22.574	(0.919)	1949054	50	50
$	78 Terphenyl-d14 (SUR)	244	22.813	22.804	(0.929)	1390244	50	50
	59 Butylbenzylphthalate	149	23.608	23.598	(0.961)	1502281	50	50
	60 3,3'-Dichlorobenzidine	252	24.502	24.490	(0.997)	1241029	80	80
	61 Benzo(a)anthracene	228	24.549	24.537	(0.999)	1461101	50	50
	63 bis(2-Ethylhexyl)phthalate	149	24.536	24.524	(0.999)	1700394	50	50
*	81 Chrysene-d12	240	24.569	24.564	(1.000)	985000	40	
	62 Chrysene	228	24.616	24.604	(1.002)	1483612	50	50
	64 Di-n-octylphthalate	149	25.747	25.733	(0.929)	3287995	50	50
	65 Benzo(b)fluoranthene	252	26.706	26.692	(0.964)	1941979	50	50
	66 Benzo(k)fluoranthene	252	26.793	26.758	(0.967)	1923983	50	50
	67 Benzo(a)pyrene	252	27.562	27.533	(0.995)	1884746	50	50
*	84 Perylene-d12	264	27.707	27.705	(1.000)	1114019	40	
	68 Indeno(1,2,3-cd)pyrene	276	31.377	31.339	(1.132)	1963108	50	50
	69 Dibenz(a,h)anthracene	278	31.490	31.432	(1.136)	1797547	50	50
	70 Benzo(g,h,i)perylene	276	32.554	32.482	(1.175)	1963169	50	50

QC Flag Legend

M - Compound response manually integrated.

304993

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Date : 16-OCT-98 20:18:00
Client ID:
Sample Info: SSTD050

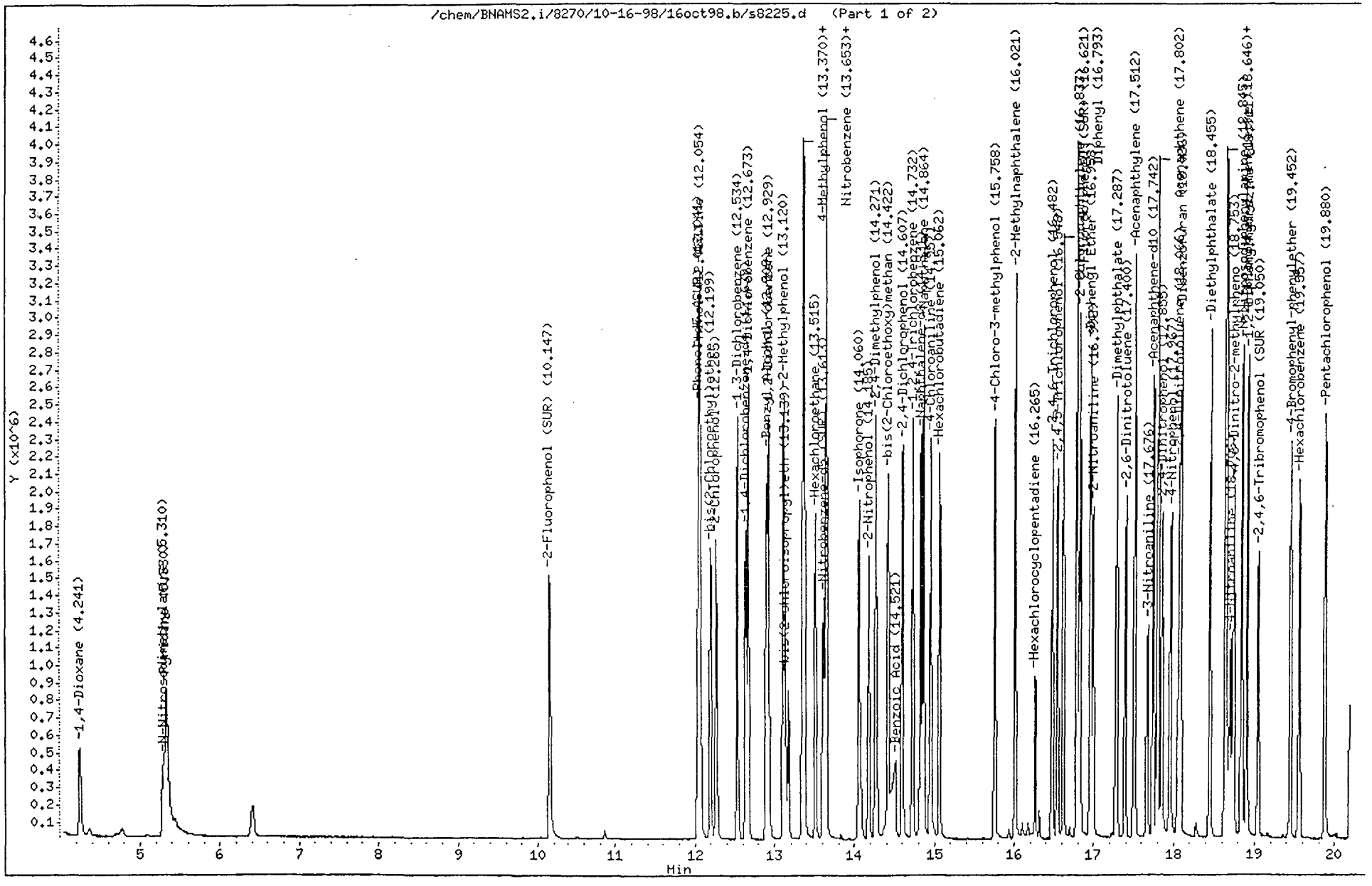
Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

Column phase: DB-5

304994

335



Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Date : 16-OCT-98 20:18:00
Client ID:
Sample Info: SSTD050

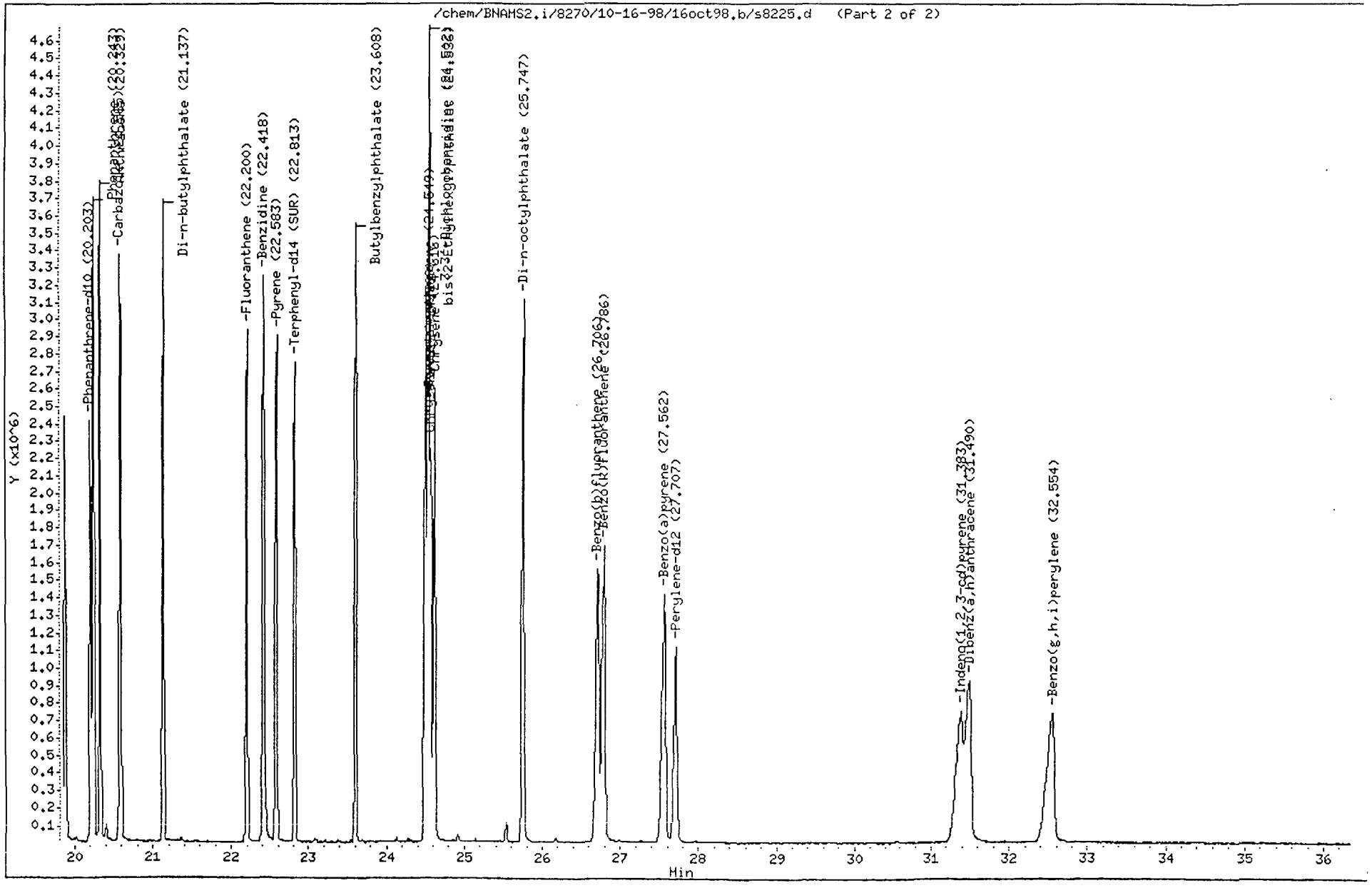
Instrument: BNAMS2.i

Operator: BNAMS 2

304995

Column phase: DB-5

Column diameter: 0.25



336

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Report Date: 16-Oct-98 23:23:26

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Lab Smp Id: SSTD020
Inj Date : 16-OCT-98 22:32:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD020
Misc Info : 20 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 23:12:29 Quant Type: ISTD
Cal Date : 16-OCT-98 22:32:00 Cal File: s8228.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.247	4.247	(0.336)	162431	20	20
19 N-Nitrosodimethylamine	74	5.296	5.296	(0.419)	246151	20	19
71 Pyridine	79	5.355	5.355	(0.424)	345660	20	18
$ 16 2-Fluorophenol (SUR)	112	10.152	10.152	(0.803)	360603	20	20
$ 17 Phenol-d5 (SUR)	99	12.032	12.032	(0.952)	508273	20	22
1 Phenol	94	12.059	12.059	(0.954)	559673	20	23
73 Aniline	93	12.052	12.052	(0.953)	603862	20	22
20 bis(2-Chloroethyl)ether	93	12.190	12.190	(0.964)	446311	20	22
2 2-Chlorophenol	128	12.269	12.269	(0.970)	336652	20	21
21 1,3-Dichlorobenzene	146	12.532	12.532	(0.991)	427632	20	22
* 79 1,4-Dichlorobenzene-d4	152	12.643	12.643	(1.000)	519200	40	
22 1,4-Dichlorobenzene	146	12.670	12.670	(1.002)	409583	20	22
74 Benzyl Alcohol	108	12.900	12.900	(1.020)	279538	20	22
23 1,2-Dichlorobenzene	146	12.933	12.933	(1.023)	410142	20	22
3 2-Methylphenol	108	13.110	13.110	(1.037)	356332	20	21

304996

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Report Date: 16-Oct-98 23:23:26

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.136	13.136	(1.039)	475142	20	23(M)
	4 4-Methylphenol	108	13.366	13.366	(1.057)	349975	20	24
	25 N-Nitroso-di-n-propylamine	70	13.360	13.360	(1.057)	238337	20	24
	104 Acetophenone	105	13.353	13.353	(1.056)	509230	20	22
	26 Hexachloroethane	117	13.518	13.518	(1.069)	164005	20	22
$	76 Nitrobenzene-d5 (SUR)	82	13.603	13.603	(0.918)	382005	20	22
	27 Nitrobenzene	77	13.643	13.643	(0.920)	499172	20	23
	107 N,N-Dimethylaniline	120	13.643	13.643	(1.079)	505581	20	23
	28 Isophorone	82	14.049	14.049	(0.948)	786191	20	22
	5 2-Nitrophenol	139	14.181	14.181	(0.957)	233876	20	22
	6 2,4-Dimethylphenol	122	14.260	14.260	(0.962)	323363	20	22
	15 Benzoic Acid	122	14.451	14.451	(0.975)	194167	20	21(H)
	29 bis(2-Chloroethoxy)methane	93	14.418	14.418	(0.972)	459215	20	23
	7 2,4-Dichlorophenol	162	14.595	14.595	(0.984)	333951	20	22
	30 1,2,4-Trichlorobenzene	180	14.727	14.727	(0.993)	321483	20	22
*	80 Naphthalene-d8	136	14.826	14.826	(1.000)	1700521	40	
	31 Naphthalene	128	14.859	14.859	(1.002)	899499	20	22
	32 4-Chloroaniline	127	14.951	14.951	(1.008)	429228	20	22
	33 Hexachlorobutadiene	225	15.063	15.063	(1.016)	134066	20	23
	8 4-Chloro-3-methylphenol	107	15.750	15.750	(1.062)	334344	20	22
	34 2-Methylnaphthalene	142	16.012	16.012	(1.080)	676153	20	23
	35 Hexachlorocyclopentadiene	237	16.269	16.269	(0.917)	64170	20	16
	9 2,4,6-Trichlorophenol	196	16.479	16.479	(0.929)	203730	20	21
	10 2,4,5-Trichlorophenol	196	16.545	16.545	(0.932)	206974	20	22
$	77 2-Fluorobiphenyl (SUR)	172	16.618	16.618	(0.937)	745537	20	23
	102 Diphenyl	154	16.782	16.782	(0.946)	891548	20	23
	36 2-Chloronaphthalene	162	16.822	16.822	(0.948)	687706	20	22
	103 Diphenyl Ether	170	16.954	16.954	(0.956)	473048	20	22
	37 2-Nitroaniline	65	16.987	16.987	(0.957)	209314	20	22
	38 Dimethylphthalate	163	17.282	17.282	(0.974)	872909	20	22
	40 2,6-Dinitrotoluene	165	17.387	17.387	(0.980)	219671	20	21(H)
	39 Acenaphthylene	152	17.506	17.506	(0.987)	1123075	20	22
	41 3-Nitroaniline	138	17.663	17.663	(0.996)	156894	20	22
*	82 Acenaphthene-d10	164	17.743	17.743	(1.000)	1100936	40	
	42 Acenaphthene	153	17.795	17.795	(1.003)	689784	20	22
	11 2,4-Dinitrophenol	184	17.848	17.848	(1.006)	404104	50	51
	12 4-Nitrophenol	65	17.954	17.954	(1.012)	322185	50	53
	44 2,4-Dinitrotoluene	165	18.053	18.053	(1.017)	310321	20	23
	43 Dibenzofuran	168	18.079	18.079	(1.019)	954481	20	23
	45 Diethylphthalate	149	18.448	18.448	(1.040)	883070	20	23
	46 4-Chlorophenyl-phenylether	204	18.638	18.638	(1.050)	284854	20	25
	47 Fluorene	166	18.645	18.645	(1.051)	759855	20	24
	48 4-Nitroaniline	138	18.685	18.685	(1.053)	232540	20	22
	13 4,6-Dinitro-2-methylphenol	198	18.738	18.738	(0.928)	400912	50	54
	49 N-Nitrosodiphenylamine	169	18.830	18.830	(0.932)	548643	20	22
	75 1,2-Diphenylhydrazine	77	18.903	18.903	(0.936)	825192	20	23
$	18 2,4,6-Tribromophenol (SUR)	330	19.041	19.041	(1.073)	143902	20	21(H)

304997

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Report Date: 16-Oct-98 23:23:26

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
50 4-Bromophenyl-phenylether	248	19.442	19.442	(0.963)	180345	20	22
51 Hexachlorobenzene	284	19.554	19.554	(0.968)	220311	20	22
14 Pentachlorophenol	266	19.875	19.875	(0.984)	311708	50	51
* 83 Phenanthrene-d10	188	20.197	20.197	(1.000)	1616701	40	
52 Phenanthrene	178	20.237	20.237	(1.002)	1074759	20	23
53 Anthracene	178	20.323	20.323	(1.006)	1136627	20	23
54 Carbazole	167	20.579	20.579	(1.019)	1160391	20	23
55 Di-n-butylphthalate	149	21.130	21.130	(1.046)	1577163	20	24
56 Fluoranthene	202	22.192	22.192	(1.099)	989357	20	24
58 Benzidine	184	22.409	22.409	(1.109)	1865849	50	62
57 Pyrene	202	22.574	22.574	(0.919)	993908	20	20
$ 78 Terphenyl-d14 (SUR)	244	22.804	22.804	(0.928)	715441	20	21
59 Butylbenzylphthalate	149	23.598	23.598	(0.961)	752318	20	20
60 3,3'-Dichlorobenzidine	252	24.490	24.490	(0.997)	973219	50	52
61 Benzo(a)anthracene	228	24.537	24.537	(0.999)	802053	20	23
63 bis(2-Ethylhexyl)phthalate	149	24.524	24.524	(0.998)	963559	20	24
* 81 Chrysene-d12	240	24.564	24.564	(1.000)	1221039	40	
62 Chrysene	228	24.604	24.604	(1.002)	797052	20	22
64 Di-n-octylphthalate	149	25.733	25.733	(0.929)	1770903	20	22
65 Benzo(b)fluoranthene	252	26.692	26.692	(0.963)	966421	20	19
66 Benzo(k)fluoranthene	252	26.758	26.758	(0.966)	1009241	20	22
67 Benzo(a)pyrene	252	27.533	27.533	(0.994)	951975	20	20
* 84 Perylene-d12	264	27.705	27.705	(1.000)	1392208	40	
68 Indeno(1,2,3-cd)pyrene	276	31.339	31.339	(1.131)	1010029	20	21
69 Dibenz(a,h)anthracene	278	31.432	31.432	(1.135)	934386	20	21
70 Benzo(g,h,i)perylene	276	32.482	32.482	(1.172)	999958	20	21

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304998

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Date : 16-OCT-98 22:32:00
Client ID:
Sample Info: SSTD020

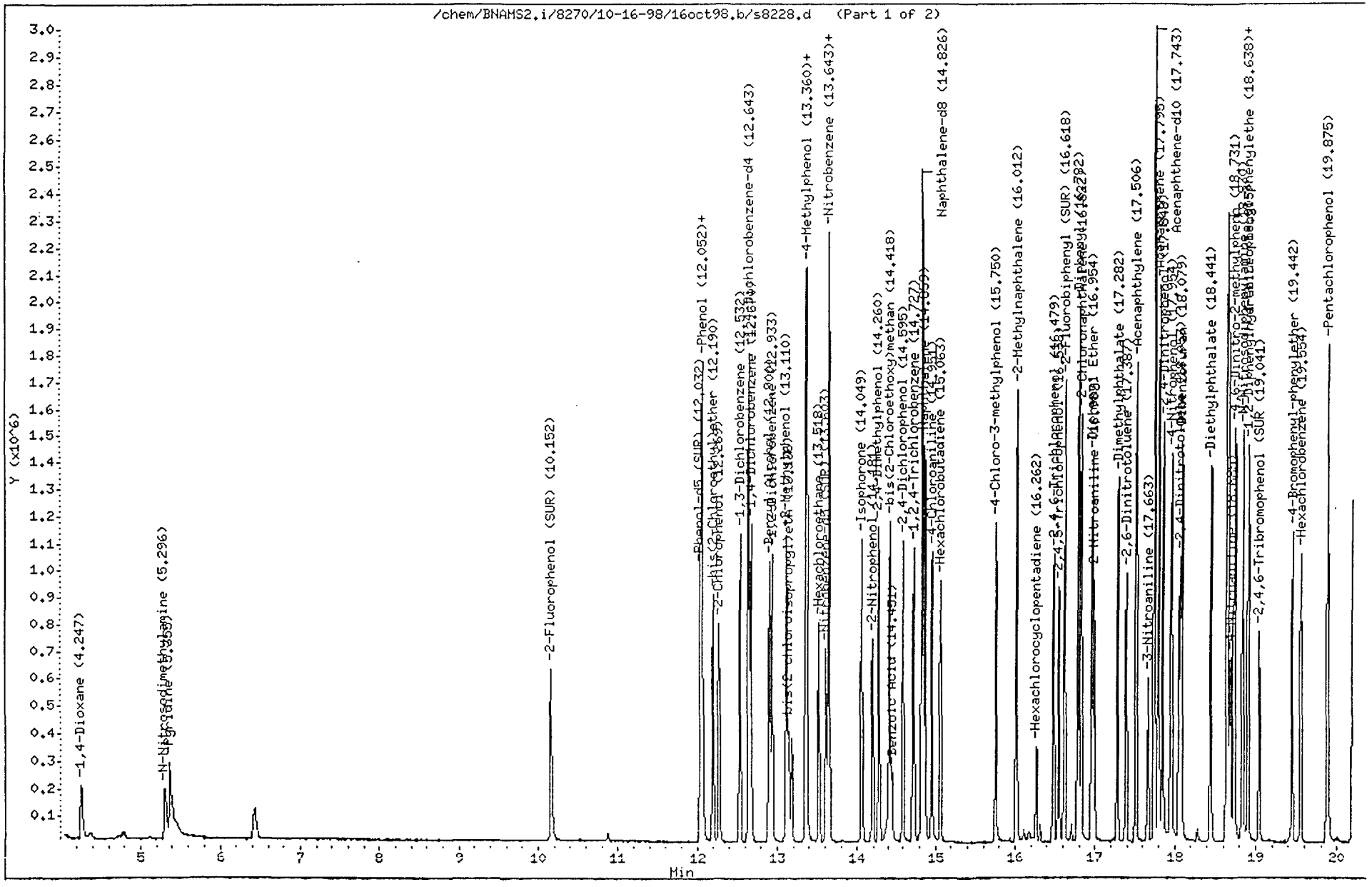
Instrument: BNAMS2.i

Operator: BNAMS 2

304999

Column phase: DB-5

Column diameter: 0.25



340

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Date : 16-OCT-98 22:32:00
Client ID:
Sample Info: SSTD020

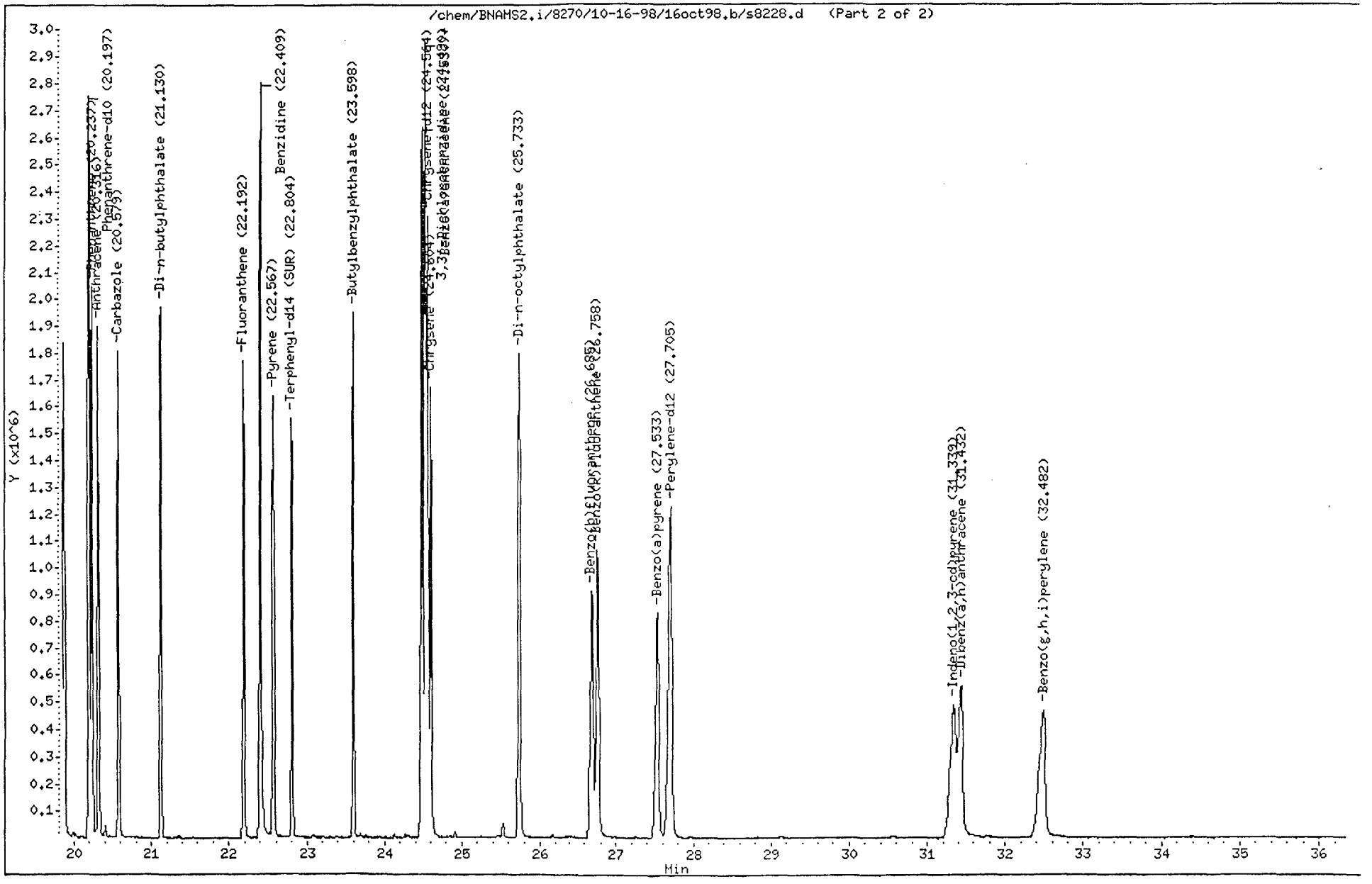
Instrument: BNAMS2.i

Operator: BNAMS 2

305000

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Report Date: 19-Oct-98 10:12:42

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Lab Smp Id: SSTD005-S
Inj Date : 17-OCT-98 00:00:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD005-S
Misc Info : 5 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 19-Oct-98 10:10:10 Quant Type: ISTD
Cal Date : 17-OCT-98 00:00:00 Cal File: s8230.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.215	4.215	(0.334)	32272	5.0	4.6(a)
19 N-Nitrosodimethylamine	74	5.296	5.296	(0.419)	51984	5.0	4.7(aM)
71 Pyridine	79	5.427	5.427	(0.430)	71041	5.0	4.4(aM)
$ 16 2-Fluorophenol (SUR)	112	10.151	10.151	(0.803)	74307	5.0	4.9(a)
$ 17 Phenol-d5 (SUR)	99	12.024	12.024	(0.952)	109786	5.0	5.3
1 Phenol	94	12.051	12.051	(0.954)	122037	5.0	5.5
73 Aniline	93	12.044	12.044	(0.953)	136233	5.0	5.6
20 bis(2-Chloroethyl)ether	93	12.182	12.182	(0.964)	10614	0.50	0.57
2 2-Chlorophenol	128	12.261	12.261	(0.970)	69791	5.0	5.0(a)
21 1,3-Dichlorobenzene	146	12.530	12.530	(0.992)	98779	5.0	5.6
* 79 1,4-Dichlorobenzene-d4	152	12.635	12.635	(1.000)	454102	40	
22 1,4-Dichlorobenzene	146	12.668	12.668	(1.003)	92754	5.0	5.5
74 Benzyl Alcohol	108	12.891	12.891	(1.020)	59063	5.0	5.2
23 1,2-Dichlorobenzene	146	12.924	12.924	(1.023)	86612	5.0	5.4
3 2-Methylphenol	108	13.101	13.101	(1.037)	75685	5.0	5.2

305001

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Report Date: 19-Oct-98 10:12:43

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.134	13.134	(1.039)	122245	5.0	6.2(M)
	4 4-Methylphenol	108	13.357	13.357	(1.057)	75863	5.0	5.6
	25 N-Nitroso-di-n-propylamine	70	13.343	13.343	(1.056)	5521	0.50	0.60
	104 Acetophenone	105	13.337	13.337	(1.056)	119750	5.0	5.8
	26 Hexachloroethane	117	13.514	13.514	(1.070)	3971	0.50	0.58
$	76 Nitrobenzene-d5 (SUR)	82	13.599	13.599	(0.917)	84965	5.0	5.4
	27 Nitrobenzene	77	13.632	13.632	(0.919)	12516	0.50	0.62
	107 N,N-Dimethylaniline	120	13.632	13.632	(1.079)	11598	0.50	0.58
	28 Isophorone	82	14.038	14.038	(0.947)	171953	5.0	5.4
	5 2-Nitrophenol	139	14.176	14.176	(0.956)	47829	5.0	5.0
	6 2,4-Dimethylphenol	122	14.255	14.255	(0.961)	64462	5.0	5.0(a)
	15 Benzoic Acid	122	14.373	14.373	(0.969)	17054	5.0	2.4(aH)
	29 bis(2-Chloroethoxy)methane	93	14.413	14.413	(0.972)	122264	5.0	6.5
	7 2,4-Dichlorophenol	162	14.590	14.590	(0.984)	67649	5.0	5.1
	30 1,2,4-Trichlorobenzene	180	14.721	14.721	(0.993)	8146	0.50	0.61
*	80 Naphthalene-d8	136	14.826	14.826	(1.000)	1482491	40	
	31 Naphthalene	128	14.859	14.859	(1.002)	215371	5.0	5.8
	32 4-Chloroaniline	127	14.944	14.944	(1.008)	98260	5.0	5.6
	33 Hexachlorobutadiene	225	15.063	15.063	(1.016)	6326	1.0	1.2
	8 4-Chloro-3-methylphenol	107	15.750	15.750	(1.062)	67667	5.0	5.2
	34 2-Methylnaphthalene	142	16.013	16.013	(1.080)	157317	5.0	5.8
	35 Hexachlorocyclopentadiene	237	16.269	16.269	(0.917)	10990	5.0	3.5(a)
	9 2,4,6-Trichlorophenol	196	16.472	16.472	(0.929)	40381	5.0	5.0
	10 2,4,5-Trichlorophenol	196	16.544	16.544	(0.933)	41765	5.0	5.1
$	77 2-Fluorobiphenyl (SUR)	172	16.610	16.610	(0.936)	168230	5.0	5.8
	102 Diphenyl	154	16.781	16.781	(0.946)	201191	5.0	6.0
	36 2-Chloronaphthalene	162	16.820	16.820	(0.948)	155592	5.0	5.8
	103 Diphenyl Ether	170	16.952	16.952	(0.956)	111627	5.0	5.9
	37 2-Nitroaniline	65	16.978	16.978	(0.957)	90272	10	11
	38 Dimethylphthalate	163	17.273	17.273	(0.974)	189149	5.0	5.5
	40 2,6-Dinitrotoluene	165	17.378	17.378	(0.980)	8257	1.0	0.96(a)
	39 Acenaphthylene	152	17.503	17.503	(0.987)	241311	5.0	5.5
	41 3-Nitroaniline	138	17.653	17.653	(0.995)	94787	10	14
*	82 Acenaphthene-d10	164	17.739	17.739	(1.000)	924899	40	
	42 Acenaphthene	153	17.792	17.792	(1.003)	153000	5.0	5.7
	11 2,4-Dinitrophenol	184	17.838	17.838	(1.006)	106739	20	17(a)
	12 4-Nitrophenol	65	17.943	17.943	(1.012)	98593	20	20(a)
	43 Dibenzofuran	168	18.075	18.075	(1.019)	226363	5.0	6.1
	45 Diethylphthalate	149	18.435	18.435	(1.039)	219651	5.0	6.4
	46 4-Chlorophenyl-phenylether	204	18.632	18.632	(1.050)	65640	5.0	6.4
	47 Fluorene	166	18.639	18.639	(1.051)	180793	5.0	6.4
	48 4-Nitroaniline	138	18.665	18.665	(1.052)	96761	10	11
	13 4,6-Dinitro-2-methylphenol	198	18.718	18.718	(0.927)	122831	20	20(a)
	49 N-Nitrosodiphenylamine	169	18.823	18.823	(0.932)	132046	5.0	6.1
	75 1,2-Diphenylhydrazine	77	18.896	18.896	(0.936)	205825	5.0	6.4
$	18 2,4,6-Tribromophenol (SUR)	330	19.033	19.033	(1.073)	28445	5.0	5.0(a)
	50 4-Bromophenyl-phenylether	248	19.440	19.440	(0.963)	41149	5.0	5.9

305002

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Report Date: 19-Oct-98 10:12:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
51 Hexachlorobenzene	284	19.545	19.545	(0.968)	4673	0.50	0.55
14 Pentachlorophenol	266	19.872	19.872	(0.984)	88864	20	18(a)
* 83 Phenanthrene-d10	188	20.194	20.194	(1.000)	1340386	40	
52 Phenanthrene	178	20.227	20.227	(1.002)	246675	5.0	6.0
53 Anthracene	178	20.313	20.313	(1.006)	246866	5.0	5.8
54 Carbazole	167	20.569	20.569	(1.019)	252362	5.0	5.7
55 Di-n-butylphthalate	149	21.126	21.126	(1.046)	358427	5.0	6.1
56 Fluoranthene	202	22.187	22.187	(1.099)	220967	5.0	6.1
58 Benzidine	184	22.397	22.397	(1.109)	626192	20	24
57 Pyrene	202	22.561	22.561	(0.919)	219683	5.0	5.2
$ 78 Terphenyl-d14 (SUR)	244	22.804	22.804	(0.929)	154698	5.0	5.3
59 Butylbenzylphthalate	149	23.597	23.597	(0.961)	169292	5.0	5.2
60 3,3'-Dichlorobenzidine	252	24.468	24.468	(0.996)	168451	10	10
61 Benzo(a)anthracene	228	24.528	24.528	(0.999)	21218	0.50	0.64
63 bis(2-Ethylhexyl)phthalate	149	24.521	24.521	(0.999)	193903	5.0	5.4
* 81 Chrysene-d12	240	24.555	24.555	(1.000)	1062078	40	
62 Chrysene	228	24.588	24.588	(1.001)	175423	5.0	5.4
64 Di-n-octylphthalate	149	25.729	25.729	(0.929)	382491	5.0	5.4
65 Benzo(b)fluoranthene	252	26.666	26.666	(0.963)	21994	0.50	0.51
66 Benzo(k)fluoranthene	252	26.732	26.732	(0.965)	21684	0.50	0.54
67 Benzo(a)pyrene	252	27.512	27.512	(0.993)	19162	0.50	0.48(a)
* 84 Perylene-d12	264	27.696	27.696	(1.000)	1186788	40	
68 Indeno(1,2,3-cd)pyrene	276	31.281	31.281	(1.129)	18296	0.50	0.45(aH)
69 Dibenz(a,h)anthracene	278	31.366	31.366	(1.133)	18679	0.50	0.50(aM)
70 Benzo(g,h,i)perylene	276	32.409	32.409	(1.170)	201075	5.0	5.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

305003

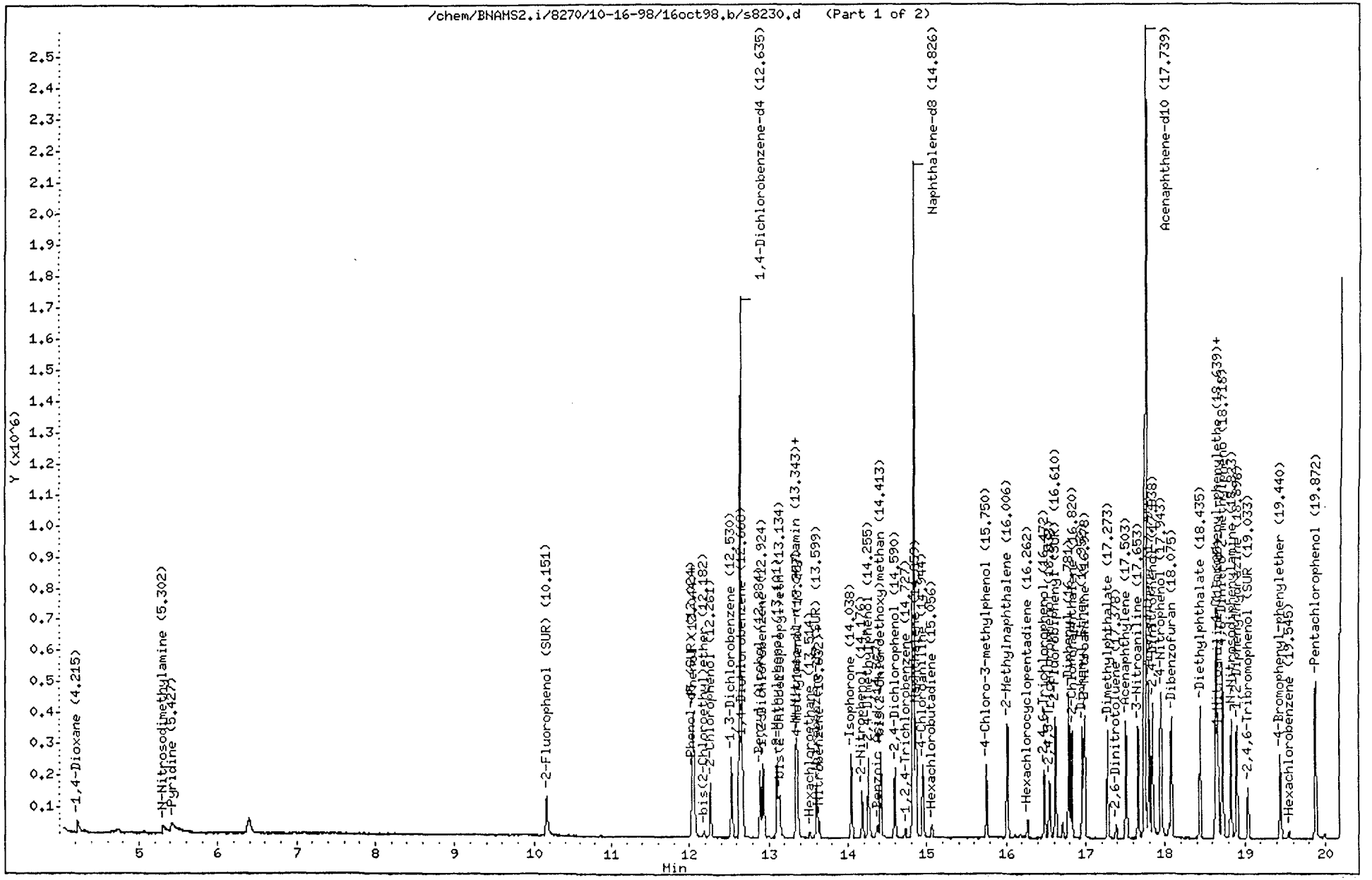
Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Date : 17-OCT-98 00:00:00
Client ID:
Sample Info: SSTD005-S

Column phase: DB-5

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

305004



Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Date : 17-OCT-98 00:00:00
Client ID:
Sample Info: SSTD005-S

Instrument: BNAMS2.i

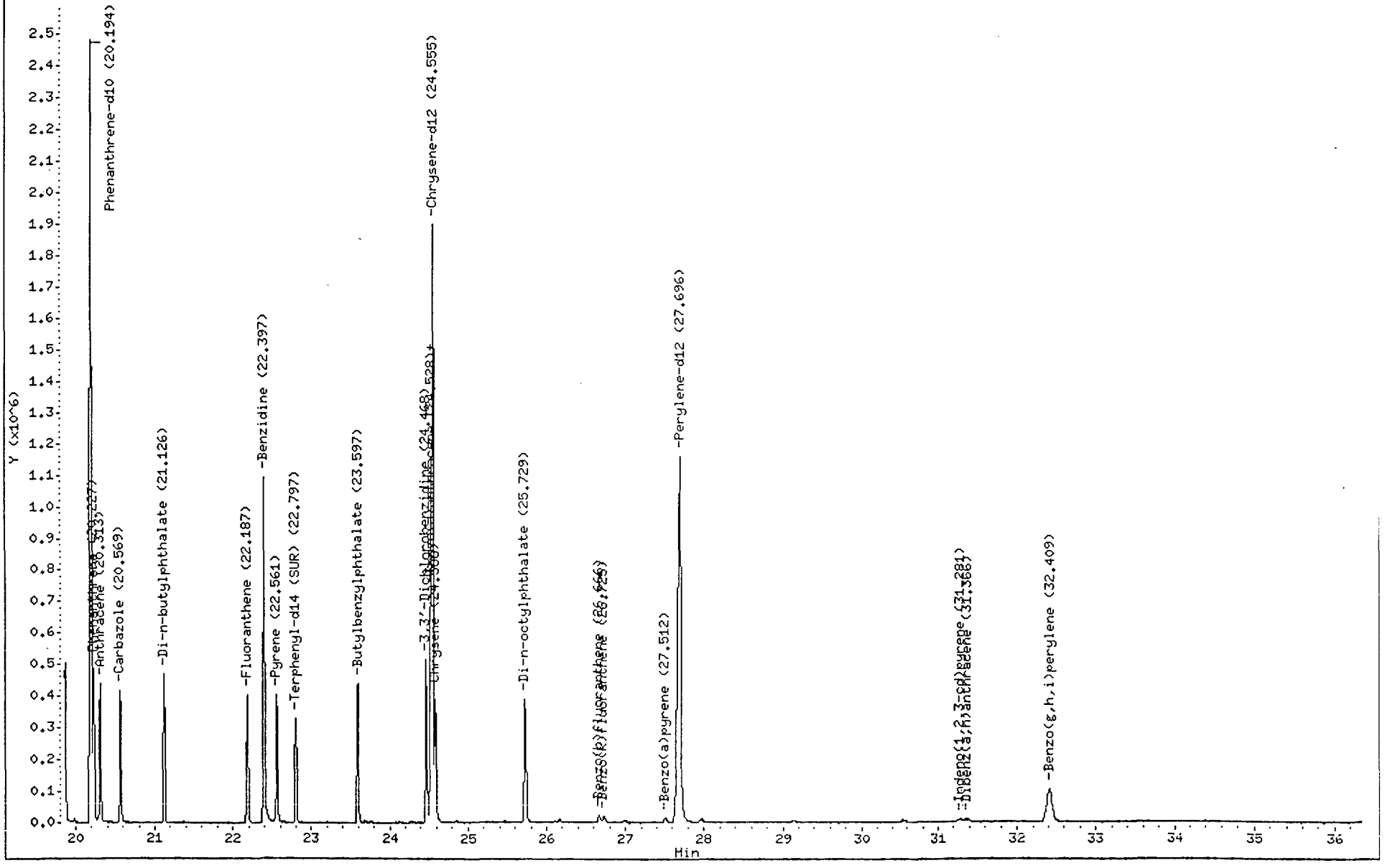
Operator: BNAMS 2
Column diameter: 0.25

Column phase: DB-5

305005

346

/chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d (Part 2 of 2)



SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/21/98 Time: 1031

Lab File ID: S8322 Init. Calib. Date(s): 10/16/98 10/17/98

Init. Calib. Times: 2018 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.955	2.073		-6.0	20.0
2-Chlorophenol	1.227	1.327		-8.1	20.0
2-Methylphenol	1.290	1.314		-1.7	20.0
4-Methylphenol	1.182	1.234		-4.2	20.0
2-Nitrophenol	0.255	0.265		-3.9	20.0
2,4-Dimethylphenol	0.347	0.346		0.3	20.0
2,4-Dichlorophenol	0.358	0.360		-0.0	20.0
4-Chloro-3-methylphenol	0.353	0.355		-0.0	20.0
2,4,6-Trichlorophenol	0.347	0.336		3.2	20.0
2,4,5-Trichlorophenol	0.351	0.350		0.3	20.0
2,4-Dinitrophenol	0.275	0.270	0.05	1.8	20.0
4-Nitrophenol	0.218	0.225	0.05	-3.2	20.0
4,6-Dinitro-2-methylphenol	0.184	0.183		0.5	20.0
Pentachlorophenol	0.148	0.152		-2.7	20.0
Benzoic Acid	0.192	0.244		-26.9	20.0
N-Nitrosodimethylamine	0.972	1.078		-10.9	20.0
bis(2-Chloroethyl)ether	1.644	1.702		-3.5	20.0
1,3-Dichlorobenzene	1.551	1.574		-1.3	20.0
1,4-Dichlorobenzene	1.493	1.505		0.1	20.0
1,2-Dichlorobenzene	1.425	1.492		-4.7	20.0
bis(2-chloroisopropyl)ether	1.725	1.790		-3.6	20.0
N-Nitroso-di-n-propylamine	0.816	0.881	0.05	-7.8	20.0
Hexachloroethane	0.607	0.633		-4.1	20.0
Nitrobenzene	0.540	0.508		5.9	20.0
Isophorone	0.866	0.882		-1.8	20.0
bis(2-Chloroethoxy)methane	0.508	0.491		3.3	20.0
1,2,4-Trichlorobenzene	0.359	0.339		5.6	20.0
Naphthalene	0.992	0.948		4.4	20.0
4-Chloroaniline	0.475	0.476		-0.0	20.0
Hexachlorobutadiene	0.144	0.140		2.8	20.0
2-Methylnaphthalene	0.728	0.713		2.1	20.0
Hexachlorocyclopentadiene	0.135	0.107	0.05	20.7	20.0
2-Chloronaphthalene	1.165	1.158		0.6	20.0
2-Nitroaniline	0.348	0.344		1.1	20.0
Dimethylphthalate	1.480	1.452		1.9	20.0
Acenaphthylene	1.884	1.896		0.1	20.0
2,6-Dinitrotoluene	0.370	0.381		-2.8	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/21/98 Time: 1031

Lab File ID: S8322 Init. Calib. Date(s): 10/16/98 10/17/98

Init. Calib. Times: 2018 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.294	0.280		4.8	20.0
Acenaphthene	1.156	1.103		4.6	20.0
Dibenzofuran	1.602	1.576		1.6	20.0
2,4-Dinitrotoluene	0.494	0.505		-2.2	20.0
Diethylphthalate	1.481	1.461		1.4	20.0
4-Chlorophenyl-phenylether	0.444	0.444		0.0	20.0
Fluorene	1.222	1.158		5.2	20.0
4-Nitroaniline	0.391	0.424		-8.4	20.0
N-Nitrosodiphenylamine	0.648	0.616		4.9	20.0
4-Bromophenyl-phenylether	0.209	0.204		2.4	20.0
Hexachlorobenzene	0.253	0.248		2.0	20.0
Phenanthrene	1.221	1.168		4.3	20.0
Anthracene	1.262	1.248		1.1	20.0
Carbazole	1.316	1.295		1.6	20.0
Di-n-butylphthalate	1.746	1.703		2.5	20.0
Fluoranthene	1.083	1.067		1.5	20.0
Pyrene	1.604	1.709		-6.5	20.0
Benzidine	0.783	0.681		13.0	20.0
Butylbenzylphthalate	1.217	1.203		1.2	20.0
3,3'-Dichlorobenzidine	0.617	0.609		1.3	20.0
Benzo(a)anthracene	1.238	1.200		3.1	20.0
Chrysene	1.217	1.236		-1.4	20.0
bis(2-Ethylhexyl)phthalate	1.356	1.382		-1.9	20.0
Di-n-octylphthalate	2.392	2.381		0.4	20.0
Benzo(b)fluoranthene	1.440	1.378		4.3	20.0
Benzo(k)fluoranthene	1.356	1.373		-1.2	20.0
Benzo(a)pyrene	1.330	1.361		-2.3	20.0
Indeno(1,2,3-cd)pyrene	1.364	1.421		-4.0	20.0
Dibenz(a,h)anthracene	1.255	1.295		-3.0	20.0
Benzo(g,h,i)perylene	1.350	1.414		-4.7	20.0
Pyridine	1.423	1.591		-11.8	20.0
Aniline	2.157	2.185		-1.1	20.0
Benzyl Alcohol	0.991	1.047		-5.6	20.0
1,2-Diphenylhydrazine	0.967	0.926		4.2	20.0
Diphenyl	1.462	1.419		2.9	20.0
Diphenyl Ether	0.815	0.792		2.8	20.0
Acetophenone	1.825	1.889	0.01	-3.5	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/21/98 Time: 1031

Lab File ID: S8322 Init. Calib. Date(s): 10/16/98 10/17/98

Init. Calib. Times: 2018 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,4-Dioxane	0.613	0.647	0.01	-5.5	20.0
N,N-Dimethylaniline	1.771	1.814	0.01	-2.4	20.0
2-Fluorophenol (SUR)	1.344	1.464		-8.9	20.0
Phenol-d5 (SUR)	1.809	1.848		-2.0	20.0
2,4,6-Tribromophenol (SUR)	0.246	0.241		2.0	20.0
Nitrobenzene-d5 (SUR)	0.424	0.437		-2.9	20.0
2-Fluorobiphenyl (SUR)	1.247	1.224		1.8	20.0
Terphenyl-d14 (SUR)	1.107	1.186		-7.1	20.0

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8322.d
Report Date: 21-Oct-98 11:46:32

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8322.d
Lab Smp Id: SSTD294
Inj Date : 21-OCT-98 10:31:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD294
Misc Info : 50 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/21oct98.b/8270C-REV..m
Meth Date : 21-Oct-98 10:59:01 Quant Type: ISTD
Cal Date : 17-OCT-98 00:00:00 Cal File: s8230.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
106 1,4-Dioxane	88	4.246	4.246	(0.336)	399911	50	53
19 N-Nitrosodimethylamine	74	5.322	5.322	(0.421)	666928	50	55(M)
71 Pyridine	79	5.355	5.355	(0.423)	983713	50	56(M)
$ 16 2-Fluorophenol (SUR)	112	10.173	10.173	(0.804)	905044	50	54
$ 17 Phenol-d5 (SUR)	99	12.061	12.061	(0.954)	1142684	50	51
1 Phenol	94	12.087	12.087	(0.956)	1281971	50	53
73 Aniline	93	12.067	12.067	(0.954)	1351281	50	51
20 bis(2-Chloroethyl)ether	93	12.206	12.206	(0.965)	1052534	50	52
2 2-Chlorophenol	128	12.278	12.278	(0.971)	820422	50	54
21 1,3-Dichlorobenzene	146	12.541	12.541	(0.992)	973405	50	51
* 79 1,4-Dichlorobenzene-d4	152	12.646	12.646	(1.000)	494688	40	
22 1,4-Dichlorobenzene	146	12.679	12.679	(1.003)	930794	50	50
74 Benzyl Alcohol	108	12.916	12.916	(1.021)	647478	50	53
23 1,2-Dichlorobenzene	146	12.942	12.942	(1.023)	922291	50	52
3 2-Methylphenol	108	13.126	13.126	(1.038)	812341	50	51

305009

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8322.d
Report Date: 21-Oct-98 11:46:32

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
24 bis(2-chloroisopropyl)ether	45	13.146	13.146	(1.040)	1106653	50	52(M)
4 4-Methylphenol	108	13.390	13.390	(1.059)	763149	50	52
25 N-Nitroso-di-n-propylamine	70	13.383	13.383	(1.058)	544966	50	54
104 Acetophenone	105	13.370	13.370	(1.057)	1168332	50	52
26 Hexachloroethane	117	13.522	13.522	(1.069)	391699	50	52
$ 76 Nitrobenzene-d5 (SUR)	82	13.620	13.620	(0.918)	934307	50	52
27 Nitrobenzene	77	13.660	13.660	(0.921)	1085427	50	47
107 N,N-Dimethylaniline	120	13.660	13.660	(1.080)	1121429	50	51
28 Isophorone	82	14.067	14.067	(0.948)	1884699	50	51
5 2-Nitrophenol	139	14.193	14.193	(0.956)	567403	50	52
6 2,4-Dimethylphenol	122	14.285	14.285	(0.963)	740339	50	50
15 Benzoic Acid	122	14.535	14.535	(0.980)	521307	50	64
29 bis(2-Chloroethoxy)methane	93	14.430	14.430	(0.972)	1049548	50	48
7 2,4-Dichlorophenol	162	14.614	14.614	(0.985)	769576	50	50
30 1,2,4-Trichlorobenzene	180	14.740	14.740	(0.993)	725125	50	47
* 80 Naphthalene-d8	136	14.839	14.839	(1.000)	1710034	40	
31 Naphthalene	128	14.872	14.872	(1.002)	2027017	50	48
32 4-Chloroaniline	127	14.965	14.965	(1.008)	1017195	50	50
33 Hexachlorobutadiene	225	15.070	15.070	(1.016)	299516	50	49
8 4-Chloro-3-methylphenol	107	15.767	15.767	(1.062)	758441	50	50
34 2-Methylnaphthalene	142	16.023	16.023	(1.080)	1524015	50	49
35 Hexachlorocyclopentadiene	237	16.274	16.274	(0.917)	143396	50	40
9 2,4,6-Trichlorophenol	196	16.491	16.491	(0.929)	452094	50	48
10 2,4,5-Trichlorophenol	196	16.557	16.557	(0.933)	470341	50	50
$ 77 2-Fluorobiphenyl (SUR)	172	16.630	16.630	(0.937)	1645280	50	49
102 Diphenyl	154	16.802	16.802	(0.946)	1907838	50	48
36 2-Chloronaphthalene	162	16.842	16.842	(0.949)	1556341	50	50
103 Diphenyl Ether	170	16.967	16.967	(0.956)	1065264	50	49
37 2-Nitroaniline	65	17.007	17.007	(0.958)	463122	50	50
38 Dimethylphthalate	163	17.297	17.297	(0.974)	1952339	50	49
40 2,6-Dinitrotoluene	165	17.409	17.409	(0.981)	512200	50	51
39 Acenaphthylene	152	17.521	17.521	(0.987)	2548781	50	50
41 3-Nitroaniline	138	17.686	17.686	(0.996)	376672	50	48
* 82 Acenaphthene-d10	164	17.752	17.752	(1.000)	1075344	40	
42 Acenaphthene	153	17.812	17.812	(1.003)	1483280	50	48
11 2,4-Dinitrophenol	184	17.871	17.871	(1.007)	580605	80	78
12 4-Nitrophenol	65	17.984	17.984	(1.013)	483589	80	82
44 2,4-Dinitrotoluene	165	18.076	18.076	(1.018)	679034	50	51
43 Dibenzofuran	168	18.096	18.096	(1.019)	2119044	50	49
45 Diethylphthalate	149	18.465	18.465	(1.040)	1963424	50	49
46 4-Chlorophenyl-phenylether	204	18.650	18.650	(1.051)	596943	50	50
47 Fluorene	166	18.663	18.663	(1.051)	1556245	50	47
48 4-Nitroaniline	138	18.723	18.723	(1.055)	569271	50	54
13 4,6-Dinitro-2-methylphenol	198	18.763	18.763	(0.928)	572742	80	79
49 N-Nitrosodiphenylamine	169	18.856	18.856	(0.933)	1206443	50	48
75 1,2-Diphenylhydrazine	77	18.922	18.922	(0.936)	1813565	50	48
$ 18 2,4,6-Tribromophenol (SUR)	330	19.061	19.061	(1.074)	324490	50	49

305010

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8322.d
Report Date: 21-Oct-98 11:46:32

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
50 4-Bromophenyl-phenylether	248	19.463	19.463	(0.963)	400620	50	49
51 Hexachlorobenzene	284	19.568	19.568	(0.968)	486056	50	49
14 Pentachlorophenol	266	19.898	19.898	(0.984)	476485	80	82
* 83 Phenanthrene-d10	188	20.215	20.215	(1.000)	1567175	40	
52 Phenanthrene	178	20.255	20.255	(1.002)	2289081	50	48
53 Anthracene	178	20.341	20.341	(1.006)	2444840	50	49
54 Carbazole	167	20.598	20.598	(1.019)	2537275	50	49
55 Di-n-butylphthalate	149	21.144	21.144	(1.046)	3336790	50	49
56 Fluoranthene	202	22.216	22.216	(1.099)	2090809	50	49
58 Benzidine	184	22.427	22.427	(1.109)	2135379	80	70
57 Pyrene	202	22.593	22.593	(0.919)	2171195	50	53
$ 78 Terphenyl-d14 (SUR)	244	22.831	22.831	(0.929)	1507346	50	54
59 Butylbenzylphthalate	149	23.622	23.622	(0.961)	1528672	50	49
60 3,3'-Dichlorobenzidine	252	24.519	24.519	(0.997)	1238591	80	79
61 Benzo(a)anthracene	228	24.566	24.566	(0.999)	1524701	50	48
63 bis(2-Ethylhexyl)phthalate	149	24.546	24.546	(0.998)	1756206	50	51
* 81 Chrysene-d12	240	24.586	24.586	(1.000)	1016315	40	
62 Chrysene	228	24.633	24.633	(1.002)	1570043	50	51
64 Di-n-octylphthalate	149	25.767	25.767	(0.929)	3419392	50	50
65 Benzo(b)fluoranthene	252	26.736	26.736	(0.964)	1979168	50	48
66 Benzo(k)fluoranthene	252	26.816	26.816	(0.967)	1971724	50	51
67 Benzo(a)pyrene	252	27.594	27.594	(0.995)	1953758	50	51
* 84 Perylene-d12	264	27.740	27.740	(1.000)	1148739	40	
68 Indeno(1,2,3-cd)pyrene	276	31.437	31.437	(1.133)	2040233	50	52
69 Dibenz(a,h)anthracene	278	31.550	31.550	(1.137)	1859827	50	52
70 Benzo(g,h,i)perylene	276	32.624	32.624	(1.176)	2029835	50	52

QC Flag Legend

M - Compound response manually integrated.

305011

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8322.d
Date : 21-OCT-98 10:31:00
Client ID:
Sample Info: SSTD294

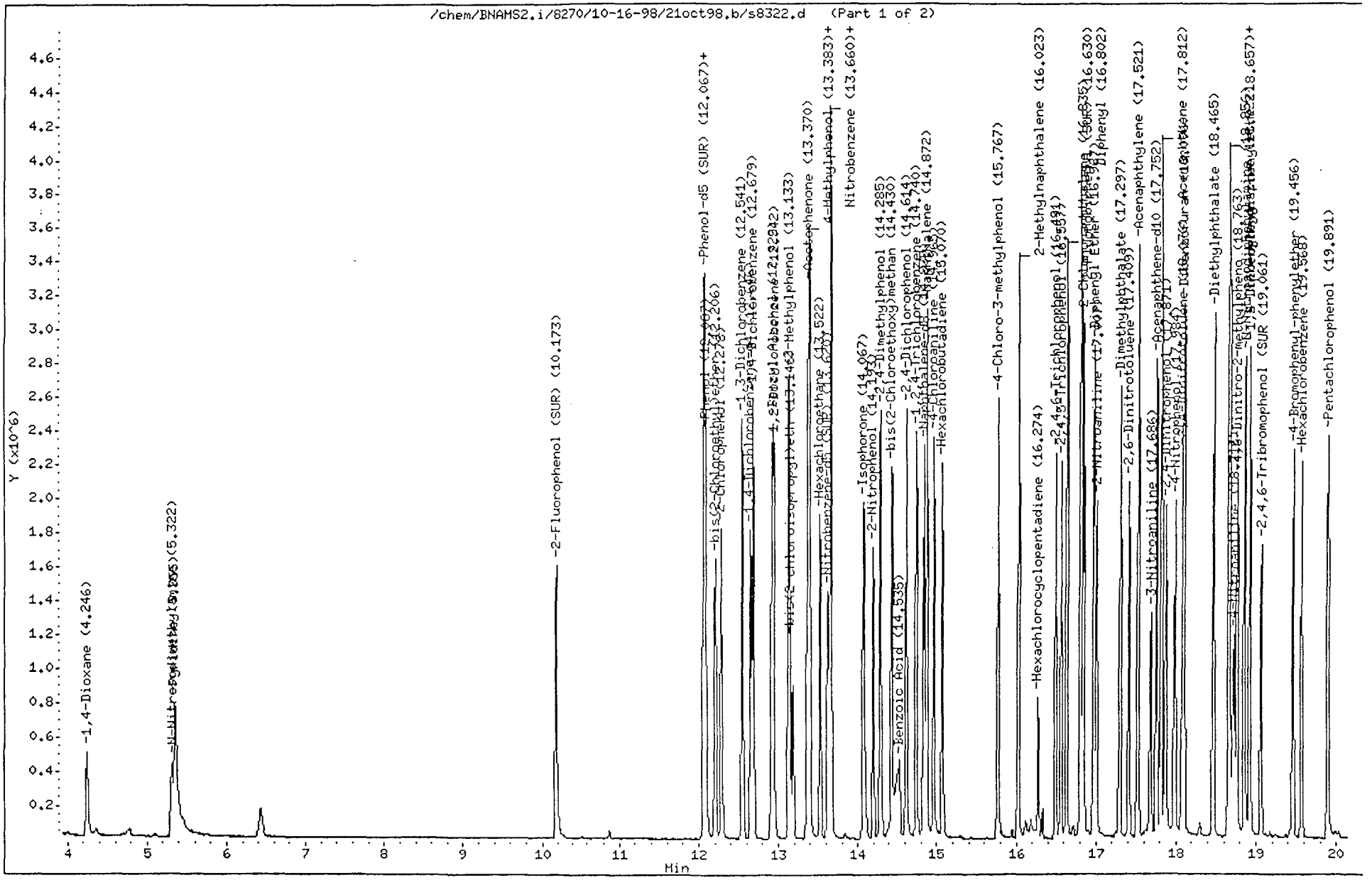
Instrument: BNAMS2.i

Operator: BNAMS 2

305012

Column phase: DB-5

Column diameter: 0.25



353

Data File: /chem/BNAMS2.i/8270/10-16-98/21oct98.b/s8322.d
Date : 21-OCT-98 10:31:00
Client ID:
Sample Info: SSTD294

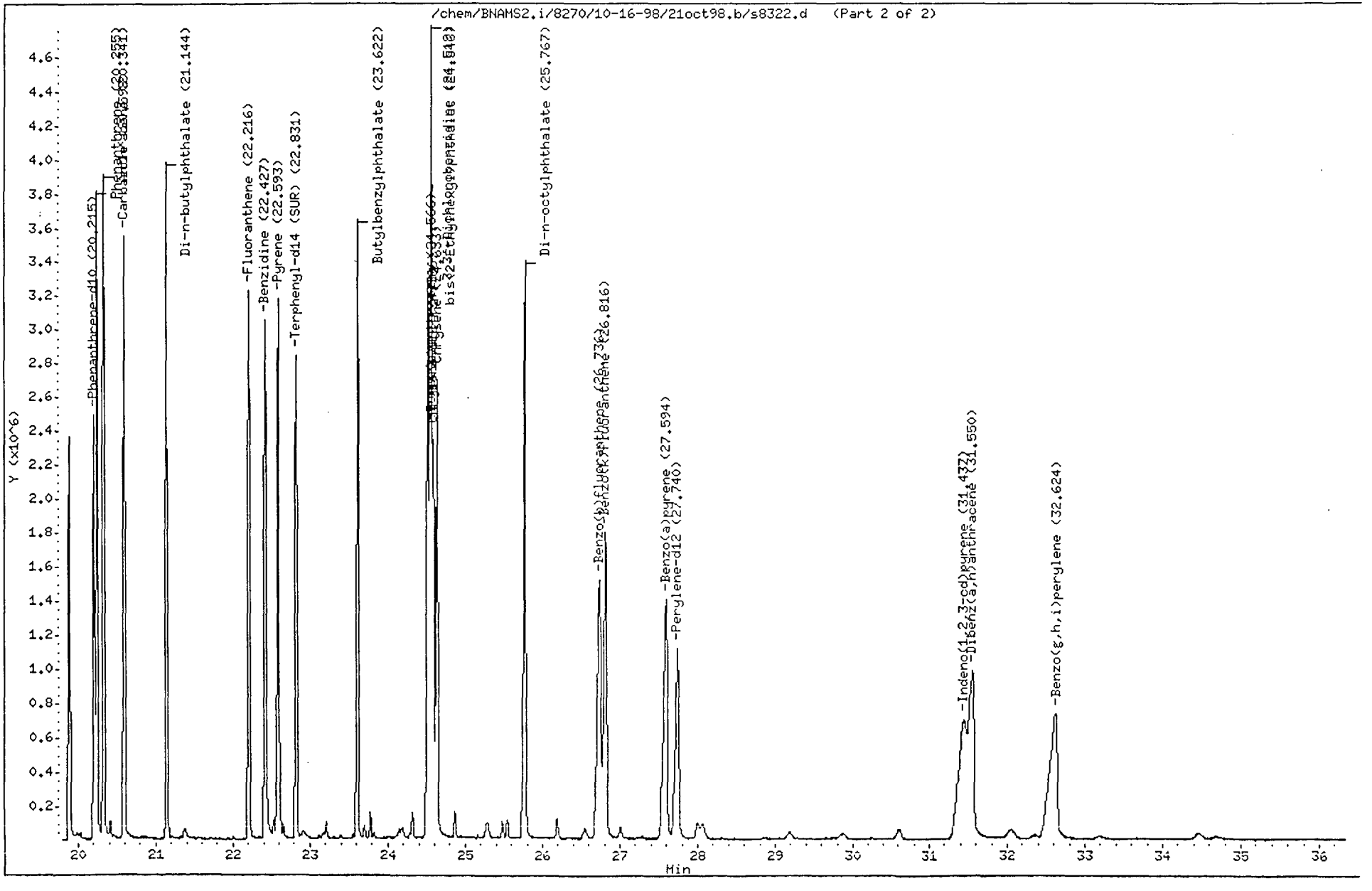
Instrument: BNAMS2.i

Operator: BNAMS 2

305013

Column phase: DB-5

Column diameter: 0.25



VOLATILE SYSTEM MONITORING COMPOUND RECOVERY
METHOD 8260B

Matrix: SOIL Level: HIGH Lab Job No: H950

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	88662	102	95	112		0
02	88684	96	89	102		0
03	88685	100	92	108		0
04	88686	100	93	108		0
05	88666	88	77	91		0
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
S1	= 1,2-Dichloroethane-d4	(63-112)
S2	= Toluene-d8	(74-120)
S3	= Bromofluorobenzene	(76-123)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

305014

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY
METHOD 8260B

Matrix: SOIL Level: HIGH Lab Job No: H950

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	EV288B	100	95	113		0
02	AV293	98	100	92		0
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
S1	= 1,2-Dichloroethane-d4	(63-112)
S2	= Toluene-d8	(74-120)
S3	= Bromofluorobenzene	(76-123)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY
METHOD 8260B

Matrix: WATER Level: LOW Lab Job No: H950

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	CV292	88	93	91		0
02	88663	88	93	95		0
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
S1	= 1,2-Dichloroethane-d4	(71-121)
S2	= Toluene-d8	(72-122)
S3	= Bromofluorobenzene	(71-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

305016

SEMI-VOLATILE SURROGATE RECOVERY
METHOD 8270C

Matrix: SOIL Level: LOW Lab Job No: H950

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
01	SB288A	86	91	94	91	85	100	0
02	88677				107	113	128	0
03	88677R1				107	113	133	0
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

		QC LIMITS
S1	= 2-Fluorophenol	(28-139)
S2	= Phenol-d5	(45-132)
S3	= 2,4,6-Tribromophenol	(52-145)
S4	= Nitrobenzene-d5	(59-113)
S5	= 2-Fluorobiphenyl	(62-120)
S6	= Terphenyl-d14	(76-138)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

305017

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8260B

Matrix: SOIL

Level: HIGH

Matrix Spike - Lab Sample No.: 90448

MS Sample from Lab Job No: I220

QA Batch: 8020

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	6677	0.00	5400	81	59-172
Trichloroethene	6677	0.00	6400	96	62-137
Benzene	6677	0.00	5600	84	66-142
Toluene	6677	0.00	5800	87	59-139
Chlorobenzene	6677	0.00	5800	87	60-133

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	6677	5700	85	5	22	59-172
Trichloroethene	6677	6500	97	2	24	62-137
Benzene	6677	5800	87	4	21	66-142
Toluene	6677	5800	87	0	21	59-139
Chlorobenzene	6677	5900	88	2	21	60-133

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

305018

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/26oct98.b/e4864.d
Report Date: 30-Oct-1998 15:40

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/26oct98.b/e4864.d
Lab Smp Id: 90448 Client Smp ID: B-31_0-0.5
Inj Date : 26-OCT-1998 14:05
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 90448;50;18.6;11.5;25
Misc Info : I220;8020;DB
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/26oct98.b/8260newHIGH.m
Meth Date : 26-Oct-98 08:10:31 Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 12
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.40
Processing Host: hpd2

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	50.000	Dilution Factor
Vt	25.000	Volume of final extract (mL)
Ws	11.500	Weight of sample extracted (g)
M	18.600	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.625	8.680	(0.950)	751129	46.0199	6100
* 19 Fluorobenzene	96	9.077	9.149	(1.000)	2637396	50.0000	
$ 37 Toluene-d8 (SUR)	98	11.057	11.117	(0.868)	1918848	42.4292	5700
* 32 Chlorobenzene-d5	117	12.741	12.804	(1.000)	2124090	50.0000	
$ 41 Bromofluorobenzene (SUR)	174	14.020	14.071	(0.921)	674140	46.7243	6200
* 91 1,4-Dichlorobenzene-d4	152	15.221	15.276	(1.000)	702608	50.0000	

305019

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/26oct98.b/e4864.d
Date : 26-OCT-1998 14:05
Client ID: B-31_0-0.5
Sample Info: 90448;50;18.6;11.5;25

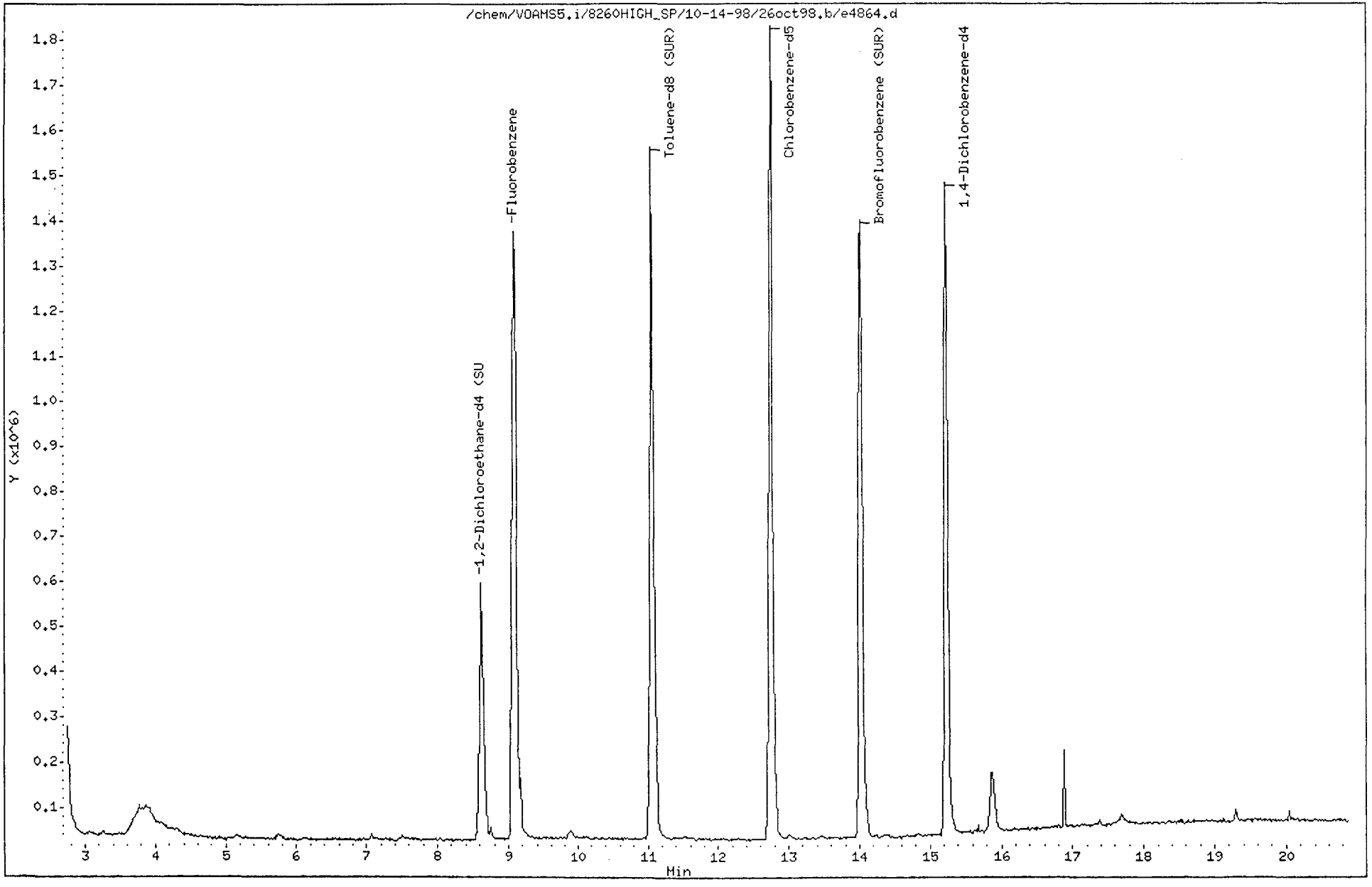
Instrument: VOAMS5.i

Operator: VOAMS 5

305020

Column phase: DB624

Column diameter: 0.53



361

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4938.d
Report Date: 30-Oct-1998 15:43

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4938.d
Lab Smp Id: 90448MS Client Smp ID: B-31_0-0.5MS
Inj Date : 29-OCT-1998 20:54
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 90448MS;50;18.6;11.5;25
Misc Info : I220;8020;TL
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/8260newHIGH.m
Meth Date : 29-Oct-1998 10:56 V Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 21 QC Sample: MS
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.40
Processing Host: hpd2

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	50.000	Dilution Factor
Vt	25.000	Volume of final extract (mL)
Ws	11.500	Weight of sample extracted (g)
M	18.600	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Chloromethane	50	3.154	3.201	(0.346)	518076	41.7244	5600
4 Vinyl Chloride	62	3.372	3.419	(0.369)	503149	50.1911	6700
3 Bromomethane	94	3.840	3.903	(0.421)	477402	40.1996	5400
5 Chloroethane	64	3.981	4.043	(0.436)	326179	35.2873	4700
9 Trichlorofluoromethane	101	4.433	4.464	(0.486)	750807	30.5749	4100
10 1,1-Dichloroethene	96	5.150	5.167	(0.564)	576527	40.7686	5400
6 Methylene Chloride	84	5.789	5.807	(0.634)	670511	44.9731	6000
12 trans-1,2-Dichloroethene	96	6.179	6.213	(0.677)	673396	41.8876	5600
11 1,1-Dichloroethane	63	6.740	6.759	(0.739)	1714354	47.1918	6300
15 Chloroform	83	7.987	7.992	(0.875)	1433218	44.1624	5900
20 1,1,1-Trichloroethane	97	8.299	8.320	(0.909)	1156616	40.3491	5400
21 Carbon Tetrachloride	117	8.548	8.570	(0.937)	1216774	42.8930	5700
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.673	8.680	(0.950)	816115	46.1472	6200
28 Benzene	78	8.783	8.805	(0.962)	2002157	41.5890	5600
17 1,2-Dichloroethane	62	8.767	8.789	(0.961)	903902	43.5536	5800

305021

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4938.d
Report Date: 30-Oct-1998 15:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
* 19 Fluorobenzene	96	9.126	9.149	(1.000)	2857668	50.0000	
25 Trichloroethene	95	9.609	9.632	(1.053)	898533	47.3673	6400
23 1,2-Dichloropropane	63	9.874	9.898	(1.082)	1044236	45.6319	6100
22 Bromodichloromethane	83	10.202	10.226	(1.118)	1206021	38.0686	5100
30 2-Chloroethyl Vinyl Ether	63	10.530	10.539	(1.154)	463163	37.8384	5000
24 cis-1,3-Dichloropropene	75	10.748	10.757	(1.178)	1107504	41.9325	5600
$ 37 Toluene-d8 (SUR)	98	11.107	11.117	(0.868)	1998961	40.6219	5400
38 Toluene	91	11.185	11.195	(0.874)	2075733	43.0885	5800
29 trans-1,3-Dichloropropene	75	11.388	11.398	(0.890)	882611	43.3608	5800
27 1,1,2-Trichloroethane	83	11.622	11.632	(0.909)	551085	47.6553	6400
35 Tetrachloroethene	166	11.856	11.882	(0.927)	655312	41.0839	5500
26 Dibromochloromethane	129	12.122	12.133	(0.948)	1070863	44.1726	5900
* 32 Chlorobenzene-d5	117	12.792	12.804	(1.000)	2311217	50.0000	
39 Chlorobenzene	112	12.824	12.836	(1.002)	1757764	43.7010	5800
40 Ethylbenzene	106	12.917	12.930	(1.010)	755510	42.9650	5700
31 Bromoform	173	13.729	13.742	(1.073)	560480	44.7311	6000
$ 41 Bromofluorobenzene (SUR)	174	14.057	14.071	(0.920)	725362	45.7176	6100
36 1,1,2,2-Tetrachloroethane	83	14.151	14.165	(0.926)	702325	40.9680	5500
* 91 1,4-Dichlorobenzene-d4	152	15.275	15.276	(1.000)	772639	50.0000	
7 Acetone	43	5.181	5.183	(0.568)	120376	45.3943	6100
8 Carbon Disulfide	76	5.477	5.511	(0.600)	1338482	34.7665	4600
18 2-Butanone	72	7.519	7.524	(0.824)	49328	46.9512	6300
33 4-Methyl-2-Pentanone	43	10.889	10.898	(1.193)	542051	43.8565	5800
34 2-Hexanone	43	11.872	11.882	(0.928)	340775	46.7801	6200
42 Styrene	104	13.495	13.508	(1.055)	1544931	42.8965	5700
67 1,3-Dichlorobenzene	146	15.212	15.229	(0.996)	922841	46.6561	6200
68 1,4-Dichlorobenzene	146	15.291	15.308	(1.001)	1005478	41.1478	5500
69 1,2-Dichlorobenzene	146	15.682	15.699	(1.027)	756286	43.1271	5800

305022

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4938.d
Date : 29-OCT-1998 20:54
Client ID: B-31_0-0.5MS
Sample Info: 90448MS;50;18.6;11.5;25

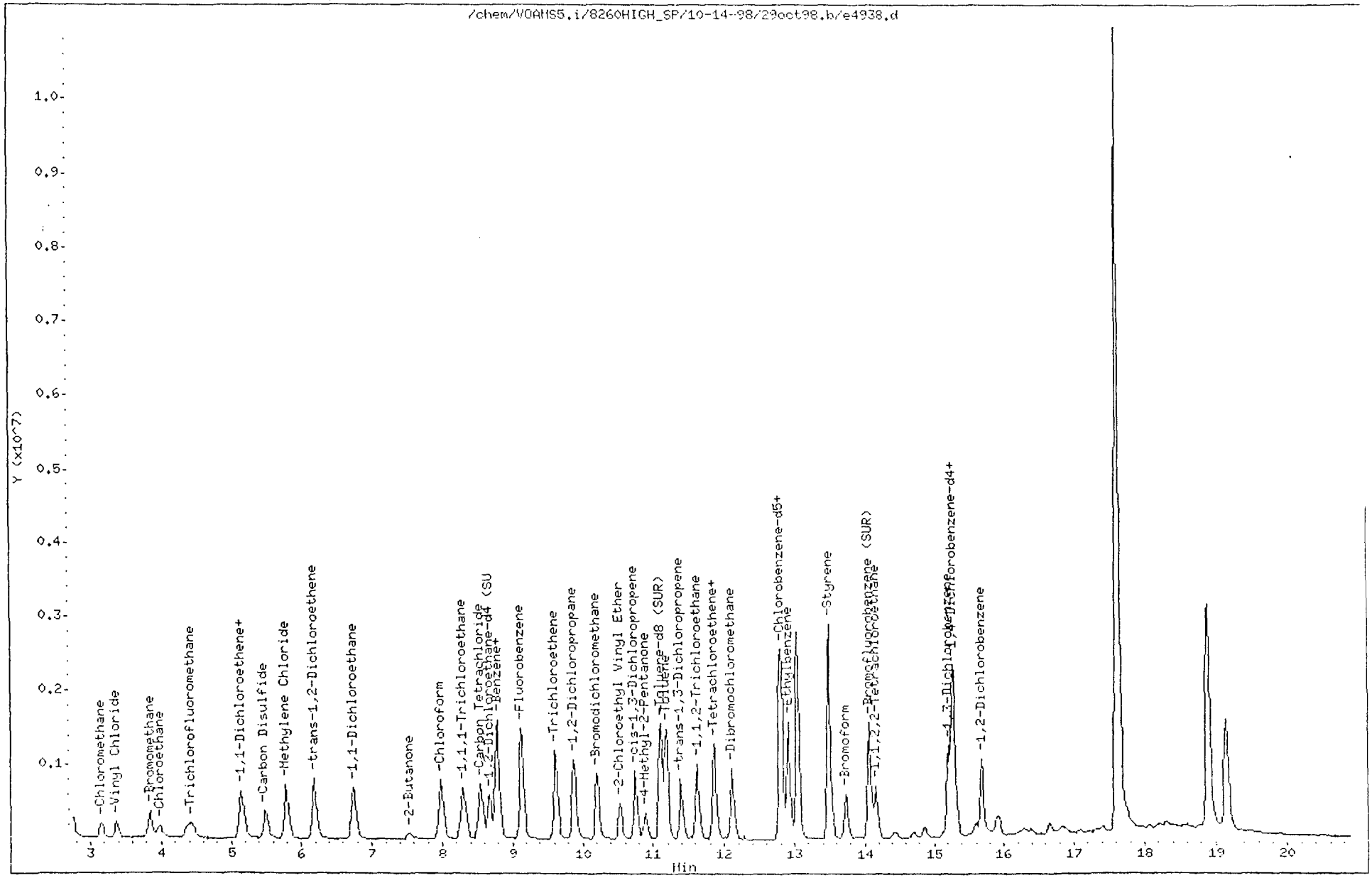
Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

305023

364



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4939.d
Report Date: 30-Oct-1998 15:43

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4939.d
Lab Smp Id: 90448MSD Client Smp ID: B-31_0-0.5MSD
Inj Date : 29-OCT-1998 21:22
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 90448MSD;50;18.6;11.5;25
Misc Info : I220;8020;TL
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/8260newHIGH.m
Meth Date : 29-Oct-1998 10:56 V Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 22 QC Sample: MSD
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.40
Processing Host: hpd2

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	50.000	Dilution Factor
Vt	25.000	Volume of final extract (mL)
Ws	11.500	Weight of sample extracted (g)
M	18.600	% Moisture (not decanted)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	1 Chloromethane	50	3.184	3.201	(0.346)	550685	44.9775	6000
	4 Vinyl Chloride	62	3.372	3.419	(0.369)	519916	52.5967	7000
	3 Bromomethane	94	3.824	3.903	(0.419)	491940	42.0092	5600
	5 Chloroethane	64	3.965	4.043	(0.434)	318053	34.8945	4600
	9 Trichlorofluoromethane	101	4.417	4.464	(0.484)	777836	32.1233	4300
	10 1,1-Dichloroethene	96	5.134	5.167	(0.563)	591653	42.4296	5700
	6 Methylene Chloride	84	5.789	5.807	(0.634)	684479	46.5588	6200
	12 trans-1,2-Dichloroethene	96	6.179	6.213	(0.677)	689547	43.4985	5800
	11 1,1-Dichloroethane	63	6.740	6.759	(0.739)	1729266	48.2751	6400
	13 cis-1,2-Dichloroethene	96	7.550	7.571	(0.827)	8801	0.51095	68(a)
	15 Chloroform	83	7.987	7.992	(0.875)	1448413	45.2614	6000
	20 1,1,1-Trichloroethane	97	8.299	8.320	(0.909)	1161912	41.1068	5500
	21 Carbon Tetrachloride	117	8.548	8.570	(0.937)	1212648	43.3517	5800
S	16 1,2-Dichloroethane-d4 (SUR)	65	8.673	8.680	(0.950)	864643	49.5823	6600
	28 Benzene	78	8.782	8.805	(0.962)	2050122	43.1872	5800

305024

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4939.d
Report Date: 30-Oct-1998 15:43

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	17 1,2-Dichloroethane	62	8.767	8.789	(0.961)	966948	46.9383	6300
*	19 Fluorobenzene	96	9.126	9.149	(1.000)	2817841	50.0000	
	25 Trichloroethene	95	9.609	9.632	(1.053)	904162	48.8480	6500
	23 1,2-Dichloropropane	63	9.874	9.898	(1.082)	1047779	46.4339	6200
	22 Bromodichloromethane	83	10.202	10.226	(1.118)	1239995	39.6942	5300
	30 2-Chloroethyl Vinyl Ether	63	10.530	10.539	(1.154)	445382	36.9000	4900
	24 cis-1,3-Dichloropropene	75	10.748	10.757	(1.178)	1139568	43.7564	5800
S	37 Toluene-d8 (SUR)	98	11.107	11.117	(0.868)	2043727	41.1134	5500
	38 Toluene	91	11.185	11.195	(0.874)	2112948	43.4193	5800
	29 trans-1,3-Dichloropropene	75	11.388	11.398	(0.890)	925918	45.0302	6000
	27 1,1,2-Trichloroethane	83	11.622	11.632	(0.909)	592189	50.6941	6800
	35 Tetrachloroethene	166	11.856	11.882	(0.927)	666600	41.3707	5500
	26 Dibromochloromethane	129	12.122	12.133	(0.948)	1123369	45.8719	6100
*	32 Chlorobenzene-d5	117	12.792	12.804	(1.000)	2334730	50.0000	
	33 Chlorobenzene	112	12.823	12.836	(1.002)	1794489	44.1647	5900
	41 Ethylbenzene	106	12.917	12.930	(1.010)	782596	44.0572	5900
	31 Bromoform	173	13.744	13.742	(1.074)	616375	48.5966	6500
S	41 Bromofluorobenzene (SUR)	174	14.057	14.071	(0.920)	756793	46.4842	6200
	36 1,1,2,2-Tetrachloroethane	83	14.151	14.165	(0.926)	794299	45.1534	6000
*	51 1,4-Dichlorobenzene-d4	152	15.275	15.276	(1.000)	792825	50.0000	
	7 Acetone	43	5.181	5.183	(0.568)	128940	49.3111	6600
	8 Carbon Disulfide	76	5.477	5.511	(0.600)	1359581	35.8140	4800
	18 2-Butanone	72	7.519	7.524	(0.824)	57025	55.0445	7400
	33 4-Methyl-2-Pentanone	43	10.888	10.898	(1.193)	630289	51.7168	6900
	34 2-Hexanone	43	11.872	11.882	(0.328)	387486	52.6569	7000
	42 Styrene	104	13.495	13.508	(1.055)	1577656	43.3643	5800
	67 1,3-Dichlorobenzene	146	15.212	15.229	(0.996)	965128	47.5517	6300
	68 1,4-Dichlorobenzene	146	15.290	15.308	(1.001)	1066775	42.5447	5700
	69 1,2-Dichlorobenzene	146	15.681	15.699	(1.027)	823323	45.7545	6100

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

305025

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4939.d
Date : 29-OCT-1998 21:22
Client ID: B-31_0-0.5MSD
Sample Info: 90448MSD;50:18.6;11.5;25

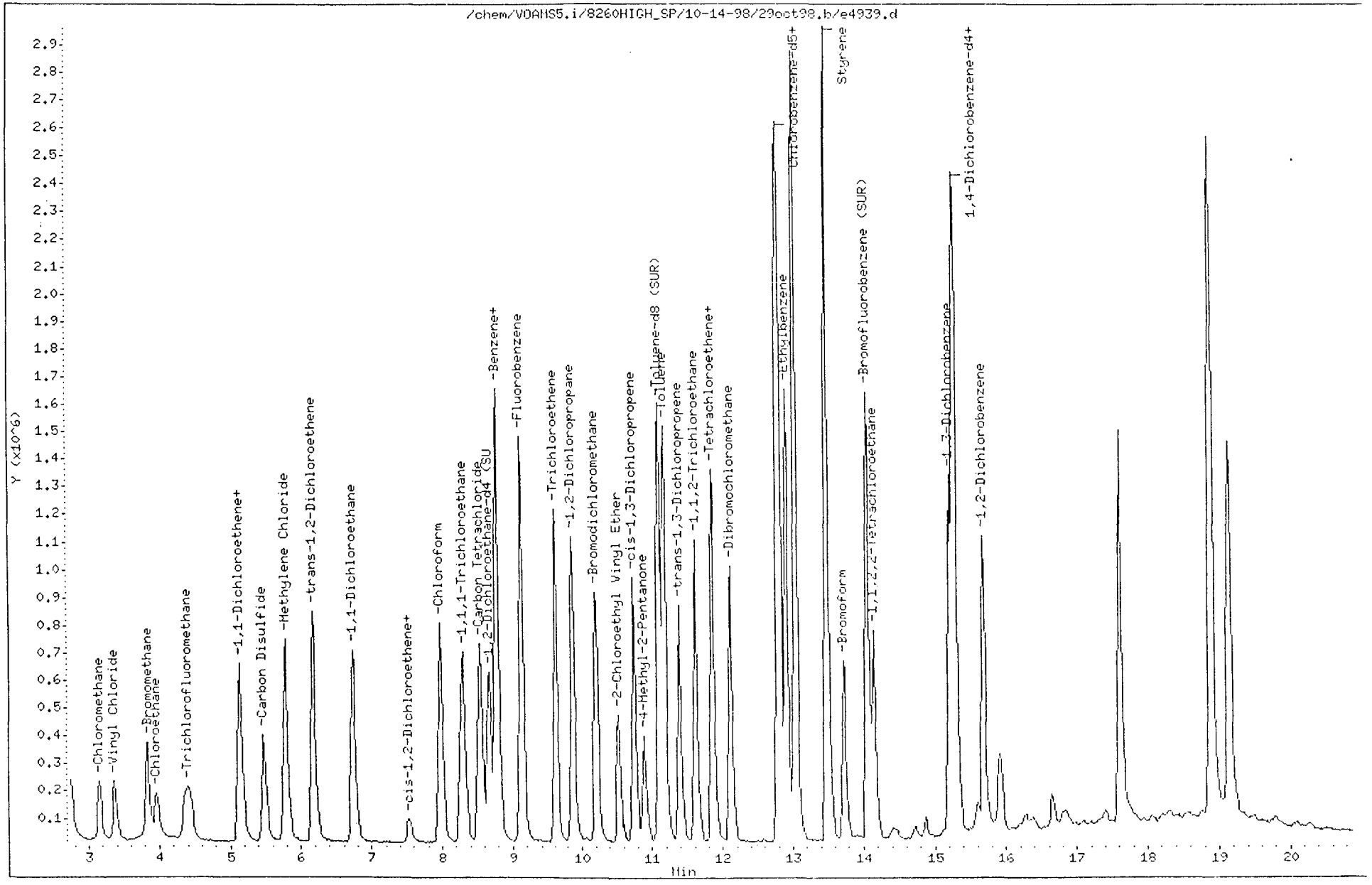
Instrument: VOAMS5.i

Operator: VOAMS 5

305026

Column phase: DB624

Column diameter: 0.53



VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8260B

Matrix: SOIL

Level: HIGH

Matrix Spike - Lab Sample No.: 91023

MS Sample from Lab Job No: I319

QA Batch: 8040

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	7700	0.00	8400	109	59-172
Trichloroethene	7700	0.00	8400	109	62-137
Benzene	7700	0.00	7900	103	66-142
Toluene	7700	0.00	8000	104	59-139
Chlorobenzene	7700	0.00	8200	106	60-133

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	7700	8500	110	1	22	59-172
Trichloroethene	7700	8300	108	1	24	62-137
Benzene	7700	8000	104	1	21	66-142
Toluene	7700	7900	103	1	21	59-139
Chlorobenzene	7700	8200	106	0	21	60-133

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

305027

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6476.d
Report Date: 29-Oct-1998 15:12

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6476.d
Lab Smp Id: 91023 Client Smp ID: T1-S1-8
Inj Date : 20-OCT-1998 16:12
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : 91023;50;18.4;9.9;25
Misc Info : I319;8040;VP
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/new8260HIGH.m
Meth Date : 23-Oct-98 15:24:04 riaz Quant Type: ISTD
Cal Date : 07-OCT-1998 09:00 Cal File: a6192.d
Als bottle: 8
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: HSL_MTBE_TBA.sub
Target Version: 3.40
Processing Host: hpd2

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	50.000	Dilution Factor
Vt	25.000	Volume of final extract (mL)
Ws	9.900	Weight of sample extracted (g)
M	18.400	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.116	10.087	(0.958)	1385128	42.7650	6600
$ 37 Toluene-d8 (SUR)	98	12.479	12.436	(0.881)	2898039	37.8635	5800
* 32 Chlorobenzene-d5	117	14.163	14.135	(1.000)	3478307	50.0000	
$ 41 Bromofluorobenzene (SUR)	174	15.449	15.405	(0.924)	1788658	41.7453	6400
* 19 Fluorobenzene	96	10.559	10.530	(1.000)	4221434	50.0000	
* 91 1,4-Dichlorobenzene-d4	152	16.719	16.676	(1.000)	1950186	50.0000	

305028

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6476.d
Date : 20-OCT-1998 16:12
Client ID: T1-S1-8
Sample Info: 91023;50;18.4;9.9;25

Instrument: VOAMS1.i

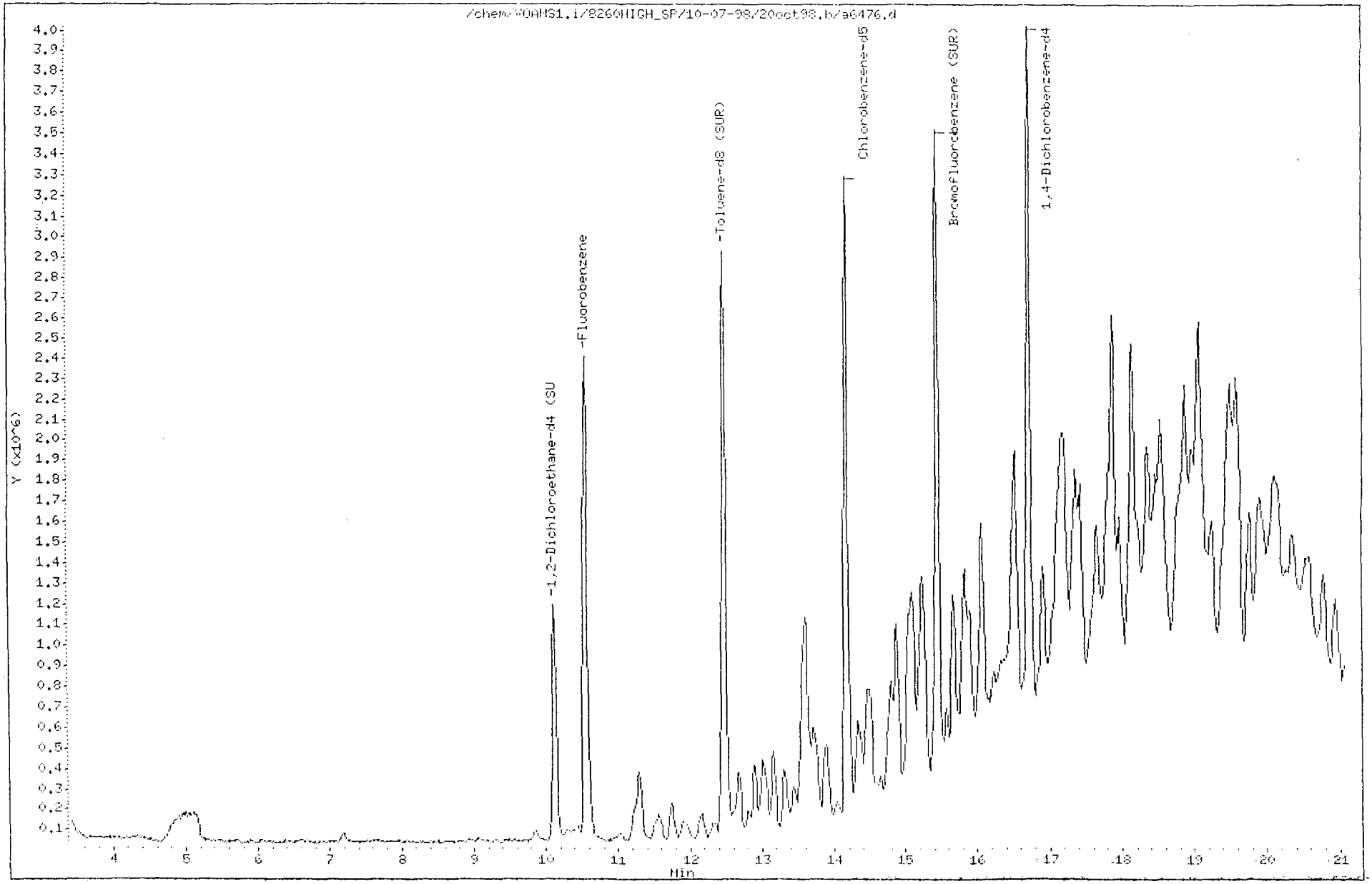
Operator: VOAMS 3

305029

Column phase: DB624

Column diameter: 0.53

370



Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6586.d
Report Date: 26-Oct-98 08:41:53

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6586.d
Lab Smp Id: 91023MS
Inj Date : 25-OCT-98 18:08:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : 91023MS;50;18.4;9.9;25
Misc Info : I319;8040;VP
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/new8260HIGH.m
Meth Date : 25-Oct-98 14:04:02 Quant Type: ISTD
Cal Date : 07-OCT-98 09:00:00 Cal File: a6192.d
Als bottle: 8 QC Sample: MS
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (mL)
Ws	9.900	Weight of sample extracted (g)
M	18.400	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Chloromethane	50	4.117	4.118	(0.391)	799102	44	6700
4 Vinyl Chloride	62	4.338	4.340	(0.412)	904161	60	9300
3 Bromomethane	94	4.885	4.946	(0.464)	695460	26	4000
5 Chloroethane	64	5.033	5.138	(0.478)	345108	26	4100
9 Trichlorofluoromethane	101	5.520	5.611	(0.524)	2611999	49	7600
10 1,1-Dichloroethene	96	6.421	6.467	(0.610)	1543203	54	8400
6 Methylene Chloride	84	7.145	7.162	(0.679)	1775835	53	8200
12 trans-1,2-Dichloroethene	96	7.588	7.605	(0.721)	1664545	54	8400
11 1,1-Dichloroethane	63	8.209	8.211	(0.780)	3127189	56	8600
13 cis-1,2-Dichloroethene	96	9.022	9.023	(0.857)	33050	1.0	160(a)
15 Chloroform	83	9.420	9.422	(0.895)	3491215	53	8100
20 1,1,1-Trichloroethane	97	9.731	9.732	(0.924)	2657140	55	8600
21 Carbon Tetrachloride	117	9.967	9.969	(0.947)	2525724	52	8000
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.085	10.087	(0.958)	1441929	42	6600
28 Benzene	78	10.203	10.205	(0.969)	3729827	51	7900
17 1,2-Dichloroethane	62	10.189	10.176	(0.968)	1943877	53	8200

305030

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6586.d
Report Date: 26-Oct-98 08:41:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
*	19 Fluorobenzene	96	10.528	10.530	(1.000)	4412471	50	
	25 Trichloroethene	95	10.986	10.988	(1.043)	2194032	54	8400
	23 1,2-Dichloropropane	63	11.252	11.254	(1.069)	1929272	52	8100
	22 Bromodichloromethane	83	11.563	11.564	(1.098)	3558983	49	7600
	30 2-Chloroethyl Vinyl Ether	63	11.858	11.845	(1.126)	441905	52	8100
	24 cis-1,3-Dichloropropene	75	12.094	12.081	(1.149)	2212658	46	7100
$	37 Toluene-d8 (SUR)	98	12.449	12.436	(0.881)	3115614	39	6100
	38 Toluene	91	12.523	12.525	(0.886)	3903832	52	8000
	29 trans-1,3-Dichloropropene	75	12.715	12.702	(0.900)	1824141	48	7400
	27 1,1,2-Trichloroethane	83	12.951	12.938	(0.916)	1559212	54	8400
	35 Tetrachloroethene	166	13.202	13.204	(0.934)	2532257	53	8100
	26 Dibromochloromethane	129	13.454	13.441	(0.952)	3282782	49	7500
*	32 Chlorobenzene-d5	117	14.133	14.135	(1.000)	3603372	50	
	39 Chlorobenzene	112	14.163	14.164	(1.002)	3378744	53	8200
	40 Ethylbenzene	106	14.251	14.238	(1.008)	1334536	56	8600
	31 Bromoform	173	15.093	15.095	(1.068)	2281171	46	7100
$	41 Bromofluorobenzene (SUR)	174	15.418	15.405	(0.924)	1813285	40	6200
	36 1,1,2,2-Tetrachloroethane	83	15.492	15.479	(0.928)	2266325	41	6400
*	91 1,4-Dichlorobenzene-d4	152	16.689	16.676	(1.000)	2042338	50	
	7 Acetone	43	6.525	6.497	(0.620)	253807	33	5000
	8 Carbon Disulfide	76	6.820	6.866	(0.648)	3505424	45	7000
	18 2-Butanone	72	9.022	8.979	(0.857)	97825	50	7700
	33 4-Methyl-2-Pentanone	43	12.227	12.200	(1.161)	1117963	47	7300
	34 2-Hexanone	43	12.227	12.200	(0.865)	1116952	49	7600
	42 Styrene	104	14.328	14.329	(1.049)	2597542	52	8000
	67 1,3-Dichlorobenzene	146	16.618	16.617	(0.996)	2967418	50	7800
	68 1,4-Dichlorobenzene	146	16.704	16.705	(1.001)	3077983	46	7000
	69 1,2-Dichlorobenzene	146	17.147	17.149	(1.027)	2862608	49	7600

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

305031

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6586.d
Date : 25-OCT-98 18:08:00
Client ID: T1-S1-8MS
Sample Info: 91023MS;50;18.4;9.9;25

Column phase: DB624

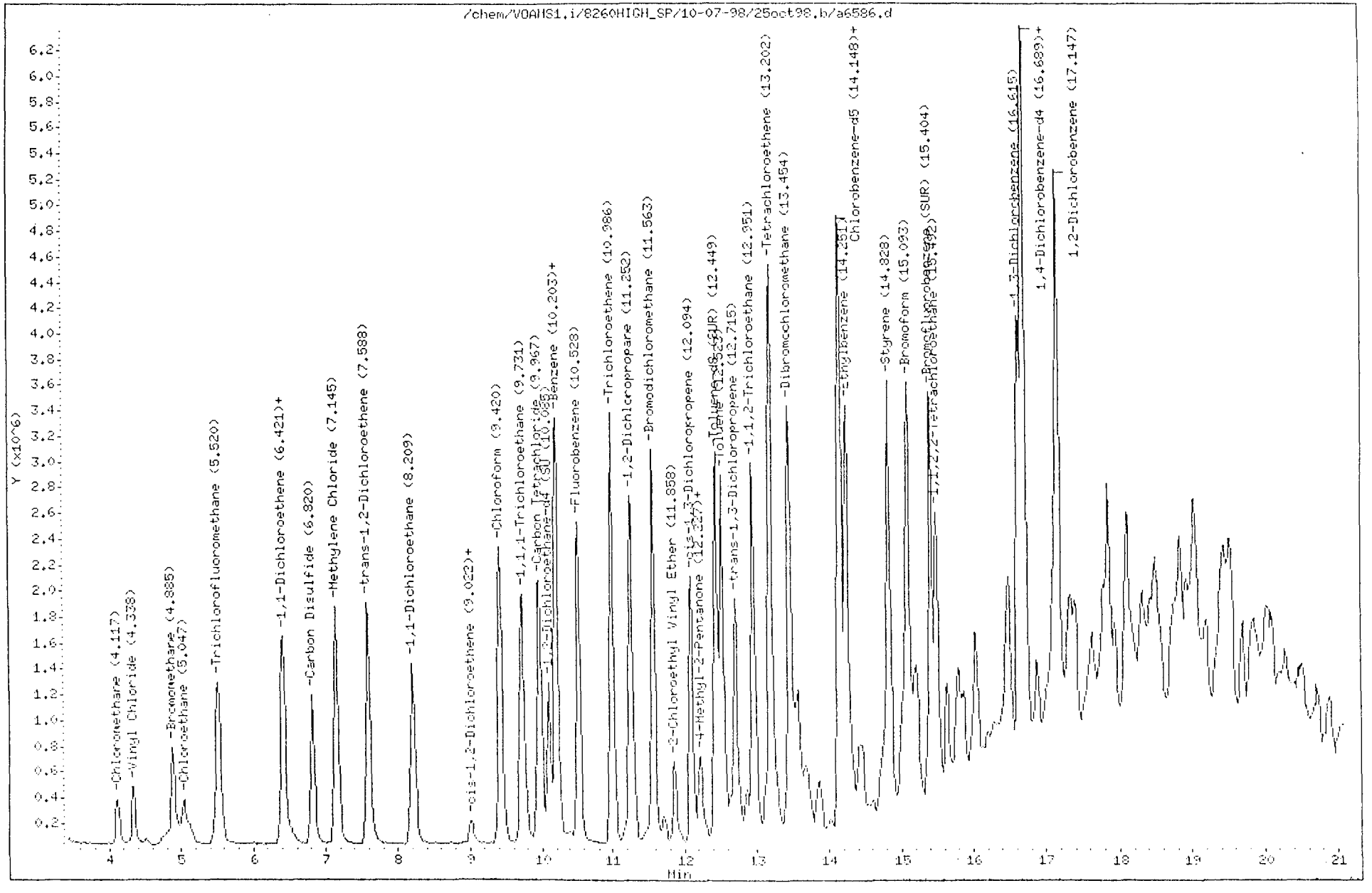
Instrument: VOAMS1.i

Operator: VOAMS 3

Column diameter: 0.53

305032

373



Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6587.d
Report Date: 26-Oct-98 08:43:26

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6587.d
Lab Smp Id: 91023MSD
Inj Date : 25-OCT-98 18:38:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : 91023MSD;50;18.4;9.9;25
Misc Info : I319;8040;VP
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/new8260HIGH.m
Meth Date : 25-Oct-98 14:04:02 Quant Type: ISTD
Cal Date : 07-OCT-98 09:00:00 Cal File: a6192.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (mL)
Ws	9.900	Weight of sample extracted (g)
M	18.400	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Chloromethane	50	4.105	4.118	(0.390)	818608	43	6700
4 Vinyl Chloride	62	4.327	4.340	(0.411)	907123	58	9000
3 Bromomethane	94	4.888	4.946	(0.464)	730945	26	4000
5 Chloroethane	64	5.036	5.138	(0.478)	351969	26	4000
9 Trichlorofluoromethane	101	5.509	5.611	(0.523)	2628951	48	7400
10 1,1-Dichloroethene	96	6.410	6.467	(0.609)	1615819	55	8500
6 Methylene Chloride	84	7.148	7.162	(0.679)	1815253	53	8200
12 trans-1,2-Dichloroethene	96	7.592	7.605	(0.721)	1732541	54	8400
11 1,1-Dichloroethane	63	8.212	8.211	(0.780)	3207299	55	8600
13 cis-1,2-Dichloroethene	96	9.025	9.023	(0.857)	26659	0.79	120(a)
15 Chloroform	83	9.424	9.422	(0.895)	3563729	52	8000
20 1,1,1-Trichloroethane	97	9.719	9.732	(0.923)	2734293	55	8500
21 Carbon Tetrachloride	117	9.955	9.969	(0.945)	2610704	52	8000
S 16 1,2-Dichloroethane-d4 (SUR)	65	10.088	10.087	(0.958)	1576553	45	7000
28 Benzene	78	10.207	10.205	(0.969)	3870289	52	8000
17 1,2-Dichloroethane	62	10.177	10.176	(0.966)	1993021	52	8100

305033

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6587.d
Report Date: 26-Oct-98 08:43:26

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
*	19 Fluorobenzene	96	10.532	10.530	(1.000)	4557324	50	
	25 Trichloroethene	95	10.989	10.988	(1.043)	2244807	54	8300
	23 1,2-Dichloropropane	63	11.255	11.254	(1.069)	1990667	52	8100
	22 Bromodichloromethane	83	11.566	11.564	(1.098)	3684427	49	7600
	30 2-Chloroethyl Vinyl Ether	63	11.861	11.845	(1.126)	470110	54	8400
	24 cis-1,3-Dichloropropene	75	12.083	12.081	(1.147)	2256671	45	7000
S	37 Toluene-d8 (SUR)	98	12.452	12.436	(0.881)	3269212	39	6100
	38 Toluene	91	12.526	12.525	(0.886)	4039330	51	7900
	29 trans-1,3-Dichloropropene	75	12.718	12.702	(0.900)	1916385	48	7400
	27 1,1,2-Trichloroethane	83	12.954	12.938	(0.916)	1626203	54	8400
	35 Tetrachloroethene	166	13.206	13.204	(0.934)	2583329	51	8000
	26 Dibromochloromethane	129	13.457	13.441	(0.952)	3429001	49	7500
*	32 Chlorobenzene-d5	117	14.136	14.135	(1.000)	3763000	50	
	39 Chlorobenzene	112	14.166	14.164	(1.002)	3533844	53	8200
	40 Ethylbenzene	106	14.254	14.238	(1.008)	1381944	55	8600
	31 Bromoform	173	15.097	15.095	(1.068)	2383078	46	7100
S	41 Bromofluorobenzene (SUR)	174	15.407	15.405	(0.924)	1918392	41	6300
	36 1,1,2,2-Tetrachloroethane	83	15.495	15.479	(0.929)	2362009	41	6300
*	91 1,4-Dichlorobenzene-d4	152	16.677	16.676	(1.000)	2143148	50	
	7 Acetone	43	6.528	6.497	(0.620)	257432	32	5000
	8 Carbon Disulfide	76	6.809	6.866	(0.646)	3627925	45	7000
	18 2-Butanone	72	9.010	8.979	(0.856)	103972	51	8000
	33 4-Methyl-2-Pentanone	43	12.216	12.200	(1.160)	1187023	48	7500
	34 2-Hexanone	43	12.216	12.200	(0.864)	1184609	50	7800
	42 Styrene	104	14.831	14.829	(1.049)	2701270	52	8000
	67 1,3-Dichlorobenzene	146	16.618	16.617	(0.996)	3009728	49	7600
	68 1,4-Dichlorobenzene	146	16.707	16.705	(1.002)	3286312	46	7200
	69 1,2-Dichlorobenzene	146	17.150	17.149	(1.028)	2962090	49	7500

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

305034

Data File: /chem/VOAHS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6587.d
Date : 25-OCT-98 18:38:00
Client ID: T1-S1-8MSD
Sample Info: 91023MSD;50;18.4;9.9;25

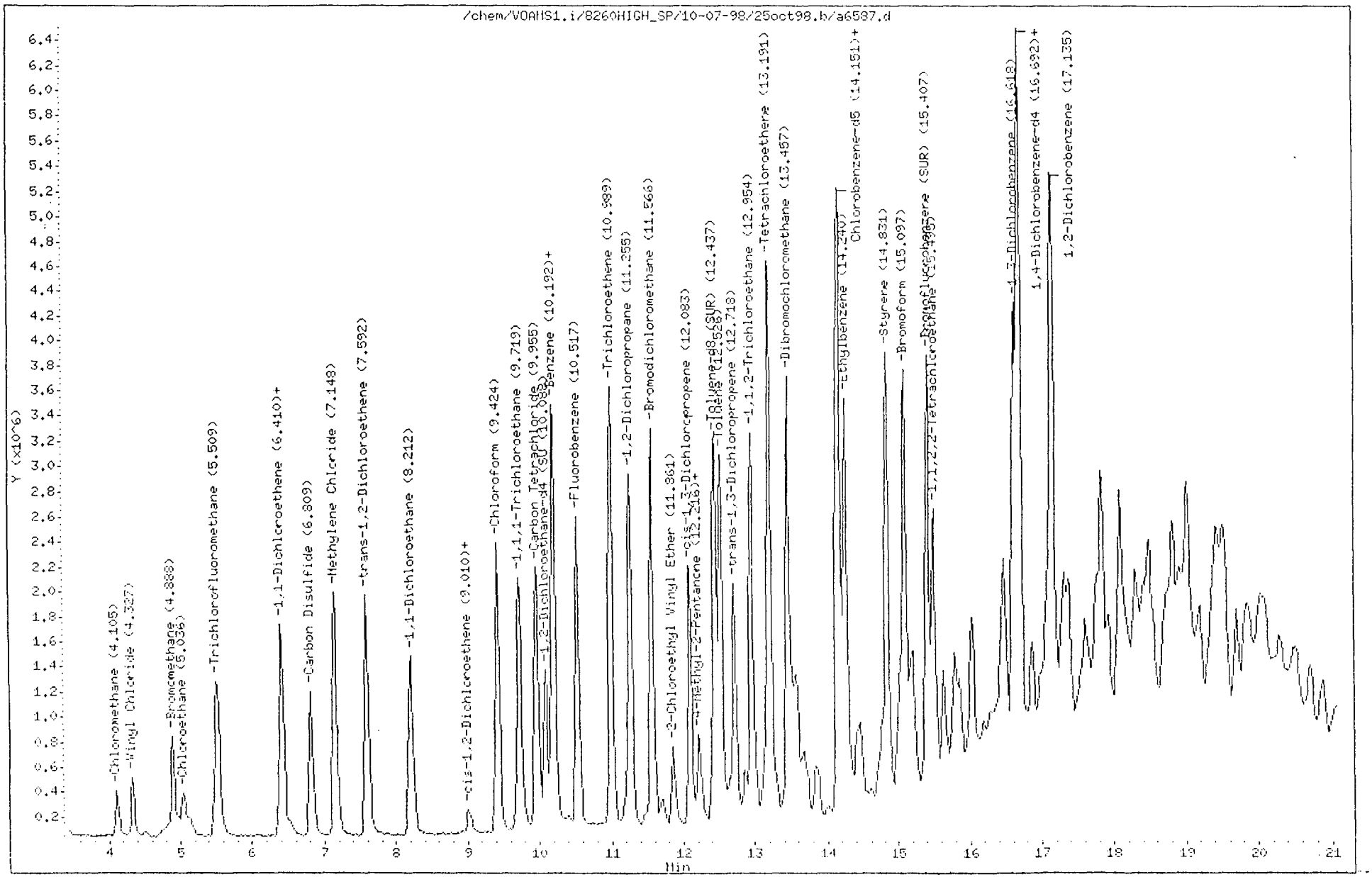
Instrument: VOAHS1.i

Operator: VOAHS 3

305035

Column phase: DB624

Column diameter: 0.53



VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8260B

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 89863

MS Sample from Lab Job No: I141

QA Batch: 8355

Compound	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0.00	50	100	59-172
Trichloroethene	50	0.00	52	104	62-137
Benzene	50	0.00	49	98	66-142
Toluene	50	0.00	49	98	59-139
Chlorobenzene	50	0.00	53	106	60-133

Compound	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	48	96	4	22	59-172
Trichloroethene	50	49	98	6	24	62-137
Benzene	50	47	94	4	21	66-142
Toluene	50	47	94	4	21	59-139
Chlorobenzene	50	50	100	6	21	60-133

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

305036

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2217.d
Report Date: 12-Nov-1998 15:51

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2217.d
Lab Smp Id: 89863 Client Smp ID: 4403D-MW18-GW02
Inj Date : 18-OCT-1998 16:30
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : 89863;
Misc Info : I141;8355;;CN
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 12:05:23 Quant Type: ISTD
Cal Date : 17-OCT-1998 14:01 Cal File: c2202.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HSLVOAv.sub
Target Version: 3.40
Processing Host: hpd2

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

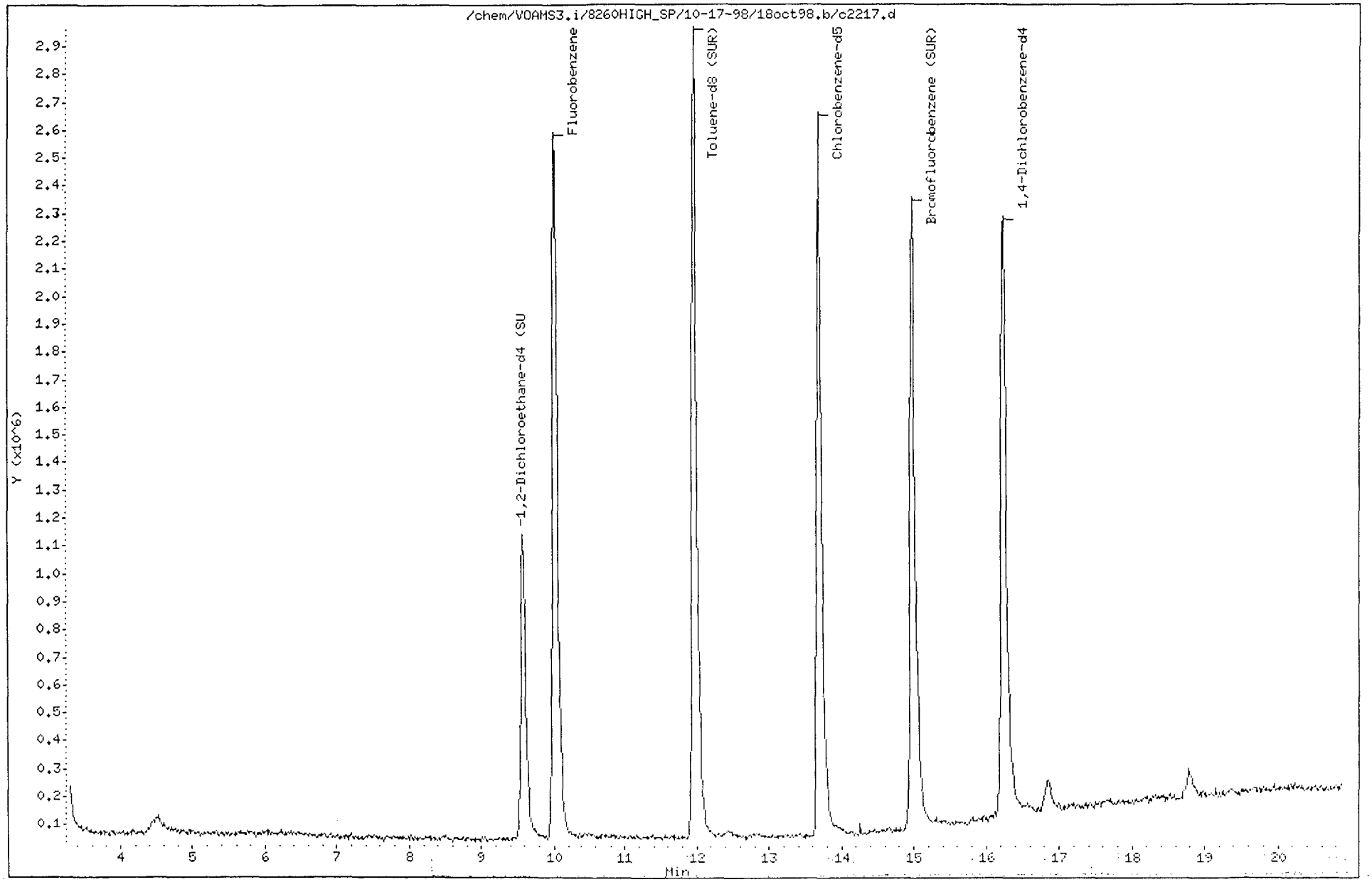
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	9.575	9.533	(0.957)	1807721	48.9255	49
$ 37 Toluene-d8 (SUR)	98	11.966	11.924	(0.875)	4627490	47.7481	48
* 32 Chlorobenzene-d5	117	13.680	13.653	(1.000)	3680490	50.0000	
$ 41 Bromofluorobenzene (SUR)	174	14.977	14.935	(0.923)	1636450	50.2060	50
* 19 Fluorobenzene	96	10.007	9.980	(1.000)	5353599	50.0000	
* 91 1,4-Dichlorobenzene-d4	152	16.230	16.189	(1.000)	1629087	50.0000	

305037

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2217.d
Date : 18-OCT-1998 16:30
Client ID: 4403D-MW18-GW02
Sample Info: 89863;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS3.i
Operator: VOAMS 3
Column diameter: 0.53

305038



Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2218.d
Report Date: 19-Oct-98 09:20:23

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2218.d
Lab Smp Id: 89863MS Client Smp ID: 89863MS
Inj Date : 18-OCT-98 16:59:00
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : 89863MS;
Misc Info : I141;8355;;CN
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 12:05:23 Quant Type: ISTD
Cal Date : 17-OCT-98 14:01:00 Cal File: c2202.d
Als bottle: 10 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: 5/Vo

Name	Value	Description
Vo	5.000	SampleVolume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	1 Chloromethane	50	3.818	3.785	(0.391)	671814	39	39
	4 Vinyl Chloride	62	4.020	3.987	(0.401)	949053	54	54
	3 Bromomethane	94	4.538	4.520	(0.453)	1010237	45	45
	5 Chloroethane	64	4.711	4.678	(0.471)	664888	44	44
	9 Trichlorofluoromethane	101	5.158	5.125	(0.515)	2236115	47	47
	10 1,1-Dichloroethene	96	5.965	5.931	(0.596)	1467014	50	50
	7 Acetone	43	6.037	6.004	(0.603)	351142	37	37
	8 Carbon Disulfide	76	6.339	6.306	(0.633)	3126542	47	47
	6 Methylene Chloride	84	6.656	6.623	(0.665)	1465380	49	49
	12 trans-1,2-Dichloroethene	96	7.074	7.041	(0.706)	1580860	52	52
	11 1,1-Dichloroethane	63	7.679	7.646	(0.767)	3180980	55	55
	13 2-Butanone	72	8.486	8.453	(0.847)	132455	43	43
	15 Chloroform	83	8.903	8.870	(0.889)	3205300	55	55
	20 1,1,1-Trichloroethane	97	9.206	9.173	(0.919)	2679932	57	57
	21 Carbon Tetrachloride	117	9.436	9.403	(0.942)	2275856	54	54
S	16 1,2-Dichloroethane-d4 (SUR)	65	9.580	9.533	(0.957)	1717617	49	49
	17 1,2-Dichloroethane	62	9.667	9.634	(0.965)	2235149	54	54
	22 Benzene	78	9.681	9.648	(0.967)	4403490	49	49

305039

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2218.d
Report Date: 19-Oct-98 09:20:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
*	19 Fluorobenzene	96	10.013	9.980	(1.000)	5043054	50	
	25 Trichloroethene	95	10.488	10.455	(1.047)	2046757	52	52
	23 1,2-Dichloropropane	63	10.762	10.729	(1.075)	1915564	53	53
	22 Bromodichloromethane	83	11.079	11.046	(1.106)	2767836	50	50
	30 2-Chloroethyl Vinyl Ether	63	11.381	11.348	(1.137)	1024271	50	50
	24 cis-1,3-Dichloropropene	75	11.612	11.579	(1.160)	2341459	46	46
	33 4-Methyl-2-Pentanone	43	11.741	11.708	(1.173)	1736916	53	53
S	37 Toluene-d8 (SUR)	98	11.972	11.924	(0.875)	4305078	46	46
	38 Toluene	91	12.044	12.011	(0.880)	5009447	49	49
	29 trans-1,3-Dichloropropene	75	12.245	12.213	(0.895)	2080541	49	49
	27 1,1,2-Trichloroethane	83	12.490	12.457	(0.913)	1583067	55	55
	35 Tetrachloroethene	166	12.735	12.702	(0.931)	2120461	50	50
	34 2-Hexanone	43	12.735	12.688	(0.931)	1189593	60	60
	26 Dibromochloromethane	129	12.995	12.962	(0.949)	2412665	53	53
*	32 Chlorobenzene-d5	117	13.686	13.653	(1.000)	3536496	50	
	39 Chlorobenzene	112	13.715	13.682	(1.002)	3812711	53	53
	40 Ethylbenzene	106	13.801	13.768	(1.008)	1764775	55	55
	42 Styrene	104	14.392	14.359	(1.052)	3317562	51	51
	31 Bromoform	173	14.666	14.618	(1.072)	1565270	54	54
S	41 Bromofluorobenzene (SUR)	174	14.983	14.935	(0.924)	1523936	45	45
	36 1,1,2,2-Tetrachloroethane	83	15.069	15.036	(0.929)	2660758	49	49
	67 1,3-Dichlorobenzene	146	16.164	16.131	(0.995)	2455774	53	53
*	91 1,4-Dichlorobenzene-d4	152	16.222	16.189	(1.000)	1706648	50	
	68 1,4-Dichlorobenzene	146	16.250	16.217	(1.002)	4035233	53	53
	69 1,2-Dichlorobenzene	146	16.683	16.635	(1.028)	2992408	54	54
M	14 1,2-Dichloroethene (total)	100				1580860	51	51

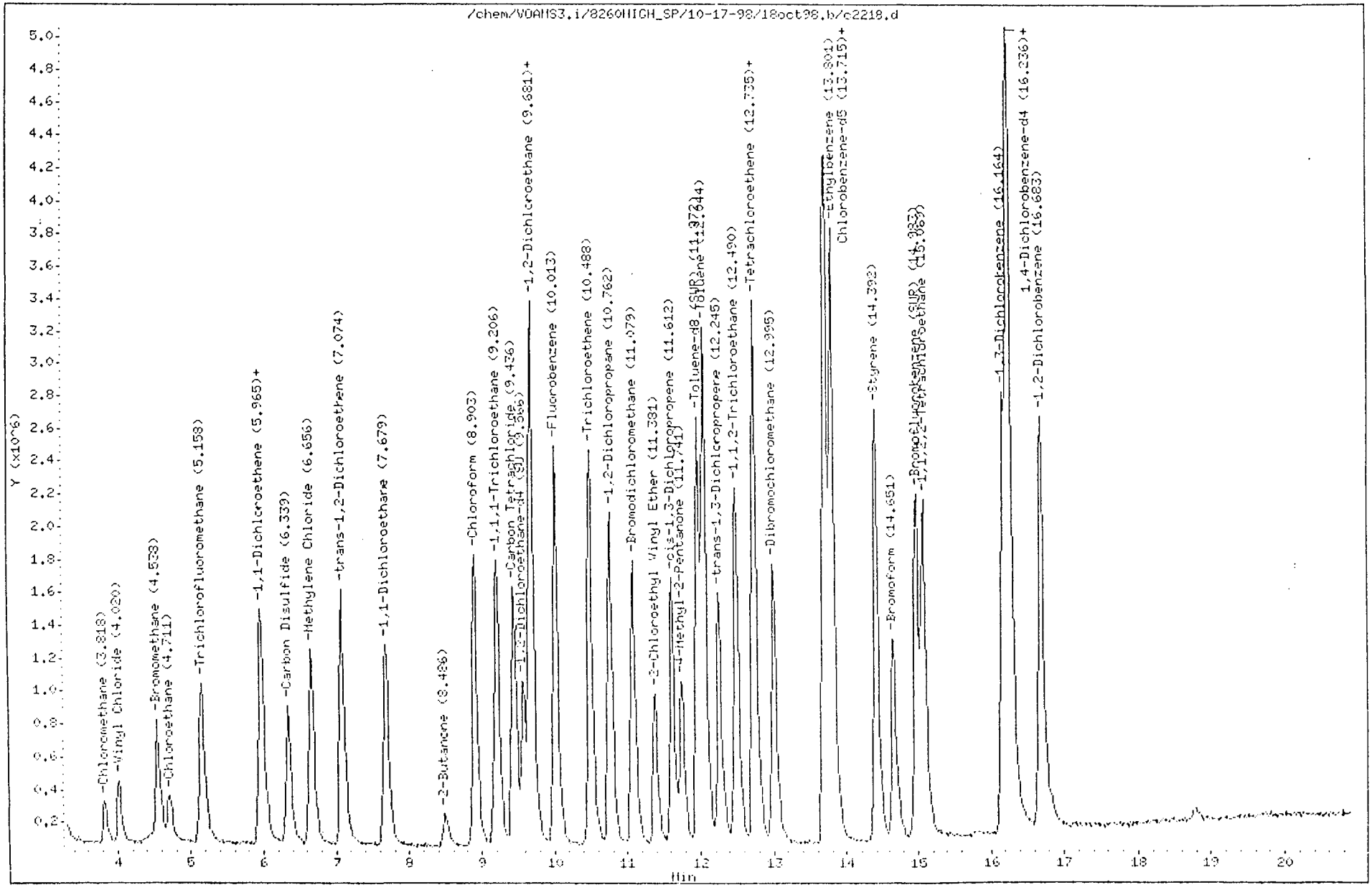
305040

Data File: /chem/VOAHS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2218.d
Date : 18-OCT-98 16:59:00
Client ID: 89863HS
Sample Info: 89863HS;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAHS3.i
Operator: VOAHS 3
Column diameter: 0.53

305041

382



Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2219.d
Report Date: 19-Oct-98 09:20:39

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2219.d
Lab Smp Id: 89863MSD Client Smp ID: 89863MSD
Inj Date : 18-OCT-98 17:28:00
Operator : VOAMS 3 Inst ID: VOAMS3.i
Smp Info : 89863MSD;
Misc Info : I141;8355;;CN
Comment :
Method : /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 12:05:23 Quant Type: ISTD
Cal Date : 17-OCT-98 14:01:00 Cal File: c2202.d
Als bottle: 11 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: 5/Vo

Name	Value	Description
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Chloromethane	50	3.814	3.785	(0.381)	688632	39	39
4 Vinyl Chloride	62	4.015	3.987	(0.401)	944903	55	55
3 Bromomethane	94	4.548	4.520	(0.454)	359197	43	43
5 Chloroethane	64	4.707	4.678	(0.470)	639263	42	42
9 Trichlorofluoromethane	101	5.153	5.125	(0.515)	2160439	46	46
10 1,1-Dichloroethene	96	5.974	5.931	(0.597)	1413702	48	48
7 Acetone	43	6.032	6.004	(0.603)	340931	37	37
8 Carbon Disulfide	76	6.335	6.306	(0.633)	2978944	45	45
6 Methylene Chloride	84	6.652	6.623	(0.665)	1444995	48	48
12 trans-1,2-Dichloroethene	96	7.084	7.041	(0.708)	1479692	49	49
11 1,1-Dichloroethane	63	7.674	7.646	(0.767)	3015383	53	53
19 2-Butanone	72	8.495	8.453	(0.849)	132979	44	44
15 Chloroform	83	8.899	8.870	(0.889)	3066479	53	53
20 1,1,1-Trichloroethane	97	9.201	9.173	(0.919)	2545021	55	55
21 Carbon Tetrachloride	117	9.446	9.403	(0.944)	2126264	51	51
S 16 1,2-Dichloroethane-d4 (SUR)	65	9.576	9.533	(0.957)	1642085	48	48
17 1,2-Dichloroethane	62	9.677	9.634	(0.967)	2129137	52	52
29 Benzene	78	9.691	9.648	(0.968)	4199342	47	47

305042

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2219.d
Report Date: 19-Oct-98 09:20:39

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
*	19 Fluorobenzene	96	10.008	9.980	(1.000)	4995566	50	
	25 Trichloroethene	95	10.483	10.455	(1.048)	1923186	49	49
	23 1,2-Dichloropropane	63	10.757	10.729	(1.075)	1826986	51	51
	22 Bromodichloromethane	83	11.074	11.046	(1.107)	2596715	47	47
	30 2-Chloroethyl Vinyl Ether	63	11.377	11.348	(1.137)	998261	50	50
	24 cis-1,3-Dichloropropene	75	11.607	11.579	(1.160)	2180120	44	44
	33 4-Methyl-2-Pentanone	43	11.751	11.708	(1.174)	1633996	51	51
S	37 Toluene-d8 (SUR)	98	11.967	11.924	(0.875)	4118544	44	44
	38 Toluene	91	12.054	12.011	(0.881)	4780336	47	47
	29 trans-1,3-Dichloropropene	75	12.255	12.213	(0.896)	1970436	46	46
	27 1,1,2-Trichloroethane	83	12.500	12.457	(0.914)	1505962	52	52
	35 Tetrachloroethene	166	12.745	12.702	(0.932)	2016618	47	47
	34 2-Hexanone	43	12.731	12.688	(0.930)	1098120	55	55
	26 Dibromochloromethane	129	13.005	12.962	(0.951)	2265949	50	50
*	32 Chlorobenzene-d5	117	13.682	13.653	(1.000)	3541529	50	
	39 Chlorobenzene	112	13.725	13.682	(1.003)	3568171	50	50
	40 Ethylbenzene	106	13.811	13.768	(1.009)	1687695	53	53
	42 Styrene	104	14.402	14.359	(1.053)	3100212	48	48
	31 Bromoform	173	14.661	14.618	(1.072)	1496672	51	51
S	41 Bromofluorobenzene (SUR)	174	14.978	14.935	(0.923)	1511405	44	44
	36 1,1,2,2-Tetrachloroethane	83	15.079	15.036	(0.929)	2470354	45	45
	47 1,3-Dichlorobenzene	146	16.174	16.131	(0.996)	2133699	46	46
*	51 1,4-Dichlorobenzene-d4	152	16.231	16.189	(1.000)	1707166	50	
	48 1,4-Dichlorobenzene	146	16.246	16.217	(1.001)	3921310	51	51
	49 1,2-Dichlorobenzene	146	16.632	16.635	(1.028)	2853297	52	52
M	14 1,2-Dichloroethene (total)	100				1479692	48	48

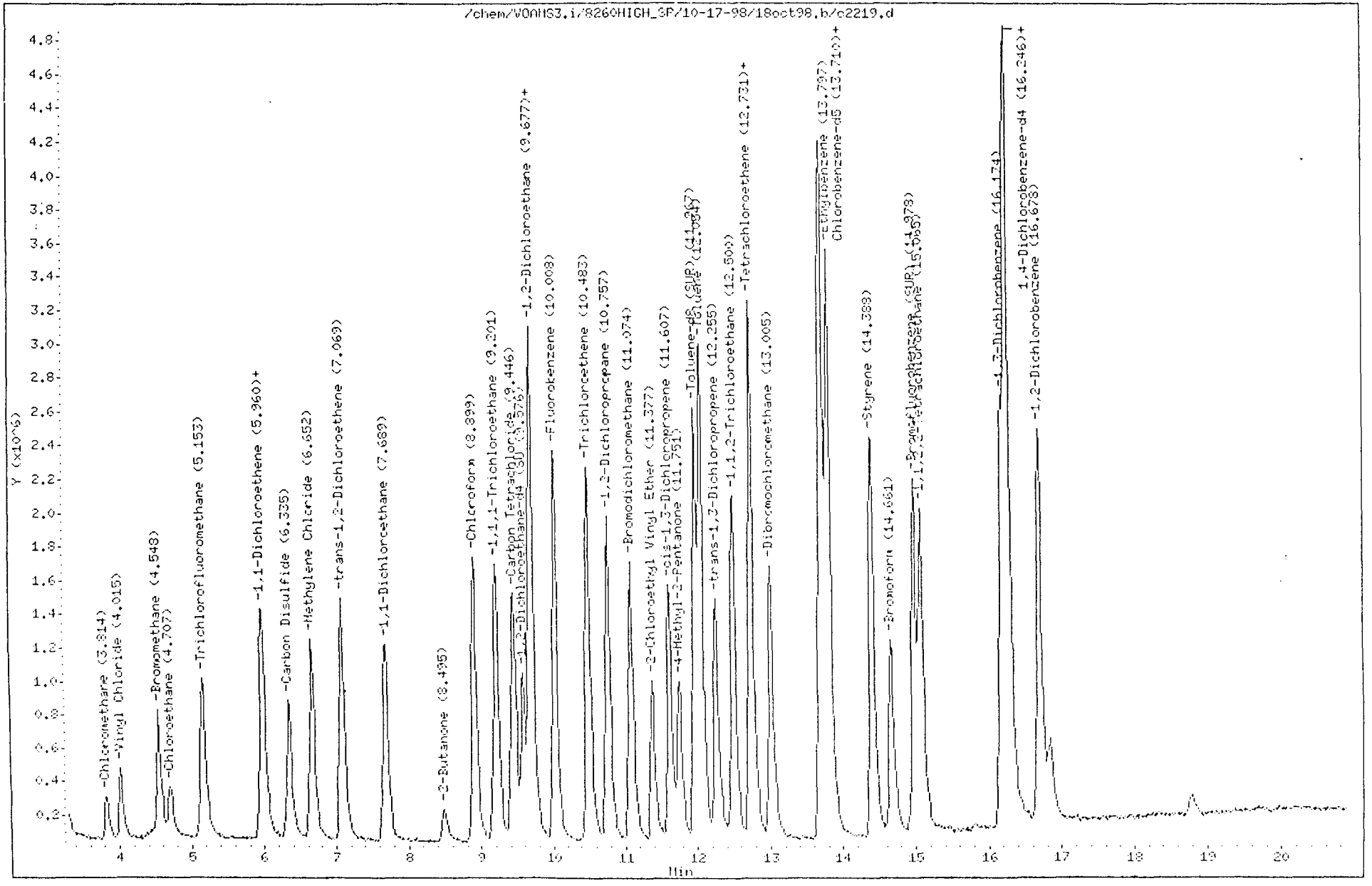
305043

Data File: /chem/VOAMS3.i/8260HIGH_SP/10-17-98/18oct98.b/c2219.d
Date : 18-OCT-98 17:28:00
Client ID: 89863MSD
Sample Info: 89863MSD;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS3.i
Operator: VOAMS 3
Column diameter: 0.53

305044

385



SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8270B

Matrix: SOIL

Level: LOW

Matrix Spike - Lab Sample No.: 88158

MS Sample from Lab Job No: H879

QA Batch: 4734

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	4100	0	3000	73	54-119
N-Nitroso-di-n-propylami	4100	0	4000	98	65-131
1,2,4-Trichlorobenzene	4100	0	3300	80	0-117
Acenaphthene	4100	0	4000	98	69-127
2,4-Dinitrotoluene	4100	0	4400	107	75-132
Pyrene	4100	0	5000	122	44-152

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	4100	3300	80	10	40	54-119
N-Nitroso-di-n-propylami	4100	4100	100	2	40	65-131
1,2,4-Trichlorobenzene	4100	3400	83	3	40	0-117
Acenaphthene	4100	4000	98	0	40	69-127
2,4-Dinitrotoluene	4100	4300	105	2	40	75-132
Pyrene	4100	4900	120	2	40	44-152

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

305045

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7587.d
Date : 16-OCT-1998 21:16
Client ID: 291_PZ-54A
Sample Info: 88158;30;2;1;19.5;

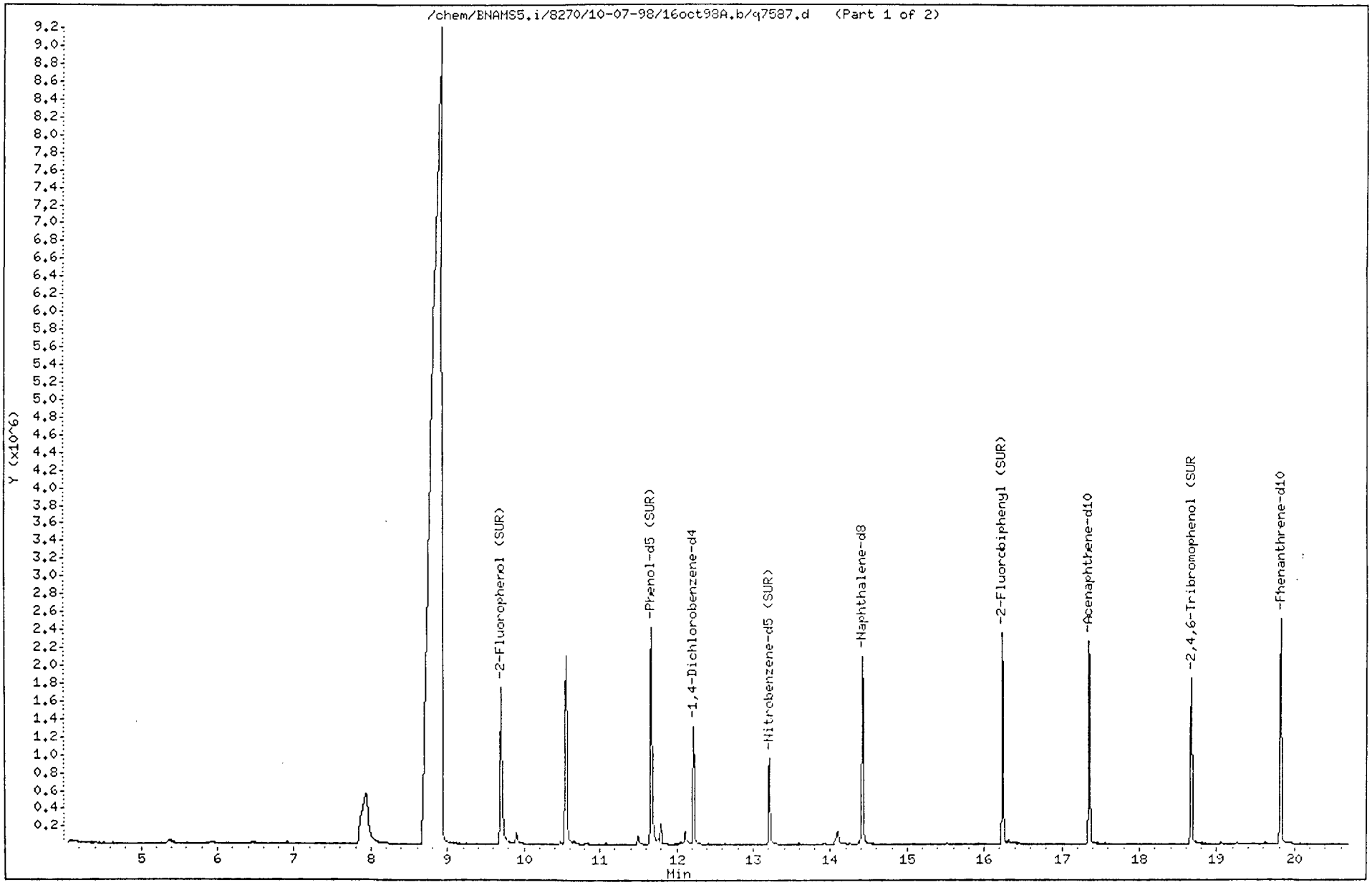
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

305046

387



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7587.d
Report Date: 11-Nov-1998 17:09

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7587.d
Lab Smp Id: 88158 Client Smp ID: 291_PZ-54A
Inj Date : 16-OCT-1998 21:16
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 88158;30;2;1;19.5;
Misc Info : H879;TCLBNA+20;4734;123
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/8270C-REV..m
Meth Date : 19-Oct-98 13:24:46 wahied Quant Type: ISTD
Cal Date : 07-OCT-1998 17:28 Cal File: q7343.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HSLBNAb.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	19.500	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
$ 16 2-Fluorophenol (SUR)	112	9.704	9.687	(0.794)	1028249	89.5016	7400
$ 17 Phenol-d5 (SUR)	99	11.670	11.675	(0.955)	1438988	89.7770	7400
* 79 1,4-Dichlorobenzene-d4	152	12.224	12.222	(1.000)	325636	40.0000	
$ 76 Nitrobenzene-d5 (SUR)	82	13.211	13.216	(0.916)	440971	36.7524	3000
* 80 Naphthalene-d8	136	14.421	14.426	(1.000)	1396810	40.0000	
$ 77 2-Fluorobiphenyl (SUR)	172	16.235	16.241	(0.936)	1043197	39.6206	3300
* 82 Acenaphthene-d10	164	17.352	17.357	(1.000)	809944	40.0000	
$ 18 2,4,6-Tribromophenol (SUR)	330	18.669	18.682	(1.076)	356004	88.9575	7400
* 83 Phenanthrene-d10	188	19.822	19.827	(1.000)	1271404	40.0000	
$ 78 Terphenyl-d14 (SUR)	244	22.465	22.470	(0.928)	1392318	49.2235	4100
* 81 Chrysene-d12	240	24.207	24.220	(1.000)	1080041	40.0000	
* 84 Perylene-d12	264	27.117	27.129	(1.000)	1115518	40.0000	

305047

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7587.d
Date : 16-OCT-1998 21:16
Client ID: 291_PZ-54A
Sample Info: 88158;30;2;1;19.5;

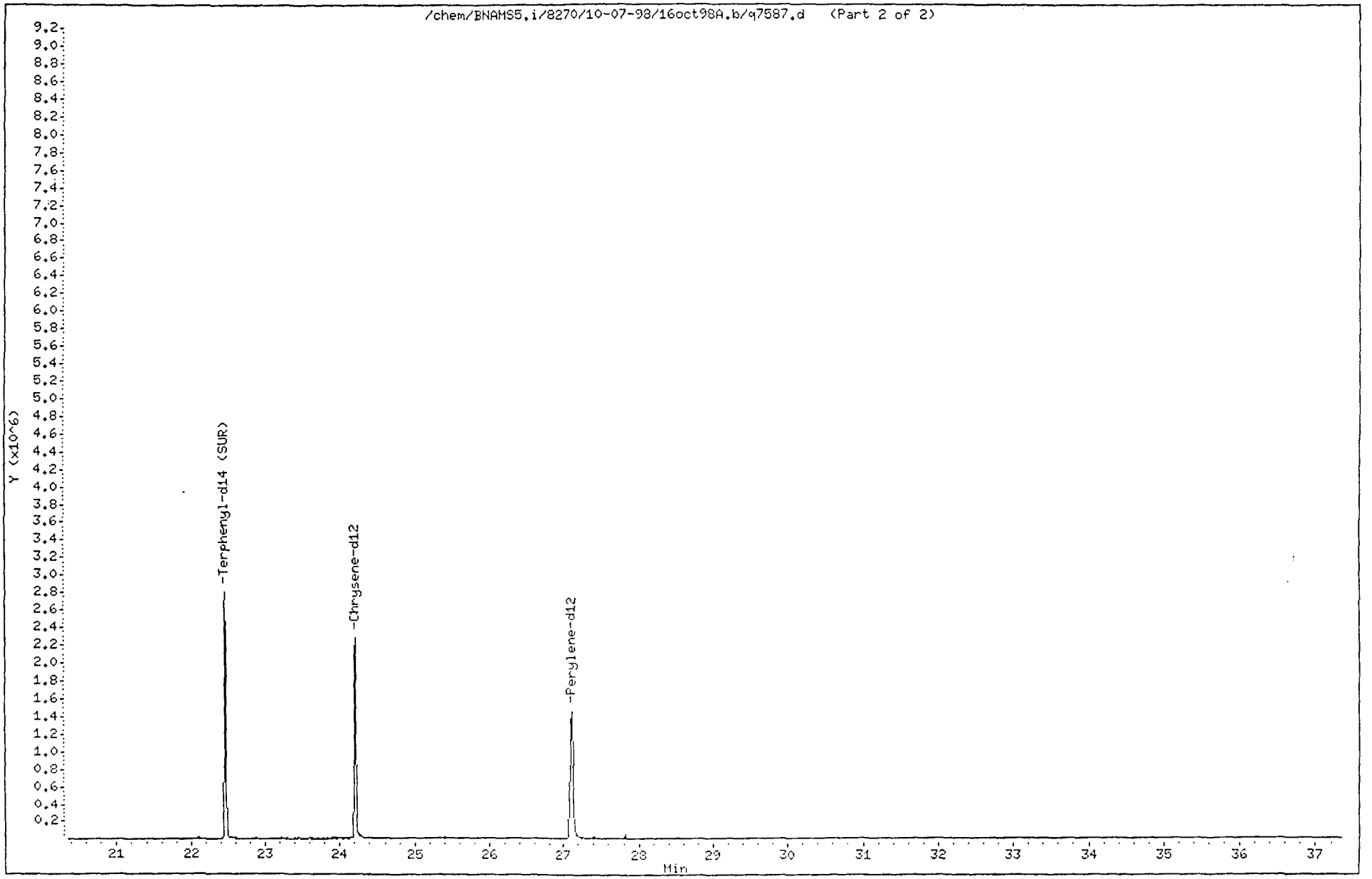
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

305048

389



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Report Date: 19-Oct-98 11:06:50

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Lab Smp Id: 88158MS Client Smp ID: ALL
Inj Date : 16-OCT-98 22:02:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 88158MS;30;2;1;19.5;
Misc Info : H879;ALL;4734;123
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/8270C-REV..m
Meth Date : 16-Oct-98 23:23:10 ctp Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 4 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	19.500	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 N-Nitrosodimethylamine	74	4.437	4.452	(0.363)	328349	35	2900
71 Pyridine	79	4.481	4.474	(0.367)	316572	22	1800
$ 16 2-Fluorophenol (SUR)	112	9.716	9.687	(0.795)	1264198	100	8300
$ 17 Phenol-d5 (SUR)	99	11.682	11.675	(0.956)	1684898	96	7900
1 Phenol	94	11.711	11.697	(0.958)	1797685	91	7500
73 Aniline	93	11.639	11.639	(0.952)	845635	41	3400
20 bis(2-Chloroethyl)ether	93	11.797	11.790	(0.965)	614329	40	3400
2 2-Chlorophenol	128	11.869	11.862	(0.971)	1476062	100	8700
21 1,3-Dichlorobenzene	146	12.114	12.114	(0.991)	519259	35	2900
* 79 1,4-Dichlorobenzene-d4	152	12.222	12.222	(1.000)	358186	40	
22 1,4-Dichlorobenzene	146	12.258	12.258	(1.003)	544592	36	3000
74 Benzyl Alcohol	108	12.532	12.525	(1.025)	502377	50	4100
23 1,2-Dichlorobenzene	146	12.517	12.518	(1.024)	533997	37	3000
3 2-Methylphenol	108	12.748	12.748	(1.043)	1294132	97	8100
24 bis(2-chloroisopropyl)ether	45	12.755	12.748	(1.044)	1705258	42	3500(M)

305049

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Report Date: 19-Oct-98 11:06:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
	4 4-Methylphenol	108	13.029	13.014	(1.066)	1558671	110	9200
	25 N-Nitroso-di-n-propylamine	70	12.993	12.986	(1.063)	475979	48	4000
	26 Hexachloroethane	117	13.093	13.101	(1.071)	192189	36	3000
$	76 Nitrobenzene-d5 (SUR)	82	13.216	13.216	(0.916)	580578	41	3400
	27 Nitrobenzene	77	13.252	13.259	(0.919)	598167	31	2600
	28 Isophorone	82	13.706	13.670	(0.950)	1500297	49	4000
	5 2-Nitrophenol	139	13.799	13.792	(0.957)	938416	98	8100
	6 2,4-Dimethylphenol	122	13.914	13.907	(0.965)	1332484	95	7900
	15 Benzoic Acid	122	14.267	14.188	(0.989)	973647	130	11000(ARM)
	29 bis(2-Chloroethoxy)methane	93	14.051	14.044	(0.974)	851933	50	4100
	7 2,4-Dichlorophenol	162	14.224	14.224	(0.986)	1219242	100	8600
	30 1,2,4-Trichlorobenzene	180	14.339	14.339	(0.994)	517524	40	3300
*	80 Naphthalene-d8	136	14.426	14.426	(1.000)	1648700	40	
	31 Naphthalene	128	14.462	14.469	(1.002)	2087202	45	3700
	32 4-Chloroaniline	127	14.577	14.577	(1.010)	723994	37	3100
	33 Hexachlorobutadiene	225	14.671	14.671	(1.017)	212124	36	3000
	8 4-Chloro-3-methylphenol	107	15.412	15.412	(1.068)	1470098	120	9900(R)
	34 2-Methylnaphthalene	142	15.628	15.629	(1.083)	1380487	46	3800
	35 Hexachlorocyclopentadiene	237	15.880	15.881	(0.915)	49353	20	1700
	9 2,4,6-Trichlorophenol	196	16.118	16.118	(0.928)	910398	110	9400
	10 2,4,5-Trichlorophenol	196	16.183	16.183	(0.932)	967983	110	9500
$	77 2-Fluorobiphenyl (SUR)	172	16.248	16.241	(0.936)	1385247	45	3800
	36 2-Chloronaphthalene	162	16.442	16.442	(0.947)	1273345	48	4000
	103 Diphenyl Ether	170	16.579	16.579	(0.955)	4162	0.23	19(a)
	37 2-Nitroaniline	65	16.637	16.637	(0.958)	473277	50	4200
	38 Dimethylphthalate	163	16.932	16.932	(0.975)	1704171	50	4200
	40 2,6-Dinitrotoluene	165	17.040	17.040	(0.981)	428575	53	4400
	39 Acenaphthylene	152	17.126	17.126	(0.986)	2224195	48	4000
	41 3-Nitroaniline	138	17.321	17.321	(0.998)	441147	63	5200(R)
*	82 Acenaphthene-d10	164	17.364	17.357	(1.000)	940231	40	
	42 Acenaphthene	153	17.421	17.422	(1.003)	1376785	48	4000
	11 2,4-Dinitrophenol	184	17.515	17.515	(1.009)	109528	25	2000
	12 4-Nitrophenol	65	17.652	17.645	(1.017)	465496	100	8700
	44 2,4-Dinitrotoluene	165	17.724	17.717	(1.021)	613189	53	4400
	43 Dibenzofuran	168	17.710	17.710	(1.020)	2008007	52	4300
	45 Diethylphthalate	149	18.106	18.099	(1.043)	1764295	50	4100
	46 4-Chlorophenyl-phenylether	204	18.271	18.271	(1.052)	625704	49	4000
	47 Fluorene	166	18.278	18.279	(1.053)	1683834	54	4500
	48 4-Nitroaniline	138	18.358	18.358	(1.057)	507329	51	4200
	13 4,6-Dinitro-2-methylphenol	198	18.408	18.408	(0.928)	355448	58	4800
	49 N-Nitrosodiphenylamine	169	18.480	18.480	(0.932)	1191708	54	4500
	75 1,2-Diphenylhydrazine	77	18.538	18.538	(0.935)	1578974	48	4000
$	18 2,4,6-Tribromophenol (SUR)	330	18.682	18.682	(1.076)	457142	98	8100
	50 4-Bromophenyl-phenylether	248	19.085	19.085	(0.963)	382106	49	4000
	51 Hexachlorobenzene	284	19.193	19.186	(0.968)	452957	51	4200
	14 Pentachlorophenol	266	19.531	19.524	(0.985)	440502	120	9900(A)
*	83 Phenanthrene-d10	188	19.827	19.827	(1.000)	1454348	40	

305050

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Report Date: 19-Oct-98 11:06:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
	52 Phenanthrene	178	19.870	19.870	(1.002)	2289555	53	4400
	53 Anthracene	178	19.956	19.957	(1.007)	2337497	52	4300
	54 Carbazole	167	20.230	20.230	(1.020)	2258056	50	4100
	55 Di-n-butylphthalate	149	20.799	20.799	(1.049)	3290343	54	4500
	56 Fluoranthene	202	21.843	21.843	(1.102)	2245713	52	4300
	58 Benzidine	184	22.066	22.074	(1.113)	152500	6.9	570(a)
	57 Pyrene	202	22.218	22.218	(0.917)	2333775	60	5000
$	78 Terphenyl-d14 (SUR)	244	22.470	22.470	(0.928)	1640378	56	4600
	59 Butylbenzylphthalate	149	23.276	23.276	(0.961)	1474842	60	4900
	60 3,3'-Dichlorobenzidine	252	24.155	24.162	(0.997)	675207	46	3800
	61 Benzo(a)anthracene	228	24.198	24.198	(0.999)	2076241	55	4500
	63 bis(2-Ethylhexyl)phthalate	149	24.212	24.212	(1.000)	1872875	60	5000
*	81 Chrysene-d12	240	24.220	24.220	(1.000)	1118147	40	
	62 Chrysene	228	24.270	24.263	(1.002)	2194216	59	4900
	64 Di-n-octylphthalate	149	25.343	25.343	(0.934)	3616072	53	4400
	65 Benzo(b)fluoranthene	252	26.214	26.207	(0.966)	2255579	51	4200
	66 Benzo(k)fluoranthene	252	26.279	26.279	(0.968)	2362548	52	4300
	67 Benzo(a)pyrene	252	26.999	26.999	(0.995)	2203480	53	4400
*	84 Perylene-d12	264	27.136	27.129	(1.000)	1240738	40	
	68 Indeno(1,2,3-cd)pyrene	276	30.578	30.564	(1.127)	2317892	52	4300(M)
	69 Dibenz(a,h)anthracene	278	30.665	30.658	(1.130)	2223938	52	4300
	70 Benzo(g,h,i)perylene	276	31.651	31.651	(1.166)	2325371	54	4400

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

305051

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Date : 16-OCT-98 22:02:00
Client ID: ALL
Sample Info: 88158MS;30;2;1;19.5;

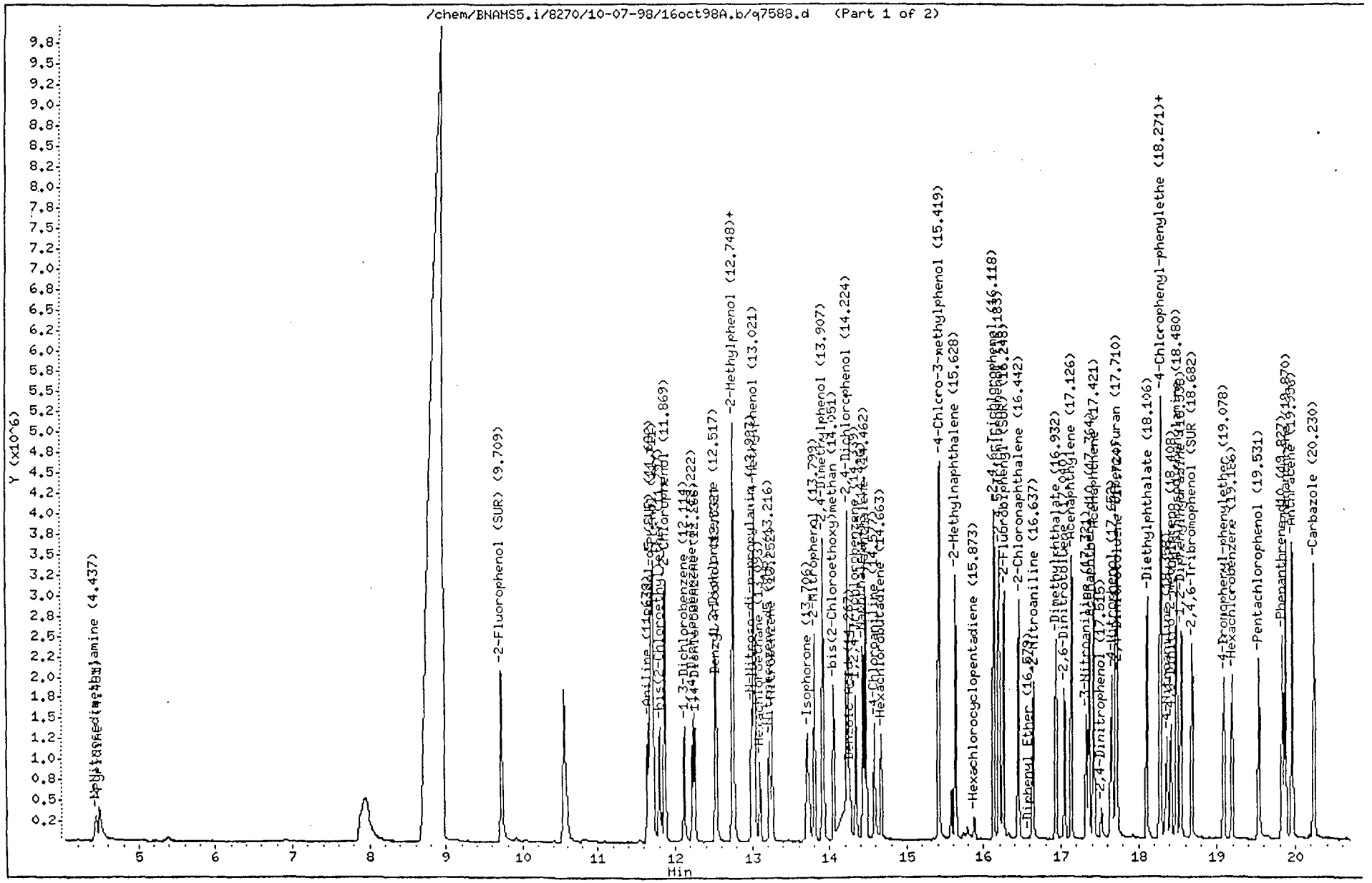
Instrument: BNAMS5.i

Operator: BNAMS3

305052

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Date : 16-OCT-98 22:02:00
Client ID: ALL
Sample Info: 88158MS;30;2;1;19.5;

Instrument: BNAMS5.i

Operator: BNAMS3

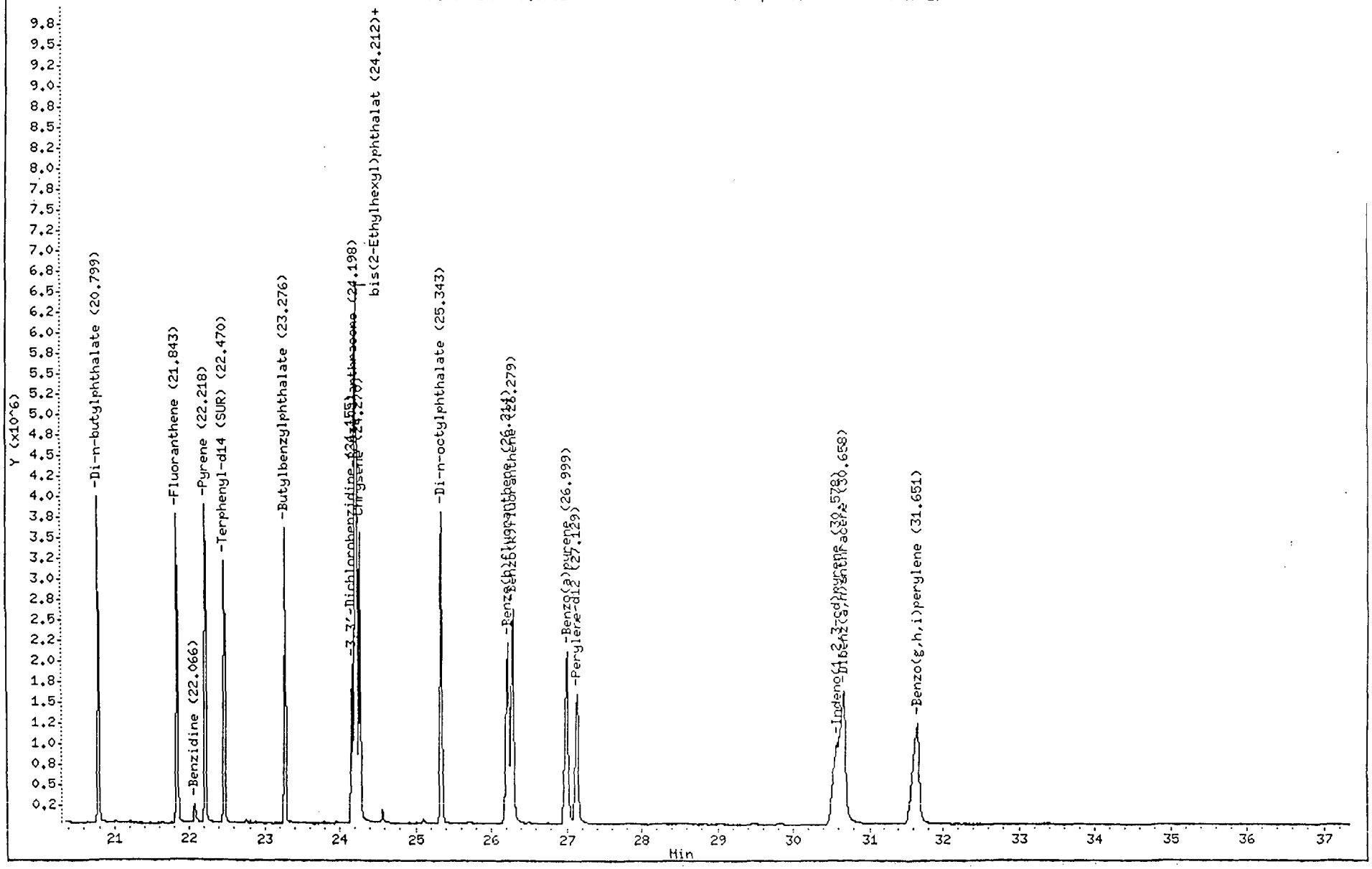
305053

Column phase: DB-5

Column diameter: 0.25

394

/chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d (Part 2 of 2)



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Report Date: 19-Oct-98 11:13:30

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Lab Smp Id: 88158MSD Client Smp ID: ALL
Inj Date : 16-OCT-98 22:48:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 88158MSD;30;2;1;19.5;
Misc Info : H879;ALL;4734;123
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/8270C-REV..m
Meth Date : 16-Oct-98 23:23:10 ctp Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 5 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	19.500	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 N-Nitrosodimethylamine	74	4.431	4.452	(0.363)	293510	35	2900
71 Pyridine	79	4.482	4.474	(0.367)	315332	25	2100
$ 16 2-Fluorophenol (SUR)	112	9.710	9.687	(0.794)	1171321	100	8600
$ 17 Phenol-d5 (SUR)	99	11.683	11.675	(0.956)	1573483	100	8200
1 Phenol	94	11.705	11.697	(0.958)	1660958	94	7800
73 Aniline	93	11.640	11.639	(0.952)	776939	42	3500
20 bis(2-Chloroethyl)ether	93	11.791	11.790	(0.965)	568968	42	3500
2 2-Chlorophenol	128	11.863	11.862	(0.971)	1373197	110	9000
21 1,3-Dichlorobenzene	146	12.115	12.114	(0.991)	514942	38	3200
* 79 1,4-Dichlorobenzene-d4	152	12.223	12.222	(1.000)	320614	40	
22 1,4-Dichlorobenzene	146	12.252	12.258	(1.002)	535667	39	3300
74 Benzyl Alcohol	108	12.526	12.525	(1.025)	457575	51	4200
23 1,2-Dichlorobenzene	146	12.518	12.518	(1.024)	513431	40	3300
3 2-Methylphenol	108	12.742	12.748	(1.042)	1193288	100	8300
24 bis(2-chloroisopropyl)ether	45	12.749	12.748	(1.043)	1605787	44	3700(M)

305054

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Report Date: 19-Oct-98 11:13:30

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)
	4 4-Methylphenol	108	13.022	13.014	(1.065)	1454272	120	9600
	25 N-Nitroso-di-n-propylamine	70	12.986	12.986	(1.062)	435428	49	4100
	26 Hexachloroethane	117	13.095	13.101	(1.071)	188559	40	3300
$	76 Nitrobenzene-d5 (SUR)	82	13.217	13.216	(0.916)	520955	40	3400
	27 Nitrobenzene	77	13.253	13.259	(0.919)	553574	32	2600
	28 Isophorone	82	13.699	13.670	(0.950)	1419616	51	4200
	5 2-Nitrophenol	139	13.800	13.792	(0.957)	840751	97	8000
	6 2,4-Dimethylphenol	122	13.908	13.907	(0.964)	1169658	92	7600
	15 Benzoic Acid	122	14.211	14.188	(0.985)	564878	83	6900
	29 bis(2-Chloroethoxy)methane	93	14.052	14.044	(0.974)	795438	51	4200
	7 2,4-Dichlorophenol	162	14.225	14.224	(0.986)	1151365	110	8900
	30 1,2,4-Trichlorobenzene	180	14.340	14.339	(0.994)	472399	40	3400
*	80 Naphthalene-d8	136	14.427	14.426	(1.000)	1497217	40	
	31 Naphthalene	128	14.463	14.469	(1.002)	1917536	46	3800
	32 4-Chloroaniline	127	14.578	14.577	(1.010)	717264	40	3300
	33 Hexachlorobutadiene	225	14.664	14.671	(1.016)	196915	37	3100
	8 4-Chloro-3-methylphenol	107	15.413	15.412	(1.068)	1360647	120	10000(AR)
	34 2-Methylnaphthalene	142	15.629	15.629	(1.083)	1301717	48	4000
	35 Hexachlorocyclopentadiene	237	15.881	15.881	(0.915)	50980	23	1900
	9 2,4,6-Trichlorophenol	196	16.119	16.118	(0.929)	850151	110	9400
	10 2,4,5-Trichlorophenol	196	16.184	16.183	(0.932)	869334	110	9200
$	77 2-Fluorobiphenyl (SUR)	172	16.241	16.241	(0.936)	1288656	45	3800
	102 Diphenyl	154	16.407	16.413	(0.945)	3455	0.11	9.0(a)
	36 2-Chloronaphthalene	162	16.443	16.442	(0.947)	1195075	49	4000
	103 Diphenyl Ether	170	16.580	16.579	(0.955)	4192	0.25	21(a)
	37 2-Nitroaniline	65	16.630	16.637	(0.958)	438570	50	4100
	38 Dimethylphthalate	163	16.926	16.932	(0.975)	1583559	50	4200
	40 2,6-Dinitrotoluene	165	17.041	17.040	(0.982)	393874	52	4300
	39 Acenaphthylene	152	17.127	17.126	(0.987)	2061536	48	4000
	41 3-Nitroaniline	138	17.322	17.321	(0.998)	410648	63	5200(R)
*	82 Acenaphthene-d10	164	17.358	17.357	(1.000)	873583	40	
	42 Acenaphthene	153	17.415	17.422	(1.003)	1274272	48	4000
	11 2,4-Dinitrophenol	184	17.516	17.515	(1.009)	66923	16	1300(a)
	12 4-Nitrophenol	65	17.646	17.645	(1.017)	421299	100	8500
	44 2,4-Dinitrotoluene	165	17.718	17.717	(1.021)	564157	52	4300
	43 Dibenzofuran	168	17.703	17.710	(1.020)	1850806	52	4300
	45 Diethylphthalate	149	18.099	18.099	(1.043)	1637307	50	4100
	46 4-Chlorophenyl-phenylether	204	18.272	18.271	(1.053)	583989	49	4100
	47 Fluorene	166	18.279	18.279	(1.053)	1555482	54	4400
	48 4-Nitroaniline	138	18.351	18.358	(1.057)	477027	52	4300
	13 4,6-Dinitro-2-methylphenol	198	18.409	18.408	(0.928)	255556	45	3700
	49 N-Nitrosodiphenylamine	169	18.481	18.480	(0.932)	1094555	54	4400
	75 1,2-Diphenylhydrazine	77	18.539	18.538	(0.935)	1478046	48	4000
$	18 2,4,6-Tribromophenol (SUR)	330	18.683	18.682	(1.076)	428144	99	8200
	50 4-Bromophenyl-phenylether	248	19.079	19.085	(0.962)	351512	48	4000
	51 Hexachlorobenzene	284	19.187	19.186	(0.968)	420046	51	4200
	14 Pentachlorophenol	266	19.525	19.524	(0.985)	416341	120	10000(A)

305055

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Report Date: 19-Oct-98 11:13:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
* 83 Phenanthrene-d10	188	19.828	19.827	(1.000)	1354245	40	
52 Phenanthrene	178	19.871	19.870	(1.002)	2137078	53	4400
53 Anthracene	178	19.957	19.957	(1.007)	2165997	52	4300
54 Carbazole	167	20.231	20.230	(1.020)	2080957	49	4100
55 Di-n-butylphthalate	149	20.800	20.799	(1.049)	3052133	54	4400
56 Fluoranthene	202	21.844	21.843	(1.102)	2108864	53	4400
58 Benzidine	184	22.060	22.074	(1.113)	193540	9.4	780(a)
57 Pyrene	202	22.219	22.218	(0.917)	2193736	59	4900
$ 78 Terphenyl-d14 (SUR)	244	22.471	22.470	(0.928)	1542846	55	4500
59 Butylbenzylphthalate	149	23.277	23.276	(0.961)	1400308	59	4900
60 3,3'-Dichlorobenzidine	252	24.156	24.162	(0.997)	665209	47	3900
61 Benzo(a)anthracene	228	24.199	24.198	(0.999)	1970616	54	4400
63 bis(2-Ethylhexyl)phthalate	149	24.213	24.212	(1.000)	1801232	60	5000
* 81 Chrysene-d12	240	24.221	24.220	(1.000)	1078701	40	
62 Chrysene	228	24.264	24.263	(1.002)	2131146	60	4900
64 Di-n-octylphthalate	149	25.344	25.343	(0.934)	3455437	53	4400
65 Benzo(b)fluoranthene	252	26.208	26.207	(0.966)	2103378	49	4100
66 Benzo(k)fluoranthene	252	26.280	26.279	(0.969)	2381584	54	4500
67 Benzo(a)pyrene	252	27.000	26.999	(0.995)	2132750	54	4400
* 84 Perylene-d12	264	27.130	27.129	(1.000)	1193709	40	
68 Indeno(1,2,3-cd)pyrene	276	30.565	30.564	(1.127)	2156381	50	4200(M)
69 Dibenz(a,h)anthracene	278	30.659	30.658	(1.130)	2128608	52	4300
70 Benzo(g,h,i)perylene	276	31.660	31.651	(1.167)	2261167	54	4500

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

305056

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Date : 16-OCT-98 22:48:00
Client ID: ALL
Sample Info: 88158MSD;30;2;1;19.5;

Instrument: BNAMS5.i

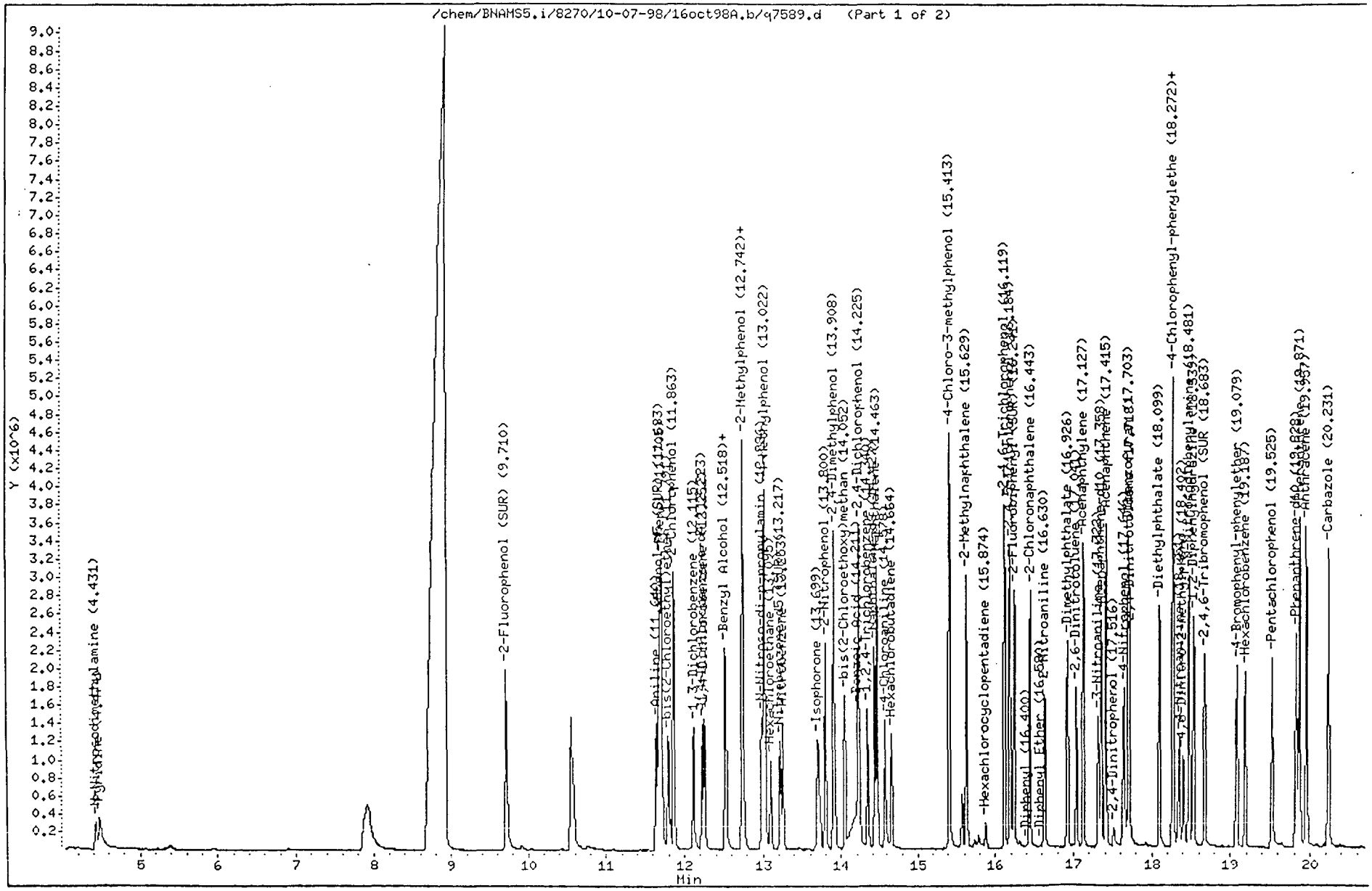
Operator: BNAMS3

305057

398

Column phase: DB-5

Column diameter: 0.25



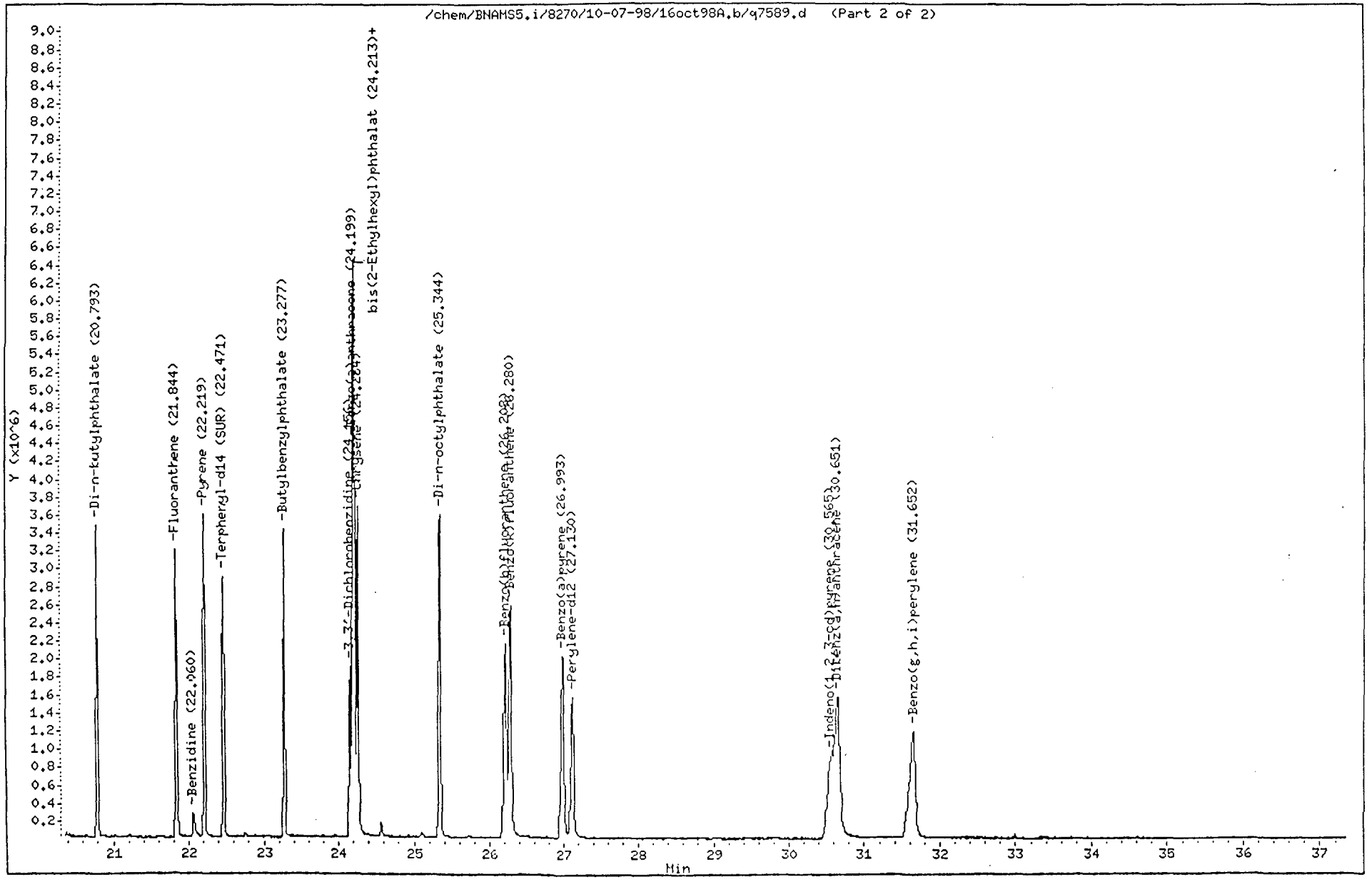
Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Date : 16-OCT-98 22:48:00
Client ID: ALL
Sample Info: 88158MSD;30;2;1;19.5;

Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

305058



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Report Date: 19-Oct-98 11:02:16

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Lab Smp Id: 4734BS Client Smp ID: ALL
Inj Date : 16-OCT-98 20:29:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 4734BS;30;2;1;;
Misc Info : ;ALL;4734;;
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/8270C-REV..m
Meth Date : 16-Oct-98 23:23:10 ctp Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 2 QC Sample: BS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 N-Nitrosodimethylamine	74	4.439	4.452	(0.363)	358492	37	2500
71 Pyridine	79	4.482	4.474	(0.367)	372829	26	1700
$ 16 2-Fluorophenol (SUR)	112	9.717	9.687	(0.795)	1334122	100	6800
$ 17 Phenol-d5 (SUR)	99	11.683	11.675	(0.956)	1743211	96	6400
1 Phenol	94	11.712	11.697	(0.958)	1816367	89	5900
73 Aniline	93	11.640	11.639	(0.952)	922244	44	2900
20 bis(2-Chloroethyl)ether	93	11.799	11.790	(0.965)	648832	41	2800
2 2-Chlorophenol	128	11.871	11.862	(0.971)	1525764	100	7000
21 1,3-Dichlorobenzene	146	12.115	12.114	(0.991)	628542	40	2700
* 79 1,4-Dichlorobenzene-d4	152	12.223	12.222	(1.000)	370301	40	
22 1,4-Dichlorobenzene	146	12.259	12.258	(1.003)	651321	41	2800
74 Benzyl Alcohol	108	12.533	12.525	(1.025)	492797	47	3200
23 1,2-Dichlorobenzene	146	12.519	12.518	(1.024)	612103	41	2700
3 2-Methylphenol	108	12.749	12.748	(1.043)	1289137	94	6200
24 bis(2-chloroisopropyl)ether	45	12.735	12.748	(1.042)	1807397	43	2900(M)

305059

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Report Date: 19-Oct-98 11:02:16

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
	4 4-Methylphenol	108	13.023	13.014	(1.065)	1544908	110	7100
	25 N-Nitroso-di-n-propylamine	70	12.994	12.986	(1.063)	472608	46	3100
	26 Hexachloroethane	117	13.095	13.101	(1.071)	226357	42	2800
$	76 Nitrobenzene-d5 (SUR)	82	13.217	13.216	(0.916)	606376	42	2800
	27 Nitrobenzene	77	13.253	13.259	(0.919)	620271	32	2100
	28 Isophorone	82	13.707	13.670	(0.950)	1509949	48	3200(H)
	5 2-Nitrophenol	139	13.801	13.792	(0.957)	941242	97	6400
	6 2,4-Dimethylphenol	122	13.916	13.907	(0.965)	1327016	93	6200
	15 Benzoic Acid	122	14.197	14.188	(0.984)	469434	62	4100(R)
	29 bis(2-Chloroethoxy)methane	93	14.053	14.044	(0.974)	845205	48	3200
	7 2,4-Dichlorophenol	162	14.225	14.224	(0.986)	1192181	99	6600
	30 1,2,4-Trichlorobenzene	180	14.341	14.339	(0.994)	536665	41	2700
*	80 Naphthalene-d8	136	14.427	14.426	(1.000)	1679533	40	
	31 Naphthalene	128	14.463	14.469	(1.002)	2146419	46	3000
	32 4-Chloroaniline	127	14.578	14.577	(1.010)	830427	42	2800
	33 Hexachlorobutadiene	225	14.665	14.671	(1.016)	226735	38	2500
	8 4-Chloro-3-methylphenol	107	15.414	15.412	(1.068)	1449014	120	7700(R)
	34 2-Methylnaphthalene	142	15.630	15.629	(1.083)	1376989	46	3000
	35 Hexachlorocyclopentadiene	237	15.882	15.881	(0.915)	87521	36	2400
	9 2,4,6-Trichlorophenol	196	16.119	16.118	(0.929)	893237	110	7300
	10 2,4,5-Trichlorophenol	196	16.184	16.183	(0.932)	926345	110	7200
$	77 2-Fluorobiphenyl (SUR)	172	16.249	16.241	(0.936)	1398557	45	3000
	102 Diphenyl	154	16.407	16.413	(0.945)	3584	0.10	6.9(a)
	36 2-Chloronaphthalene	162	16.443	16.442	(0.947)	1244196	46	3100(R)
	103 Diphenyl Ether	170	16.580	16.579	(0.955)	4323	0.24	16(a)
	37 2-Nitroaniline	65	16.638	16.637	(0.959)	468811	49	3300
	38 Dimethylphthalate	163	16.926	16.932	(0.975)	1690545	50	3300
	40 2,6-Dinitrotoluene	165	17.041	17.040	(0.982)	421133	51	3400
	39 Acenaphthylene	152	17.128	17.126	(0.987)	2188023	47	3100
	41 3-Nitroaniline	138	17.322	17.321	(0.998)	466121	66	4400(R)
*	82 Acenaphthene-d10	164	17.358	17.357	(1.000)	949516	40	
	42 Acenaphthene	153	17.416	17.422	(1.003)	1345085	47	3100
	11 2,4-Dinitrophenol	184	17.516	17.515	(1.009)	74139	16	1100(a)
	12 4-Nitrophenol	65	17.653	17.645	(1.017)	442776	99	6600
	44 2,4-Dinitrotoluene	165	17.725	17.717	(1.021)	605343	52	3400
	43 Dibenzofuran	168	17.704	17.710	(1.020)	1950635	50	3300
	45 Diethylphthalate	149	18.107	18.099	(1.043)	1743757	49	3300
	46 4-Chlorophenyl-phenylether	204	18.273	18.271	(1.053)	608620	47	3100
	47 Fluorene	166	18.280	18.279	(1.053)	1622047	52	3400
	48 4-Nitroaniline	138	18.359	18.358	(1.058)	519828	52	3500
	13 4,6-Dinitro-2-methylphenol	198	18.409	18.408	(0.928)	280666	47	3100
	49 N-Nitrosodiphenylamine	169	18.481	18.480	(0.932)	1159017	54	3600
	75 1,2-Diphenylhydrazine	77	18.539	18.538	(0.935)	1554471	48	3200
$	18 2,4,6-Tribromophenol (SUR)	330	18.683	18.682	(1.076)	474203	100	6700
	50 4-Bromophenyl-phenylether	248	19.086	19.085	(0.963)	384608	50	3300
	51 Hexachlorobenzene	284	19.187	19.186	(0.968)	461058	53	3600
	14 Pentachlorophenol	266	19.533	19.524	(0.985)	435450	120	8100(A)

305060

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Report Date: 19-Oct-98 11:02:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
* 83 Phenanthrene-d10	188	19.828	19.827	(1.000)	1425351	40	
52 Phenanthrene	178	19.871	19.870	(1.002)	2223915	52	3500
53 Anthracene	178	19.958	19.957	(1.007)	2286777	52	3500
54 Carbazole	167	20.231	20.230	(1.020)	2222551	50	3300
55 Di-n-butylphthalate	149	20.800	20.799	(1.049)	3230743	54	3600
56 Fluoranthene	202	21.844	21.843	(1.102)	2218726	52	3500
58 Benzidine	184	22.068	22.074	(1.113)	457399	21	1400
57 Pyrene	202	22.219	22.218	(0.917)	2274166	60	4000
$ 78 Terphenyl-d14 (SUR)	244	22.471	22.470	(0.928)	1628123	57	3800
59 Butylbenzylphthalate	149	23.278	23.276	(0.961)	1444039	60	4000
60 3,3'-Dichlorobenzidine	252	24.156	24.162	(0.997)	678820	48	3200
61 Benzo(a)anthracene	228	24.199	24.198	(0.999)	2037070	55	3700
63 bis(2-Ethylhexyl)phthalate	149	24.214	24.212	(1.000)	1798242	60	4000
* 81 Chrysene-d12	240	24.221	24.220	(1.000)	1084935	40	
62 Chrysene	228	24.264	24.263	(1.002)	2117199	59	3900
64 Di-n-octylphthalate	149	25.344	25.343	(0.934)	3517198	52	3500
65 Benzo(b)fluoranthene	252	26.208	26.207	(0.966)	2141655	48	3200
66 Benzo(k)fluoranthene	252	26.280	26.279	(0.969)	2442493	54	3600
67 Benzo(a)pyrene	252	27.001	26.999	(0.995)	2156820	52	3500
* 84 Perylene-d12	264	27.130	27.129	(1.000)	1234239	40	
68 Indeno(1,2,3-cd)pyrene	276	30.565	30.564	(1.127)	2329866	53	3500(M)
69 Dibenz(a,h)anthracene	278	30.666	30.658	(1.130)	2208645	52	3500
70 Benzo(g,h,i)perylene	276	31.660	31.651	(1.167)	2363947	55	3600

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

305061

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Date : 16-OCT-98 20:29:00
Client ID: ALL
Sample Info: 4734BS;30;2;1;;

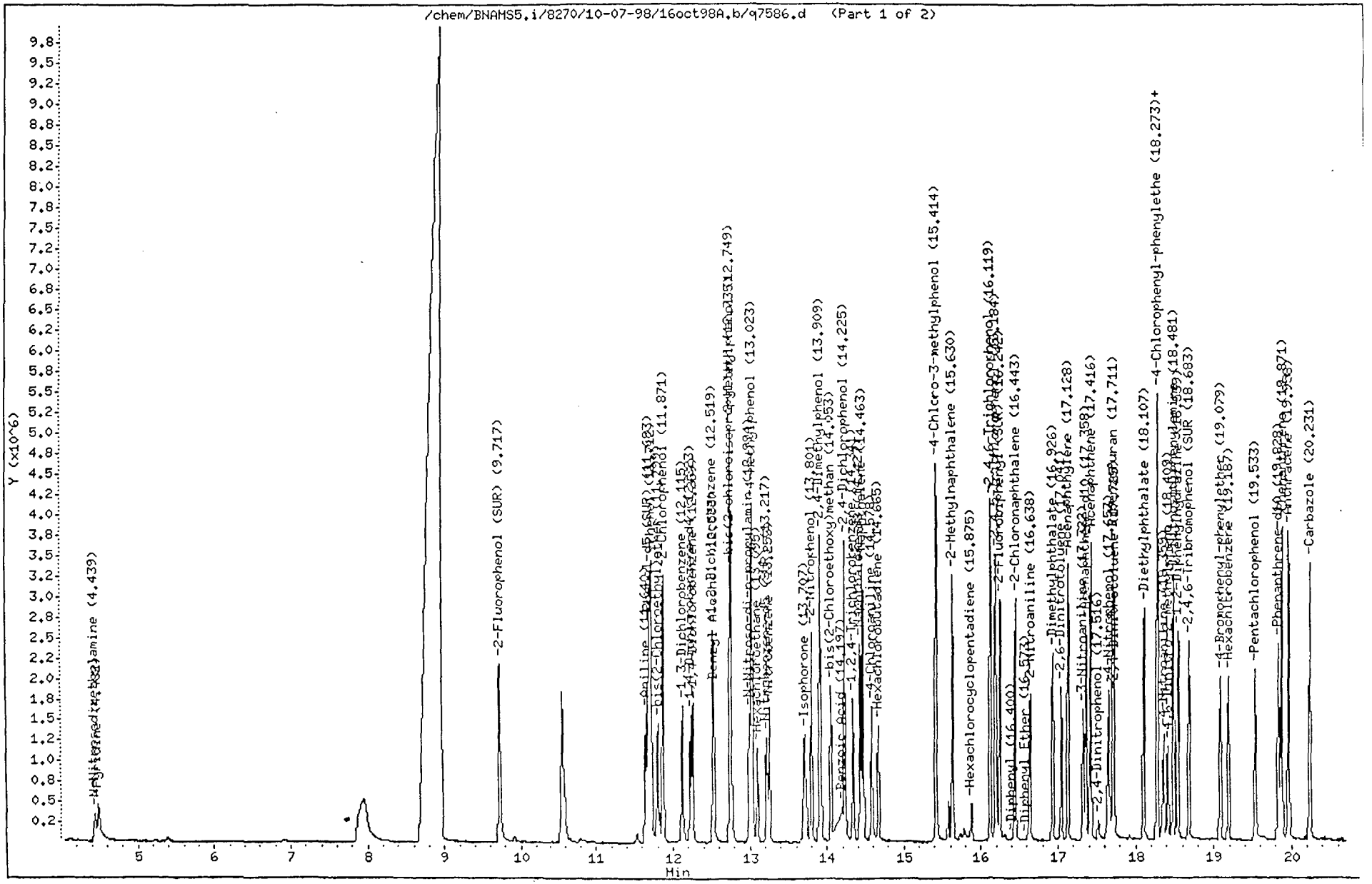
Instrument: BNAMS5.i

Operator: BNAMS3

305062

Column phase: DB-5

Column diameter: 0.25



403

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Date : 16-OCT-98 20:29:00
Client ID: ALL
Sample Info: 4734BS;30;2;1;;

Column phase: DB-5

Instrument: BNAMS5.i

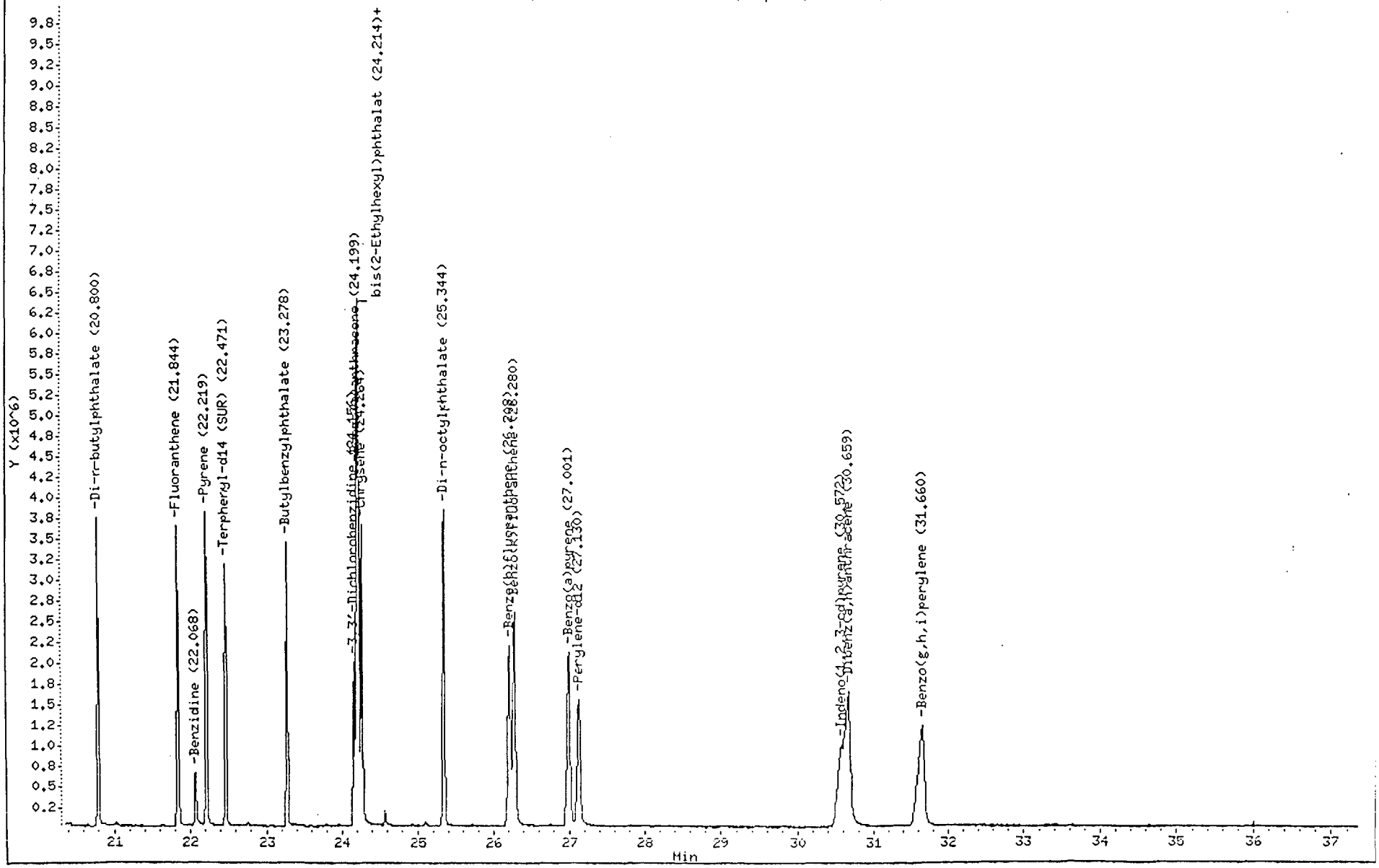
Operator: BNAMS3

Column diameter: 0.25

305063

404

/chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d (Part 2 of 2)



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A6469 Date Analyzed: 10/20/98

Instrument ID: VOAMS1 Time Analyzed: 1106

		IS1 AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	3644575	10.52	3224925	14.13	1868847	16.69
	UPPER LIMIT	7289150	11.02	6449850	14.63	3737694	17.19
	LOWER LIMIT	1822288	10.02	1612462	13.63	934424	16.19
	LABORATORY SAMPLE NO.						
01	AV293	3574257	10.57	2931694	14.18	1608637	16.73
02	88666	5067980	10.56	4466533	14.16	2476306	16.72
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21							
22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

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

305064

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C2232 Date Analyzed: 10/19/98

Instrument ID: VOAMS3 Time Analyzed: 1126

		IS1 AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	5776742	9.98	3955537	13.67	2074040	16.21
	UPPER LIMIT	11553484	10.48	7911074	14.17	4148080	16.71
	LOWER LIMIT	2888371	9.48	1977768	13.17	1037020	15.71
	LABORATORY SAMPLE NO.						
01	CV292	6055980	10.01	4278656	13.68	2041264	16.23
02	88663	5761748	10.02	4034660	13.69	1823491	16.23
03							
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21							
22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

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

305065

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E4643 Date Analyzed: 10/15/98

Instrument ID: VOAMS5 Time Analyzed: 1023

		IS1 AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	2809110	9.11	2278567	12.76	696113	15.25
	UPPER LIMIT	5618220	9.61	4557134	13.26	1392226	15.75
	LOWER LIMIT	1404555	8.61	1139284	12.26	348056	14.75
	LABORATORY SAMPLE NO.						
01	EV288B	2792896	9.10	2198786	12.77	678251	15.24
02	88662	2772866	9.10	2194812	12.77	685000	15.24
03	88684	2776078	9.10	2221969	12.77	712343	15.24
04	88685	2722158	9.10	2141644	12.77	683275	15.24
05	88686	2716084	9.10	2130197	12.77	692752	15.24
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21							
22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

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

305066

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8212 Date Analyzed: 10/16/98

Instrument ID: BNAMS2 Time Analyzed: 0949

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	670526	12.66	2290711	14.85	1329363	24.60
	UPPER LIMIT	1341052	13.16	4581422	15.35	2658726	25.10
	LOWER LIMIT	335263	12.16	1145356	14.35	664682	24.10
	LABORATORY SAMPLE NO.						
01	SB288A	454947	12.67	1594561	14.85	1081197	24.58
02							
03							
04							
05							
06							
07							
08							
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22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

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

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

305067

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8212 Date Analyzed: 10/16/98

Instrument ID: BNAMS2 Time Analyzed: 0949

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1382697	17.76	2162417	20.22	1496801	27.76
	UPPER LIMIT	2765394	18.26	4324834	20.72	2993602	28.26
	LOWER LIMIT	691348	17.26	1081208	19.72	748400	27.26
	LABORATORY SAMPLE NO.						
01	SB288A	995676	17.76	1486594	20.22	1145229	27.75
02							
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04							
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22							

IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

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

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

305068

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8322 Date Analyzed: 10/21/98

Instrument ID: BNAMS2 Time Analyzed: 1031

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	494688	12.65	1710034	14.84	1016315	24.59
	UPPER LIMIT	989376	13.15	3420068	15.34	2032630	25.09
	LOWER LIMIT	247344	12.15	855017	14.34	508158	24.09
	LABORATORY SAMPLE NO.						
01	88677	536934	12.65	1788418	14.83	843276	24.57
02	88677R1	524680	12.65	1743933	14.83	797541	24.57
03							
04							
05							
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21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

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

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

305069

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8322 Date Analyzed: 10/21/98

Instrument ID: BNAMS2 Time Analyzed: 1031

		IS4 (ANT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1075344	17.75	1567175	20.21	1148739	27.74
	UPPER LIMIT	2150688	18.25	3134350	20.71	2297478	28.24
	LOWER LIMIT	537672	17.25	783588	19.71	574370	27.24
	LABORATORY SAMPLE NO.						
01	88677	1101345	17.75	1596413	20.21	559798*	27.74
02	88677R1	1108496	17.75	1584363	20.21	450449*	27.74
03							
04							
05							
06							
07							
08							
09							
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12							
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16							
17							
18							
19							
20							
21							
22							

IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

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

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

Notebook No. _____
Continued From Page _____

PROJECT VOA1 (8260 High)

DATE	DATA FILE	ALS	SAMPLE #	TAB #	QCA	WT/VOL	SCR DF	WC WT	INBUSH	LPB	PH	CLP DF	SFD LOT #	RESULTS
10-7-98	A6186	-	ABFB250					[illegible]					Scr. V98-492	C1 98(95K) Scan 57 5:45
	A6187	1	ASTD005										5022BH V98-482	G
	A6188	1	ASTD005										5042VCX V98-489	NG
	A6189	2	ASTD020										LR8260EH V98-484	G
	A6190	3	ASTD050										LR-VOCXT V98-556	G
	A6191	4	ASTD100										CVERX-1 V98-486	G
	A6192	5	ASTD200											G
	A6193	6	BLK											-

8260 High Calibration

W 10/7/98

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[illegible] 10-7-98 [illegible] 11/5/98

PROJECT VCAI — S2200 MeGH

Date	Date Gle	As	Sample	Job	GA	Wt/Vol	SCR DE	Vol Inj Vol	Sub List	LPB	PH	Cf	Sil Total	Results
10/20	A6468	0	ABF6293											G
	A6469	1	ASTD 293											G
	A6470	2	Blank										Same as Pg 68	—
	A6471	3	AV293											not used
	A6472	4	AV293											G
	A6473	5	88559	H941	8040	11.25g/2 Sol	500		HSL 60A 110	AV293				G
	A6474	6	89906	I 126	8042	5.00g/100 ml	500		PFVOA					~~RRC/0~~ G - not used
	A6475	7	91021	J319	8040	10.00g/2 Sol	50		HSL 60A 110 + ABF 4 130A					G RRC/0 NG
	A6476	8	91023			9.79g/								~~Surr RR~~ - ST G
	A6477	9	91024			10.39g/								Surr RR ST Conf G A6496
	A6478	10	91028			10.0g/								G Surr RR Conf. Low ST G A6498
	A6479	11	91029			10.0g/								~~Surr RR~~ ST G
	A6480	12	91027			9.59g/								G Surr RR Conf Low ST G A6497
	A6481	13	91026			10.59g/								G
	A6482	14	91025			11.59g/								G
	A6483	15	89870	J193	8044	88.79g/100 ml			BBL					G
	A6484	16	886666	H950	8040	10.59g/2 Sol	250		HSL 60A 110					G
	A6485	17	88694	H952	8042	5.11g/100 ml	100		BTL 150.NaH					G
	A6486	18	90273	J205		1/100 ml	100		TVOA 115					Surr RR Conf Low BDX G A6499
	A6457	19	Blank											
	A6488	20	Blank											

VF
10-21-98

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PROJECT UART 8260 MOM

Notebook No. _____ Continued from Page _____

Date	Data File	A/S	Sample	Job	Inj	wt/vol	SCR DF	Vol Inj Ind	Sublist	LPB	VA	CLP DF	Std Lot(1)	Results
10/25	A6578	0	AB18248											G
	A6579	1	AB10298											G
	A6580	2	Blank										Same as pg 68	—
	A6581	3	AV298											G
	A6582	4	804085		8040				82bcal					NG - RR
	A6583	5	806655		8066									NG - RR
	A6584	6	89997MS	I161		10.0g/25ml	50			A1298				G
	A6585	7	89997MSD	↓	↓	10.0g/								G
	A6586	8	91023MS	I319	8040	10.0g/								G
	A6587	9	91023MSD	↓	↓	9.99g/			↓					G
	A6588	10	89997 ~~AP~~	I161	8066	10.0g/			PPVOA115				(G)	BRC/C ~~G~~ ~~AP~~
	A6589	11	89998	↓	↓	10.0g/			↓					RRC/C - NC
	A6590	12	90263	I204	8068	11.0g/			PPVOA...115					G
	A6591	13	90264			11.4g/								G
	A6592	14	90265			10.4g/								G
	A6593	15	90266			11.2g/								G
	A6594	16	90267			10.0g/								G
	A6595	17	90301	I208	8040	9.9g/			PPVOA110					G
	A6596	18	90303			10.2g/								G
	A6597	19	90309			9.5g/								G
	A6598	20	90305			10.0g/								G
	A6599	21	89777	I130	8068	1.5g/	200		PPVOA110					G
	A6600	22	Blank											—

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PROJECT 8260 HIGH

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DATE	DATA FILE	ALQ	SAMPLE #	TOB#	OAH	WT/VOL	SCR DF	VOL INJ	SUBMIT	LPB	PH	CLP DF	STD LOT #	RESULTS
10-17-98	C2193	-	CBFB290					1ml					NIT mod	C1 95(77K) Avg 9:33
	C2194	1	CSTD290										↓	NC6
	C2195	1	CSTD290											
	C2196		CBFB290											G
	C2197	2	CSTD005											G
	C2198	3	CSTD005											not used
	C2199	4	CSTD020											G
	C2200	5	CSTD050											G
	C2201	6	CSTD100											G
	C2202	7	CSTD200											G
	C2203	7	RVI											not used
	C2204	8	CU290											↓
	C2205	9	CU290											G
	C2206	10	89855	I141	8355	5mL			Fe[illegible]					G
	C2207	11	856											NIS error
	C2208	12	857											
	C2209	13	858											
	C2210	14	859											
	C2211	15	862											
	C2212	16	863											
	C2213	2	863MC						8260 all					
	C2214	3	863MD											
	C2215	4	8355BS											↓ J.W.

Signed [signature] Date 10-17-98

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PROJECT

Notebook No. 57

Date	Data File	A/S	Sample #	Time	Gas	Wt/Vol	Sca DF	Vol Inj.	Sub/Ext	LPB	Spl	CLP DF	Std Vol	Results
10/19/98	C2229	-	CBFB 292			5mg		1µL						NG
	C2230	-	CBFB 292			↓		↓						↓
	C2231	-	CBFB 292											G
	C2232	2	CSTD 292			5mL								G
	C2233	3	OV292											Not Used
	C2234	3	OV292							OV292				G
	C2235	2	8355 BS		8355									G
	C2236	3	88663	H950					12 vol					G
	C2237	4	88672	H952										G
	C2238	5	89772	I129										G
	C2239	6	89773	↓										G
	C2240	7	89802	I132										G
	C2241	8	89810	↓										NG, Dense
	C2242	9	89860	I141										G
	C2243	10	89861	↓										G
	C2244	11	90248	I200		2.500µL	2							G
	C2245	12	90253	I202		5mL								G
	C2246	13	90254											G
	C2247	14	90255											G
	C2248	15	90256											NG, Dense
	C2249	16	7090 BS		7090									↓
	C2250	1	8012 BS		8012									

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10/19/98

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PROJECT 8280 M/H VOA 2

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Date	Data file	ALS	Sample	TOB	QA	wt/vol	SCR DT	Vol Inj	sublist	LPB	pH	CAP DT	STD Lot #	Results
10-18-98	C2208	-	CBTB291											G
	C2209	1	CSTD291											G
	C2210	2	CV291											NG
	C2211	3	↓											G
	C2212	4	89856	I141	8355	5 ml	ST		TCL+10	CV291				[illegible]
	C2213	5	89857	↓	↓	↓	↓		↓	↓				
	C2214	6	89858											
	C2215	7	89859											
	C2216	8	89862											
	C2217	9	89863											
	C2218	10	89863MS											
	C2219	11	89863MSD											
	C2220	12	8355BS											NG, NS evol
	C2221	13	89861	↓	↓	↓	↓		↓	↓				↓
	C2222	14	89772	I129	↓	↓	↓		↓	↓				
	C2223	15	89773	↓	↓	↓	↓		↓	↓				
	C2224	16	90248	I200	↓	2.5 ml	2		↓	↓				
	C2225	1	90253	I202	↓	5 ml	ST		↓	↓				
	C2226	2	90254	↓	↓	↓	↓		↓	↓				
	C2227	3	90255	↓	↓	↓	↓		↓	↓				
	C2228	4	90256	↓	↓	↓	↓		↓	↓				↓

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PROJECT VOA 5 Inj Log

Notebook No. 01084

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DATE	DATA FILE	ALS	SAMPLE #	JOB #	QA	WT/VOL	SCR D.F.	VOL INJ	SUBLIST	LPB	pH	STD LOT#	RESULTS
10/14/98	E4607	–	EBFB287			50 ng		1 µL					
	E4608	1	ESTD005			5 mL		5 mL					NG
	E4609	2	ESTD005			↓		↓					G
	E4610	3	ESTD020										G
	E4611	4	ESTD050										G
	E4612	5	ESTD050										NG
	E4613	6	ESTD100										G
	E4614	7	ESTD200										G
	E4615	8	BLNK										did not use
	E4616	9	BLNK										did not use
	E4617	10	7034BS		7034								G
	E4618	11	EV287			↓		↓					G
	E4619	12	85266MS	H481	7034	38/100	50	1000	all sub	EV287			G
	E4620	13	85266MSD	↓	↓	↓	↓	↓	↓	↓			G
	E4621	14	85457MS	H515	7032	29/25							G
	E4622	15	85457MSD	↓	↓	↓	↓	↓	↓	↓			G
	E4623	–	EBFB287A										G
	E4624	1	ESTD287A										G
	E4625	2	EV287A BS										G
	E4626	3	~~BLNK~~										G
	E4627	4	EV287A										G
	E4628	5	88247	H892	8012	200/500	50	1000	HSVOA 110	EV287A			G
	E4629	6	88243	↓	↓	98/500	↓	↓	↓	↓			NG ~~surr~~ ↑
	E4630	7	88244			98.9/500							G
	E4631	8	88245			99/500							G
	E4632	9	88246	↓	↓	99.2/500							NG surr ↓
	E4633	10	88163	H879	8002	5.09/10							G
	E4634	11	88154	↓	↓	5.02/10							G
	E4635	12	88155			5.15/10	↓	↓	↓	↓			G

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DATE	DATA FILE	ALG	SAMPLE #	JOB #	QA	WT/VOL	SOR D.F.	VOL IND	SUBLIST	LPB	pH	STD LOT #	RESULTS
10/15/98	E4642 ~~E5FB288~~	–	E5FB288			50mg		1ml					G
	E4643 ~~E5TD288~~	1	E5TD288			5ml		5ml					G
	E4644	2	BS			↓		↓					did not use
	E4645	3	EV288A										did not use
	E4646	4	EV288A										G
	E4647	5	88293	H892	8018	98/500	50	1000	HSLVOAH10	EV288A			NG
	E4648	6	88296	↓	↓	99.2/500			↓				NG
	E4649	7	85482 MS	H918	7050	5.22/10			all sub				G
	E4650	8	85482 MSD	↓	↓	↓			↓				G
	E4651	9	BLNK										did not use
	E4652	10	89641	I104	8020	11/25			PPVOAHT_H				NG
	E4653	11	EV288B			5ml	50	5ml		EV288B			G
	E4654	12	705025		7050	↓	↓	↓					G
	E4655	13	88283	H901	8020	10/25	50	1000	PPVOAH10				RR PERCOLATE
	E4656	14	88557	H941		11/25			HSLVOAH10				G
	E4657	15	88602	H950		10/25							G
	E4658	16	88684			10.7/25							G
	E4659	17	88685			10/25							G
	E4660	18	88686			10.2/25							G
	E4661	19	88689	H952	8002	5.59/10			ACOC+O2 ~~B71HAP~~ SUB				G
	E4662	20	88989	I002	8020	9.8/25			HSLVOAH10				G
	E4663	21	88991	↓		10/25			↓				G
	E4664	22	88279	H941		11/25			PPVOAH10				G
	E4665	23	88569	H941		10.7/25	100	500	HSLVOAH10				NG clo
	E4666	24	XSTD288			5ml		5ml					did not use

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PROJECT VOA 5 Inj Log

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DATE	DATA FILE	ALS	SAMPLE #	JOB #	QA	WT/VOL	SCR D.F.	VOL INJ	SUBLIST	LFB	pH	STD LOT #	RESULTS
10/20/88	E4916	–	EBFB302			5ml		1µL					NG
	E4917	–	LBFB302			↓		↓					G
	E4918	1	ESTD302			5mL		5mL					G
	E4919	2	802085		8020								G
	E4920	3	EV302										did not use
	E4921	4	EV302										G
	E4922	5	91360	I378	8092	10/25	50	1000	HSLWA410	EV302			G
	E4923	6	91297	I369		10/25			TPVOA410				G
	E4924	7	91297	I383		10/25			↓				G
	E4925	8	91300	I369		10/25			TPVOA410				G
	E4926	9	91345	I378		10/25			HSLV A410				G
	E4927	10	91346			10/25							G
	E4928	11	91351			10/25							~~NG~~ ~~Sent~~ T.L.
	E4929	12	91352			10/25							G
	E4930	13	91354			10/25							G
	E4931	14	91355			10/25							G
	E4932	15	91356			10/25							G
	E4933	16	91357			10/25							G
	E4934	17	91358			10/25							G
	E4935	18	91348			10/25	250	250					G
	E4936	19	91350			10/25							G
	E4937	20	91355	I323	8046	5/10	1000	50	HSLWA410				G
	E4938	21	904[illegible]85	I220	8020	10/25	[illegible]	1000	[illegible]				G
	E4939	22	904[illegible]85										G
	E4940	23	XSTD302			5mL		5mL					G

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PROJECT BNA 2 Inj Log

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DATE	DATAFILE	SAMPLE	[illegible]	FV	DIL	JOB	VOL	QA	DATE	LPB	COMMENTS	%	SUB
9/28	S7717	SDFT271					2ml				NG	96	
	S7718	↓					↓				↓	↓	
	S7719												
	S7720												
	S7721												
	S7722										G	96	
	S7723	SSTD271					1ml				NG	1	
	S7724	SDFT271					2ml				G	96	
	S7725	SSTD271					1ml				NG	1	
	S7726	SDFT271					2ml				G BNA 741A	96	
	S7727	SSTD050					1ml				G	1	
	S7728	SSTD~~080~~ 120									G	2	
	S7729	SSTD080									G G for 8270 and	3	
	S7230	SSTD020									G 625 & 8270 DEL	4	
	S7731	SSTD005									NG BNA 746	5	
	S7732	SSTD005 ~~SSTD010~~									G	6	
	S7733	SSTD010									G	7	

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PROJECT BNA 2 Inj. Log

Notebook No. 140

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Date	Datafile	Sample #	Vol-Vol	F.V.	D.In	Jos#	Vol	CA	Ext Date	LPB #	Comments	Ans	Sub.
10/16	S8211	SDFT289					2uL				G BNA741B	96	
	S8212	SSTD289					1uL				G BNA746	1	
	S8213	ISTD LOTTEST									X	2	
	S8214	EB288	250ml	2mL	str.	-		-	10/15	EB288	G	3	BNA
	S8215	TB286				-		-	10/13	TB286	G	4	
	S8216	TB287				-		-	10/14	TB287	G	5	
	S8217	89377	250ml			I066		4145	10/15	EB288	G	6	TCLPBNA
	S8218	89663				I113					G	7	
	S8219	89664									G	8	
	S8220	89665									G	9	
	S8221	90188	30gr		20X	I189		4726	10/15	SB288A	G	10	PPBN(+)
	S8222	SB288A			str.	-		-			G	11	BNA

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PROJECT BNA/SVOC/PCB

Notebook No. VOA

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DATE	DATAFILE	Sample#	WT/VOL	F.V.	DILN	JOB#	INJ VOL	QA	EXT DATE	LPB #	Comments	^ J	Sub
10/16	S8223	SDFT289A					2uL				G - BNA 741B	96	
(cont)	S8224	SSTD050					1uL				NG - BNA746	1	
	S8225	SSTD050									G - BNA796	1	
	S8226	SSTD0120									G	2	
	S8227	SSTD080									G	3	
	S8228	SSTD020									G	4	
	S8229	SSTD010									G	5	
	S8230	SSTD005-S									G	6	
	S8231	WB281	1000	2ml	Str	-		-	10/9	WB281	G	7	BN
	S8232	WB288	1000	2ml	Str	-		-	10/15	WB288	G	8	BNA
	S8233	87123	890	2ml	Str	H745		4159	10/6	WB279	G	9	PPBNA (+)
	S8234	87283	970	2ml	Str	H768		4159	10/6	WB279	G	10	TCLBNA (+)
	S8235	87369	940	2ml	Str	H795		4159	10/6	WB279	G	11	TCLBNA (+)
	S8236	87484	900	2ml	Str	H798		4175	10/9	WB281	G	12	PAH
	S8237	87236	920	2ml	2x	H759		4159	10/6	WB279	G	13	12BNA
	S8238	87401	940	2ml	Str	H798		4173	10/7	WB280A	G	14	TCLBN (+)
	S8239	87402	930								G	15	
	S8240	87403	910								G	16	
	S8241	87404	960								G	17	
	S8242	87405	930								G	18	
	S8243	87406	980								G	19	
	S8244	87407	900								G	20	
	S8245	87407 MS									G	21	
	S8246	87407 MSD									G	22	
	S8247	87408	960								G	23	
	S8248	87410	950								G	24	
	S8249	87411	950								G	25	
	S8250	4173 BS	1000								G	26	
	S8251	87508	1000	2ml	Str	H804		4153	10/2	WB275	G	27	PPBNA
	S8252	87508 MS									G	28	

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QA

PROJECT BNA 2 Inj Log

Notebook No. [illegible]

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Date	Data File	Sample #	Wt/vol	FV	Dil n	Job #	2nj vol	QA	Ext Date	LPB #	Comments	ALS	Sub
10/21	S8321	SDFT294					2ul				G BNA 741B	96	
~~Cont~~	S8322	SSTD294					1ul				G BNA 796	1	
	S8323	88504	30g	2ml	str.	H936	↓	4748	10/14	SB287	G	2	PPBNA ⊕
	S8324	88506	↓	5ml	50x	↓	↓	↓	↓	↓	G	3	↓
	S8325	88507	↓	2ml	2x	↓	↓	↓	↓	↓	NG RR str.	4	↓
	S8326	88505	↓	↓	25x	↓	↓	↓	↓	↓	G	5	↓
	S8327	88507	↓	↓	str.	↓	↓	↓	↓	↓	G	6	↓
	S8328	88677	↓	5ml	↓	H950	↓	4734	10/15	SB288A	~~B-R~~ G ZSTD out S8330	7	TCLBN ⊕
	S8329	BLK					↓				X	8	
	S8330	88677R1	30g	5ml	str.	H950	↓	4734	10/15	SB288A	G - Confirm ZSTD out S8328 (low)	9	TCLBN ⊕
	S8331	88693	↓	2ml		H952	↓	4744	10/14	SB287A	G	10	~~All [illegible]~~
	S8332	88695	↓	↓		↓	↓	↓	↓	↓	G	11	↓
	S8333	88694	↓	↓	20x	↓	↓	↓	↓	↓	G	12	↓
	S8334	89022	↓	5ml	2x	I006	↓	4752	10/15	SB288	NG R.R ZSTD out	13	TCLBN ⊕
	S8335	89023	↓	2ml	25x	↓	↓	↓	↓	↓	~~G~~ NG RR 2X	14	↓

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Read and Understood By

305083

Signed [signature] Date 10/21/98

Signed Date

Signed Date

PROJECT [illegible] Log

Continued From Page

DATE	DATAFILE	SAMPLE	wt/vol	FV	DIL ~~FV~~	JOB ~~DIL~~	Inj vol	QA ~~JOB~~	EXT DATE	LPB#	COMMENTS	A-S	SUB
10/7	Q7330	QDFT280					2ul				NG	96	
	Q7331												
	Q7332												
	Q7333												
	Q7334												
	Q7335												
	Q7336										G		
	Q7337	QSTD280					1ul				NG (failed for Pentachlorophenol & Hexachlorobutene)	1	
	Q7338	QDFT280					2ul				G BNA741B	96	
	Q7339	QSTD050					1ul				G	1	
	Q7340	QSTD120									G Range Good for	2	
	Q7341	QSTD080									G 8270 only	3	
	Q7342	QSTD020									G BNA 796	4	
	Q7343	QSTD005									G	5	
	Q7344	QSTD010									NG	6	

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305084

Signed [signature] Date 10/7/98

Signed [signature] Date 10/22/98

PROJECT BNA 5 INJ LOG

Notebook No. 1148

Continued From Page

DATE	DATA FILE	SAMPLE #	Wt/Vol	F.V.	DILQ	JOBA	INJ VOL	QA	Ext Date	LAB #	COMMENTS	ALS	SUB
10/16 (cont.)	Q7584	QDFT289A					2µl				G BNA 741B	96	
	Q7585	QSTD289A					1µl				G BNA 796	1	
	Q7586	4734 BS	30g	2ml	Str.	H879		4734	10-13	SB286A	G		TCLBNA
	Q7587	88158									G		
	Q7588	88158MS									G		
	Q7589	88158MSD									G		
	Q7590	88151R1	15g								G		
	Q7591	88154	30g								G		
	Q7592	88159									G		
	Q7593	88162									G		
	Q7594	89513			2X	F088		4736		SB286B	G		BNA
	Q7595	87380			50X	H786		4720		SB286A	G		BNA
	Q7596	87384			Str.				10-10	SB283	G		BNA
	Q7597	87385			25X						G		
	Q7598	87386			10X						N.G. R.R. Str.		
	Q7599	87421			Str.	H789		4726	10-12	SB285A	G		
	Q7600	85990			2X	H586		4676	9-29	SB272A	G		4,5,6PAH
	Q7601	BLK										—	

Read and Understood By

Continued on Page

305085

10/22/98

Client ID: **SSAW-7_5-5.5**
Site: Klockner & Klockner

Lab Sample No: **88664**
Lab Job No: H950

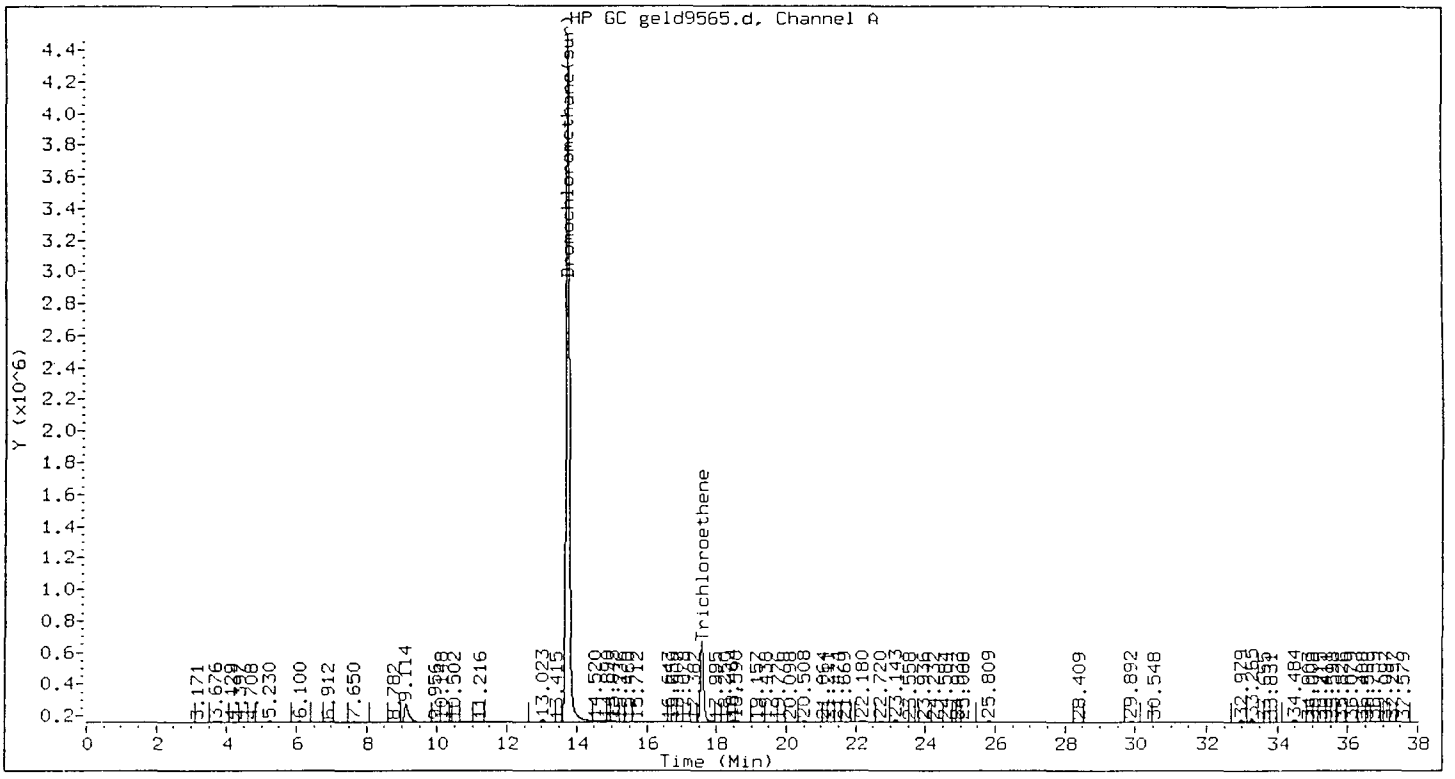
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9565.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 13.9

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	140
Chloromethane	ND	140
Vinyl Chloride	ND	140
Bromomethane	ND	140
Chloroethane	ND	140
Trichlorofluoromethane	ND	140
1,1-Dichloroethene	ND	140
Methylene Chloride	ND	140
trans-1,2-Dichloroethene	ND	140
1,1-Dichloroethane	ND	140
cis-1,2-Dichloroethene	ND	140
Chloroform	ND	140
1,1,1-Trichloroethane	ND	140
Carbon Tetrachloride	ND	140
1,2-Dichloroethane	ND	140
Trichloroethene	283	140
1,2-Dichloropropane	ND	140
Bromodichloromethane	ND	140
2-Chloroethyl Vinyl Ether	ND	140
cis-1,3-Dichloropropene	ND	140
trans-1,3-Dichloropropene	ND	140
1,1,2-Trichloroethane	ND	140
Tetrachloroethene	ND	140
Dibromochloromethane	ND	140
Chlorobenzene	ND	140
Bromoform	ND	140
1,1,2,2-Tetrachloroethane	ND	140
1,3-Dichlorobenzene	ND	140
1,4-Dichlorobenzene	ND	140
1,2-Dichlorobenzene	ND	140

305086



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : 88664;;50
Lab ID : 88664 Inst ID : VOAGC1.i
Inj Date : 19-OCT-98 18:35:00 Dil Factor : 50
Operator : KB Sample Matrix : SOIL
Cpnd Sublist: 601 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Trichloroethene	17.588	17.595	0.007	16323719	2.029	283.254
Bromochloromethane(sur)	13.720	13.735	0.015	142127302	30.579	4268.717

305087

Client ID: **SSAW-7_12-12.5**
Site: Klockner & Klockner

Lab Sample No: **88665**
Lab Job No: H950

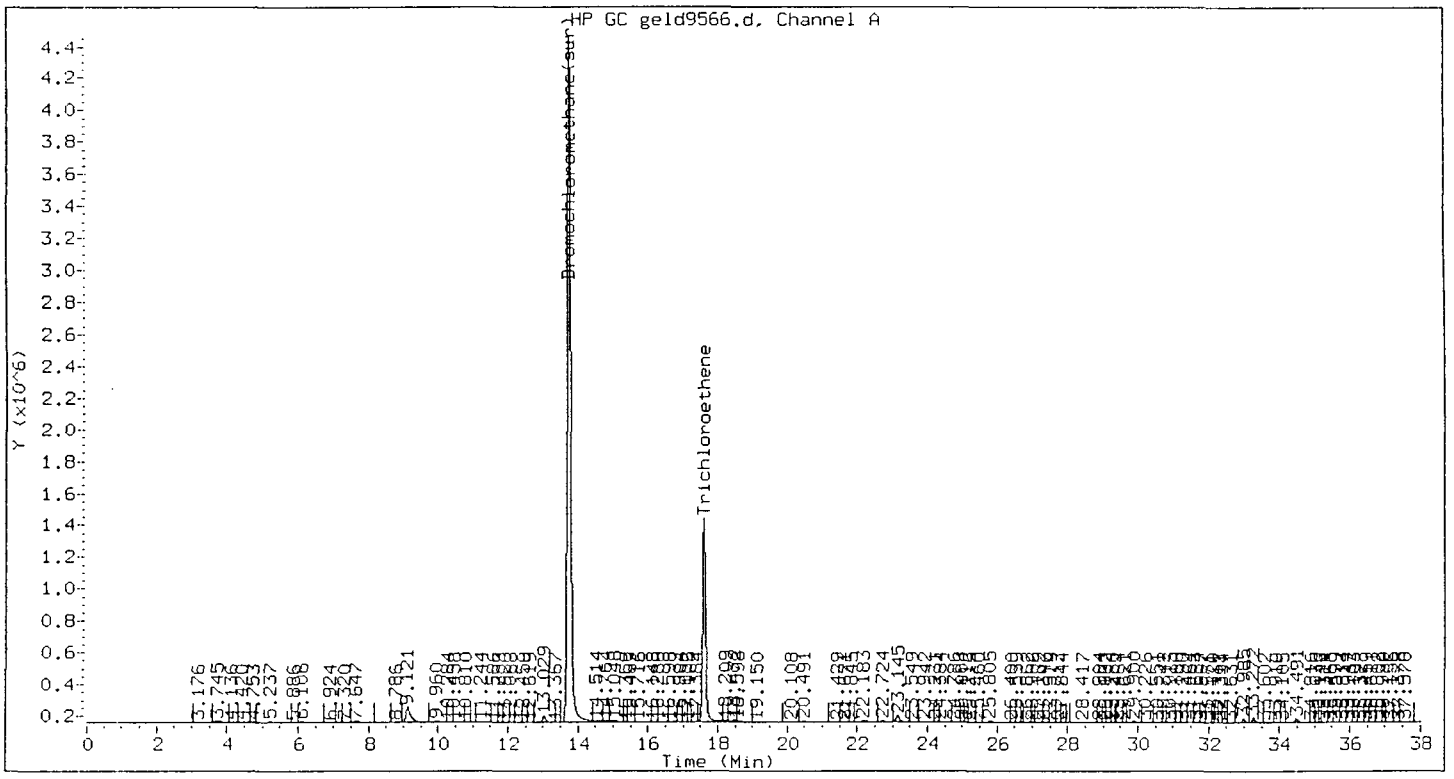
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9566.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 5.5

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	128
Chloromethane	ND	128
Vinyl Chloride	ND	128
Bromomethane	ND	128
Chloroethane	ND	128
Trichlorofluoromethane	ND	128
1,1-Dichloroethene	ND	128
Methylene Chloride	ND	128
trans-1,2-Dichloroethene	ND	128
1,1-Dichloroethane	ND	128
cis-1,2-Dichloroethene	ND	128
Chloroform	ND	128
1,1,1-Trichloroethane	ND	128
Carbon Tetrachloride	ND	128
1,2-Dichloroethane	ND	128
Trichloroethene	648	128
1,2-Dichloropropane	ND	128
Bromodichloromethane	ND	128
2-Chloroethyl Vinyl Ether	ND	128
cis-1,3-Dichloropropene	ND	128
trans-1,3-Dichloropropene	ND	128
1,1,2-Trichloroethane	ND	128
Tetrachloroethene	ND	128
Dibromochloromethane	ND	128
Chlorobenzene	ND	128
Bromoform	ND	128
1,1,2,2-Tetrachloroethane	ND	128
1,3-Dichlorobenzene	ND	128
1,4-Dichlorobenzene	ND	128
1,2-Dichlorobenzene	ND	128

305088



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : 88665;;50
Lab ID : 88665
Inj Date : 19-OCT-98 19:20:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Trichloroethene	17.592	17.595	0.003	40614024	5.048	648.336
Bromochloromethane(sur)	13.728	13.735	0.007	140444941	30.217	3880.551

305089

Client ID: **SSAW-9_1-1.5**
Site: Klockner & Klockner

Lab Sample No: **88667**
Lab Job No: H950

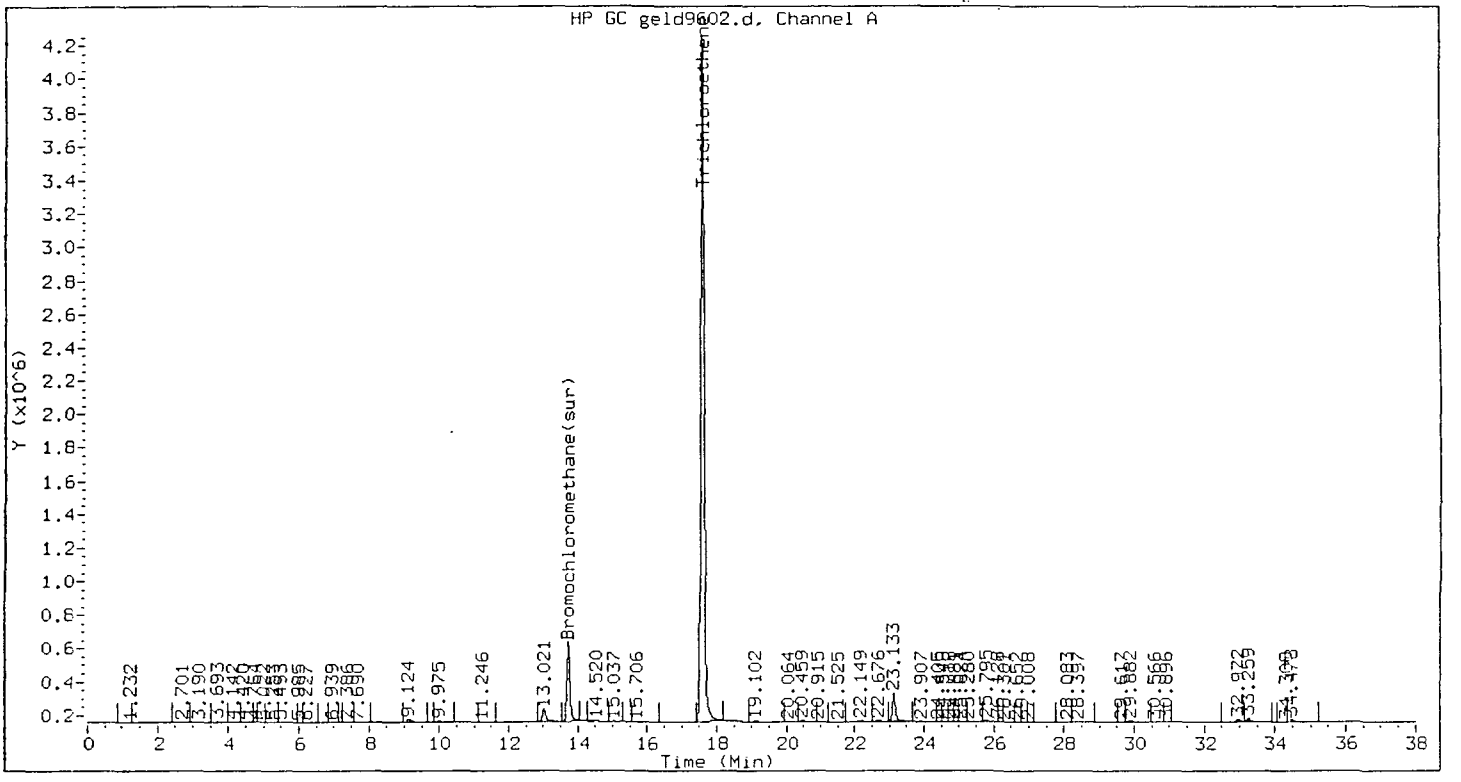
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/21/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9602.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 500.0
% Moisture: 17.0

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	1460
Chloromethane	ND	1460
Vinyl Chloride	ND	1460
Bromomethane	ND	1460
Chloroethane	ND	1460
Trichlorofluoromethane	ND	1460
1,1-Dichloroethene	ND	1460
Methylene Chloride	ND	1460
trans-1,2-Dichloroethene	ND	1460
1,1-Dichloroethane	ND	1460
cis-1,2-Dichloroethene	ND	1460
Chloroform	ND	1460
1,1,1-Trichloroethane	ND	1460
Carbon Tetrachloride	ND	1460
1,2-Dichloroethane	ND	1460
Trichloroethene	23300	1460
1,2-Dichloropropane	ND	1460
Bromodichloromethane	ND	1460
2-Chloroethyl Vinyl Ether	ND	1460
cis-1,3-Dichloropropene	ND	1460
trans-1,3-Dichloropropene	ND	1460
1,1,2-Trichloroethane	ND	1460
Tetrachloroethene	ND	1460
Dibromochloromethane	ND	1460
Chlorobenzene	ND	1460
Bromoform	ND	1460
1,1,2,2-Tetrachloroethane	ND	1460
1,3-Dichlorobenzene	ND	1460
1,4-Dichlorobenzene	ND	1460
1,2-Dichlorobenzene	ND	1460

305090



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/21oct98.b/8021E.m
Sample Info : 88667;;500
Lab ID : 88667
Inj Date : 21-OCT-98 10:58:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 500
Sample Matrix : SOIL
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Trichloroethene	17.580	17.595	0.015	128375085	15.957	23332.352
Bromochloromethane(sur)	13.724	13.735	0.011	14734974	3.170	4635.434

305091

Client ID: **SSAW-10_1-1.5**
Site: Klockner & Klockner

Lab Sample No: **88668**
Lab Job No: H950

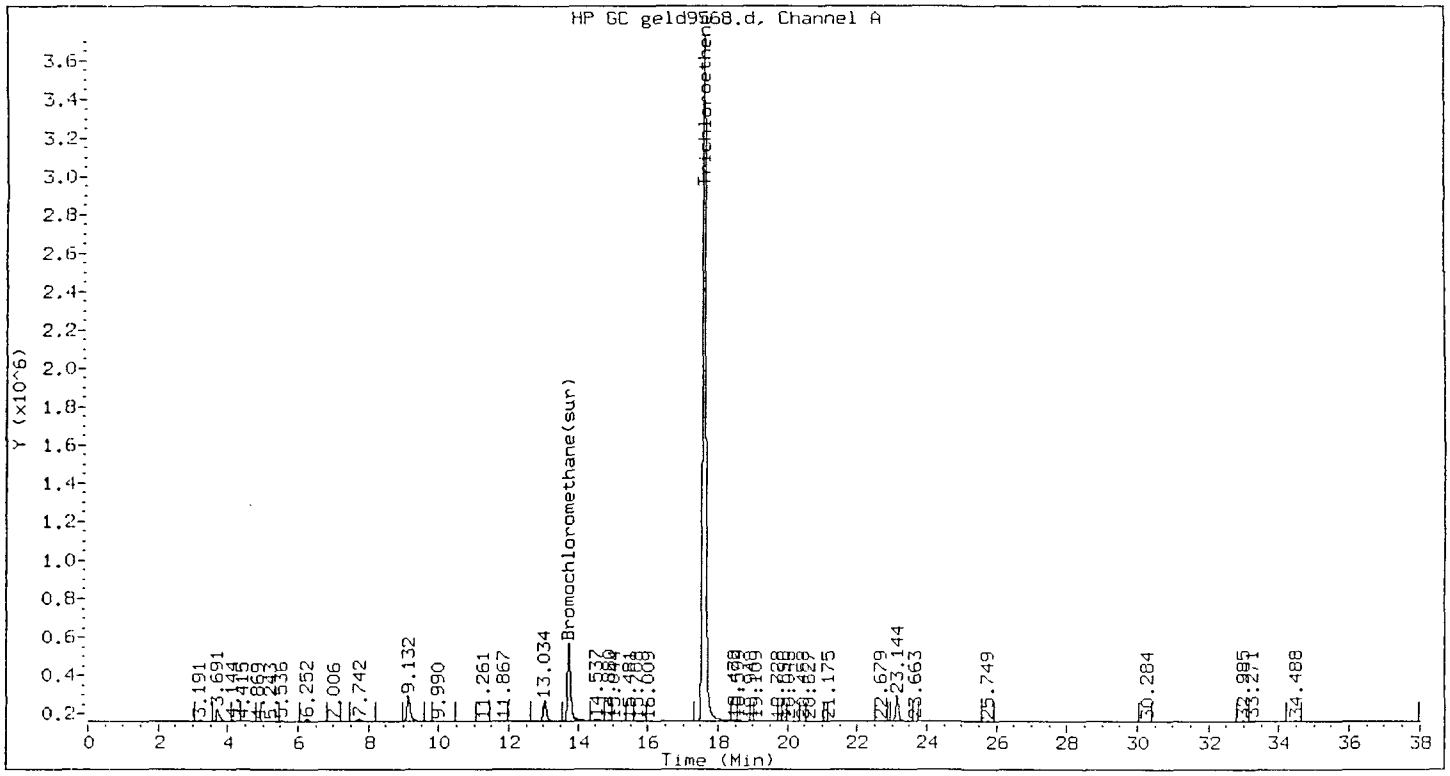
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9568.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 500.0
% Moisture: 17.2

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	1510
Chloromethane	ND	1510
Vinyl Chloride	ND	1510
Bromomethane	ND	1510
Chloroethane	ND	1510
Trichlorofluoromethane	ND	1510
1,1-Dichloroethene	ND	1510
Methylene Chloride	ND	1510
trans-1,2-Dichloroethene	ND	1510
1,1-Dichloroethane	ND	1510
cis-1,2-Dichloroethene	ND	1510
Chloroform	ND	1510
1,1,1-Trichloroethane	ND	1510
Carbon Tetrachloride	ND	1510
1,2-Dichloroethane	ND	1510
Trichloroethene	21200	1510
1,2-Dichloropropane	ND	1510
Bromodichloromethane	ND	1510
2-Chloroethyl Vinyl Ether	ND	1510
cis-1,3-Dichloropropene	ND	1510
trans-1,3-Dichloropropene	ND	1510
1,1,2-Trichloroethane	ND	1510
Tetrachloroethene	ND	1510
Dibromochloromethane	ND	1510
Chlorobenzene	ND	1510
Bromoform	ND	1510
1,1,2,2-Tetrachloroethane	ND	1510
1,3-Dichlorobenzene	ND	1510
1,4-Dichlorobenzene	ND	1510
1,2-Dichlorobenzene	ND	1510

305092



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : 88668;;500
Lab ID : 88668
Inj Date : 19-OCT-98 20:51:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 500
Sample Matrix : SOIL
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
Trichloroethene	17.596	17.595	0.001	112978563	14.044	21201.120
Bromochloromethane(sur)	13.738	13.735	0.003	13324960	2.867	4328.046

305093

Client ID: **SSAW-9_11.5-12**
Site: Klockner & Klockner

Lab Sample No: **88669**
Lab Job No: H950

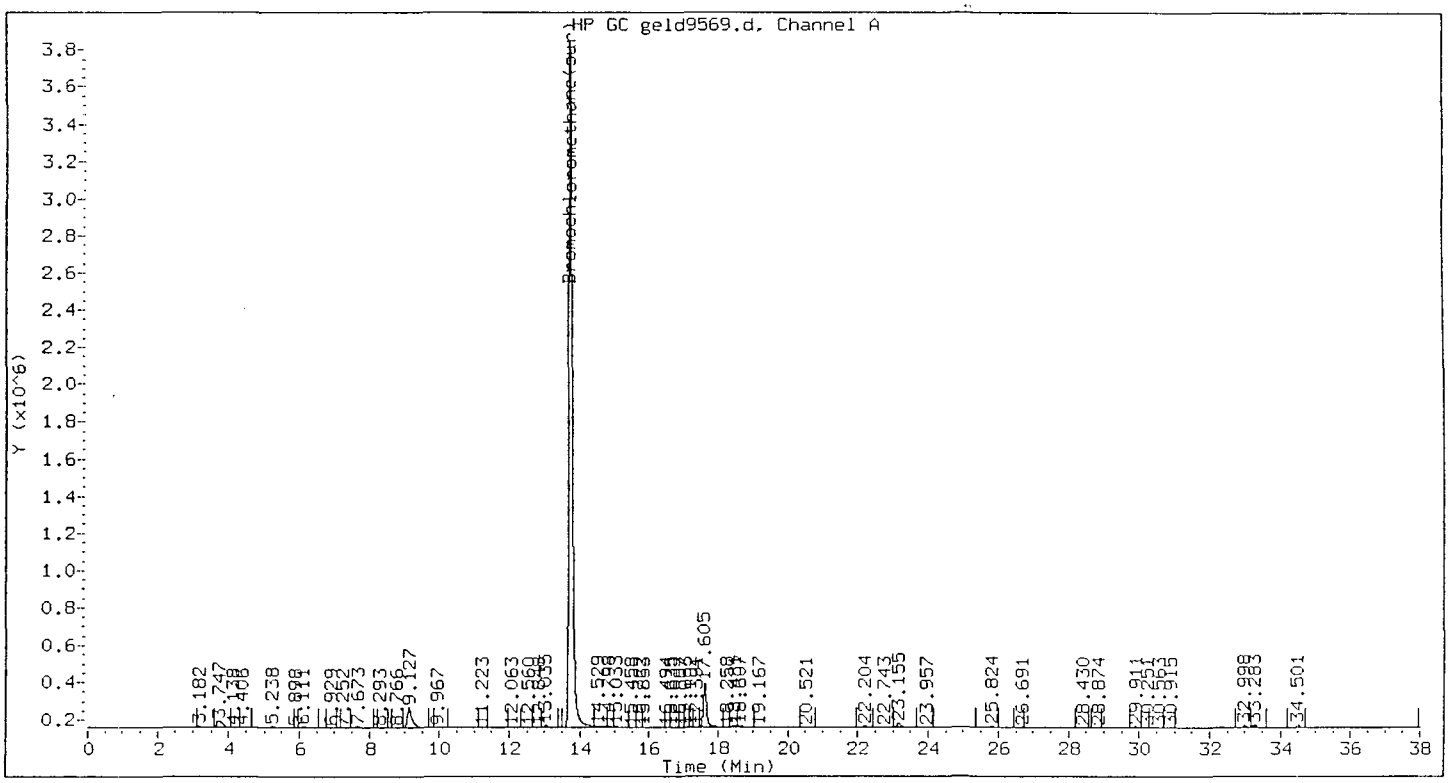
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9569.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 3.8

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	120
Chloromethane	ND	120
Vinyl Chloride	ND	120
Bromomethane	ND	120
Chloroethane	ND	120
Trichlorofluoromethane	ND	120
1,1-Dichloroethene	ND	120
Methylene Chloride	ND	120
trans-1,2-Dichloroethene	ND	120
1,1-Dichloroethane	ND	120
cis-1,2-Dichloroethene	ND	120
Chloroform	ND	120
1,1,1-Trichloroethane	ND	120
Carbon Tetrachloride	ND	120
1,2-Dichloroethane	ND	120
Trichloroethene	ND	120
1,2-Dichloropropane	ND	120
Bromodichloromethane	ND	120
2-Chloroethyl Vinyl Ether	ND	120
cis-1,3-Dichloropropene	ND	120
trans-1,3-Dichloropropene	ND	120
1,1,2-Trichloroethane	ND	120
Tetrachloroethene	ND	120
Dibromochloromethane	ND	120
Chlorobenzene	ND	120
Bromoform	ND	120
1,1,2,2-Tetrachloroethane	ND	120
1,3-Dichlorobenzene	ND	120
1,4-Dichlorobenzene	ND	120
1,2-Dichlorobenzene	ND	120

305094



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : 88669;;50
Lab ID : 88669
Inj Date : 19-OCT-98 21:36:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Bromochloromethane(sur)	13.734	13.735	0.001	119946268	25.807	3104.876

305095

Client ID: **SSAW-2_1.5-2**
Site: Klockner & Klockner

Lab Sample No: **88671**
Lab Job No: H950

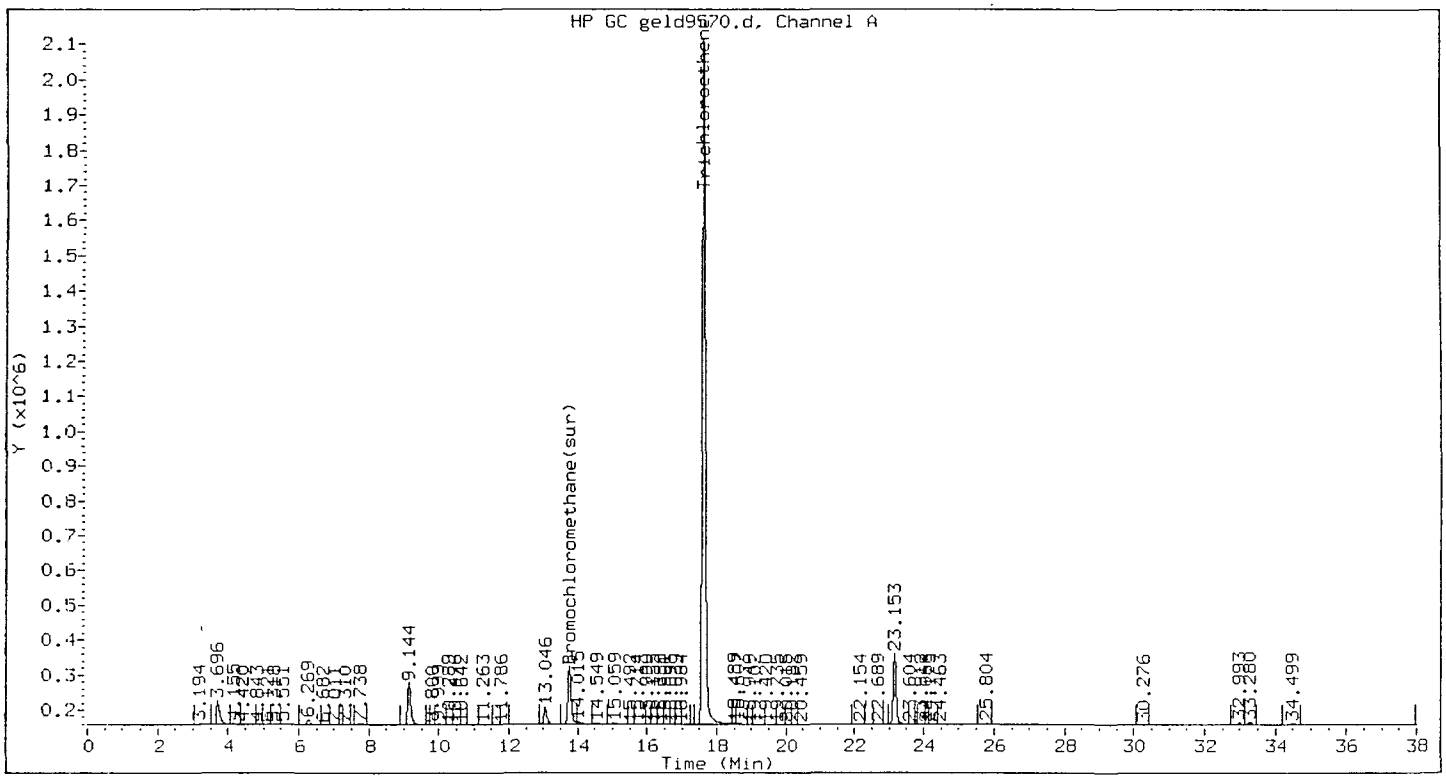
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9570.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 1000.0
% Moisture: 21.6

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	3070
Chloromethane	ND	3070
Vinyl Chloride	ND	3070
Bromomethane	ND	3070
Chloroethane	ND	3070
Trichlorofluoromethane	ND	3070
1,1-Dichloroethene	ND	3070
Methylene Chloride	ND	3070
trans-1,2-Dichloroethene	ND	3070
1,1-Dichloroethane	ND	3070
cis-1,2-Dichloroethene	ND	3070
Chloroform	ND	3070
1,1,1-Trichloroethane	ND	3070
Carbon Tetrachloride	ND	3070
1,2-Dichloroethane	ND	3070
Trichloroethene	23100	3070
1,2-Dichloropropane	ND	3070
Bromodichloromethane	ND	3070
2-Chloroethyl Vinyl Ether	ND	3070
cis-1,3-Dichloropropene	ND	3070
trans-1,3-Dichloropropene	ND	3070
1,1,2-Trichloroethane	ND	3070
Tetrachloroethene	ND	3070
Dibromochloromethane	ND	3070
Chlorobenzene	ND	3070
Bromoform	ND	3070
1,1,2,2-Tetrachloroethane	ND	3070
1,3-Dichlorobenzene	ND	3070
1,4-Dichlorobenzene	ND	3070
1,2-Dichlorobenzene	ND	3070

305096



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : 88671;;1000
Lab ID : 88671 Inst ID : VOAGC1.i
Inj Date : 19-OCT-98 22:21:00 Dil Factor : 1000
Operator : KB Sample Matrix : SOIL
Cpnd Sublist: 601 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Trichloroethene	17.605	17.595	0.011	60529220	7.524	23069.531
Bromochloromethane(sur)	13.751	13.735	0.016	5242283	1.128	3458.258

305097

Client ID: **SSAW-2_7.5-8**
Site: Klockner & Klockner

Lab Sample No: **88672**
Lab Job No: H950

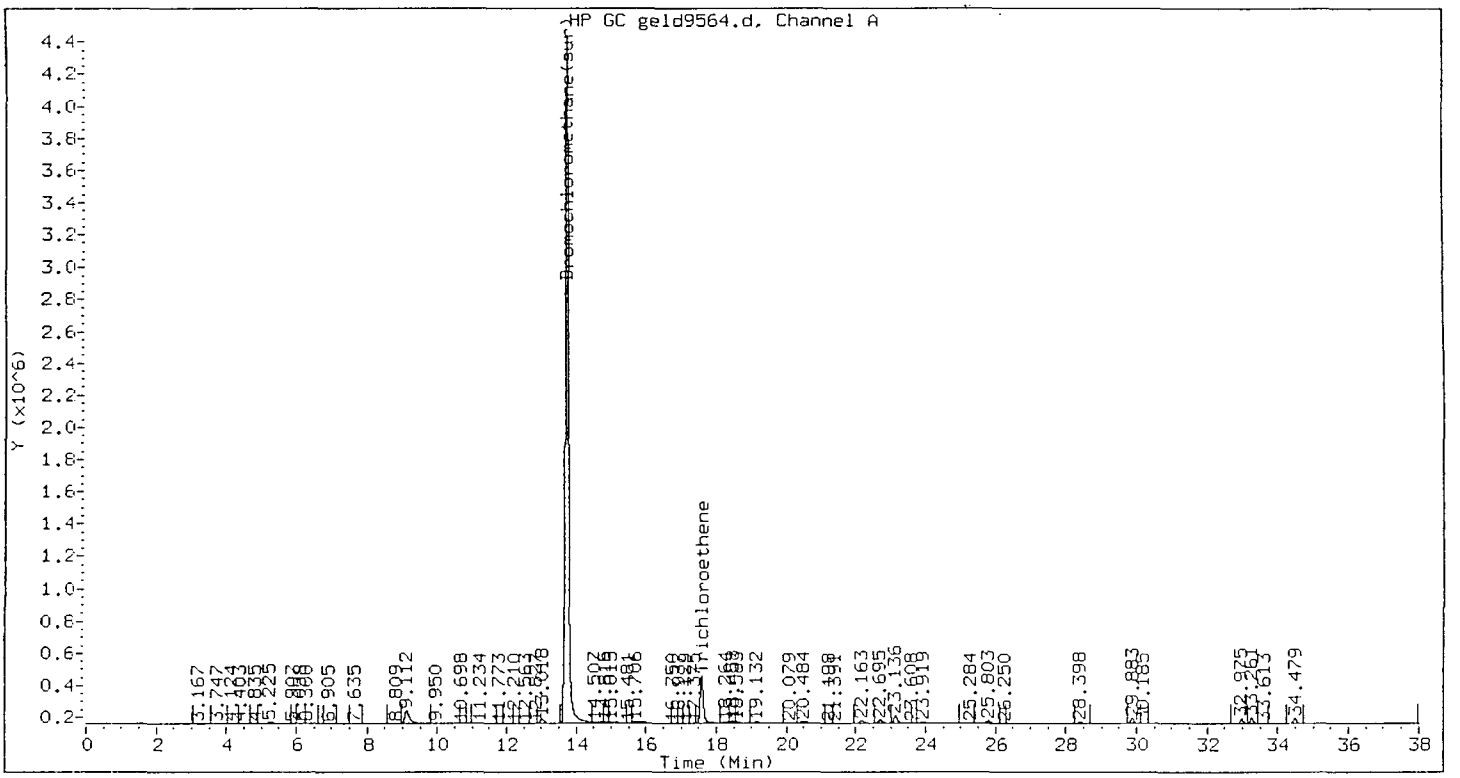
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9564.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 4.6

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	118
Chloromethane	ND	118
Vinyl Chloride	ND	118
Bromomethane	ND	118
Chloroethane	ND	118
Trichlorofluoromethane	ND	118
1,1-Dichloroethene	ND	118
Methylene Chloride	ND	118
trans-1,2-Dichloroethene	ND	118
1,1-Dichloroethane	ND	118
cis-1,2-Dichloroethene	ND	118
Chloroform	ND	118
1,1,1-Trichloroethane	ND	118
Carbon Tetrachloride	ND	118
1,2-Dichloroethane	ND	118
Trichloroethene	144	118
1,2-Dichloropropane	ND	118
Bromodichloromethane	ND	118
2-Chloroethyl Vinyl Ether	ND	118
cis-1,3-Dichloropropene	ND	118
trans-1,3-Dichloropropene	ND	118
1,1,2-Trichloroethane	ND	118
Tetrachloroethene	ND	118
Dibromochloromethane	ND	118
Chlorobenzene	ND	118
Bromoform	ND	118
1,1,2,2-Tetrachloroethane	ND	118
1,3-Dichlorobenzene	ND	118
1,4-Dichlorobenzene	ND	118
1,2-Dichlorobenzene	ND	118

305098



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : 88672;;50
Lab ID : 88672 Inst ID : VOAGC1.i
Inj Date : 19-OCT-98 17:49:00 Dil Factor : 50
Operator : KB Sample Matrix : SOIL
Cpnd Sublist: 601 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Trichloroethene	17.584	17.595	0.011	9801368	1.218	143.816
Bromochloromethane(sur)	13.717	13.735	0.019	139777167	30.073	3549.941

305099

Client ID: **SSSR-2_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88674**
Lab Job No: H950

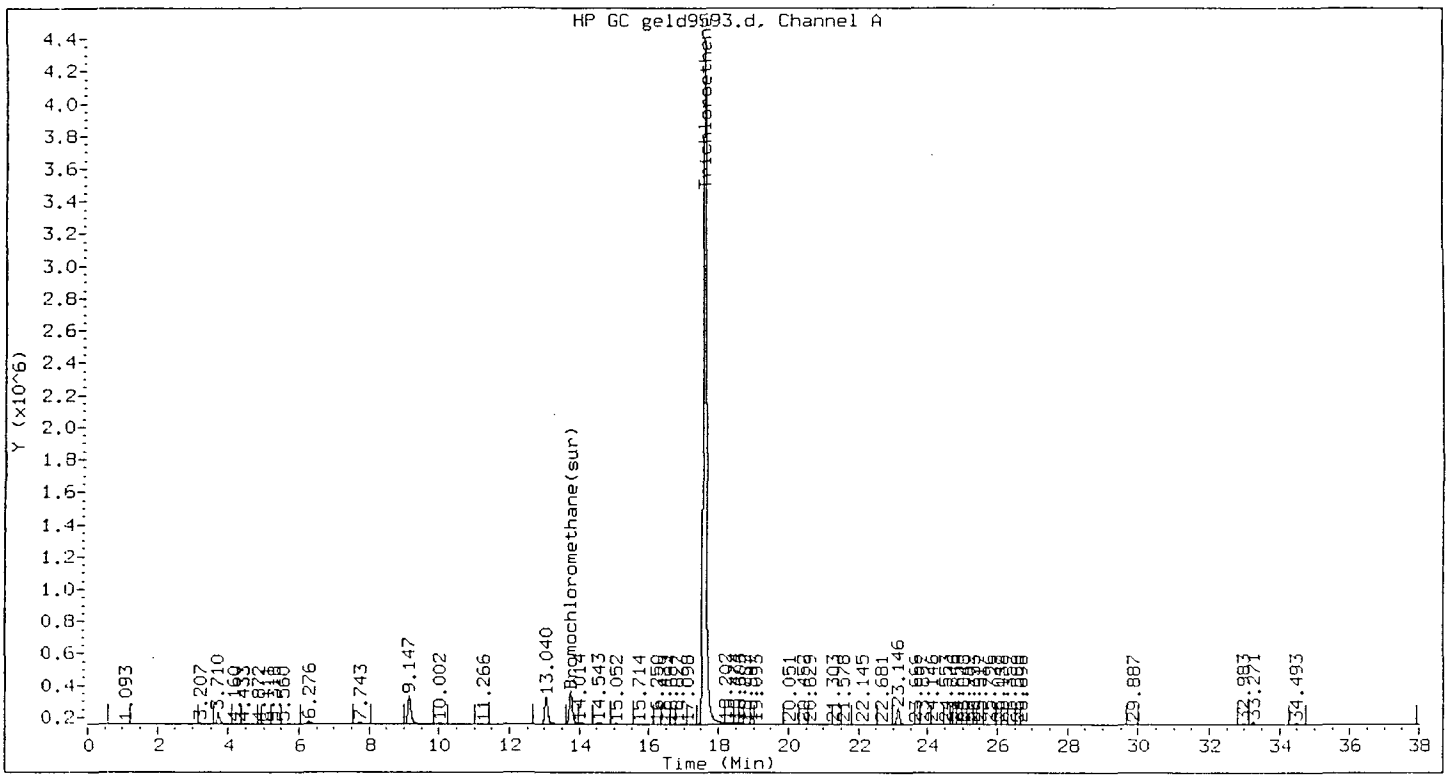
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9593.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 1000.0
% Moisture: 7.5

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	2620
Chloromethane	ND	2620
Vinyl Chloride	ND	2620
Bromomethane	ND	2620
Chloroethane	ND	2620
Trichlorofluoromethane	ND	2620
1,1-Dichloroethene	ND	2620
Methylene Chloride	ND	2620
trans-1,2-Dichloroethene	ND	2620
1,1-Dichloroethane	ND	2620
cis-1,2-Dichloroethene	ND	2620
Chloroform	ND	2620
1,1,1-Trichloroethane	ND	2620
Carbon Tetrachloride	ND	2620
1,2-Dichloroethane	ND	2620
Trichloroethene	43900	2620
1,2-Dichloropropane	ND	2620
Bromodichloromethane	ND	2620
2-Chloroethyl Vinyl Ether	ND	2620
cis-1,3-Dichloropropene	ND	2620
trans-1,3-Dichloropropene	ND	2620
1,1,2-Trichloroethane	ND	2620
Tetrachloroethene	ND	2620
Dibromochloromethane	ND	2620
Chlorobenzene	ND	2620
Bromoform	ND	2620
1,1,2,2-Tetrachloroethane	ND	2620
1,3-Dichlorobenzene	ND	2620
1,4-Dichlorobenzene	ND	2620
1,2-Dichlorobenzene	ND	2620

305100



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98a.b/8021E.m
Sample Info : 88674;;1000
Lab ID : 88674 Inst ID : VOAGC1.i
Inj Date : 20-OCT-98 22:05:00 Dil Factor : 1000
Operator : KB Sample Matrix : SOIL
Cpnd Sublist: 601 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
Trichloroethene	17.597	17.595	0.002	134515370	16.721	43874.891
Bromochloromethane(sur)	13.745	13.735	0.010	6367999	1.370	3595.095

305101

Client ID: **SSSR-3_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88675**
Lab Job No: H950

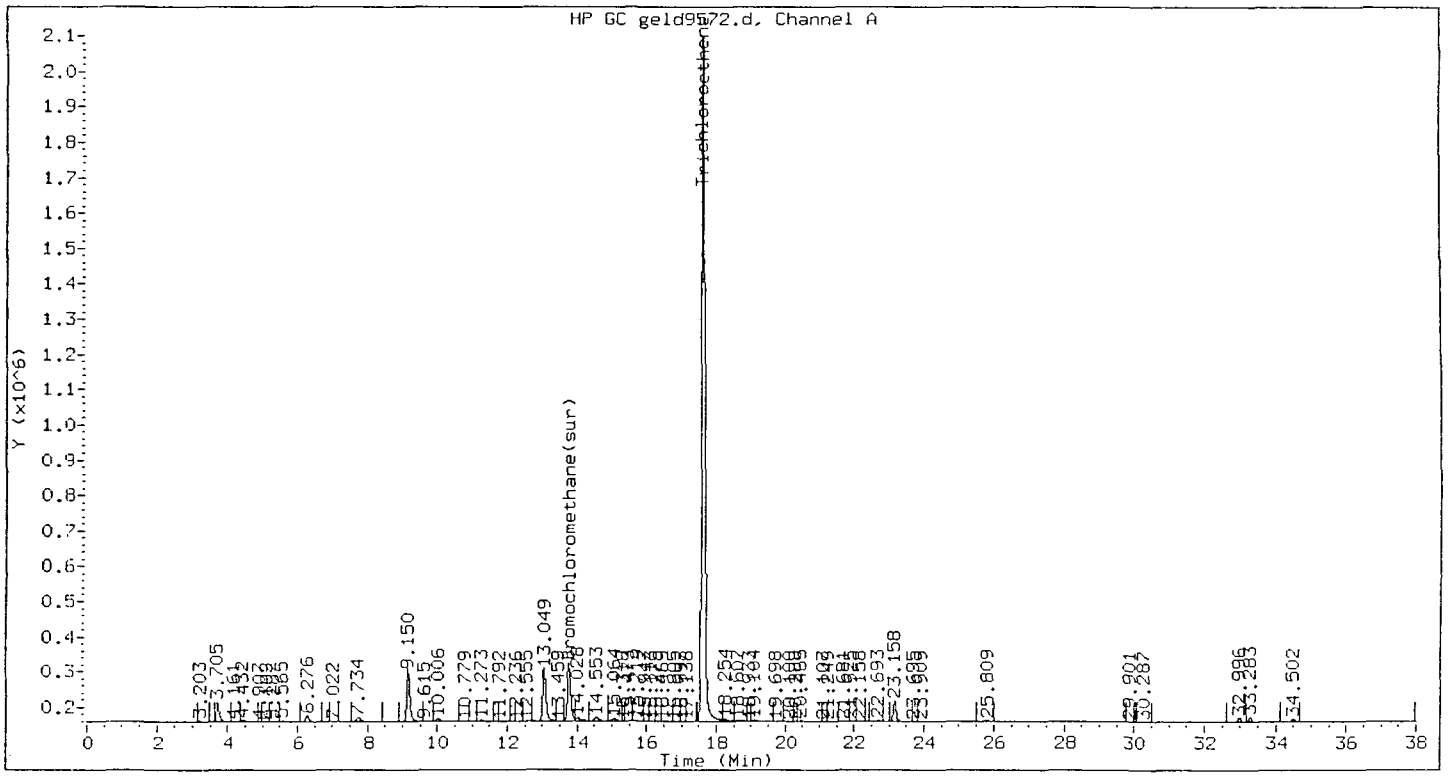
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9572.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 1000.0
% Moisture: 7.5

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	2620
Chloromethane	ND	2620
Vinyl Chloride	ND	2620
Bromomethane	ND	2620
Chloroethane	ND	2620
Trichlorofluoromethane	ND	2620
1,1-Dichloroethene	ND	2620
Methylene Chloride	ND	2620
trans-1,2-Dichloroethene	ND	2620
1,1-Dichloroethane	ND	2620
cis-1,2-Dichloroethene	ND	2620
Chloroform	ND	2620
1,1,1-Trichloroethane	ND	2620
Carbon Tetrachloride	ND	2620
1,2-Dichloroethane	ND	2620
Trichloroethene	19700	2620
1,2-Dichloropropane	ND	2620
Bromodichloromethane	ND	2620
2-Chloroethyl Vinyl Ether	ND	2620
cis-1,3-Dichloropropene	ND	2620
trans-1,3-Dichloropropene	ND	2620
1,1,2-Trichloroethane	ND	2620
Tetrachloroethene	ND	2620
Dibromochloromethane	ND	2620
Chlorobenzene	ND	2620
Bromoform	ND	2620
1,1,2,2-Tetrachloroethane	ND	2620
1,3-Dichlorobenzene	ND	2620
1,4-Dichlorobenzene	ND	2620
1,2-Dichlorobenzene	ND	2620

305102



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : 88675;;1000
Lab ID : 88675
Inj Date : 19-OCT-98 23:51:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 1000
Sample Matrix : SOIL
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Trichloroethene	17.610	17.595	0.015	60528945	7.524	19742.732
Bromochloromethane(sur)	13.755	13.735	0.020	5145741	1.107	2905.061

305103

Client ID: **SSAW-4_4-4.5**
Site: Klockner & Klockner

Lab Sample No: **88678**
Lab Job No: H950

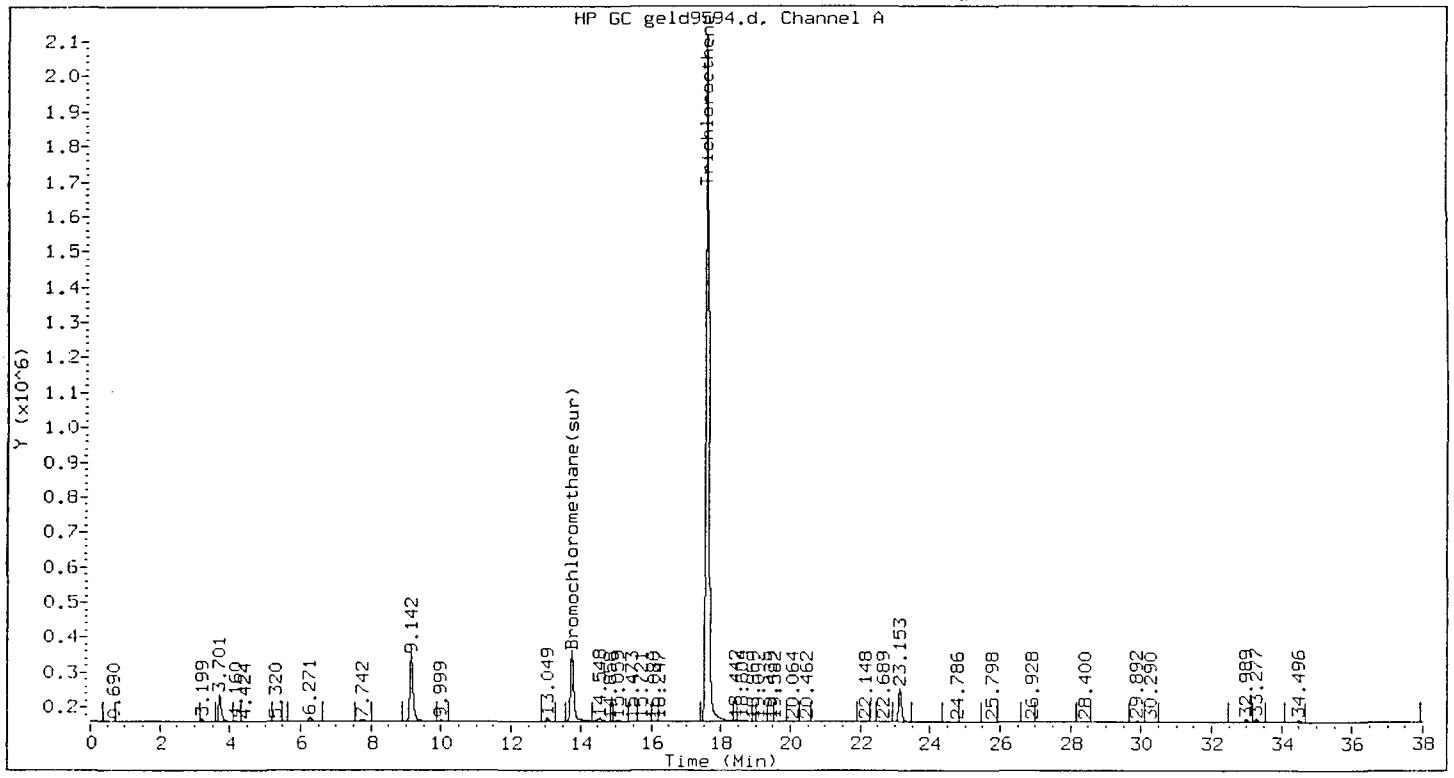
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9594.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 1000.0
% Moisture: 21.8

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	3070
Chloromethane	ND	3070
Vinyl Chloride	ND	3070
Bromomethane	ND	3070
Chloroethane	ND	3070
Trichlorofluoromethane	ND	3070
1,1-Dichloroethene	ND	3070
Methylene Chloride	ND	3070
trans-1,2-Dichloroethene	ND	3070
1,1-Dichloroethane	ND	3070
cis-1,2-Dichloroethene	ND	3070
Chloroform	ND	3070
1,1,1-Trichloroethane	ND	3070
Carbon Tetrachloride	ND	3070
1,2-Dichloroethane	ND	3070
Trichloroethene	23200	3070
1,2-Dichloropropane	ND	3070
Bromodichloromethane	ND	3070
2-Chloroethyl Vinyl Ether	ND	3070
cis-1,3-Dichloropropene	ND	3070
trans-1,3-Dichloropropene	ND	3070
1,1,2-Trichloroethane	ND	3070
Tetrachloroethene	ND	3070
Dibromochloromethane	ND	3070
Chlorobenzene	ND	3070
Bromoform	ND	3070
1,1,2,2-Tetrachloroethane	ND	3070
1,3-Dichlorobenzene	ND	3070
1,4-Dichlorobenzene	ND	3070
1,2-Dichlorobenzene	ND	3070

305104



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98a.b/8021E.m
Sample Info : 88678;;1000
Lab ID : 88678
Inj Date : 20-OCT-98 22:49:00
Operator : KB
Cpnd Sublist: 601
Inst ID : VOAGC1.i
Dil Factor : 1000
Sample Matrix : SOIL
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
Trichloroethene	17.605	17.595	0.010	60622176	7.536	23164.052
Bromochloromethane(sur)	13.750	13.735	0.015	6690503	1.439	4424.915

305105

Client ID: **SSAW-4_9.5-10**
Site: Klockner & Klockner

Lab Sample No: **88679**
Lab Job No: H950

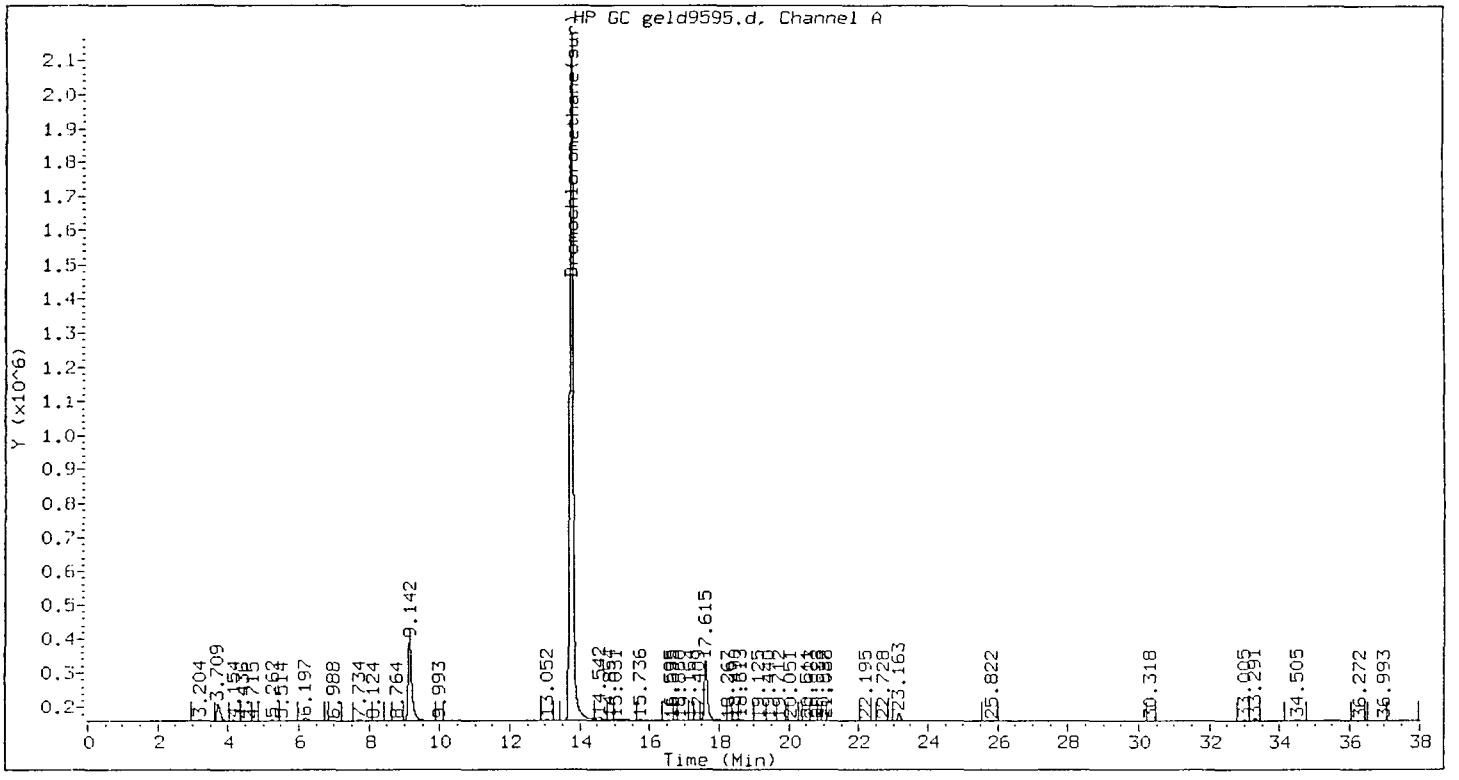
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9595.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 100.0
% Moisture: 4.0

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	260
Chloromethane	ND	260
Vinyl Chloride	ND	260
Bromomethane	ND	260
Chloroethane	ND	260
Trichlorofluoromethane	ND	260
1,1-Dichloroethene	ND	260
Methylene Chloride	ND	260
trans-1,2-Dichloroethene	ND	260
1,1-Dichloroethane	ND	260
cis-1,2-Dichloroethene	ND	260
Chloroform	ND	260
1,1,1-Trichloroethane	ND	260
Carbon Tetrachloride	ND	260
1,2-Dichloroethane	ND	260
Trichloroethene	ND	260
1,2-Dichloropropane	ND	260
Bromodichloromethane	ND	260
2-Chloroethyl Vinyl Ether	ND	260
cis-1,3-Dichloropropene	ND	260
trans-1,3-Dichloropropene	ND	260
1,1,2-Trichloroethane	ND	260
Tetrachloroethene	ND	260
Dibromochloromethane	ND	260
Chlorobenzene	ND	260
Bromoform	ND	260
1,1,2,2-Tetrachloroethane	ND	260
1,3-Dichlorobenzene	ND	260
1,4-Dichlorobenzene	ND	260
1,2-Dichlorobenzene	ND	260

305106



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98a.b/8021E.m
Sample Info : 88679;;100
Lab ID : 88679
Inj Date : 20-OCT-98 23:34:00
Operator : KB
Cpnd Sublist: 601
Inst ID : VOAGC1.i
Dil Factor : 100
Sample Matrix : SOIL
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Bromochloromethane(sur)	13.747	13.735	0.012	64940802	13.972	3638.587

305107

Client ID: **SSSR-1_4-4.5**
Site: Klockner & Klockner

Lab Sample No: **88681**
Lab Job No: H950

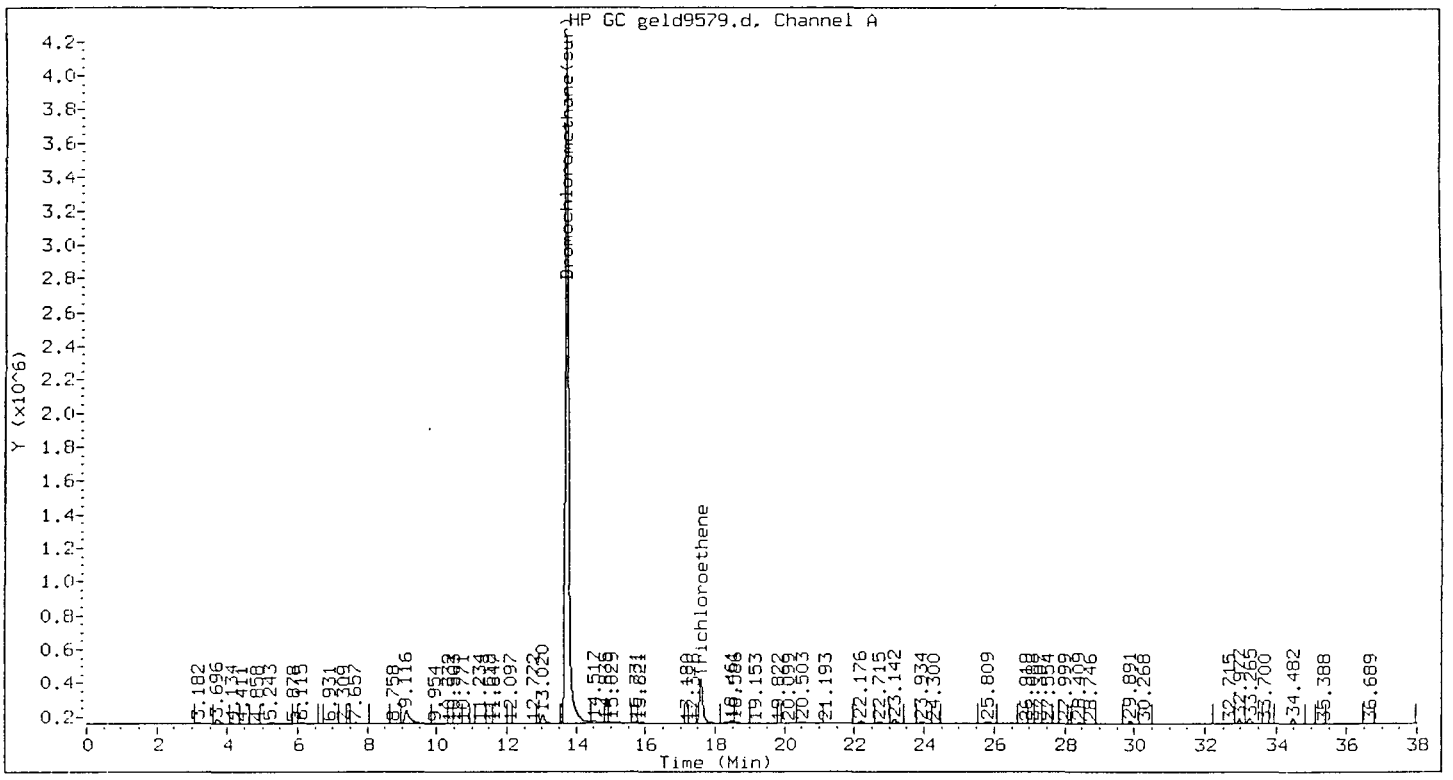
Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9579.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 11.5

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	138
Chloromethane	ND	138
Vinyl Chloride	ND	138
Bromomethane	ND	138
Chloroethane	ND	138
Trichlorofluoromethane	ND	138
1,1-Dichloroethene	ND	138
Methylene Chloride	ND	138
trans-1,2-Dichloroethene	ND	138
1,1-Dichloroethane	ND	138
cis-1,2-Dichloroethene	ND	138
Chloroform	ND	138
1,1,1-Trichloroethane	ND	138
Carbon Tetrachloride	ND	138
1,2-Dichloroethane	ND	138
Trichloroethene	159	138
1,2-Dichloropropane	ND	138
Bromodichloromethane	ND	138
2-Chloroethyl Vinyl Ether	ND	138
cis-1,3-Dichloropropene	ND	138
trans-1,3-Dichloropropene	ND	138
1,1,2-Trichloroethane	ND	138
Tetrachloroethene	ND	138
Dibromochloromethane	ND	138
Chlorobenzene	ND	138
Bromoform	ND	138
1,1,2,2-Tetrachloroethane	ND	138
1,3-Dichlorobenzene	ND	138
1,4-Dichlorobenzene	ND	138
1,2-Dichlorobenzene	ND	138

305108



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/8021E.m
Sample Info : 88681;;50
Lab ID : 88681 Inst ID : VOAGC1.i
Inj Date : 20-OCT-98 10:56:00 Dil Factor : 50
Operator : KB Sample Matrix : SOIL
Cpnd Sublist: 601 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Trichloroethene	17.587	17.595	0.008	9235715	1.148	158.972
Bromochloromethane(sur)	13.719	13.735	0.016	138925354	29.890	4138.990

305109

Client ID: **SSSR-4_4-4.5**
Site: Klockner & Klockner

Lab Sample No: **88682**
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9586.d

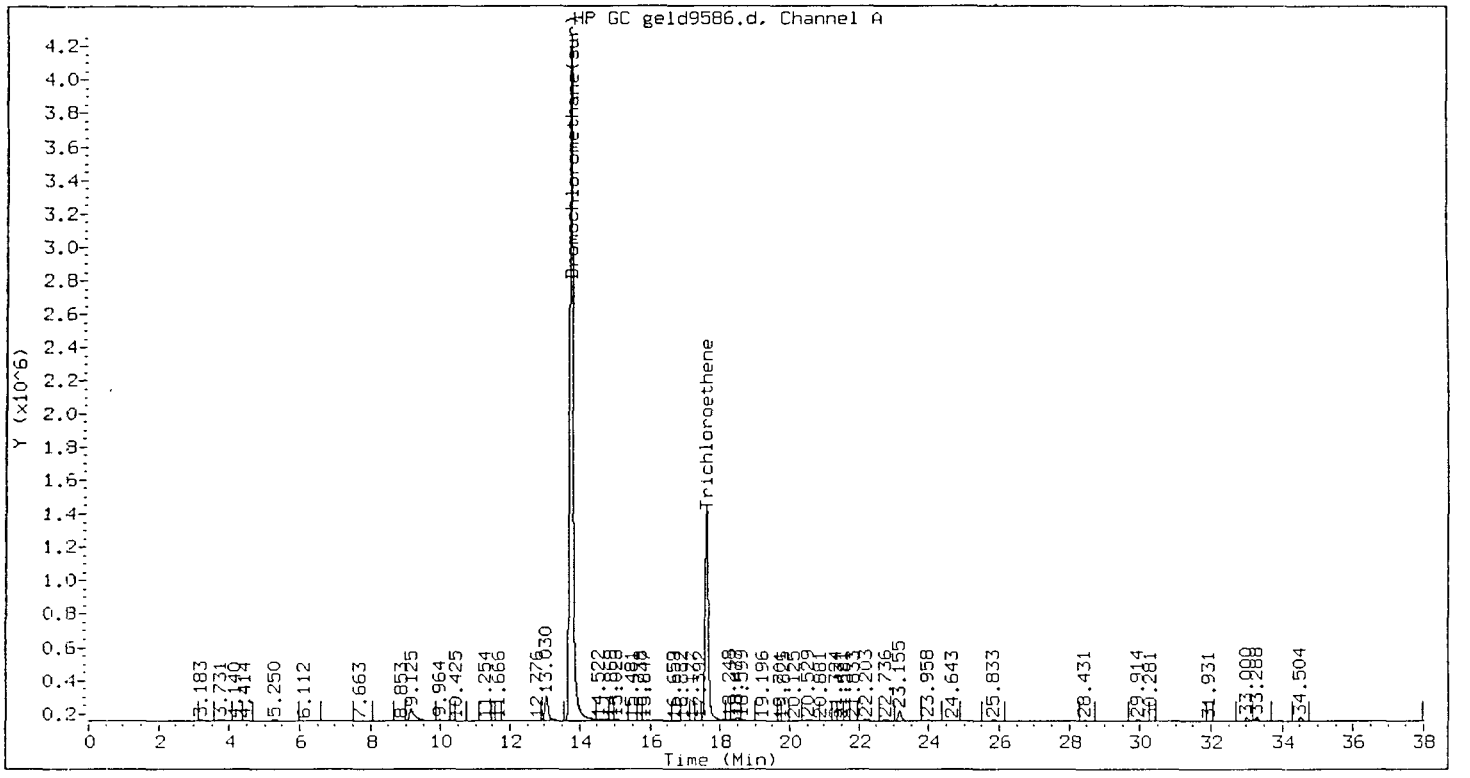
Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 12.1

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	138
Chloromethane	ND	138
Vinyl Chloride	ND	138
Bromomethane	ND	138
Chloroethane	ND	138
Trichlorofluoromethane	ND	138
1,1-Dichloroethene	ND	138
Methylene Chloride	ND	138
trans-1,2-Dichloroethene	ND	138
1,1-Dichloroethane	ND	138
cis-1,2-Dichloroethene	ND	138
Chloroform	ND	138
1,1,1-Trichloroethane	ND	138
Carbon Tetrachloride	ND	138
1,2-Dichloroethane	ND	138
Trichloroethene	712	138
1,2-Dichloropropane	ND	138
Bromodichloromethane	ND	138
2-Chloroethyl Vinyl Ether	ND	138
cis-1,3-Dichloropropene	ND	138
trans-1,3-Dichloropropene	ND	138
1,1,2-Trichloroethane	ND	138
Tetrachloroethene	ND	138
Dibromochloromethane	ND	138
Chlorobenzene	ND	138
Bromoform	ND	138
1,1,2,2-Tetrachloroethane	ND	138
1,3-Dichlorobenzene	ND	138
1,4-Dichlorobenzene	ND	138
1,2-Dichlorobenzene	ND	138

305110

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98a.b/geld9586.d Page 1
Report Date 10/21/98 08:53



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98a.b/8021E.m
Sample Info : 88682;;50
Lab ID : 88682
Inj Date : 20-OCT-98 16:48:00
Operator : KB
Cpnd Sublist: 601
Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
Trichloroethene	17.600	17.595	0.005	41472576	5.155	711.751
Bromochloromethane(sur)	13.734	13.735	0.001	136303028	29.326	4048.887

305111

LAB SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

GG292

Date Analyzed: 10/19/98

Instrument ID: VOAGC1

Time Analyzed: 1437

Lab File ID: GELD9560

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	SSAW-2_7.5-8	88672	GELD9564	1749
02	SSAW-7_5-5.5	88664	GELD9565	1835
03	SSAW-7_12-12	88665	GELD9566	1920
04	SSAW-10_1-1.	88668	GELD9568	2051
05	SSAW-9_11.5-	88669	GELD9569	2136
06	SSAW-2_1.5-2	88671	GELD9570	2221
07	SSSR-3_0-0.5	88675	GELD9572	2351
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COMMENTS:

305112

Client ID: **GG292**
Site:

Lab Sample No: **GG292**
Lab Job No: H950

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9560.d

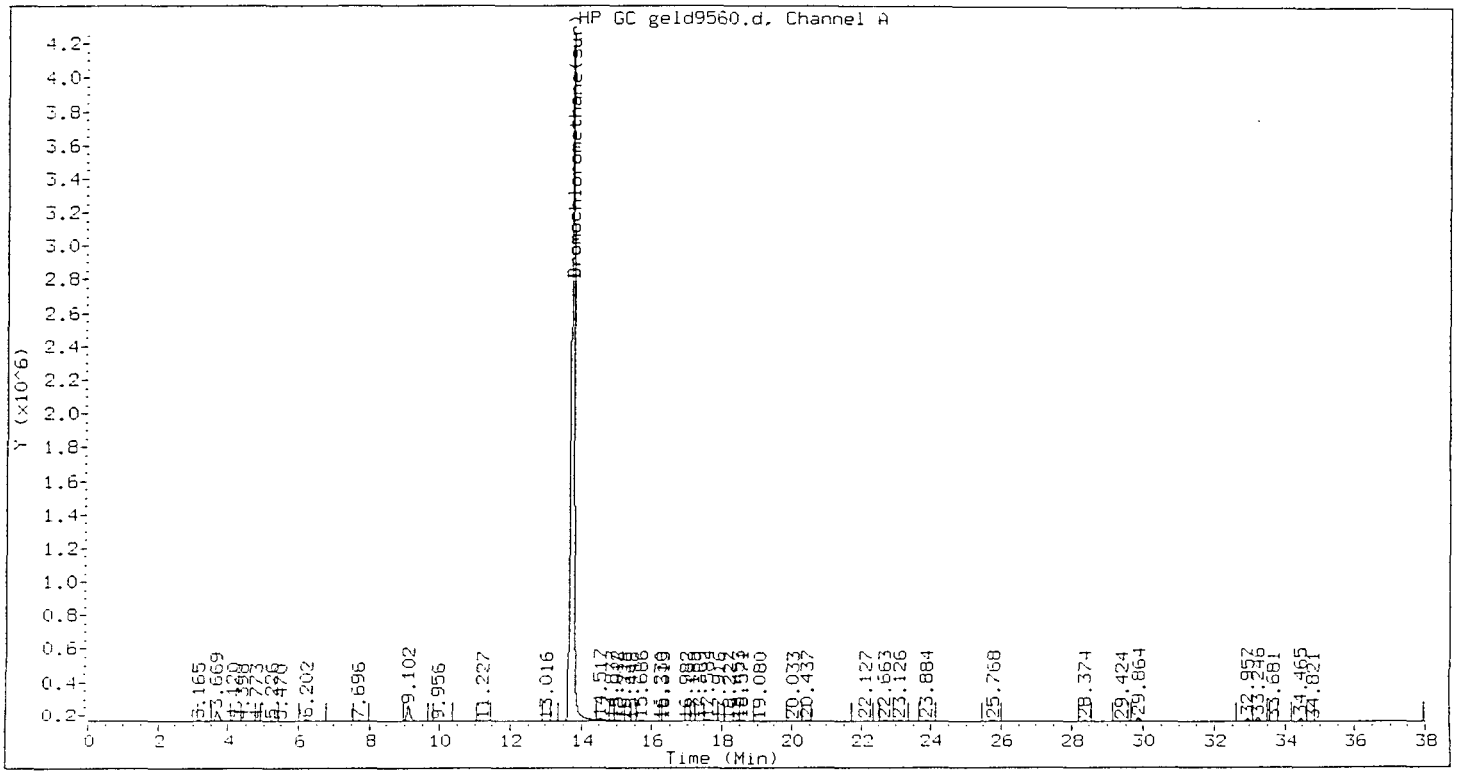
Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0.0

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	125
Chloromethane	ND	125
Vinyl Chloride	ND	125
Bromomethane	ND	125
Chloroethane	ND	125
Trichlorofluoromethane	ND	125
1,1-Dichloroethene	ND	125
Methylene Chloride	ND	125
trans-1,2-Dichloroethene	ND	125
1,1-Dichloroethane	ND	125
cis-1,2-Dichloroethene	ND	125
Chloroform	ND	125
1,1,1-Trichloroethane	ND	125
Carbon Tetrachloride	ND	125
1,2-Dichloroethane	ND	125
Trichloroethene	ND	125
1,2-Dichloropropane	ND	125
Bromodichloromethane	ND	125
2-Chloroethyl Vinyl Ether	ND	125
cis-1,3-Dichloropropene	ND	125
trans-1,3-Dichloropropene	ND	125
1,1,2-Trichloroethane	ND	125
Tetrachloroethene	ND	125
Dibromochloromethane	ND	125
Chlorobenzene	ND	125
Bromoform	ND	125
1,1,2,2-Tetrachloroethane	ND	125
1,3-Dichlorobenzene	ND	125
1,4-Dichlorobenzene	ND	125
1,2-Dichlorobenzene	ND	125

305113

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/geld9560.d Page 1
Report Date 10/20/98 09:39



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : gg292
Lab ID : gg292
Inj Date : 19-OCT-98 14:37:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
Bromochloromethane(sur)	13.703	13.735	0.032	130202206	28.013	3501.665

305114

LAB SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

GG293

Date Analyzed: 10/20/98

Instrument ID: VOAGC1

Time Analyzed: 0958

Lab File ID: GELD9578

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	SSSR-1_4-4.5	88681	GELD9579	1056
02	SSSR-1_4-4.5	88681MS	GELD9581	1226
03	SSSR-1_4-4.5	88681MSD	GELD9582	1310
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COMMENTS:

305115

Client ID: **GG293**
Site:

Lab Sample No: **GG293**
Lab Job No: H950

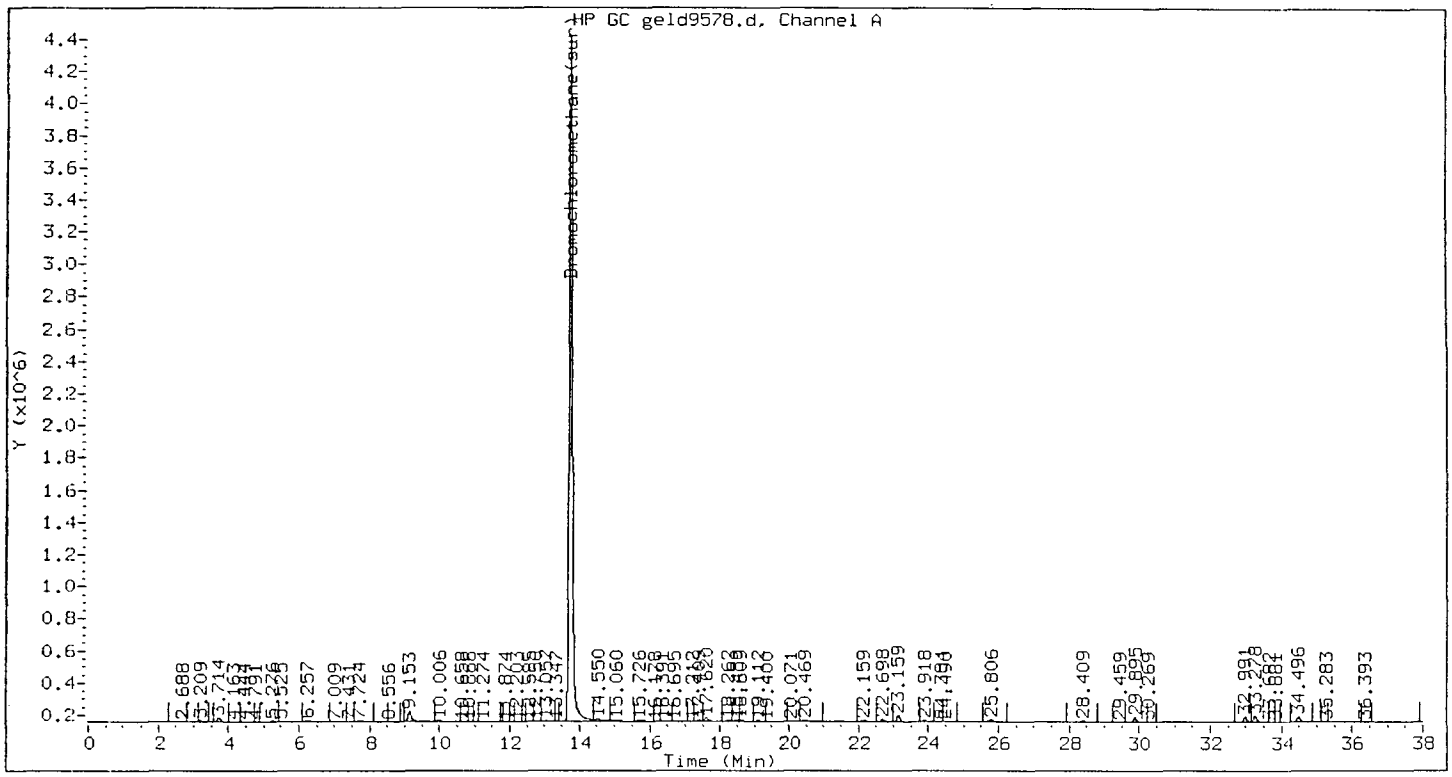
Date Sampled: _____
Date Received: _____
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9578.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0.0

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	125
Chloromethane	ND	125
Vinyl Chloride	ND	125
Bromomethane	ND	125
Chloroethane	ND	125
Trichlorofluoromethane	ND	125
1,1-Dichloroethene	ND	125
Methylene Chloride	ND	125
trans-1,2-Dichloroethene	ND	125
1,1-Dichloroethane	ND	125
cis-1,2-Dichloroethene	ND	125
Chloroform	ND	125
1,1,1-Trichloroethane	ND	125
Carbon Tetrachloride	ND	125
1,2-Dichloroethane	ND	125
Trichloroethene	ND	125
1,2-Dichloropropane	ND	125
Bromodichloromethane	ND	125
2-Chloroethyl Vinyl Ether	ND	125
cis-1,3-Dichloropropene	ND	125
trans-1,3-Dichloropropene	ND	125
1,1,2-Trichloroethane	ND	125
Tetrachloroethene	ND	125
Dibromochloromethane	ND	125
Chlorobenzene	ND	125
Bromoform	ND	125
1,1,2,2-Tetrachloroethane	ND	125
1,3-Dichlorobenzene	ND	125
1,4-Dichlorobenzene	ND	125
1,2-Dichlorobenzene	ND	125

305116



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/8021E.m
Sample Info : gg293
Lab ID : gg293
Inj Date : 20-OCT-98 09:58:00
Operator : KB
Cpnd Sublist: 601
Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Bromochloromethane(sur)	13.749	13.735	0.013	133281755	28.676	3584.487

305117

LAB SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

GG293A

Date Analyzed: 10/20/98

Instrument ID: VOAGC1

Time Analyzed: 1543

Lab File ID: GELD9585

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	SSSR-4_4-4.5	88682	GELD9586	1648
02	SSSR-2_0-0.5	88674	GELD9593	2205
03	SSAW-4_4-4.5	88678	GELD9594	2249
04	SSAW-4_9.5-1	88679	GELD9595	2334
05				
06				
07				
08				
09				
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29				
30				

COMMENTS:

305118

Client ID: **GG293A**
Site:

Lab Sample No: **GG293A**
Lab Job No: H950

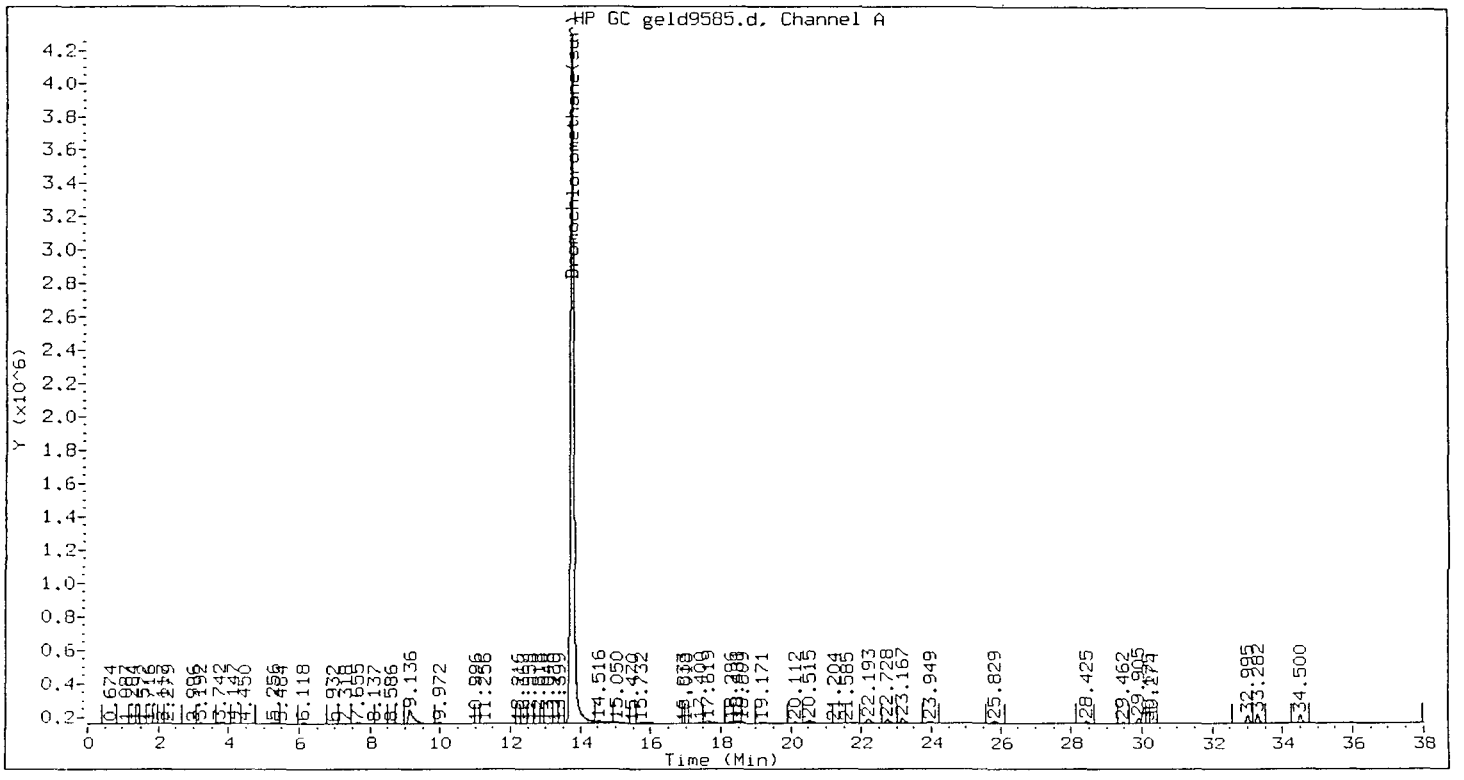
Date Sampled: _____
Date Received: _____
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9585.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0.0

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	125
Chloromethane	ND	125
Vinyl Chloride	ND	125
Bromomethane	ND	125
Chloroethane	ND	125
Trichlorofluoromethane	ND	125
1,1-Dichloroethene	ND	125
Methylene Chloride	ND	125
trans-1,2-Dichloroethene	ND	125
1,1-Dichloroethane	ND	125
cis-1,2-Dichloroethene	ND	125
Chloroform	ND	125
1,1,1-Trichloroethane	ND	125
Carbon Tetrachloride	ND	125
1,2-Dichloroethane	ND	125
Trichloroethene	ND	125
1,2-Dichloropropane	ND	125
Bromodichloromethane	ND	125
2-Chloroethyl Vinyl Ether	ND	125
cis-1,3-Dichloropropene	ND	125
trans-1,3-Dichloropropene	ND	125
1,1,2-Trichloroethane	ND	125
Tetrachloroethene	ND	125
Dibromochloromethane	ND	125
Chlorobenzene	ND	125
Bromoform	ND	125
1,1,2,2-Tetrachloroethane	ND	125
1,3-Dichlorobenzene	ND	125
1,4-Dichlorobenzene	ND	125
1,2-Dichlorobenzene	ND	125

305119



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98a.b/8021E.m
Sample Info : gg293a
Lab ID : gg293a
Inj Date : 20-OCT-98 15:43:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Bromochloromethane(sur)	13.740	13.735	0.005	137466461	29.576	3697.031

305120

LAB SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

GG294

Date Analyzed: 10/21/98

Instrument ID: VOAGC1

Time Analyzed: 1003

Lab File ID: GELD9601

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

	CLIENT ID.	LAB SAMPLE NO	LAB FILE ID	TIME ANALYZED
01	SSAW-9_1-1.5	88667	GELD9602	1058
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
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27				
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29				
30				

COMMENTS:

305121

Client ID: **GG294**
Site:

Lab Sample No: **GG294**
Lab Job No: H950

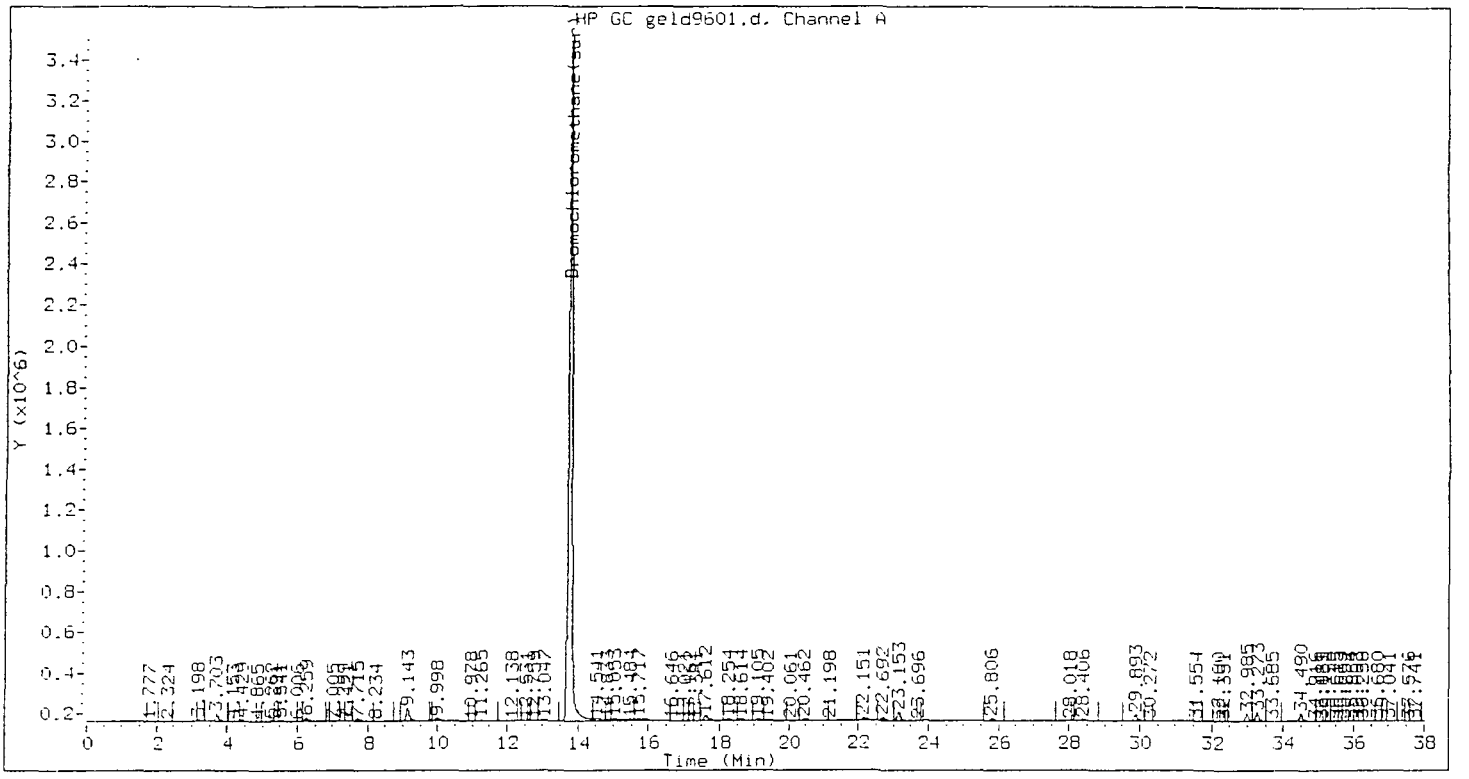
Date Sampled: _____
Date Received: _____
Date Analyzed: 10/21/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9601.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 0.0

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

Parameter	Analytical Results Units: ug/kg (Dry Weight)	Quantitation Limit Units: ug/kg
Dichlorodifluoromethane	ND	125
Chloromethane	ND	125
Vinyl Chloride	ND	125
Bromomethane	ND	125
Chloroethane	ND	125
Trichlorofluoromethane	ND	125
1,1-Dichloroethene	ND	125
Methylene Chloride	ND	125
trans-1,2-Dichloroethene	ND	125
1,1-Dichloroethane	ND	125
cis-1,2-Dichloroethene	ND	125
Chloroform	ND	125
1,1,1-Trichloroethane	ND	125
Carbon Tetrachloride	ND	125
1,2-Dichloroethane	ND	125
Trichloroethene	ND	125
1,2-Dichloropropane	ND	125
Bromodichloromethane	ND	125
2-Chloroethyl Vinyl Ether	ND	125
cis-1,3-Dichloropropene	ND	125
trans-1,3-Dichloropropene	ND	125
1,1,2-Trichloroethane	ND	125
Tetrachloroethene	ND	125
Dibromochloromethane	ND	125
Chlorobenzene	ND	125
Bromoform	ND	125
1,1,2,2-Tetrachloroethane	ND	125
1,3-Dichlorobenzene	ND	125
1,4-Dichlorobenzene	ND	125
1,2-Dichlorobenzene	ND	125

305122



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/21oct98.b/8021E.m
Sample Info : gg294
Lab ID : gg294
Inj Date : 21-OCT-98 10:03:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: BLANK

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Bromochloromethane(sur)	13.740	13.735	0.005	107196293	23.064	2882.943

305123

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC1 Calibration Date(s): 10/17/98 10/18/98

Calibration Time(s): 1954 0322

LAB FILE ID: RRF1: GELD9543 RRF5: GELD9545 RRF10: GELD9549
RRF20: GELD9540 RRF40: GELD9548

COMPOUND	RRF1	RRF5	RRF10	RRF20	RRF40
Dichlorodifluoromethane	3785363	2326074	2215526	2419116	2005138
Chloromethane	529704	1121719	1083116	1126210	1306965
Vinyl Chloride	2179365	2702294	2602969	3065504	2852693
Bromomethane	935729	1315208	1376323	1370418	1267561
Chloroethane	1915077	2950557	3297237	2911292	2562951
Trichlorofluoromethane	6007936	6691789	6201573	6932560	5500765
1,1-Dichloroethene	5589911	6945691	6989978	7211116	5197467
Methylene Chloride	14135960	9902342	9802574	9050576	7044052
trans-1,2-Dichloroethene	6197624	7219984	7612156	7423938	5578560
1,1-Dichloroethane	6472943	7507232	7988794	7647297	5823311
cis-1,2-Dichloroethene	5980270	6601352	5980267	6505889	5507911
Chloroform	8886178	9987323	10334531	9629355	7335783
1,1,1-Trichloroethane	7702423	8657024	8826278	8636736	6445353
Carbon Tetrachloride	8156168	9737475	9818272	9781603	7245115
1,2-Dichloroethane	6605250	7185375	7752427	7201432	5702633
Trichloroethene	7414712	8769247	8940400	8599328	6500467
1,2-Dichloropropane	6047070	6795158	7323470	6848789	5340334
Bromodichloromethane	6355533	6776262	7260011	6826301	5405655
2-Chloroethyl Vinyl Ether	1940673	1898597	2124362	2284726	1929758
cis-1,3-Dichloropropene	6079641	6243875	6584483	6334215	4866035
trans-1,3-Dichloropropene	5301337	5846493	6189532	5931202	4612462
1,1,2-Trichloroethane	7219318	7768015	8347985	7632788	6001234
Tetrachloroethene	7596420	8795693	8495946	8499941	6408688
Dibromochloromethane	4483298	4998603	5473239	5336514	4408078
Chlorobenzene	2999218	3378674	3505994	3507714	2782950
Bromoform	2787239	3211401	3670923	3603024	3027879
1,1,2,2-Tetrachloroethane	5009749	5137267	5622233	5411952	4255708
1,3-Dichlorobenzene	4065371	4673992	4740932	4643046	3713313
1,4-Dichlorobenzene	4484768	4918219	5081380	4859547	3879275
1,2-Dichlorobenzene	4209351	4720208	4961038	4775168	3771087
Bromochloromethane(sur)	4399468	4786975	4833237	4978264	4241393

305124

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Instrument ID: VOAGC1 Calibration Date(s): 10/17/98 10/18/98

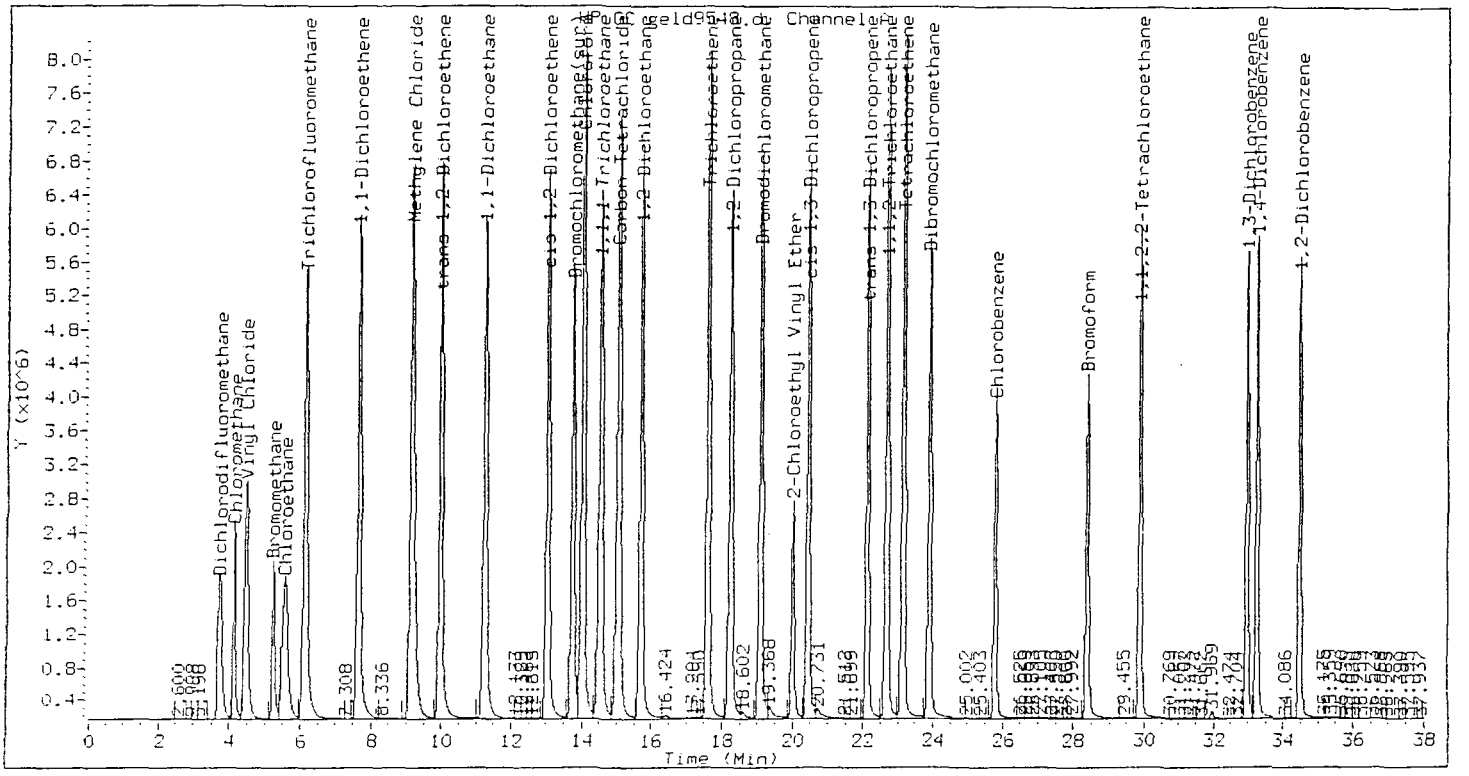
Calibration Time(s): 1954 0322

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dichlorodifluoromethane	AVRG	2550243	28*
Chloromethane	AVRG	1033543	28*
Vinyl Chloride	AVRG	2680565	12*
Bromomethane	AVRG	1253048	14*
Chloroethane	AVRG	2727423	19*
Trichlorofluoromethane	AVRG	6266925	9.0*
1,1-Dichloroethene	AVRG	6386833	14*
Methylene Chloride	AVRG	9987101	26*
trans-1,2-Dichloroethene	AVRG	6806452	13*
1,1-Dichloroethane	AVRG	7087915	13*
cis-1,2-Dichloroethene	AVRG	6115138	7.3*
Chloroform	AVRG	9234634	13*
1,1,1-Trichloroethane	AVRG	8053563	12*
Carbon Tetrachloride	AVRG	8947727	13*
1,2-Dichloroethane	AVRG	6889423	11*
Trichloroethene	AVRG	8044831	13*
1,2-Dichloropropane	AVRG	6470964	12*
Bromodichloromethane	AVRG	6524752	11*
2-Chloroethyl Vinyl Ether	AVRG	2035623	8.1*
cis-1,3-Dichloropropene	AVRG	6021650	11*
trans-1,3-Dichloropropene	AVRG	5576205	11*
1,1,2-Trichloroethane	AVRG	7393868	12*
Tetrachloroethene	AVRG	7959338	12*
Dibromochloromethane	AVRG	4939946	9.8*
Chlorobenzene	AVRG	3234910	10*
Bromoform	AVRG	3260093	12*
1,1,2,2-Tetrachloroethane	AVRG	5087382	10*
1,3-Dichlorobenzene	AVRG	4367331	10*
1,4-Dichlorobenzene	AVRG	4644638	10*
1,2-Dichlorobenzene	AVRG	4487370	11*
Bromochloromethane(sur)	AVRG	4647867	6.7*

* Compounds with required maximum %RSD values.

305125

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/geld9548.d Page 1
Report Date 10/20/98 09:08



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/8021E.m
Sample Info : gstd040a
Lab ID : gstd040a
Inj Date : 18-OCT-98 01:52:00
Operator : KB
Cpnd Sublist: 601
Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_5

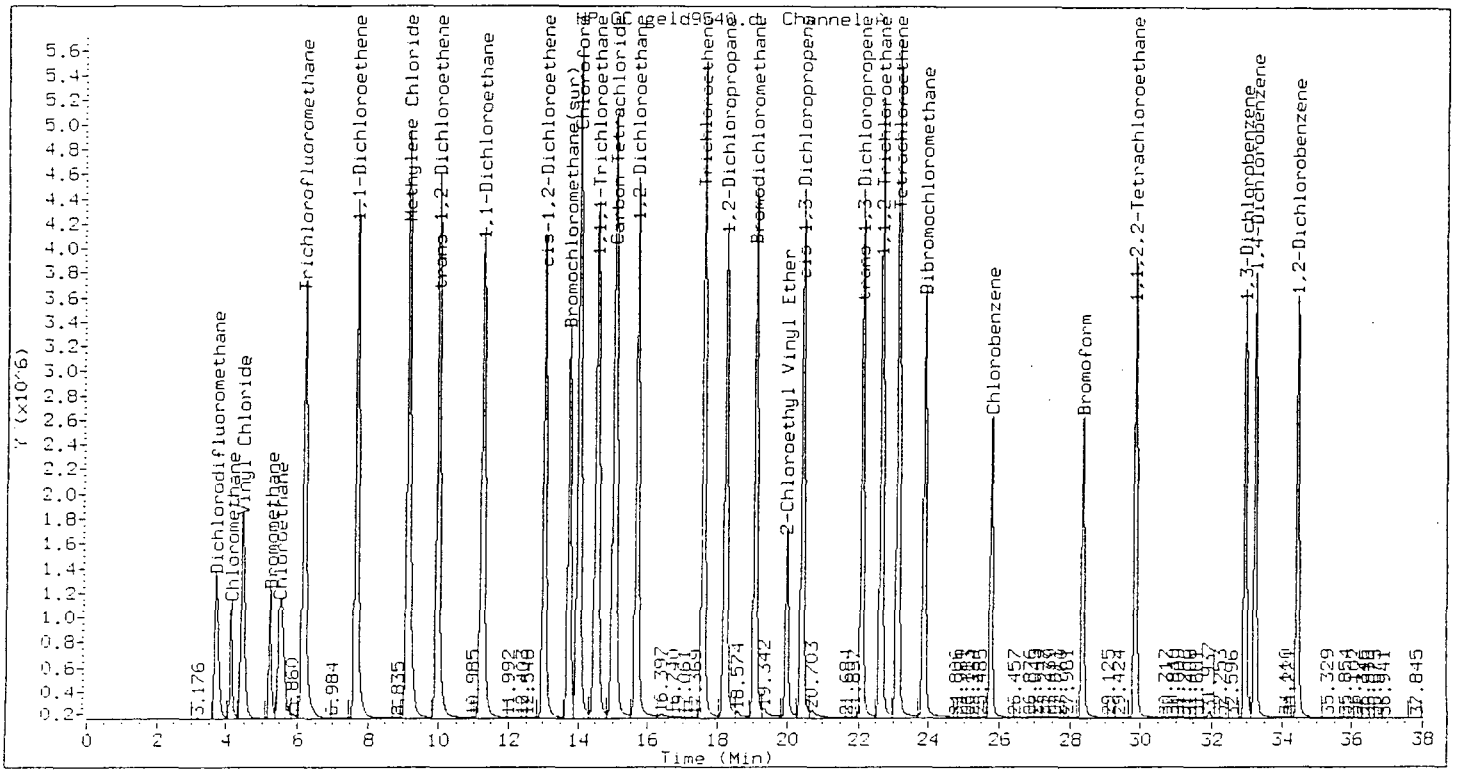
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.725	3.701	0.024	80205506	31.391	31.391
Chloromethane	4.144	4.141	0.003	52278608	50.377	50.377
Vinyl Chloride	4.453	4.431	0.022	114107713	42.289	42.289
Bromomethane	5.237	5.240	0.002	50702459	40.193	40.193
Chloroethane	5.560	5.533	0.027	102518025	37.226	37.226
Trichlorofluoromethane	6.130	6.210	0.080	220030589	34.873	34.873
1,1-Dichloroethene	7.655	7.685	0.030	207898681	32.442	32.442
Methylene Chloride	9.132	9.129	0.003	281762091	28.099	28.099
trans-1,2-Dichloroethene	9.967	9.974	0.007	223142383	32.437	32.437

305126

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.246	11.245	0.000	232932434	32.621	32.621
cis-1,2-Dichloroethene	13.030	13.027	0.003	220316453	35.788	35.788
Chloroform	14.022	14.014	0.008	293431304	31.695	31.695
1,1,1-Trichloroethane	14.534	14.531	0.003	257814125	31.908	31.908
Carbon Tetrachloride	15.043	15.041	0.002	289804614	32.265	32.265
1,2-Dichloroethane	15.696	15.689	0.007	228105322	32.956	32.956
Trichloroethene	17.601	17.595	0.006	260018664	32.166	32.166
1,2-Dichloropropane	18.241	18.232	0.009	213613381	32.832	32.832
Bromodichloromethane	19.095	19.084	0.011	216226194	33.002	33.002
2-Chloroethyl Vinyl Ether	20.016	20.009	0.008	77190319	37.332	37.332
cis-1,3-Dichloropropene	20.442	20.433	0.010	194641403	32.176	32.176
trans-1,3-Dichloropropene	22.126	22.117	0.008	184498484	32.978	32.978
1,1,2-Trichloroethane	22.681	22.670	0.011	240049367	32.384	32.384
Tetrachloroethene	23.150	23.141	0.009	256347538	32.043	32.043
Dibromochloromethane	23.902	23.889	0.013	176323142	35.330	35.330
Chlorobenzene	25.795	25.785	0.010	111318010	34.121	34.121
Bromoform	28.394	28.382	0.012	121115169	36.783	36.783
1,1,2,2-Tetrachloroethane	29.894	29.879	0.015	170228335	33.237	33.237
1,3-Dichlorobenzene	32.985	32.972	0.013	148532513	33.971	33.971
1,4-Dichlorobenzene	33.274	33.261	0.013	155171014	33.219	33.219
1,2-Dichlorobenzene	34.493	34.480	0.013	150843464	33.497	33.497
Bromochloromethane(sur)	13.740	13.735	0.005	169655727	36.377	36.377

305127

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/geld9540.d Page 1
Report Date 10/20/98 09:08



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/8021E.m
Sample Info : gstd020a
Lab ID : gstd020a
Inj Date : 17-OCT-98 19:54:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_4

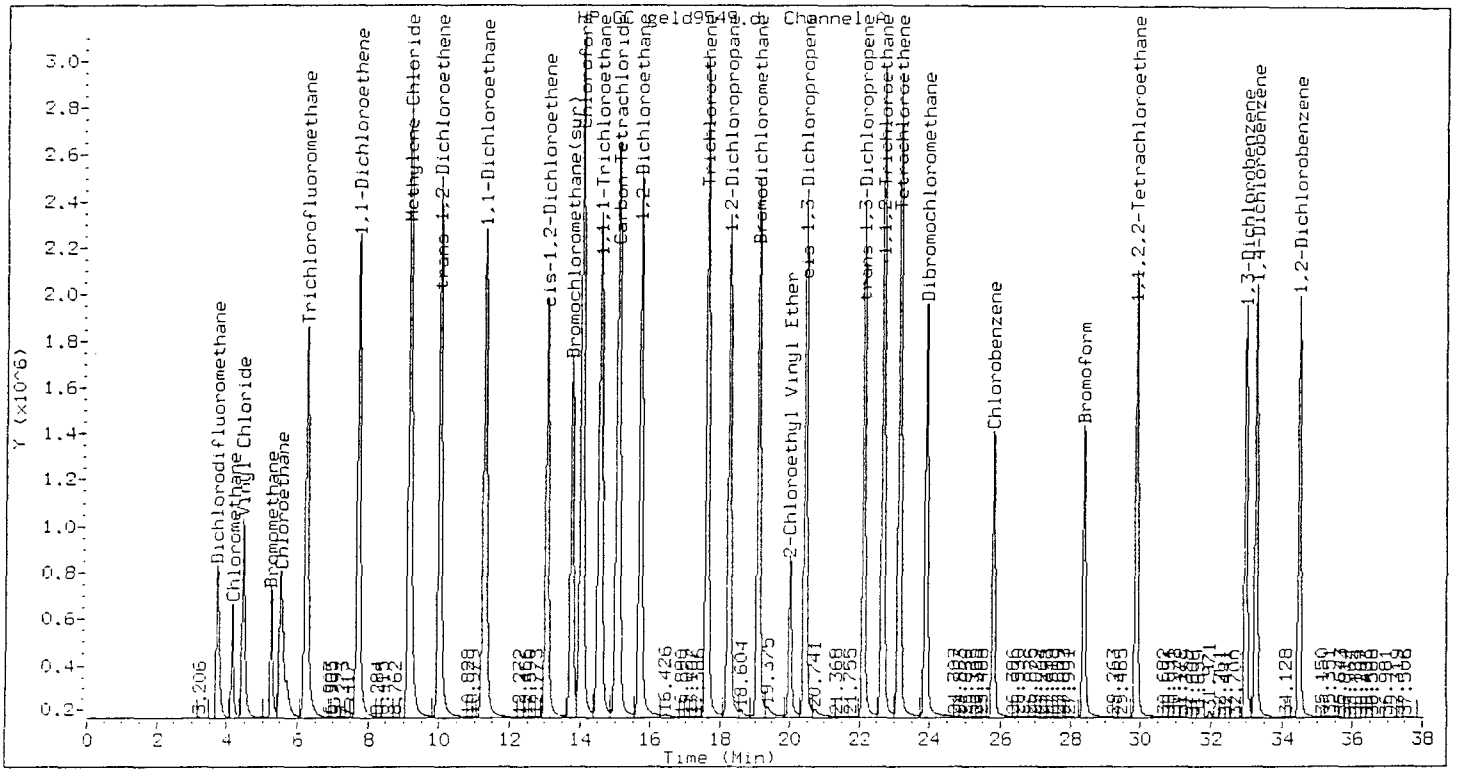
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.678	3.701	0.022	48382318	18.972	18.972
Chloromethane	4.126	4.141	0.015	22524192	21.793	21.793
Vinyl Chloride	4.418	4.431	0.013	61310079	22.872	22.872
Bromomethane	5.212	5.240	0.028	27408352	21.873	21.873
Chloroethane	5.503	5.533	0.029	58225840	21.348	21.348
Trichlorofluoromethane	6.160	6.210	0.049	138651210	22.124	22.124
1,1-Dichloroethene	7.655	7.685	0.030	144222330	22.581	22.581
Methylene Chloride	9.106	9.129	0.023	181011519	18.125	18.125
trans-1,2-Dichloroethene	9.948	9.974	0.026	148478763	21.814	21.814

305128

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.223	11.245	0.023	152945932	21.578	21.578
cis-1,2-Dichloroethene	13.004	13.027	0.023	130117778	21.278	21.278
Chloroform	13.994	14.014	0.020	192587098	20.855	20.855
1,1,1-Trichloroethane	14.510	14.531	0.021	172734715	21.448	21.448
Carbon Tetrachloride	15.020	15.041	0.021	195632056	21.864	21.864
1,2-Dichloroethane	15.668	15.689	0.021	144028632	20.906	20.906
Trichloroethene	17.574	17.595	0.021	171986568	21.379	21.379
1,2-Dichloropropane	18.213	18.232	0.019	136975778	21.168	21.168
Bromodichloromethane	19.065	19.084	0.018	136526017	20.924	20.924
2-Chloroethyl Vinyl Ether	19.987	20.009	0.022	45694523	22.447	22.447
cis-1,3-Dichloropropene	20.412	20.433	0.020	126684300	21.038	21.038
trans-1,3-Dichloropropene	22.098	22.117	0.020	118624038	21.273	21.273
1,1,2-Trichloroethane	22.651	22.670	0.019	152655758	20.646	20.646
Tetrachloroethene	23.122	23.141	0.019	169998820	21.358	21.358
Dibromochloromethane	23.871	23.889	0.019	106730278	21.606	21.606
Chlorobenzene	25.767	25.785	0.018	70154271	21.687	21.687
Bromoform	28.363	28.382	0.018	72060475	22.104	22.104
1,1,2,2-Tetrachloroethane	29.860	29.879	0.019	108239045	21.276	21.276
1,3-Dichlorobenzene	32.953	32.972	0.020	92860922	21.263	21.263
1,4-Dichlorobenzene	33.241	33.261	0.019	97190934	20.925	20.925
1,2-Dichlorobenzene	34.461	34.480	0.019	95503356	21.283	21.283
Bromochloromethane(sur)	13.714	13.735	0.021	99565270	21.422	21.422

305129

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/geld9549.d Page 1
Report Date 10/20/98 09:08



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/8021E.m
Sample Info : gstd010a
Lab ID : gstd010a
Inj Date : 18-OCT-98 02:37:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_3

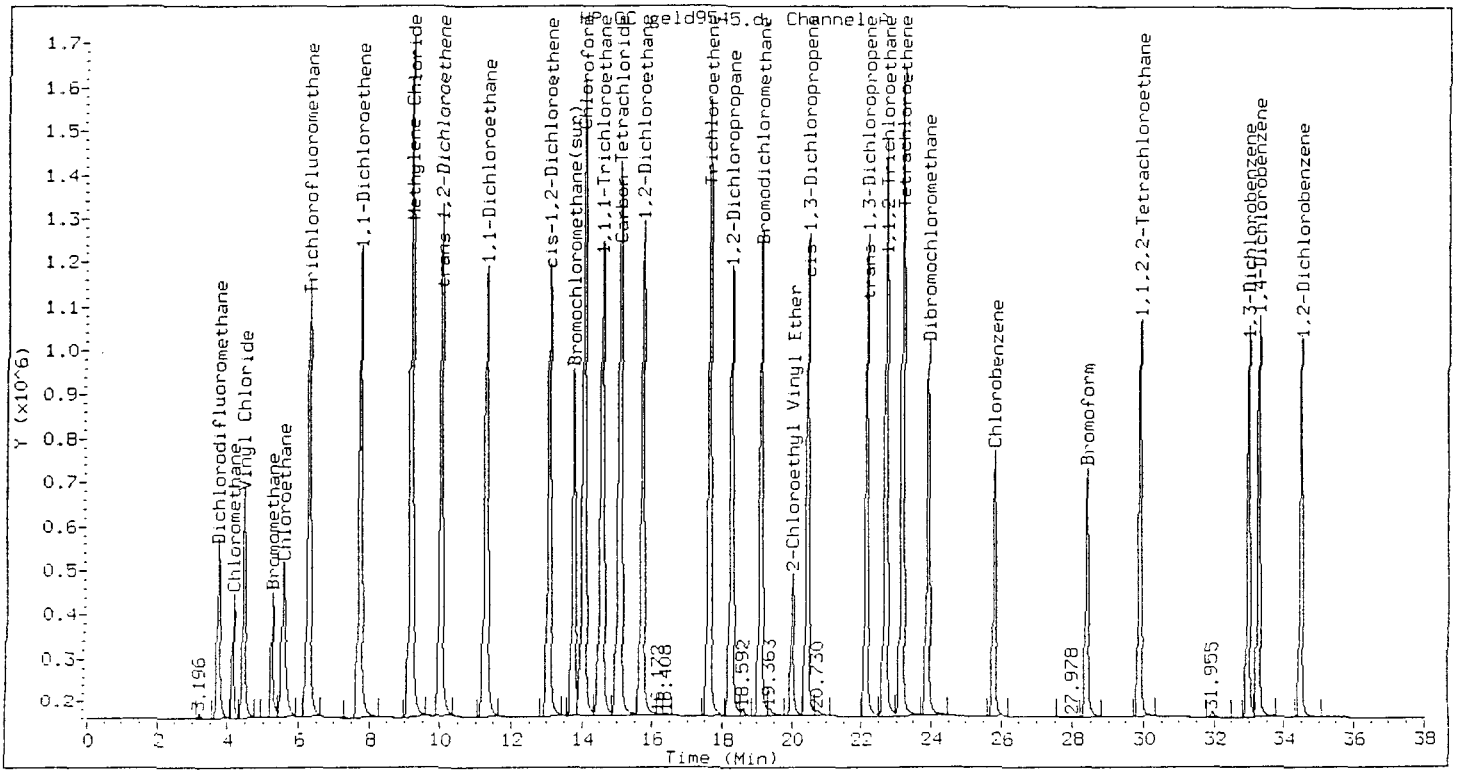
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
Dichlorodifluoromethane	3.709	3.701	0.008	22155261	8.228	8.228
Chloromethane	4.152	4.141	0.011	10831162	11.161	11.161
Vinyl Chloride	4.442	4.431	0.011	26029690	9.787	9.787
Bromomethane	5.244	5.240	0.004	13763230	10.923	10.923
Chloroethane	5.508	5.533	0.025	32972374	11.769	11.769
Trichlorofluoromethane	6.241	6.210	0.031	62015726	9.524	9.524
1,1-Dichloroethene	7.705	7.685	0.020	69899776	10.416	10.416
Methylene Chloride	9.143	9.129	0.015	98025745	9.099	9.099
trans-1,2-Dichloroethene	9.991	9.974	0.017	76121559	10.566	10.566

305130

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
1,1-Dichloroethane	11.262	11.245	0.016	79887941	10.695	10.695
cis-1,2-Dichloroethene	13.041	13.027	0.014	59802666	9.465	9.465
Chloroform	14.028	14.014	0.014	103345312	10.612	10.612
1,1,1-Trichloroethane	14.547	14.531	0.015	88262784	10.398	10.398
Carbon Tetrachloride	15.056	15.041	0.016	98182723	10.427	10.427
1,2-Dichloroethane	15.702	15.689	0.013	77524266	10.728	10.728
Trichloroethene	17.608	17.595	0.014	89403997	10.544	10.544
1,2-Dichloropropane	18.246	18.232	0.013	73234695	10.773	10.773
Bromodichloromethane	19.097	19.084	0.013	72600108	10.617	10.617
2-Chloroethyl Vinyl Ether	20.020	20.009	0.011	21243620	10.106	10.106
cis-1,3-Dichloropropene	20.445	20.433	0.012	65844833	10.377	10.377
trans-1,3-Dichloropropene	22.128	22.117	0.011	61895320	10.598	10.598
1,1,2-Trichloroethane	22.681	22.670	0.012	83479846	10.750	10.750
Tetrachloroethene	23.154	23.141	0.013	84959461	10.117	10.117
Dibromochloromethane	23.902	23.889	0.012	54732392	10.656	10.656
Chlorobenzene	25.797	25.785	0.012	35059936	10.366	10.366
Bromoform	28.394	28.382	0.013	36709230	10.929	10.929
1,1,2,2-Tetrachloroethane	29.893	29.879	0.014	56222334	10.532	10.532
1,3-Dichlorobenzene	32.986	32.972	0.013	47409323	10.449	10.449
1,4-Dichlorobenzene	33.274	33.261	0.013	50813805	10.436	10.436
1,2-Dichlorobenzene	34.494	34.480	0.014	49610377	10.586	10.586
Bromochloromethane(sur)	13.750	13.735	0.015	48332369	10.134	10.134

305131

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/geld9545.d Page 1
Report Date 10/20/98 09:08



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/8021E.m
Sample Info : gstd005a
Lab ID : gstd005a
Inj Date : 17-OCT-98 23:38:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_2

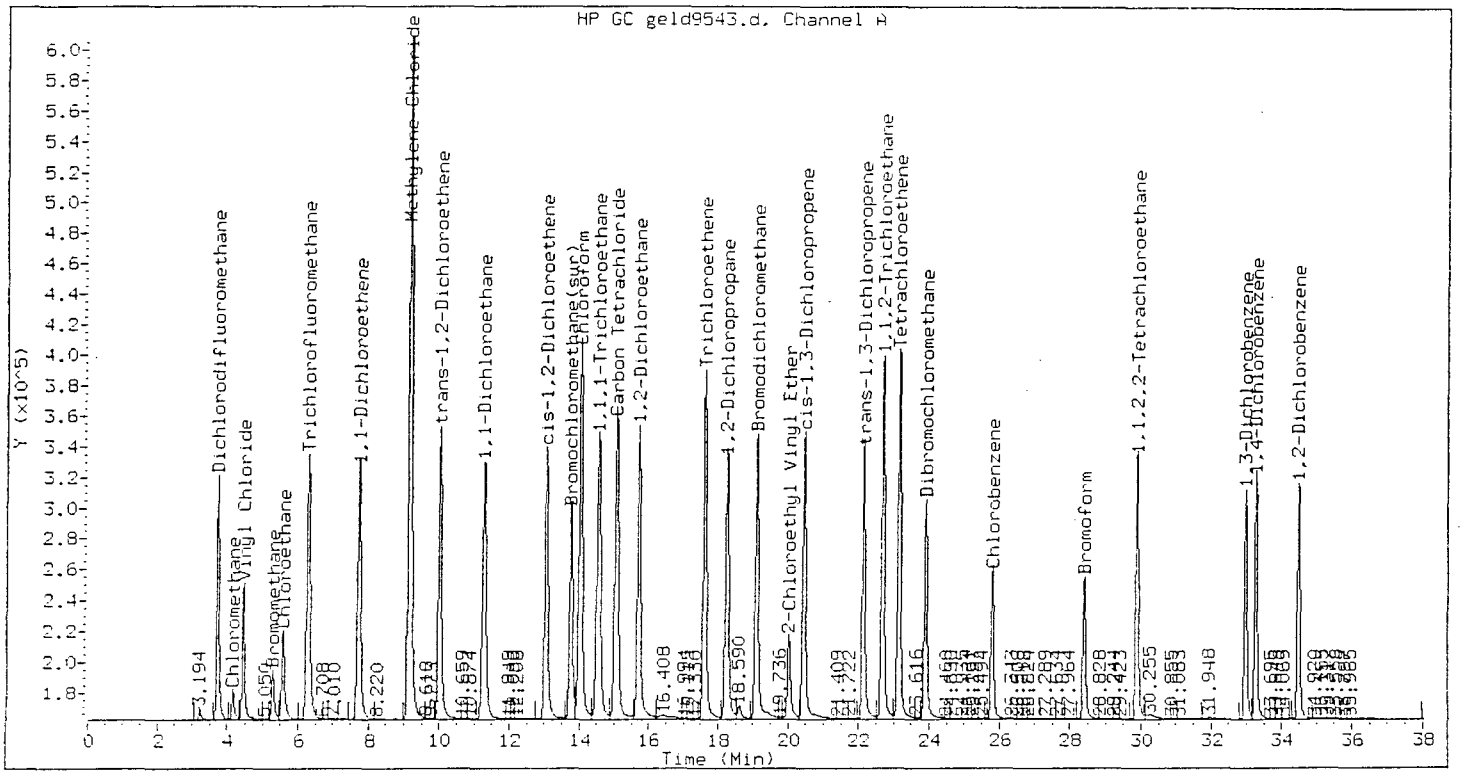
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.700	3.701	0.001	11630368	4.560	4.560
Chloromethane	4.141	4.141	0.000	5608594	5.427	5.427
Vinyl Chloride	4.427	4.431	0.004	13511470	5.041	5.041
Bromomethane	5.238	5.240	0.002	6576042	5.248	5.248
Chloroethane	5.543	5.533	0.011	14752787	5.409	5.409
Trichlorofluoromethane	6.256	6.210	0.047	33458947	5.339	5.339
1,1-Dichloroethene	7.706	7.685	0.021	34728455	5.438	5.438
Methylene Chloride	9.135	9.129	0.006	49511710	4.958	4.958
trans-1,2-Dichloroethene	9.984	9.974	0.010	36099920	5.304	5.304

305132

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
1,1-Dichloroethane	11.251	11.245	0.006	37536159	5.296	5.296
cis-1,2-Dichloroethene	13.031	13.027	0.004	33006760	5.398	5.398
Chloroform	14.015	14.014	0.001	49936613	5.408	5.408
1,1,1-Trichloroethane	14.535	14.531	0.004	43285122	5.375	5.375
Carbon Tetrachloride	15.044	15.041	0.003	48687377	5.441	5.441
1,2-Dichloroethane	15.690	15.689	0.001	35926874	5.215	5.215
Trichloroethene	17.597	17.595	0.002	43846237	5.450	5.450
1,2-Dichloropropane	18.233	18.232	0.001	33975791	5.250	5.250
Bromodichloromethane	19.083	19.084	0.001	33881311	5.193	5.193
2-Chloroethyl Vinyl Ether	20.008	20.009	0.000	9492986	4.663	4.663
cis-1,3-Dichloropropene	20.432	20.433	0.000	31219373	5.185	5.185
trans-1,3-Dichloropropene	22.118	22.117	0.001	29232463	5.242	5.242
1,1,2-Trichloroethane	22.670	22.670	0.001	38840077	5.253	5.253
Tetrachloroethene	23.142	23.141	0.001	43978464	5.525	5.525
Dibromochloromethane	23.888	23.889	0.001	24993016	5.059	5.059
Chlorobenzene	25.785	25.785	0.000	16893369	5.222	5.222
Bromoform	28.381	28.382	0.000	16057006	4.925	4.925
1,1,2,2-Tetrachloroethane	29.877	29.879	0.002	25686336	5.049	5.049
1,3-Dichlorobenzene	32.972	32.972	0.000	23369959	5.351	5.351
1,4-Dichlorobenzene	33.260	33.261	0.000	24591094	5.295	5.295
1,2-Dichlorobenzene	34.479	34.480	0.001	23601041	5.259	5.259
Bromochloromethane(sur)	13.738	13.735	0.003	23934873	5.150	5.150

305133

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/geld9543.d Page 1
Report Date 10/20/98 09:09



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/17oct98a.b/8021E.m
Sample Info : gstd001a
Lab ID : gstd001a
Inj Date : 17-OCT-98 22:09:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CALIB_1

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.691	3.701	0.009	3785363	1.484	1.484
Chloromethane	4.142	4.141	0.001	529704	0.513	0.513
Vinyl Chloride	4.415	4.431	0.016	2179365	0.813	0.813
Bromomethane	5.268	5.240	0.028	935729	0.747	0.747
Chloroethane	5.550	5.533	0.017	1915077	0.702	0.702
Trichlorofluoromethane	6.261	6.210	0.051	6007936	0.959	0.959
1,1-Dichloroethene	7.703	7.685	0.018	5589911	0.875	0.875
Methylene Chloride	9.128	9.129	0.001	14135960	1.415	1.415
trans-1,2-Dichloroethene	9.981	9.974	0.006	6197624	0.911	0.911

305134

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.246	11.245	0.001	6472943	0.913	0.913
cis-1,2-Dichloroethene	13.028	13.027	0.001	5980270	0.978	0.978
Chloroform	14.010	14.014	0.004	8886178	0.962	0.962
1,1,1-Trichloroethane	14.530	14.531	0.001	7702423	0.956	0.956
Carbon Tetrachloride	15.040	15.041	0.001	8156168	0.912	0.912
1,2-Dichloroethane	15.689	15.689	0.000	6605250	0.959	0.959
Trichloroethene	17.594	17.595	0.001	7414712	0.922	0.922
1,2-Dichloropropane	18.228	18.232	0.004	6047070	0.934	0.934
Bromodichloromethane	19.079	19.084	0.005	6355533	0.974	0.974
2-Chloroethyl Vinyl Ether	20.013	20.009	0.004	1940673	0.953	0.953
cis-1,3-Dichloropropene	20.431	20.433	0.002	6079641	1.010	1.010
trans-1,3-Dichloropropene	22.118	22.117	0.000	5301337	0.951	0.951
1,1,2-Trichloroethane	22.665	22.670	0.005	7219318	0.976	0.976
Tetrachloroethene	23.136	23.141	0.005	7596420	0.954	0.954
Dibromochloromethane	23.883	23.889	0.006	4483298	0.908	0.908
Chlorobenzene	25.781	25.785	0.004	2999218	0.927	0.927
Bromoform	28.376	28.382	0.006	2787239	0.855	0.855
1,1,2,2-Tetrachloroethane	29.871	29.879	0.008	5009749	0.985	0.985
1,3-Dichlorobenzene	32.966	32.972	0.006	4065371	0.931	0.931
1,4-Dichlorobenzene	33.254	33.261	0.007	4484768	0.966	0.966
1,2-Dichlorobenzene	34.474	34.480	0.006	4209351	0.938	0.938
Bromochloromethane(sur)	13.734	13.735	0.001	4399468	0.947	0.947

305135

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

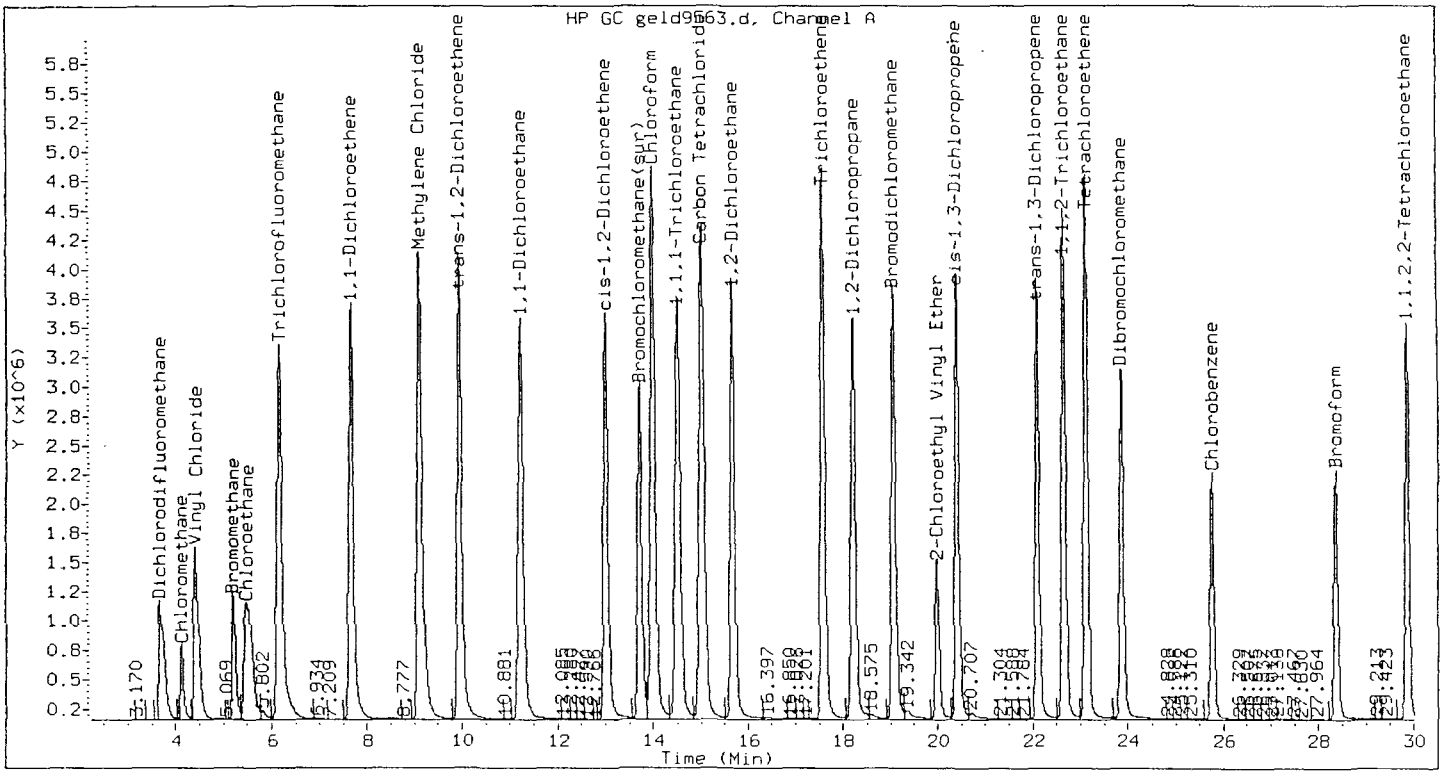
Instrument ID: VOAGC1 Calibration Date: 10/19/98 Time: 1704

Lab File ID: GELD9563 Init. Calib. Date(s): 10/17/98 10/18/98

Heated Purge: (Y/N) N Init. Calib. Times: 1954 0322

COMPOUND	$\overline{RRF}$	RRF20	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	2550243.2	1789533.3		29.8	15.0
Chloromethane	1033542.8	865792.27		16.2	15.0
Vinyl Chloride	2680565.0	2436291.3		9.1	15.0
Bromomethane	1253047.9	1300173.1		-3.6	15.0
Chloroethane	2727422.9	2617658.3		4.0	15.0
Trichlorofluoromethane	6266924.6	5382923.8		14.1	15.0
1,1-Dichloroethene	6386832.6	5414567.3		15.2	15.0
Methylene Chloride	9987100.9	6650350.0		33.4	15.0
trans-1,2-Dichloroethene	6806452.3	5678491.0		16.6	15.0
1,1-Dichloroethane	7087915.3	5795896.9		18.2	15.0
cis-1,2-Dichloroethene	6115137.8	5196520.6		15.0	15.0
Chloroform	9234633.8	7007945.2		24.1	15.0
1,1,1-Trichloroethane	8053562.9	6225724.8		22.7	15.0
Carbon Tetrachloride	8947726.8	7107236.4		20.6	15.0
1,2-Dichloroethane	6889423.2	5315727.1		22.8	15.0
Trichloroethene	8044830.8	6570869.9		18.3	15.0
1,2-Dichloropropane	6470964.2	5087646.4		21.4	15.0
Bromodichloromethane	6524752.3	5010420.5		23.2	15.0
2-Chloroethyl Vinyl Ether	2035623.3	1505228.8		26.0	15.0
cis-1,3-Dichloropropene	6021649.8	4570027.0		24.1	15.0
trans-1,3-Dichloropropene	5576205.1	4292507.1		23.0	15.0
1,1,2-Trichloroethane	7393868.0	5577068.8		24.6	15.0
Tetrachloroethene	7959337.7	6489686.1		18.5	15.0
Dibromochloromethane	4939946.6	3885603.0		21.3	15.0
Chlorobenzene	3234909.8	2624195.3		18.9	15.0
Bromoform	3260093.2	2590449.4		20.5	15.0
1,1,2,2-Tetrachloroethane	5087382.0	3846623.0		24.4	15.0
1,3-Dichlorobenzene	4367330.8	3449464.8		21.0	15.0
1,4-Dichlorobenzene	4644637.9	3647575.7		21.5	15.0
1,2-Dichlorobenzene	4487370.3	3518881.1		21.6	15.0
Bromochloromethane(sur)	4647867.2	3389555.9		27.1	15.0

305136



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : gstd020
Lab ID : gstd020
Inj Date : 19-OCT-1998 17:04
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.670	3.701	0.031	39815963	15.613	15.613
Chloromethane	4.124	4.141	0.017	15191039	14.698	14.698
Vinyl Chloride	4.410	4.431	0.021	54223384	20.228	20.228
Bromomethane	5.207	5.240	0.033	27871037	22.243	22.243
Chloroethane	5.491	5.533	0.042	58177383	21.331	21.331
Trichlorofluoromethane	6.166	6.210	0.043	124997032	19.946	19.946
1,1-Dichloroethene	7.659	7.685	0.026	121611082	19.041	19.041
Methylene Chloride	9.108	9.129	0.021	150653196	15.085	15.085
trans-1,2-Dichloroethene	9.950	9.974	0.024	128809709	18.925	18.925

305137

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.226	11.245	0.020	130012059	18.343	18.343
cis-1,2-Dichloroethene	13.007	13.027	0.020	115523033	18.891	18.891
Chloroform	13.996	14.014	0.018	164243409	17.786	17.786
1,1,1-Trichloroethane	14.512	14.531	0.019	146291667	18.165	18.165
Carbon Tetrachloride	15.022	15.041	0.019	165826960	18.533	18.533
1,2-Dichloroethane	15.670	15.689	0.019	121758709	17.673	17.673
Trichloroethene	17.577	17.595	0.018	148034355	18.401	18.401
1,2-Dichloropropane	18.215	18.232	0.017	115999801	17.926	17.926
Bromodichloromethane	19.067	19.084	0.017	116455041	17.848	17.848
2-Chloroethyl Vinyl Ether	19.988	20.009	0.021	40372675	19.833	19.833
cis-1,3-Dichloropropene	20.413	20.433	0.020	110526272	18.355	18.355
trans-1,3-Dichloropropene	22.099	22.117	0.018	102650025	18.409	18.409
1,1,2-Trichloroethane	22.653	22.670	0.017	128654730	17.400	17.400
Tetrachloroethene	23.124	23.141	0.017	143378599	18.014	18.014
Dibromochloromethane	23.871	23.889	0.019	92071048	18.638	18.638
Chlorobenzene	25.765	25.785	0.021	59382527	18.357	18.357
Bromoform	28.363	28.382	0.018	62505588	19.173	19.173
1,1,2,2-Tetrachloroethane	29.861	29.879	0.017	96257194	18.921	18.921
1,3-Dichlorobenzene	32.954	32.972	0.018	79642324	18.236	18.236
1,4-Dichlorobenzene	33.243	33.261	0.018	83788383	18.040	18.040
1,2-Dichlorobenzene	34.461	34.480	0.019	80666089	17.976	17.976
Bromochloromethane(sur)	13.716	13.735	0.019	89125171	19.175	19.175

305138

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC1 Calibration Date: 10/20/98 Time: 0811

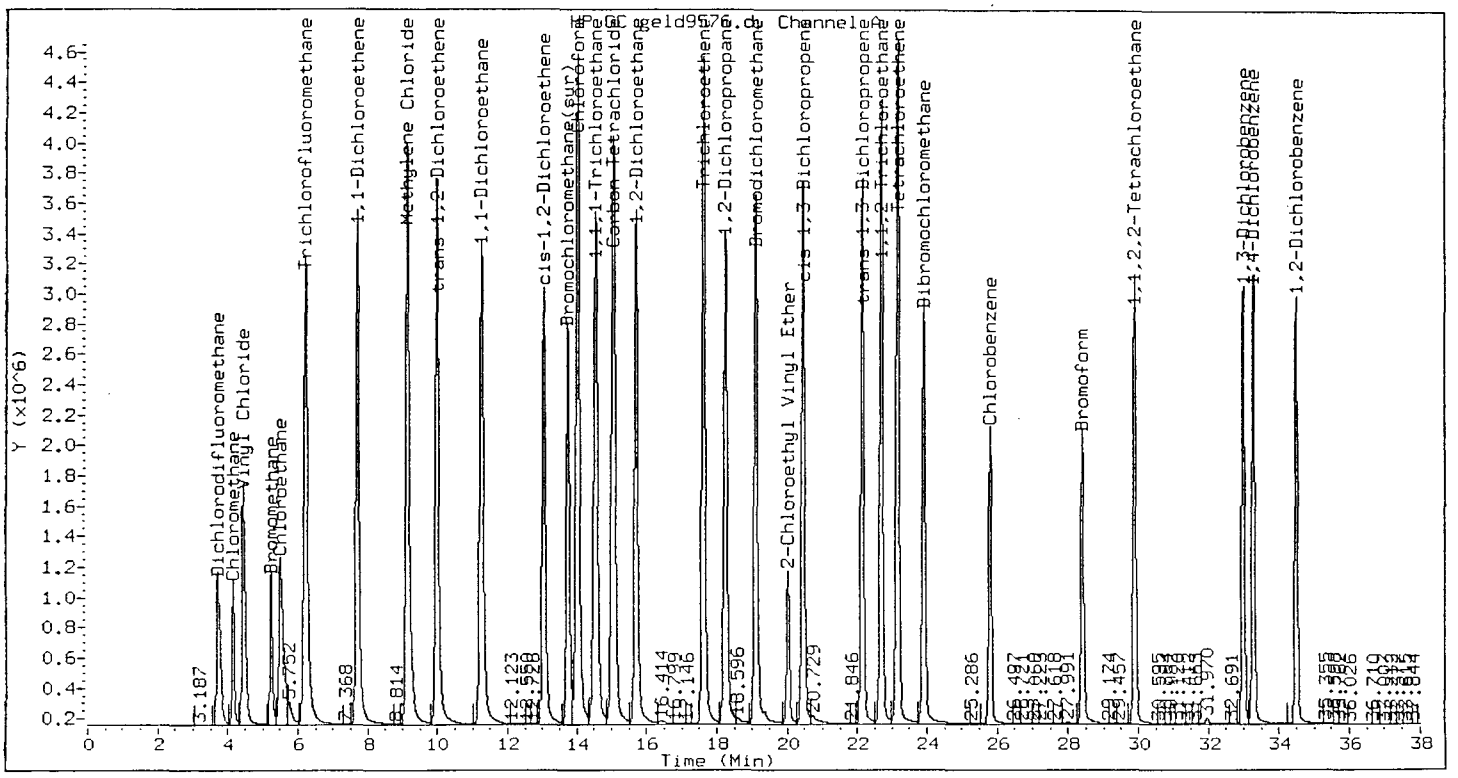
Lab File ID: GELD9576 Init. Calib. Date(s): 10/17/98 10/18/98

Heated Purge: (Y/N) N Init. Calib. Times: 1954 0322

COMPOUND	$\overline{RRF}$	RRF20	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	2550243.2	1874605.7		26.5	15.0
Chloromethane	1033542.8	1055933.6		-2.0	15.0
Vinyl Chloride	2680565.0	2697409.4		0.1	15.0
Bromomethane	1253047.9	1176958.9		6.1	15.0
Chloroethane	2727422.9	2515839.4		7.8	15.0
Trichlorofluoromethane	6266924.6	5945187.7		5.1	15.0
1,1-Dichloroethene	6386832.6	5839326.7		8.6	15.0
Methylene Chloride	9987100.9	7081086.2		29.1	15.0
trans-1,2-Dichloroethene	6806452.3	6102854.1		10.3	15.0
1,1-Dichloroethane	7087915.3	6218163.6		12.3	15.0
cis-1,2-Dichloroethene	6115137.8	4814593.2		21.3	15.0
Chloroform	9234633.8	7832797.7		15.2	15.0
1,1,1-Trichloroethane	8053562.9	6972146.2		13.4	15.0
Carbon Tetrachloride	8947726.8	7889813.5		11.8	15.0
1,2-Dichloroethane	6889423.2	5673037.2		17.6	15.0
Trichloroethene	8044830.8	7030654.9		12.6	15.0
1,2-Dichloropropane	6470964.2	5553782.1		14.2	15.0
Bromodichloromethane	6524752.3	5854691.5		10.3	15.0
2-Chloroethyl Vinyl Ether	2035623.3	1499471.1		26.3	15.0
cis-1,3-Dichloropropene	6021649.8	5270942.0		12.5	15.0
trans-1,3-Dichloropropene	5576205.1	4984531.3		10.6	15.0
1,1,2-Trichloroethane	7393868.0	6179026.3		16.4	15.0
Tetrachloroethene	7959337.7	6938892.0		12.8	15.0
Dibromochloromethane	4939946.6	4395978.8		11.0	15.0
Chlorobenzene	3234909.8	2841591.5		12.2	15.0
Bromoform	3260093.2	2901931.5		11.0	15.0
1,1,2,2-Tetrachloroethane	5087382.0	4299546.0		15.5	15.0
1,3-Dichlorobenzene	4367330.8	3810111.5		12.8	15.0
1,4-Dichlorobenzene	4644637.9	4043514.8		12.9	15.0
1,2-Dichlorobenzene	4487370.3	3875756.4		13.6	15.0
Bromochloromethane(sur)	4647867.2	4169914.8		10.3	15.0

305139

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/geld9576.d Page 1
Report Date 10/21/98 08:45



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/8021E.m
Sample Info : gstd020
Lab ID : gstd020
Inj Date : 20-OCT-98 08:11:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.686	3.701	0.014	37492114	14.701	14.701
Chloromethane	4.132	4.141	0.009	21118671	20.433	20.433
Vinyl Chloride	4.424	4.431	0.007	53948188	20.126	20.126
Bromomethane	5.220	5.240	0.020	23539177	18.786	18.786
Chloroethane	5.482	5.533	0.051	50316787	18.448	18.448
Trichlorofluoromethane	6.199	6.210	0.011	118903754	18.973	18.973
1,1-Dichloroethene	7.679	7.685	0.006	116786534	18.286	18.286
Methylene Chloride	9.123	9.129	0.005	141621724	14.180	14.180
trans-1,2-Dichloroethene	9.968	9.974	0.006	122057082	17.933	17.933

305140

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.242	11.245	0.003	124363272	17.546	17.546
cis-1,2-Dichloroethene	13.024	13.027	0.003	96291865	15.746	15.746
Chloroform	14.012	14.014	0.002	156655954	16.964	16.964
1,1,1-Trichloroethane	14.531	14.531	0.000	139442924	17.314	17.314
Carbon Tetrachloride	15.041	15.041	0.001	157796271	17.635	17.635
1,2-Dichloroethane	15.688	15.689	0.001	113460743	16.469	16.469
Trichloroethene	17.598	17.595	0.003	140613098	17.479	17.479
1,2-Dichloropropane	18.236	18.232	0.004	111075642	17.165	17.165
Bromodichloromethane	19.089	19.084	0.005	117093829	17.946	17.946
2-Chloroethyl Vinyl Ether	20.012	20.009	0.003	29989423	14.732	14.732
cis-1,3-Dichloropropene	20.437	20.433	0.005	105418841	17.507	17.507
trans-1,3-Dichloropropene	22.123	22.117	0.006	99690626	17.878	17.878
1,1,2-Trichloroethane	22.677	22.670	0.007	123580526	16.714	16.714
Tetrachloroethene	23.148	23.141	0.007	138777841	17.436	17.436
Dibromochloromethane	23.898	23.889	0.008	87919575	17.798	17.798
Chlorobenzene	25.796	25.785	0.010	56831831	17.568	17.568
Bromoform	28.394	28.382	0.013	58038631	17.803	17.803
1,1,2,2-Tetrachloroethane	29.892	29.879	0.013	85990921	16.903	16.903
1,3-Dichlorobenzene	32.985	32.972	0.013	76202229	17.448	17.448
1,4-Dichlorobenzene	33.273	33.261	0.012	80870295	17.412	17.412
1,2-Dichlorobenzene	34.493	34.480	0.013	77515127	17.274	17.274
Bromochloromethane(sur)	13.733	13.735	0.002	83398296	17.943	17.943

305141

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

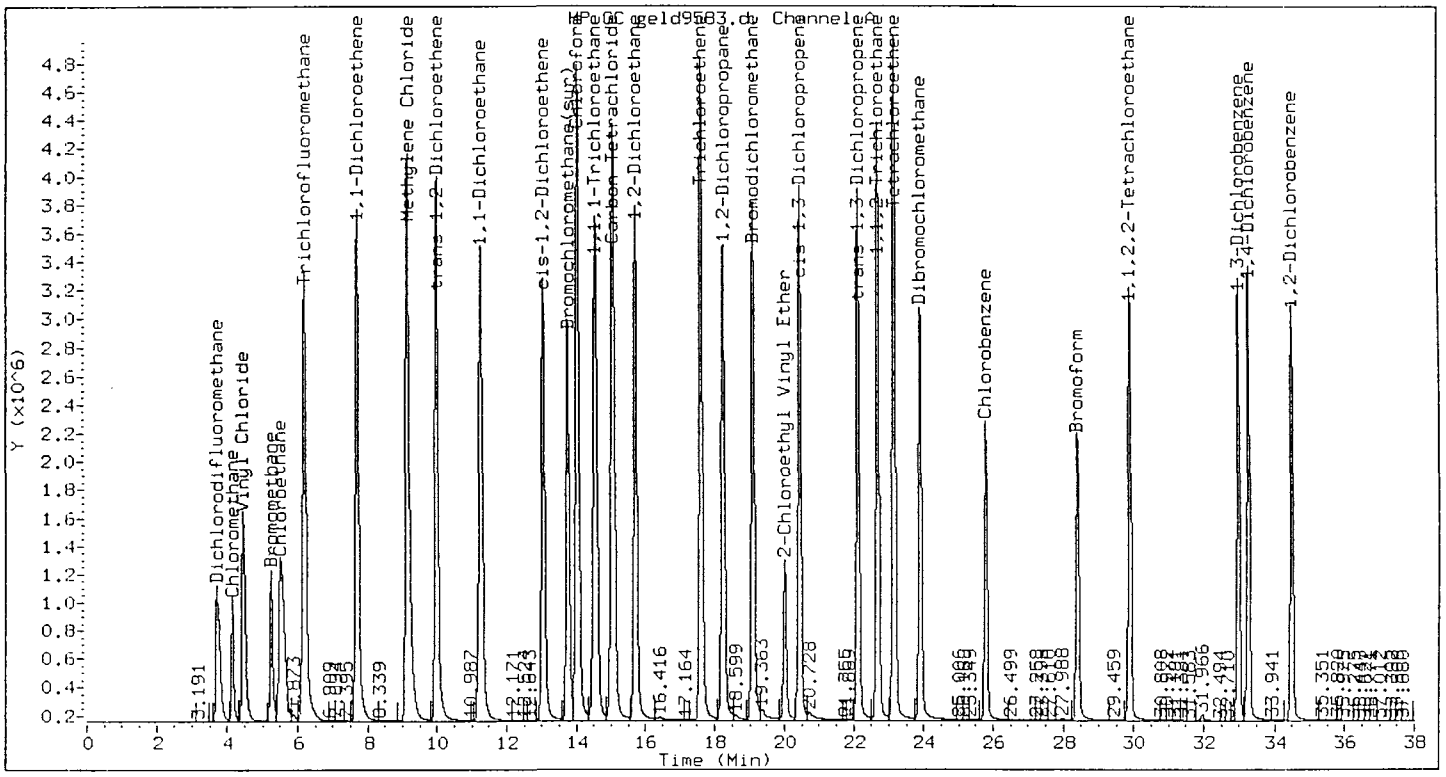
Instrument ID: VOAGC1 Calibration Date: 10/20/98 Time: 1402

Lab File ID: GELD9583 Init. Calib. Date(s): 10/17/98 10/18/98

Heated Purge: (Y/N) N Init. Calib. Times: 1954 0322

COMPOUND	$\overline{RRF}$	RRF20	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	2550243.2	1951789.8		23.5	15.0
Chloromethane	1033542.8	975133.55		5.6	15.0
Vinyl Chloride	2680565.0	2776273.0		-3.4	15.0
Bromomethane	1253047.9	1374316.1		-9.5	15.0
Chloroethane	2727422.9	3282001.6		-20.3	15.0
Trichlorofluoromethane	6266924.6	6026879.0		3.8	15.0
1,1-Dichloroethene	6386832.6	6077199.4		4.8	15.0
Methylene Chloride	9987100.9	7660664.5		23.3	15.0
trans-1,2-Dichloroethene	6806452.3	6422179.6		5.6	15.0
1,1-Dichloroethane	7087915.3	6482125.3		8.5	15.0
cis-1,2-Dichloroethene	6115137.8	5166888.5		15.5	15.0
Chloroform	9234633.8	8145637.3		11.8	15.0
1,1,1-Trichloroethane	8053562.9	7279220.0		9.6	15.0
Carbon Tetrachloride	8947726.8	8307792.8		7.2	15.0
1,2-Dichloroethane	6889423.2	5923821.3		14.0	15.0
Trichloroethene	8044830.8	7474819.2		7.1	15.0
1,2-Dichloropropane	6470964.2	5740950.2		11.3	15.0
Bromodichloromethane	6524752.3	5777504.2		11.4	15.0
2-Chloroethyl Vinyl Ether	2035623.3	1691203.4		16.9	15.0
cis-1,3-Dichloropropene	6021649.8	5493914.5		8.8	15.0
trans-1,3-Dichloropropene	5576205.1	5165359.0		7.4	15.0
1,1,2-Trichloroethane	7393868.0	6343695.4		14.2	15.0
Tetrachloroethene	7959337.7	7484447.5		6.0	15.0
Dibromochloromethane	4939946.6	4488726.3		9.1	15.0
Chlorobenzene	3234909.8	3012287.7		6.9	15.0
Bromoform	3260093.2	3041736.7		6.7	15.0
1,1,2,2-Tetrachloroethane	5087382.0	4453671.2		12.4	15.0
1,3-Dichlorobenzene	4367330.8	4107584.1		5.9	15.0
1,4-Dichlorobenzene	4644637.9	4316622.0		7.1	15.0
1,2-Dichlorobenzene	4487370.3	4036571.7		10.0	15.0
Bromochloromethane(sur)	4647867.2	4368825.5		6.0	15.0

305142



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98a.b/8021E.m
Sample Info : gstd020a
Lab ID : gstd020a
Inj Date : 20-OCT-98 14:02:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.692	3.701	0.009	39035795	15.307	15.307
Chloromethane	4.137	4.141	0.004	19502671	18.870	18.870
Vinyl Chloride	4.433	4.431	0.002	55525460	20.714	20.714
Bromomethane	5.229	5.240	0.011	27486321	21.936	21.936
Chloroethane	5.498	5.533	0.035	65640033	24.067	24.067
Trichlorofluoromethane	6.176	6.210	0.034	120537581	19.234	19.234
1,1-Dichloroethene	7.675	7.685	0.010	121543988	19.030	19.030
Methylene Chloride	9.126	9.129	0.003	153213289	15.341	15.341
trans-1,2-Dichloroethene	9.969	9.974	0.005	128443592	18.871	18.871

305143

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
1,1-Dichloroethane	11.243	11.245	0.003	129642507	18.291	18.291
cis-1,2-Dichloroethene	13.026	13.027	0.000	103337769	16.899	16.899
Chloroform	14.015	14.014	0.001	162912746	17.641	17.641
1,1,1-Trichloroethane	14.532	14.531	0.001	145584400	18.077	18.077
Carbon Tetrachloride	15.042	15.041	0.001	166155856	18.570	18.570
1,2-Dichloroethane	15.690	15.689	0.001	118476427	17.197	17.197
Trichloroethene	17.598	17.595	0.003	149496384	18.583	18.583
1,2-Dichloropropane	18.236	18.232	0.003	114819004	17.744	17.744
Bromodichloromethane	19.089	19.084	0.006	115550084	17.709	17.709
2-Chloroethyl Vinyl Ether	20.012	20.009	0.003	33824069	16.616	16.616
cis-1,3-Dichloropropene	20.437	20.433	0.005	109878291	18.247	18.247
trans-1,3-Dichloropropene	22.121	22.117	0.004	103307181	18.526	18.526
1,1,2-Trichloroethane	22.676	22.670	0.006	126873908	17.159	17.159
Tetrachloroethene	23.148	23.141	0.007	149688951	18.807	18.807
Dibromochloromethane	23.897	23.889	0.008	89774526	18.173	18.173
Chlorobenzene	25.791	25.785	0.006	60245754	18.624	18.624
Bromoform	28.391	28.382	0.009	60834734	18.660	18.660
1,1,2,2-Tetrachloroethane	29.888	29.879	0.009	89073425	17.509	17.509
1,3-Dichlorobenzene	32.980	32.972	0.008	82151682	18.811	18.811
1,4-Dichlorobenzene	33.269	33.261	0.008	86332441	18.588	18.588
1,2-Dichlorobenzene	34.489	34.480	0.009	80731434	17.991	17.991
Bromochloromethane(sur)	13.736	13.735	0.001	87376509	18.799	18.799

305144

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK

Instrument ID: VOAGC1 Calibration Date: 10/21/98 Time: 0813

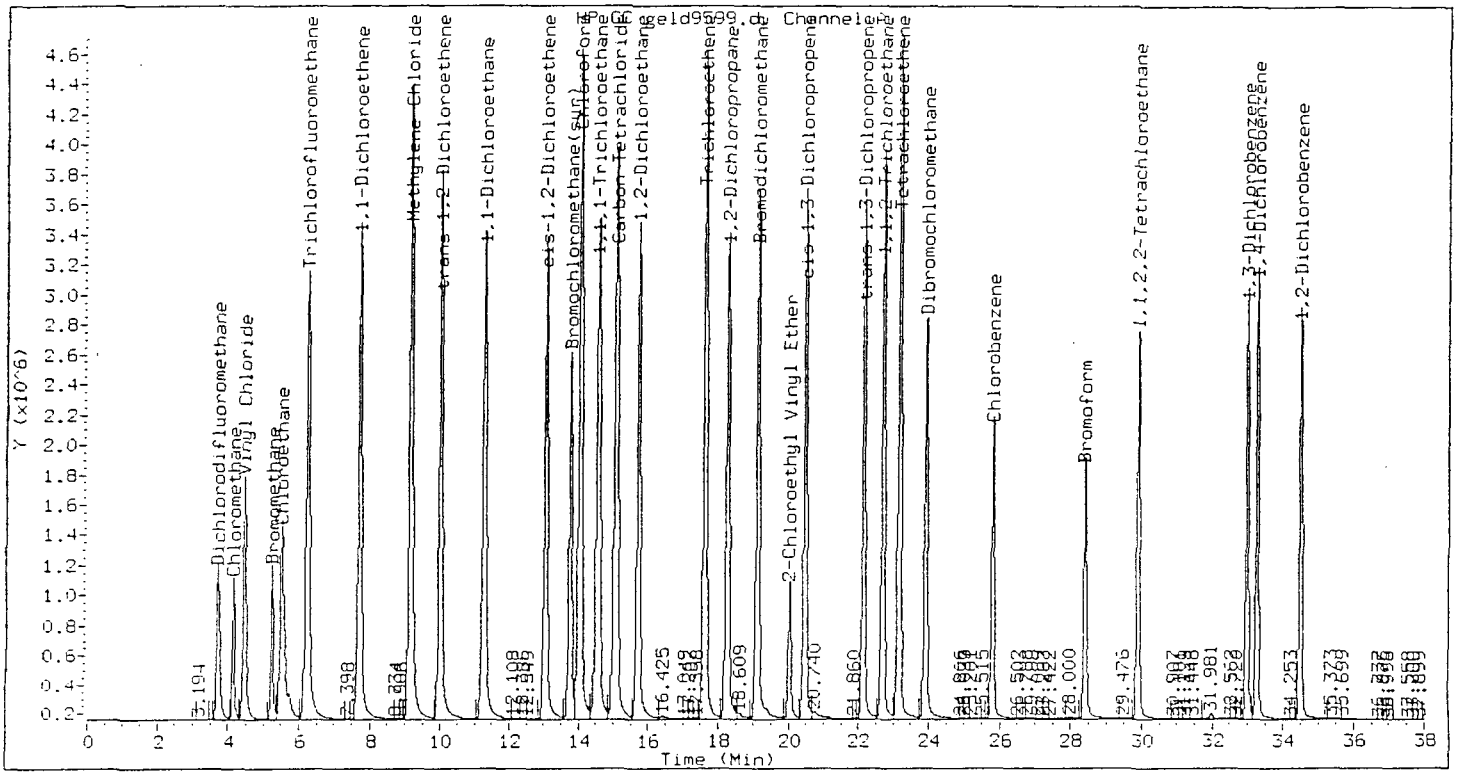
Lab File ID: GELD9599 Init. Calib. Date(s): 10/17/98 10/18/98

Heated Purge: (Y/N) N Init. Calib. Times: 1954 0322

COMPOUND	$\overline{RRF}$	RRF20	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	2550243.2	1727276.8		32.3	15.0
Chloromethane	1033542.8	1022920.7		1.0	15.0
Vinyl Chloride	2680565.0	2458296.7		8.3	15.0
Bromomethane	1253047.9	1179424.5		5.9	15.0
Chloroethane	2727422.9	3124840.5		-14.4	15.0
Trichlorofluoromethane	6266924.6	5707989.7		8.9	15.0
1,1-Dichloroethene	6386832.6	5712547.5		10.6	15.0
Methylene Chloride	9987100.9	7490763.6		25.0	15.0
trans-1,2-Dichloroethene	6806452.3	6172732.3		9.3	15.0
1,1-Dichloroethane	7087915.3	6329357.7		10.7	15.0
cis-1,2-Dichloroethene	6115137.8	5392748.0		11.8	15.0
Chloroform	9234633.8	7975614.8		13.6	15.0
1,1,1-Trichloroethane	8053562.9	6939536.7		13.8	15.0
Carbon Tetrachloride	8947726.8	7750765.9		13.4	15.0
1,2-Dichloroethane	6889423.2	5547868.2		19.5	15.0
Trichloroethene	8044830.8	7082675.8		12.0	15.0
1,2-Dichloropropane	6470964.2	5588521.8		13.6	15.0
Bromodichloromethane	6524752.3	5916684.3		9.3	15.0
2-Chloroethyl Vinyl Ether	2035623.3	1389479.5		31.7	15.0
cis-1,3-Dichloropropene	6021649.8	5242631.2		12.9	15.0
trans-1,3-Dichloropropene	5576205.1	4830171.1		13.4	15.0
1,1,2-Trichloroethane	7393868.0	5785160.7		21.8	15.0
Tetrachloroethene	7959337.7	6992125.3		12.2	15.0
Dibromochloromethane	4939946.6	4176979.6		15.4	15.0
Chlorobenzene	3234909.8	2884447.4		10.8	15.0
Bromoform	3260093.2	2623097.9		19.5	15.0
1,1,2,2-Tetrachloroethane	5087382.0	3764420.7		26.0	15.0
1,3-Dichlorobenzene	4367330.8	3807581.6		12.8	15.0
1,4-Dichlorobenzene	4644637.9	4061364.2		12.6	15.0
1,2-Dichlorobenzene	4487370.3	3769280.9		16.0	15.0
Bromochloromethane(sur)	4647867.2	3793346.8		18.4	15.0

305145

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/21oct98.b/geld9599.d Page 1
Report Date 10/22/98 10:37



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/21oct98.b/8021E.m
Sample Info : gstd020
Lab ID : gstd020
Inj Date : 21-OCT-98 08:13:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 1
Sample Matrix : SOIL
Sample Type: CCALIB_4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.692	3.701	0.009	34545536	13.546	13.546
Chloromethane	4.136	4.141	0.005	20458413	19.794	19.794
Vinyl Chloride	4.428	4.431	0.003	49165934	18.342	18.342
Bromomethane	5.227	5.240	0.013	23588489	18.825	18.825
Chloroethane	5.491	5.533	0.042	62496809	22.914	22.914
Trichlorofluoromethane	6.216	6.210	0.006	114159793	18.216	18.216
1,1-Dichloroethene	7.691	7.685	0.006	114250949	17.889	17.889
Methylene Chloride	9.132	9.129	0.004	149815272	15.001	15.001
trans-1,2-Dichloroethene	9.979	9.974	0.005	123454646	18.138	18.138

305146

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.252	11.245	0.006	126587154	17.860	17.860
cis-1,2-Dichloroethene	13.034	13.027	0.008	107854960	17.637	17.637
Chloroform	14.023	14.014	0.008	159512295	17.273	17.273
1,1,1-Trichloroethane	14.541	14.531	0.010	138790734	17.233	17.233
Carbon Tetrachloride	15.052	15.041	0.011	155015317	17.325	17.325
1,2-Dichloroethane	15.697	15.689	0.008	110957364	16.105	16.105
Trichloroethene	17.608	17.595	0.013	141653515	17.608	17.608
1,2-Dichloropropane	18.247	18.232	0.014	111770436	17.273	17.273
Bromodichloromethane	19.102	19.084	0.018	118333686	18.136	18.136
2-Chloroethyl Vinyl Ether	20.025	20.009	0.016	27789589	13.652	13.652
cis-1,3-Dichloropropene	20.450	20.433	0.017	104852623	17.413	17.413
trans-1,3-Dichloropropene	22.135	22.117	0.017	96603422	17.324	17.324
1,1,2-Trichloroethane	22.689	22.670	0.019	115703213	15.649	15.649
Tetrachloroethene	23.161	23.141	0.020	139842505	17.570	17.570
Dibromochloromethane	23.909	23.889	0.020	83539592	16.911	16.911
Chlorobenzene	25.805	25.785	0.020	57688947	17.833	17.833
Bromoform	28.405	28.382	0.023	52461957	16.092	16.092
1,1,2,2-Tetrachloroethane	29.902	29.879	0.023	75288413	14.799	14.799
1,3-Dichlorobenzene	32.996	32.972	0.024	76151631	17.437	17.437
1,4-Dichlorobenzene	33.285	33.261	0.024	81227284	17.488	17.488
1,2-Dichlorobenzene	34.505	34.480	0.025	75385617	16.800	16.800
Bromochloromethane(sur)	13.743	13.735	0.008	75866936	16.323	16.323

305147

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: SOIL Level: HIGH Lab Job No: H950

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
01	GG292	93			0
02	88672	100			0
03	88664	102			0
04	88665	101			0
05	88668	96			0
06	88669	86			0
07	88671	75			0
08	88675	74			0
09	GG293	96			0
10	88681	100			0
11	88681MS	93			0
12	88681MSD	91			0
13	GG293A	98			0
14	88682	98			0
15	88674	91			0
16	88678	96			0
17	88679	93			0
18	GG294	77			0
19	88667	106			0
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = Bromochloromethane(sur (70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Matrix: SOIL Level: HIGH Lab Job No: H950

	LAB SAMPLE NO.	SMC1 #	SMC2 #	OTHER	TOT OUT
01	GG292	82			0
02	88672	86			0
03	88664	80			0
04	88665	85			0
05	88668	123D			0
06	88669	82			0
07	88671	108D			0
08	88675	94D			0
09	GG293	90D			0
10	88681	91			0
11	IG293A	88			0
12	88682	88			0
13	88674	115D			0
14	88678	108D			0
15	88679	90			0
16	88667	115D			0
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

QC LIMITS

SMC1 = a,a,a,-Trifluorotoluen (70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8021

Matrix: SOIL

Level: HIGH

Matrix Spike - Lab Sample No.: 88554

MS Sample from Lab Job No: H941

QA Batch: 3699

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Chloromethane	2670	0.00	3450	129	70-130
Vinyl Chloride	2670	0.00	3730	140*	70-130
Bromomethane	2670	0.00	3290	123	70-130
Chloroethane	2670	0.00	2890	108	70-130
Trichlorofluoromethane	2670	0.00	2950	110	70-130
1,1-Dichloroethene	2670	0.00	2810	105	70-130
Methylene Chloride	2670	0.00	2180	82	70-130
trans-1,2-Dichloroethene	2670	0.00	2730	102	70-130
1,1-Dichloroethane	2670	0.00	2560	96	70-130
Chloroform	2670	0.00	2740	103	70-130
1,1,1-Trichloroethane	2670	0.00	2570	96	70-130
Carbon Tetrachloride	2670	0.00	2560	96	70-130
1,2-Dichloroethane	2670	0.00	2380	89	70-130
Trichloroethene	2670	237	2890	99	70-130
1,2-Dichloropropane	2670	0.00	2700	101	70-130
Bromodichloromethane	2670	0.00	2850	107	70-130
2-Chloroethyl Vinyl Ethe	2670	0.00	2910	109	70-130
cis-1,3-Dichloropropene	2670	0.00	2550	96	70-130
trans-1,3-Dichloropropen	2670	0.00	2600	97	70-130
1,1,2-Trichloroethane	2670	0.00	2510	94	70-130
Tetrachloroethene	2670	0.00	2660	100	70-130
Dibromochloromethane	2670	0.00	2830	106	70-130
Chlorobenzene	2670	0.00	2650	99	70-130
Bromoform	2670	0.00	3100	116	70-130
1,1,2,2-Tetrachloroethan	2670	0.00	2500	94	70-130
1,3-Dichlorobenzene	2670	0.00	2620	98	70-130
1,4-Dichlorobenzene	2670	0.00	2320	87	70-130
1,2-Dichlorobenzene	2670	0.00	2420	91	70-130

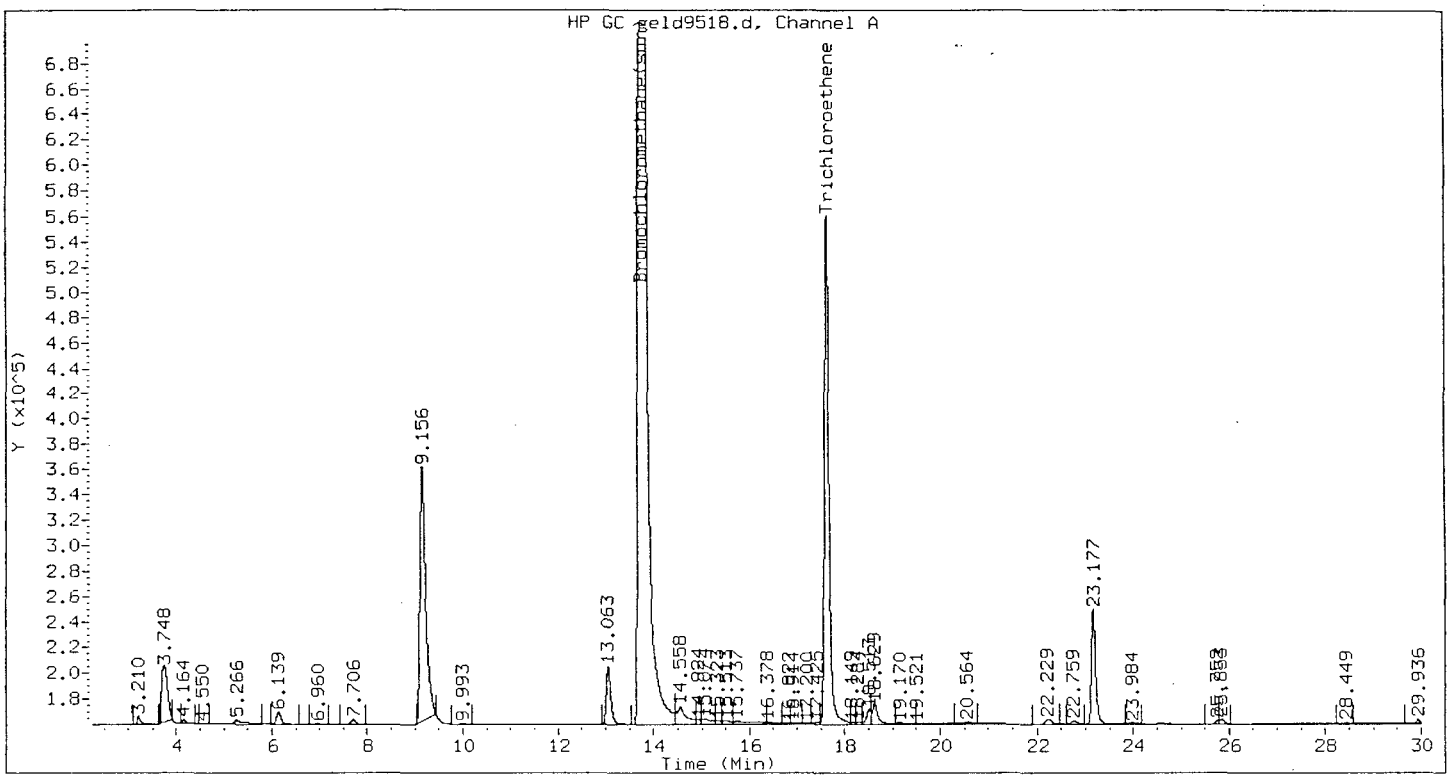
305150

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Chloromethane	2670	3900	146*	12	40	70-130
Vinyl Chloride	2670	3750	140*	1	40	70-130
Bromomethane	2670	3300	124	0	40	70-130
Chloroethane	2670	3650	137*	23	40	70-130
Trichlorofluoromethane	2670	2940	110	0	40	70-130
1,1-Dichloroethene	2670	2720	102	3	40	70-130
Methylene Chloride	2670	2230	84	2	40	70-130
trans-1,2-Dichloroethene	2670	2680	100	2	40	70-130
1,1-Dichloroethane	2670	2520	94	2	40	70-130
Chloroform	2670	2780	104	1	40	70-130
1,1,1-Trichloroethane	2670	2610	98	2	40	70-130
Carbon Tetrachloride	2670	2660	100	4	40	70-130
1,2-Dichloroethane	2670	2510	94	5	40	70-130
Trichloroethene	2670	2830	97	2	40	70-130
1,2-Dichloropropane	2670	2640	99	2	40	70-130
Bromodichloromethane	2670	2760	103	3	40	70-130
2-Chloroethyl Vinyl Ethe	2670	2410	90	19	40	70-130
cis-1,3-Dichloropropene	2670	2620	98	3	40	70-130
trans-1,3-Dichloropropen	2670	2650	99	2	40	70-130
1,1,2-Trichloroethane	2670	2520	94	0	40	70-130
Tetrachloroethene	2670	2710	101	2	40	70-130
Dibromochloromethane	2670	2960	111	4	40	70-130
Chlorobenzene	2670	2620	98	1	40	70-130
Bromoform	2670	3040	114	2	40	70-130
1,1,2,2-Tetrachloroethan	2670	2470	93	1	40	70-130
1,3-Dichlorobenzene	2670	2660	100	2	40	70-130
1,4-Dichlorobenzene	2670	2610	98	12	40	70-130
1,2-Dichlorobenzene	2670	2670	100	10	40	70-130

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 28 outside limits
Spike Recovery: 4 out of 56 outside limits

COMMENTS: _____

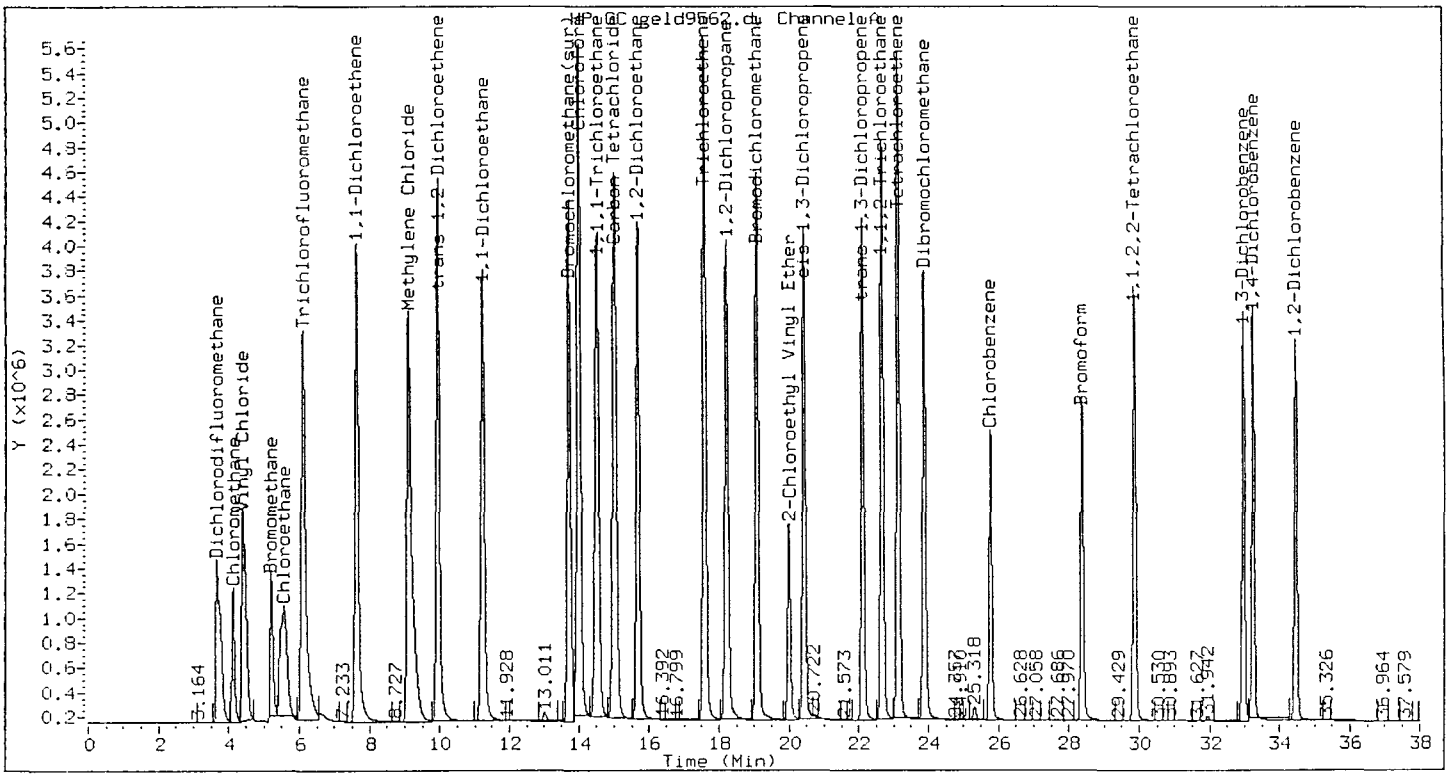
305151



Method : /chem/VOAGC1.i/8021ELCD/10-16-98/16oct98a.b/8021E.m
Sample Info : 88554;;50
Lab ID : 88554 Inst ID : VOAGC1.i
Inj Date : 17-OCT-1998 00:04 Dil Factor : 50
Operator : KB Sample Matrix : SOIL
Cpnd Sublist: 601 Sample Type: SAMPLE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Trichloroethene	17.630	17.592	0.038	13118044	1.773	237.093
Bromochloromethane(sur)	13.763	13.730	0.033	138511808	33.995	4545.016

305152



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : 88554ms;;50
Lab ID : 88554ms
Inj Date : 19-OCT-98 16:18:00
Operator : KB
Cpnd Sublist: 601

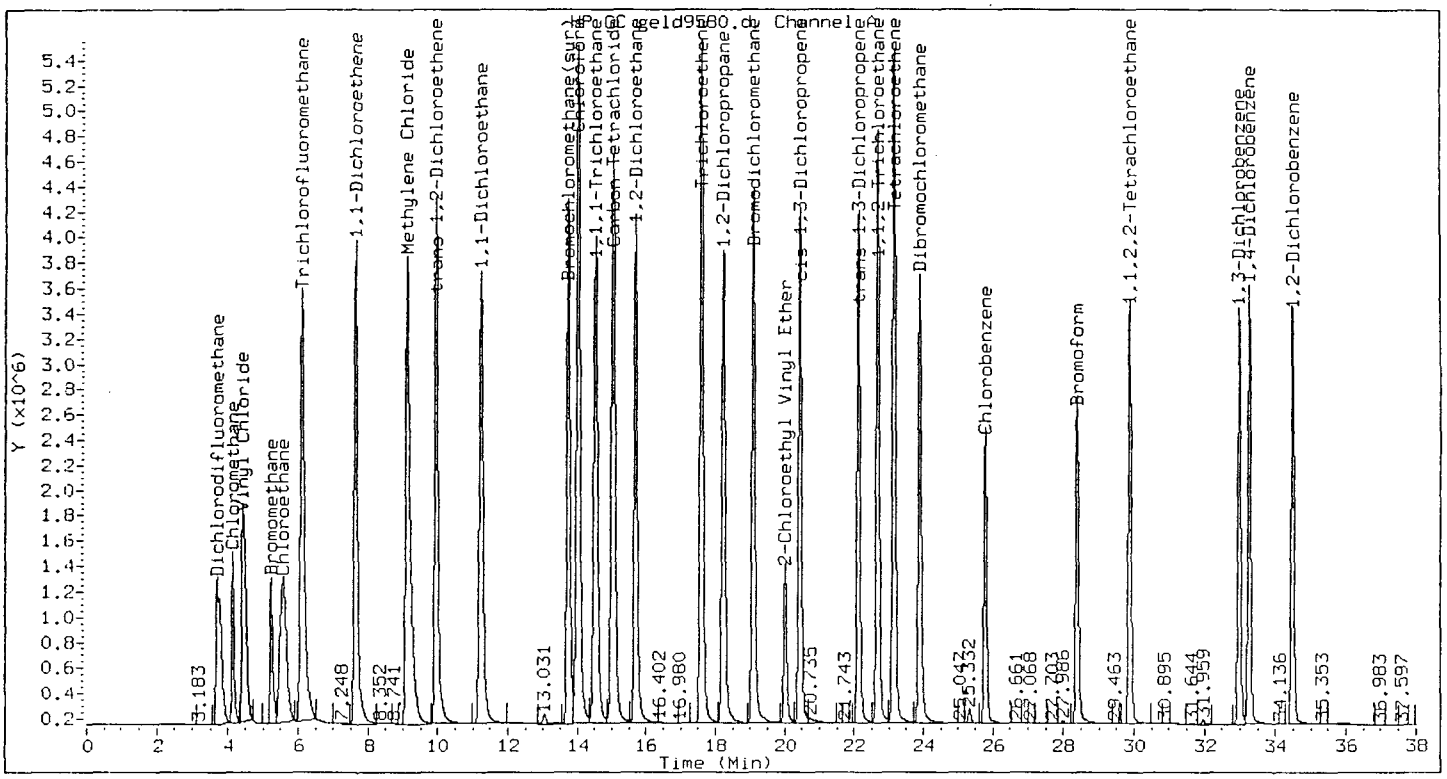
Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: MS

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.663	3.701	0.037	58465920	22.926	3065.054
Chloromethane	4.121	4.141	0.020	26692128	25.826	3452.802
Vinyl Chloride	4.407	4.431	0.024	74819284	27.912	3731.678
Bromomethane	5.204	5.240	0.036	30875654	24.640	3294.318
Chloroethane	5.563	5.533	0.030	58964382	21.619	2890.375
Trichlorofluoromethane	6.100	6.210	0.109	138373261	22.080	2951.989
1,1-Dichloroethene	7.623	7.685	0.062	134380411	21.040	2812.985
Methylene Chloride	9.102	9.129	0.027	162972235	16.318	2181.681
trans-1,2-Dichloroethene	9.936	9.974	0.038	139027970	20.426	2730.853

305153

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.217	11.245	0.029	135874354	19.170	2562.925
Chloroform	13.995	14.014	0.020	189571951	20.528	2744.551
1,1,1-Trichloroethane	14.506	14.531	0.025	155110660	19.260	2574.960
Carbon Tetrachloride	15.016	15.041	0.024	171204206	19.134	2558.107
1,2-Dichloroethane	15.670	15.689	0.019	122877932	17.836	2384.559
Trichloroethene	17.576	17.595	0.019	174186150	21.652	2894.767
1,2-Dichloropropane	18.215	18.232	0.017	130441918	20.158	2695.040
Bromodichloromethane	19.069	19.084	0.014	138949445	21.296	2847.146
2-Chloroethyl Vinyl Ether	19.993	20.009	0.016	44346053	21.785	2912.558
cis-1,3-Dichloropropene	20.418	20.433	0.015	114971122	19.093	2552.644
trans-1,3-Dichloropropene	22.103	22.117	0.014	108477727	19.454	2600.871
1,1,2-Trichloroethane	22.657	22.670	0.012	138948652	18.792	2512.463
Tetrachloroethene	23.126	23.141	0.015	158710624	19.940	2665.913
Dibromochloromethane	23.875	23.889	0.014	104628626	21.180	2831.687
Chlorobenzene	25.768	25.785	0.017	64074710	19.807	2648.143
Bromoform	28.367	28.382	0.014	75547835	23.174	3098.197
1,1,2,2-Tetrachloroethane	29.865	29.879	0.014	95088796	18.691	2498.918
1,3-Dichlorobenzene	32.955	32.972	0.017	85428423	19.561	2615.190
1,4-Dichlorobenzene	33.242	33.261	0.018	80495327	17.331	2317.052
1,2-Dichlorobenzene	34.462	34.480	0.018	81409582	18.142	2425.496
Bromochloromethane(sur)	13.712	13.735	0.023	131008925	28.187	3768.462

305154



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/8021E.m
Sample Info : 88554msd;;50
Lab ID : 88554msd
Inj Date : 20-OCT-98 11:41:00
Operator : KB
Cpnd Sublist: 601

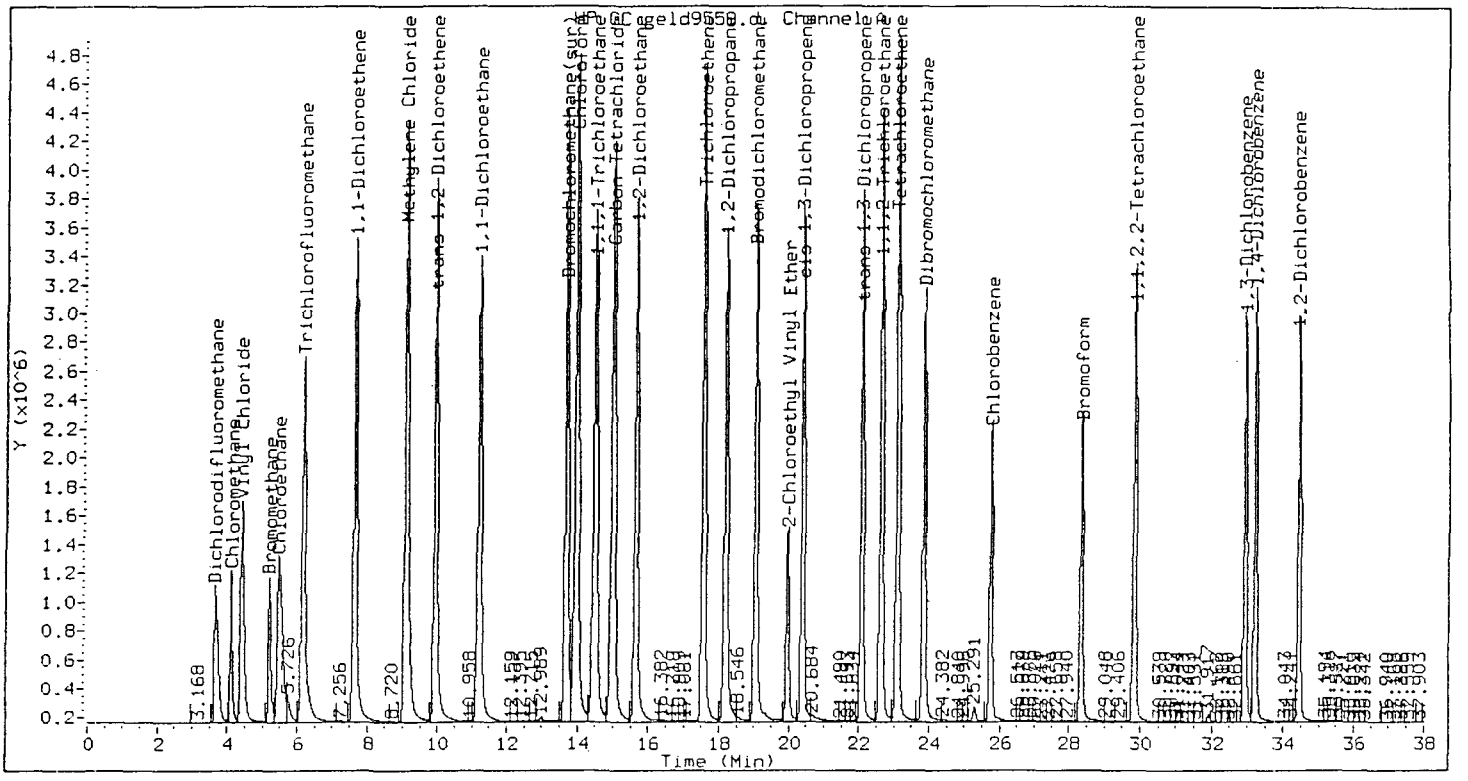
Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: MSD

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.684	3.701	0.017	56039765	21.974	2937.864
Chloromethane	4.132	4.141	0.009	30151500	29.173	3900.295
Vinyl Chloride	4.432	4.431	0.001	75150131	28.035	3748.180
Bromomethane	5.222	5.240	0.018	30977428	24.722	3305.177
Chloroethane	5.567	5.533	0.034	74438734	27.293	3648.913
Trichlorofluoromethane	6.114	6.210	0.096	137594374	21.956	2935.372
1,1-Dichloroethene	7.640	7.685	0.045	129828384	20.328	2717.697
Methylene Chloride	9.120	9.129	0.008	166317020	16.653	2226.457
trans-1,2-Dichloroethene	9.954	9.974	0.021	136381609	20.037	2678.872

305155

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.235	11.245	0.011	133800051	18.877	2523.799
Chloroform	14.014	14.014	0.000	191812304	20.771	2776.986
1,1,1-Trichloroethane	14.526	14.531	0.005	156992827	19.494	2606.206
Carbon Tetrachloride	15.036	15.041	0.005	178311496	19.928	2664.303
1,2-Dichloroethane	15.689	15.689	0.000	129503275	18.797	2513.130
Trichloroethene	17.593	17.595	0.002	170478425	21.191	2833.149
1,2-Dichloropropane	18.233	18.232	0.001	127624637	19.723	2636.832
Bromodichloromethane	19.088	19.084	0.004	134793101	20.659	2761.981
2-Chloroethyl Vinyl Ether	20.010	20.009	0.002	36702821	18.030	2410.566
cis-1,3-Dichloropropene	20.434	20.433	0.002	118022217	19.600	2620.386
trans-1,3-Dichloropropene	22.119	22.117	0.002	110631358	19.840	2652.507
1,1,2-Trichloroethane	22.673	22.670	0.003	139370990	18.850	2520.099
Tetrachloroethene	23.141	23.141	0.000	161630212	20.307	2714.955
Dibromochloromethane	23.891	23.889	0.002	109285553	22.123	2957.723
Chlorobenzene	25.783	25.785	0.002	63422235	19.606	2621.177
Bromoform	28.385	28.382	0.003	74241803	22.773	3044.637
1,1,2,2-Tetrachloroethane	29.881	29.879	0.002	94148930	18.506	2474.218
1,3-Dichlorobenzene	32.971	32.972	0.001	86752779	19.864	2655.732
1,4-Dichlorobenzene	33.260	33.261	0.001	90777725	19.545	2613.030
1,2-Dichlorobenzene	34.482	34.480	0.001	89490581	19.943	2666.259
Bromochloromethane(sur)	13.732	13.735	0.004	128693254	27.689	3701.852

305156



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/19oct98.b/8021E.m
Sample Info : 3699bs
Lab ID : 3699bs
Inj Date : 19-OCT-98 13:52:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: METHSPIKE

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
Dichlorodifluoromethane	3.668	3.701	0.033	37112207	14.552	1819.052
Chloromethane	4.115	4.141	0.026	23491281	22.729	2841.111
Vinyl Chloride	4.401	4.431	0.030	55298873	20.630	2578.695
Bromomethane	5.195	5.240	0.045	25131632	20.056	2507.050
Chloroethane	5.464	5.533	0.069	59522927	21.824	2727.984
Trichlorofluoromethane	6.167	6.210	0.042	100190934	15.987	1998.407
1,1-Dichloroethene	7.644	7.685	0.040	114974950	18.002	2250.234
Methylene Chloride	9.083	9.129	0.046	155052964	15.525	1940.665
trans-1,2-Dichloroethene	9.926	9.974	0.048	124179315	18.244	2280.544

305157

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.198	11.245	0.047	125213044	17.666	2208.214
Chloroform	13.968	14.014	0.046	164136096	17.774	2221.746
1,1,1-Trichloroethane	14.485	14.531	0.046	147077290	18.262	2282.798
Carbon Tetrachloride	14.996	15.041	0.045	162987204	18.215	2276.936
1,2-Dichloroethane	15.643	15.689	0.046	121060406	17.572	2196.490
Trichloroethene	17.550	17.595	0.045	146796622	18.247	2280.915
1,2-Dichloropropane	18.187	18.232	0.045	119256842	18.430	2303.691
Bromodichloromethane	19.041	19.084	0.042	117878692	18.066	2258.298
2-Chloroethyl Vinyl Ether	19.963	20.009	0.045	39805159	19.554	2444.286
cis-1,3-Dichloropropene	20.389	20.433	0.043	104908695	17.422	2177.740
trans-1,3-Dichloropropene	22.074	22.117	0.043	101090677	18.129	2266.117
1,1,2-Trichloroethane	22.628	22.670	0.042	128363228	17.361	2170.096
Tetrachloroethene	23.100	23.141	0.041	145721992	18.308	2288.538
Dibromochloromethane	23.848	23.889	0.041	91598465	18.542	2317.800
Chlorobenzene	25.743	25.785	0.042	59734331	18.466	2308.191
Bromoform	28.340	28.382	0.042	62344793	19.124	2390.453
1,1,2,2-Tetrachloroethane	29.840	29.879	0.039	92090930	18.102	2262.729
1,3-Dichlorobenzene	32.932	32.972	0.040	76570720	17.533	2191.577
1,4-Dichlorobenzene	33.221	33.261	0.040	81649280	17.579	2197.407
1,2-Dichlorobenzene	34.440	34.480	0.041	76894296	17.136	2141.964
Bromochloromethane(sur)	13.687	13.735	0.048	133159206	28.650	3581.191

305158

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8021

Matrix: SOIL

Level: HIGH

Matrix Spike - Lab Sample No.: 88681

MS Sample from Lab Job No: H950

QA Batch: 3700

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Chloromethane	2770	0.00	2500	90	70-130
Vinyl Chloride	2770	0.00	3230	117	70-130
Bromomethane	2770	0.00	2860	103	70-130
Chloroethane	2770	0.00	3190	115	70-130
Trichlorofluoromethane	2770	0.00	2550	92	70-130
1,1-Dichloroethene	2770	0.00	2460	89	70-130
Methylene Chloride	2770	0.00	2090	75	70-130
trans-1,2-Dichloroethene	2770	0.00	2490	90	70-130
1,1-Dichloroethane	2770	0.00	2440	88	70-130
Chloroform	2770	0.00	2380	86	70-130
1,1,1-Trichloroethane	2770	0.00	2370	86	70-130
Carbon Tetrachloride	2770	0.00	2390	86	70-130
1,2-Dichloroethane	2770	0.00	2320	84	70-130
Trichloroethene	2770	159	2580	87	70-130
1,2-Dichloropropane	2770	0.00	2390	86	70-130
Bromodichloromethane	2770	0.00	2330	84	70-130
2-Chloroethyl Vinyl Ethe	2770	0.00	2710	98	70-130
cis-1,3-Dichloropropene	2770	0.00	2450	88	70-130
trans-1,3-Dichloropropen	2770	0.00	2500	90	70-130
1,1,2-Trichloroethane	2770	0.00	2320	84	70-130
Tetrachloroethene	2770	0.00	2370	86	70-130
Dibromochloromethane	2770	0.00	2360	85	70-130
Chlorobenzene	2770	0.00	2410	87	70-130
Bromoform	2770	0.00	2440	88	70-130
1,1,2,2-Tetrachloroethan	2770	0.00	2170	78	70-130
1,3-Dichlorobenzene	2770	0.00	2390	86	70-130
1,4-Dichlorobenzene	2770	0.00	2370	86	70-130
1,2-Dichlorobenzene	2770	0.00	2310	83	70-130

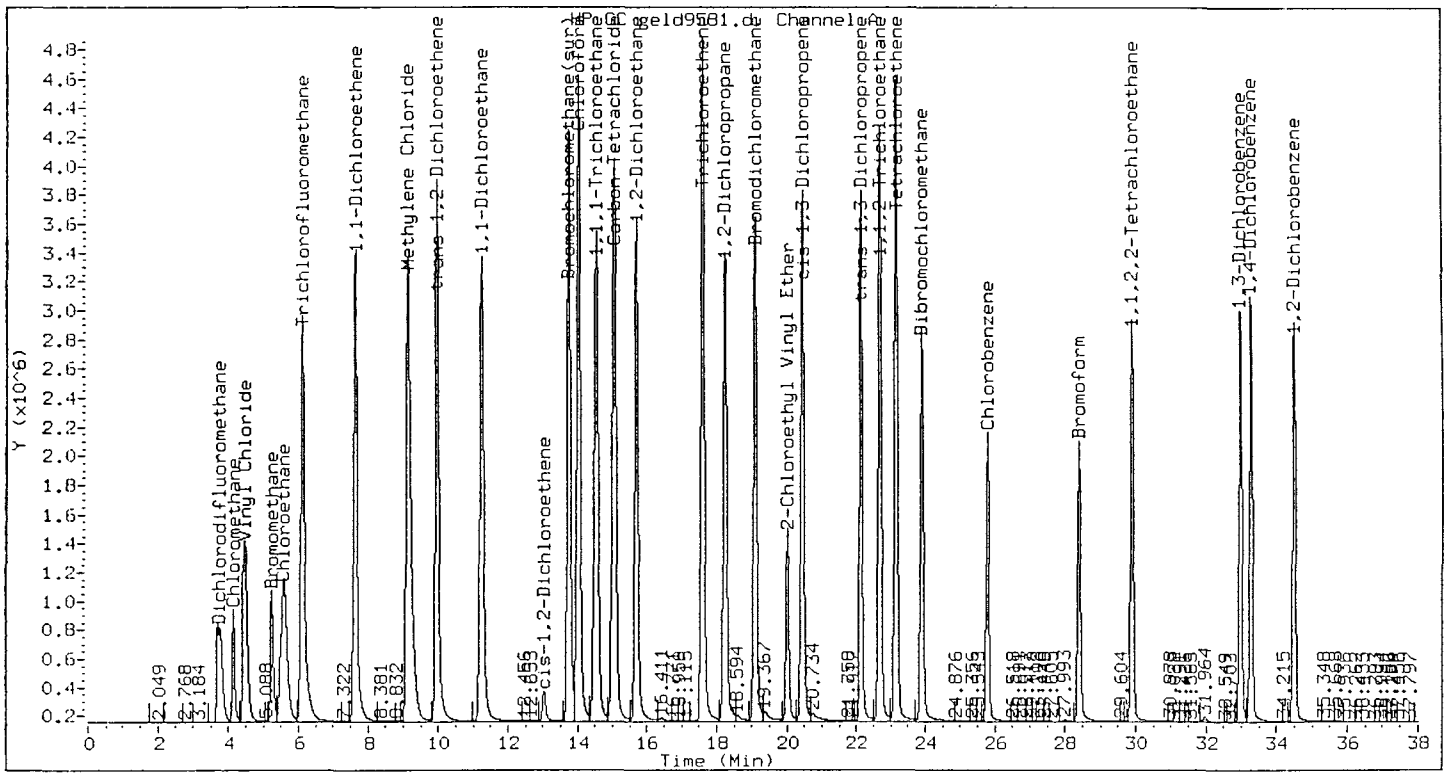
305159

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Chloromethane	2770	2750	99	10	40	70-130
Vinyl Chloride	2770	3270	118	1	40	70-130
Bromomethane	2770	2870	104	0	40	70-130
Chloroethane	2770	3160	114	1	40	70-130
Trichlorofluoromethane	2770	2660	96	4	40	70-130
1,1-Dichloroethene	2770	2610	94	6	40	70-130
Methylene Chloride	2770	2180	79	4	40	70-130
trans-1,2-Dichloroethene	2770	2590	94	4	40	70-130
1,1-Dichloroethane	2770	2530	91	4	40	70-130
Chloroform	2770	2450	88	3	40	70-130
1,1,1-Trichloroethane	2770	2500	90	5	40	70-130
Carbon Tetrachloride	2770	2560	92	7	40	70-130
1,2-Dichloroethane	2770	2410	87	4	40	70-130
Trichloroethene	2770	2680	91	4	40	70-130
1,2-Dichloropropane	2770	2480	90	4	40	70-130
Bromodichloromethane	2770	2410	87	3	40	70-130
2-Chloroethyl Vinyl Ethe	2770	2850	103	5	40	70-130
cis-1,3-Dichloropropene	2770	2530	91	3	40	70-130
trans-1,3-Dichloropropen	2770	2560	92	2	40	70-130
1,1,2-Trichloroethane	2770	2410	87	4	40	70-130
Tetrachloroethene	2770	2590	94	9	40	70-130
Dibromochloromethane	2770	2540	92	7	40	70-130
Chlorobenzene	2770	2550	92	6	40	70-130
Bromoform	2770	2580	93	6	40	70-130
1,1,2,2-Tetrachloroethan	2770	2340	84	8	40	70-130
1,3-Dichlorobenzene	2770	2520	91	5	40	70-130
1,4-Dichlorobenzene	2770	2510	91	6	40	70-130
1,2-Dichlorobenzene	2770	2470	89	7	40	70-130

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 28 outside limits
Spike Recovery: 0 out of 56 outside limits

COMMENTS: _____

305160



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/8021E.m
Sample Info : 88681ms;;50
Lab ID : 88681ms
Inj Date : 20-OCT-98 12:26:00
Operator : KB
Cpnd Sublist: 601

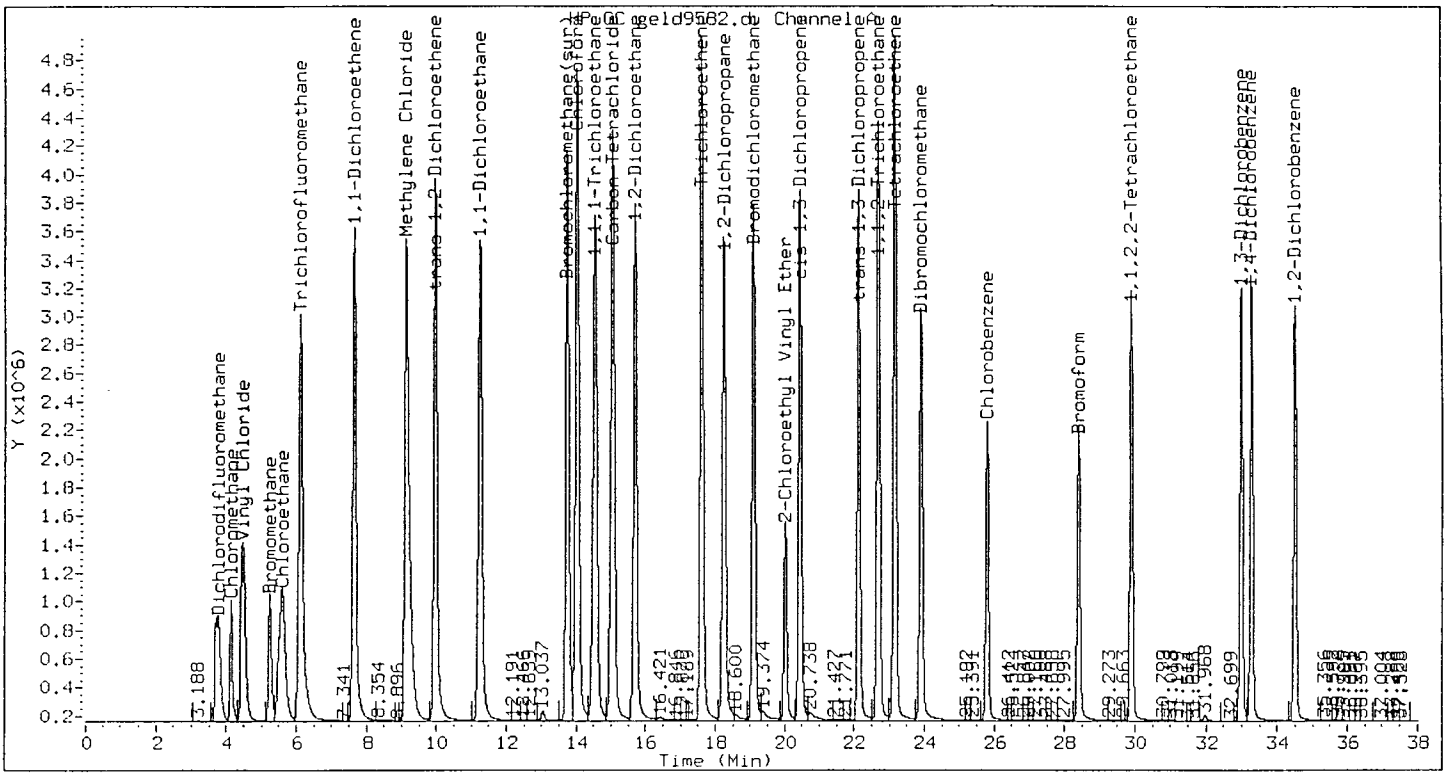
Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: MS

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.747	3.701	0.047	37020708	14.517	2010.156
Chloromethane	4.134	4.141	0.007	18657806	18.052	2499.762
Vinyl Chloride	4.451	4.431	0.020	62523183	23.325	3229.842
Bromomethane	5.226	5.240	0.014	25850160	20.630	2856.684
Chloroethane	5.577	5.533	0.044	62846991	23.043	3190.793
Trichlorofluoromethane	6.104	6.210	0.105	115296223	18.398	2547.576
1,1-Dichloroethene	7.632	7.685	0.053	113356217	17.748	2457.686
Methylene Chloride	9.120	9.129	0.009	151010571	15.121	2093.797
trans-1,2-Dichloroethene	9.952	9.974	0.022	122307420	17.969	2488.276

305161

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.234	11.245	0.012	125040087	17.641	2442.853
cis-1,2-Dichloroethene	13.028	13.027	0.001	8037623	1.314	182.007
Chloroform	14.015	14.014	0.000	158887697	17.206	2382.523
1,1,1-Trichloroethane	14.524	14.531	0.008	138082464	17.146	2374.199
Carbon Tetrachloride	15.032	15.041	0.009	154640977	17.283	2393.197
1,2-Dichloroethane	15.687	15.689	0.002	115235562	16.726	2316.169
Trichloroethene	17.593	17.595	0.002	150146501	18.664	2584.431
1,2-Dichloropropane	18.233	18.232	0.000	111532375	17.236	2386.704
Bromodichloromethane	19.087	19.084	0.003	109677658	16.809	2327.666
2-Chloroethyl Vinyl Ether	20.009	20.009	0.000	39887847	19.595	2713.375
cis-1,3-Dichloropropene	20.433	20.433	0.001	106701895	17.720	2453.710
trans-1,3-Dichloropropene	22.120	22.117	0.003	100696434	18.058	2500.587
1,1,2-Trichloroethane	22.675	22.670	0.005	123627496	16.720	2315.314
Tetrachloroethene	23.141	23.141	0.000	136296618	17.124	2371.236
Dibromochloromethane	23.894	23.889	0.005	84231927	17.051	2361.136
Chlorobenzene	25.788	25.785	0.003	56414263	17.439	2414.868
Bromoform	28.390	28.382	0.008	57349836	17.591	2435.952
1,1,2,2-Tetrachloroethane	29.887	29.879	0.008	79707836	15.668	2169.568
1,3-Dichlorobenzene	32.978	32.972	0.005	75351179	17.253	2389.134
1,4-Dichlorobenzene	33.266	33.261	0.005	79558372	17.129	2371.923
1,2-Dichlorobenzene	34.486	34.480	0.006	75016210	16.717	2314.887
Bromochloromethane(sur)	13.731	13.735	0.004	129767291	27.920	3866.145

305162



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/8021E.m
Sample Info : 88681msd;;50
Lab ID : 88681msd
Inj Date : 20-OCT-98 13:10:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: MSD

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane	3.752	3.701	0.052	41622134	16.321	2260.005
Chloromethane	4.138	4.141	0.003	20531800	19.865	2750.839
Vinyl Chloride	4.461	4.431	0.030	63276785	23.606	3268.772
Bromomethane	5.232	5.240	0.008	25996916	20.747	2872.901
Chloroethane	5.588	5.533	0.055	62247224	22.823	3160.342
Trichlorofluoromethane	6.112	6.210	0.098	120272547	19.192	2657.533
1,1-Dichloroethene	7.641	7.685	0.044	120474468	18.863	2612.017
Methylene Chloride	9.127	9.129	0.002	156885185	15.709	2175.249
trans-1,2-Dichloroethene	9.960	9.974	0.014	127231365	18.693	2588.451

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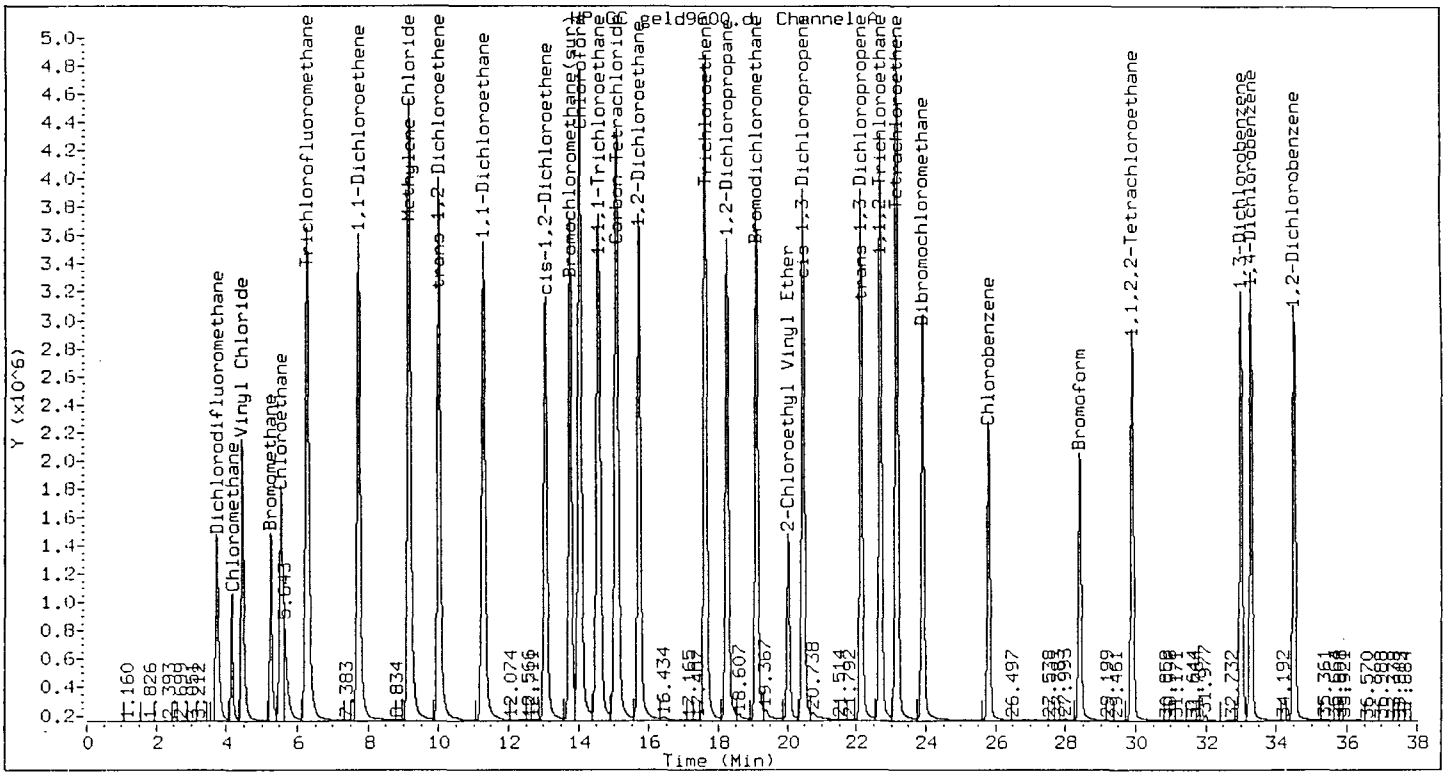
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.242	11.245	0.003	129381760	18.254	2527.674
Chloroform	14.019	14.014	0.005	163279933	17.681	2448.385
1,1,1-Trichloroethane	14.530	14.531	0.001	145322889	18.045	2498.691
Carbon Tetrachloride	15.040	15.041	0.001	165386702	18.484	2559.496
1,2-Dichloroethane	15.695	15.689	0.006	120026255	17.422	2412.459
Trichloroethene	17.598	17.595	0.003	155746017	19.360	2680.814
1,2-Dichloropropane	18.238	18.232	0.006	115788455	17.894	2477.781
Bromodichloromethane	19.092	19.084	0.009	113676842	17.422	2412.540
2-Chloroethyl Vinyl Ether	20.014	20.009	0.006	41863394	20.565	2847.761
cis-1,3-Dichloropropene	20.439	20.433	0.006	110098354	18.284	2531.815
trans-1,3-Dichloropropene	22.125	22.117	0.007	103177845	18.503	2562.207
1,1,2-Trichloroethane	22.680	22.670	0.010	128569236	17.389	2407.864
Tetrachloroethene	23.147	23.141	0.006	148749507	18.689	2587.886
Dibromochloromethane	23.900	23.889	0.010	90766642	18.374	2544.313
Chlorobenzene	25.792	25.785	0.007	59547927	18.408	2549.007
Bromoform	28.392	28.382	0.011	60871547	18.672	2585.538
1,1,2,2-Tetrachloroethane	29.890	29.879	0.011	86048992	16.914	2342.168
1,3-Dichlorobenzene	32.980	32.972	0.008	79411587	18.183	2517.876
1,4-Dichlorobenzene	33.268	33.261	0.007	84097317	18.106	2507.245
1,2-Dichlorobenzene	34.489	34.480	0.008	80058203	17.841	2470.475
Bromochloromethane(sur)	13.737	13.735	0.002	126585609	27.235	3771.353

305164



Method : /chem/VOAGC1.i/8021ELCD/10-17-98/21oct98.b/8021E.m
Sample Info : 3700bs
Lab ID : 3700bs
Inj Date : 21-OCT-98 09:16:00
Operator : KB
Cpnd Sublist: 601

Inst ID : VOAGC1.i
Dil Factor : 50
Sample Matrix : SOIL
Sample Type: METHSPIKE

Compounds		RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
Dichlorodifluoromethane		3.713	3.701	0.013	42517074	16.672	2083.971
Chloromethane		4.154	4.141	0.013	18924712	18.311	2288.816
Vinyl Chloride		4.442	4.431	0.011	57060899	21.287	2660.862
Bromomethane		5.248	5.240	0.008	29537095	23.572	2946.525
Chloroethane	(M)	5.537	5.533	0.004	58514302	21.454	2681.758
Trichlorofluoromethane		6.263	6.210	0.053	129486041	20.662	2582.727
1,1-Dichloroethene		7.718	7.685	0.033	118411279	18.540	2317.488
Methylene Chloride		9.152	9.129	0.023	152894608	15.309	1913.651
trans-1,2-Dichloroethene		9.998	9.974	0.024	126802062	18.630	2328.711

305165

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1,1-Dichloroethane	11.268	11.245	0.023	129963666	18.336	2291.994
cis-1,2-Dichloroethene	13.048	13.027	0.021	100820611	16.487	2060.882
Chloroform	14.033	14.014	0.019	165177862	17.887	2235.847
1,1,1-Trichloroethane	14.553	14.531	0.022	147399332	18.302	2287.797
Carbon Tetrachloride	15.063	15.041	0.023	166923518	18.655	2331.926
1,2-Dichloroethane	15.706	15.689	0.017	117233451	17.016	2127.055
Trichloroethene	17.614	17.595	0.019	149498139	18.583	2322.891
1,2-Dichloropropane	18.250	18.232	0.018	116758554	18.043	2255.432
Bromodichloromethane	19.101	19.084	0.017	115665597	17.727	2215.900
2-Chloroethyl Vinyl Ether	20.021	20.009	0.012	38825610	19.073	2384.135
cis-1,3-Dichloropropene	20.447	20.433	0.015	109783539	18.231	2278.934
trans-1,3-Dichloropropene	22.131	22.117	0.014	101878126	18.270	2283.769
1,1,2-Trichloroethane	22.685	22.670	0.015	123797865	16.743	2092.914
Tetrachloroethene	23.158	23.141	0.017	150044183	18.851	2356.418
Dibromochloromethane	23.905	23.889	0.016	90542438	18.329	2291.078
Chlorobenzene	25.800	25.785	0.015	60511152	18.706	2338.209
Bromoform	28.398	28.382	0.016	56523574	17.338	2167.253
1,1,2,2-Tetrachloroethane	29.896	29.879	0.017	80826278	15.888	1985.950
1,3-Dichlorobenzene	32.993	32.972	0.021	81190112	18.590	2323.791
1,4-Dichlorobenzene	33.282	33.261	0.021	85877682	18.490	2311.205
1,2-Dichlorobenzene	34.502	34.480	0.022	81278894	18.113	2264.101
Bromochloromethane(sur)	13.755	13.735	0.020	109180755	23.491	2936.313

COMMENTS:

M - Compound response manually integrated.

305166

Data File: /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/geld9581.d
Report Date: 21-Oct-98 08:49:17

Envirotech Research, Inc.

Data file : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/geld9581.d
Lab Smp Id: 88681ms
Inj Date : 20-OCT-98 12:26:00
Operator : KB Inst ID: VOAGC1.i
Smp Info : 88681ms;;50
Misc Info : H950;3700;mlb
Comment :
Method : /chem/VOAGC1.i/8021ELCD/10-17-98/20oct98.b/8021E.m
Meth Date : 21-Oct-98 08:46:36 kim Quant Type: ESTD
Cal Date : 17-OCT-98 19:54:00 Cal File: geld9540.d
Als bottle: 1 QC Sample: MS
Dil Factor: 50.00000
Integrator: HP Genie Compound Sublist: 601.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (ml)
Ws	10.200	Weight of sample extracted (g)
M	11.500	% Moisture (not decanted)

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	3.747	3.701	0.046	37020708	14.5	2010
2 Chloromethane	4.134	4.141	-0.007	18657806	18.0	2500
3 Vinyl Chloride	4.451	4.431	0.020	62523183	23.3	3230
4 Bromomethane	5.226	5.240	-0.014	25850160	20.6	2860
5 Chloroethane	5.577	5.533	0.044	62846991	23.0	3190
6 Trichlorofluoromethane	6.104	6.210	-0.106	115296223	18.4	2550
7 1,1-Dichloroethene	7.632	7.685	-0.053	113356217	17.7	2460
8 Methylene Chloride	9.120	9.129	-0.009	151010571	15.1	2090
9 trans-1,2-Dichloroethene	9.952	9.974	-0.022	122307420	18.0	2490
10 1,1-Dichloroethane	11.234	11.245	-0.011	125040087	17.6	2440
11 cis-1,2-Dichloroethene	13.028	13.027	0.001	8037623	1.3	182
$ 12 Bromochloromethane(sur)	13.731	13.735	-0.004	129767291	27.9	3870
13 Chloroform	14.015	14.014	0.001	158887697	17.2	2380
14 1,1,1-Trichloroethane	14.524	14.531	-0.007	138082464	17.1	2370
15 Carbon Tetrachloride	15.032	15.041	-0.009	154640977	17.3	2390
16 1,2-Dichloroethane	15.687	15.689	-0.002	115235562	16.7	2320

305167

Subdirectory: E101798 / E101798a Analysis: 8021e

DATE	DATAFILE ID	ALS	SAMPLE	STD LOT	JOB	QA	LPB	PH	W/V	DF	Sub list	Comments	ANALYST
10/17/98	geld 9527	9	GSTD020				GG 290				601	G	MDK
	9528	10	BS									G	
	9529	11	GG 290									G	
	9530	9	88554ms	Std	H941	3699						NG	
	9531	10	88554msd	V98-525	↓	↓						NG	
	9532	9	Gstd 020a	V98-527								NU ~~(new check)~~	
	9533	11	88555	V98-529	H941	3699			10.5 / 25ml	50X		NG	
	9534	12	88570		↓				/ 25			end check did not pass	
	9535	13	88664	BS	H950				/ 25				
	9536	14	88665	V98-526					/ 25	↓			
	9537	15	88667	V98-528					/ 25	1000X			
	9538	16	88668						/ 25	↓			
	9539	1	88669	Sur					/ 25	50X			
	9540	2	gstd 020a	~~V98-5~~								G (new calibration)	
	9541	3	gstd 020a	V98-545								NG	
	9542	4	gstd 001a									NG	
	9543	5	gstd 001a									G	
	9544	6	gstd 005a									NG	
	9545	7	gstd 005a									G	
	9546	8	gstd 010a									NG	
	9547	9	gstd 040a									NG	
	9548	10	gstd 040a									G	
	9549	11	gstd 010a									G	

Melissa Bock 10/17/98

Signed Date Signed Date

Read and Understood By

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Notebook No.

509

Subdirectory: E101998

Analysis: 8021E

DATE	DATAFILE ID	ALS	SAMPLE	STD CUR	JOB	QA	LPG	PH	INV	Sublist ~~DF~~	~~GCF~~ GCF	Comments	ANALYST
10/19/98	gcld ~~1755~~ 9555	9	gcld020				gg			601	601	~~G~~ NG	MX
	9562 ~~1756~~	10	001				292					NG	
	9553 ~~1757~~	11	005									~~G~~	
	9554 ~~1758~~	12	cp									~~G~~	
	9555 ~~59~~	13	040									~~G~~	
	9556 ~~60~~	14	001									NG	
	9557 ~~61~~	15	001									NG	
	9558 ~~62~~	9	gcld020									G (new check)	
	9559	15	3699 BS									G	
	9560	16	gg 292									G	
	9561	16	88570		H941	3699 ~~3697~~					50X	G	
	9562	14	88554 MS			~~3697~~					50X	G	
	9563	15	gcld020									G	
	9564	16	88672	BS	H950	3699 ~~3697~~					50X	G	
	9565	1	88664									G	
	9566	2	88665									G	
	9567	3	88667								500X	NG (bad purge)	
	9568	4	88668									G	
	9569	5	88669								50X	G	
	9570	6	88671								1000X	G	
	9571	7	88674								2500X	RE 1000X	
	9572	8	88675								50X	G	
	9573	9	gcld 020									G	
	9574	10	gcld 020									NG	
	9575	11	gcld 020									NG	

Signed: Melissa Bosch Date: 10-19-98

Peer and Laboratory Signed: 305169

Signed: Date:

Continued on Page 2

Continued from Page

Subdirectory: E102098/E102098a

Analysis: 8021e

DATE	DATAFILE ID	ALS	SAMPLE	PH	STD LOT	JOB	QA	LPB	W/V	DF	Sub List	Comments	ANALYSIS
10-20-98	geld 9576	9	gstd 020					GG293			601	G	MZ
	9577	10	~~3700~~ BS									ok NU	
	9578	11	gg 293									G	
	9579	12	88681		Surr	H950	3700		10.2/25	50X		G	
	9580	9	88554 msd			H950	3699		10.4g/25	50X/~~25~~		G	
	9581	10	88681 ms		V98-565		3700		10.2g/25	50X		G	
	9582	11	88681 msd						10.2g/25			G	
	9583	10	GSTD 020a		Std			GG293a				G	
	9584	12	~~3700~~ BS		V98-525							G	
	9585	13	GG293a		V98-527							G	
	9586	13	88682		V98-529	H950	3700		10.3/25ml	50X		G	
	9587	14	89299			I052			~~25ml~~ 25ml			G	
	9588 ~~9589~~	15	89300						9.3g/25ml			RR x100	
	9589 ~~9590~~	16	89304		BS				9.7g/25ml			G	
	9590 ~~9591~~	1	89305		V98-526				10.0g/25ml			G	
	9591 ~~9592~~	2	89308		V98-528	I053			10.2g/25ml			bad purge	
	9592 ~~9593~~	4	89298			I051	~~3701~~	3701	1.0g/10ml	1000X		surr↑ (RR x500)	
	9593 ~~9594~~	5	88674			H950	~~3669~~	3699	10.3g/25ml			G ~~RR~~	
	9594 ~~9595~~	6	88678				3700		10.4g/25ml			G	
	9595 ~~9596~~	7	88679						10.0g/25ml	100X		G	
	9596 ~~9597~~	9	gstd 020									NG	
	9597 ~~9598~~	10	gstd 020									NG	
	9598 ~~9599~~	11	gstd 020									G	
	~~9600~~	11											

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Signed Melissa Bosch Date 10-20-98 Signed Date

PROJECT

Notebook No. 21

Continued From Page

Subdirectory: E102198 Analysis: 8021e

DATE	DATA FILE ID	ANS	SAMPLE	Std Lot #	JOB	QA	LPB	pH	W/V	D.F.	SubList	Comments	Analyst
10/21/98	geld 9599	9	GSTD020				66				601	G	KB
	9600	10	3700BS				2941					G	
	9601	11	66294	Std								G	
	9602	11	88667	J98-525	H950	3699			10.3g / 25ml	500x		G	
	9603	9	GSTD020	J98-527								G → NU	
	9609*	15	89300	J98-529	I052	3700			9.3g / 25ml	100x		G	
	9610	16	89308		I053				10.2g / 25ml	50x		KR 100x (TCE 4/9)	
	9611	1	89309	BS	I053				10.8 / 25ml			G	
	9612	2	89310	J98-526	↓	↓			10.0 / 25ml	↓		G	
	9613	9	GSTD020	J98 528								N G	
	9614	10	GSTD020									G	
				Surr J98-565									

Kimberly Bohn
Signed

10/21/98
Date

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Signed

Date

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* missing files include samples run under different method.

PROJECT

Notebook No. _____

Continued From Page _____

Client ID: **SSSP-1 4-4.5**
Site: **Klockner & Klockner**

Lab Sample No: 88666
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 10.0

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Aluminum	8480	12.9		P
Antimony	ND	1.0	N	P
Arsenic	21.1	0.84		P
Barium	202	0.31		P
Beryllium	0.52	0.044		P
Cadmium	0.80	0.089	B	P
Calcium	11400	9.4		P
Chromium	14.6	0.22	*	P
Cobalt	4.9	0.27	B	P
Copper	50.4	0.78		P
Iron	14400	9.2		P
Lead	315	0.56		P
Magnesium	2200	9.0		P
Manganese	251	0.24	*	P
Mercury	1.9	0.037		CV
Nickel	10.1	0.47		P
Potassium	818	66.7	B	P
Selenium	ND	1.1		P
Silver	ND	0.31		P
Sodium	257	94.7	B	P
Thallium	ND	1.1		P
Vanadium	21.4	0.42		P
Zinc	294	1.0	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

305172

Client ID: **SSFS-2 0-0.5**
Site: **Klockner & Klockner**

Lab Sample No: 88677
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 4.5

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Aluminum	5550	12.2		P
Antimony	ND	0.96	N	P
Arsenic	2.7	0.80		P
Barium	71.4	0.29		P
Beryllium	0.39	0.042	B	P
Cadmium	1.0	0.084	B	P
Calcium	4230	8.8		P
Chromium	40.3	0.21	*	P
Cobalt	15.6	0.25		P
Copper	63.6	0.73		P
Iron	25000	8.7		P
Lead	70.2	0.52		P
Magnesium	3420	8.4		P
Manganese	217	0.23	*	P
Mercury	0.05	0.017		CV
Nickel	27.1	0.44		P
Potassium	1660	62.9		P
Selenium	ND	1.0		P
Silver	ND	0.29		P
Sodium	ND	89.2		P
Thallium	ND	1.0		P
Vanadium	53.0	0.40		P
Zinc	334	0.94	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

305173

Client ID: **SSLP-1 12-12.5**
Site: **Klockner & Klockner**

Lab Sample No: 88683
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 4.1

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Aluminum	3040	12.1		P
Antimony	ND	0.96	N	P
Arsenic	4.5	0.79		P
Barium	15.7	0.29	B	P
Beryllium	0.52	0.042		P
Cadmium	ND	0.083		P
Calcium	102000	44.0		P
Chromium	6.1	0.21	*	P
Cobalt	5.3	0.25	B	P
Copper	12.0	0.73		P
Iron	14200	8.7		P
Lead	6.6	0.52		P
Magnesium	58000	42.0		P
Manganese	276	0.23	*	P
Mercury	ND	0.017		CV
Nickel	9.7	0.44		P
Potassium	876	62.6	B	P
Selenium	ND	1.0		P
Silver	ND	0.29		P
Sodium	138	88.8	B	P
Thallium	ND	1.0		P
Vanadium	9.9	0.40	B	P
Zinc	38.2	0.94	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

305174

Client ID: **SSGT-2 7-7.5**
Site: **Klockner & Klockner**

Lab Sample No: 88684
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 6.6

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Lead	2.6	0.54		P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

305175

Client ID: **SSGT-1 7-7.5**
Site: **Klockner & Klockner**

Lab Sample No: 88685
Lab Job No: H950

Date Sampled: 10/07/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 7.8

METALS ANALYSIS

Analyte	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	Qual	M
Lead	4.7	0.54		P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)
M Column - Method Code (See Section 2 of Report)

305176

BLANKS

Lab Name: ENVIROTECH_RESEARCH_INC._

Lab Code: 12543_ Lab Job No.: _H950 Batch No.: 7057__

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
Aluminum	58.2	U	58.2	U	58.2	U	58.2	U	5.820	U	P
Antimony	4.6	U	4.6	U	4.6	U	4.6	U	0.460	U	P
Arsenic	3.8	U	3.8	U	3.8	U	3.8	U	0.380	U	P
Barium	1.4	U	1.4	U	1.4	U	1.4	U	0.140	U	P
Beryllium	0.2	U	0.2	U	0.2	U	0.2	U	0.020	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.040	U	P
Calcium	42.2	U	42.2	U	42.2	U	42.2	U	13.003	B	P
Chromium	1.0	U	1.0	U	1.0	U	1.0	U	0.100	U	P
Cobalt	1.2	U	1.2	U	1.2	U	1.2	U	0.120	U	P
Copper	3.5	U	3.5	U	3.5	U	3.5	U	0.350	U	P
Iron	41.5	U	41.5	U	41.5	U	41.5	U	4.150	U	P
Lead	2.5	U	2.5	U	2.5	U	2.5	U	0.250	U	P
Magnesium	40.3	U	40.3	U	40.3	U	40.3	U	4.030	U	P
Manganese	1.1	U	1.1	U	1.1	U	1.1	U	0.110	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.017	U	CV
Nickel	2.1	U	2.1	U	2.1	U	2.1	U	0.210	U	P
Potassium	300.3	U	415.0	B	300.3	U	300.3	U	33.672	B	P
Selenium	4.8	U	4.8	U	4.8	U	4.8	U	0.480	U	P
Silver	1.4	U	1.4	U	1.4	U	1.4	U	0.140	U	P
Sodium	426.0	U	447.9	B	426.0	U	426.0	U	42.600	U	P
Thallium	4.8	U	4.8	U	4.8	U	4.8	U	0.480	U	P
Vanadium	1.9	U	1.9	U	1.9	U	1.9	U	0.190	U	P
Zinc	4.5	U	4.5	U	4.5	U	4.5	U	0.450	U	P
Molybdenu											NR

305177

BLANKS

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: _H950 _____ Batch No.: 7057__

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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
Aluminum			58.2	U							P
Antimony			4.6	U							P
Arsenic			3.8	U							P
Barium			1.4	U							P
Beryllium			0.2	U							P
Cadmium			0.4	U							P
Calcium			42.2	U							P
Chromium			1.0	U							P
Cobalt			1.2	U							P
Copper			3.5	U							P
Iron			41.5	U							P
Lead			2.5	U							P
Magnesium			40.3	U							P
Manganese			1.1	U							P
Mercury			0.1	U	0.1	U	0.1	U			CV
Nickel			2.1	U							P
Potassium			300.3	U							P
Selenium			4.8	U							P
Silver			1.4	U							P
Sodium			426.0	U							P
Thallium			4.8	U							P
Vanadium			1.9	U							P
Zinc			4.5	U							P
Molybdenu											NR

305178

BLANKS

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: _H950 _____ Batch No.: 7057__

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium	42.2	U	42.2	U	42.2	U	42.2	U			P
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium	40.3	U	40.3	U	40.3	U	40.3	U			P
Manganese											NR
Mercury			0.1	U	0.1	U	0.1	U			CV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium	-694.6	B	426.0	U	426.0	U	426.0	U			P
Thallium											NR
Vanadium											NR
Zinc											NR
Molybdenu											NR

305179

BLANKS

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: _H950 _____ Batch No.: 7057__

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury			0.1	U	0.1	U					CV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Molybdenu											NR

305180

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: H950 _____ Batch No.: 7057__

Initial Calibration Source: INORG VENT__

Continuing Calibration Source: INORG VENT__

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
Aluminum_	250000.0	255383.1	102.2	250000.0	243382.2	97.4	253158.9	101.3	P_
Antimony_	1000.0	1036.59	103.7	1000.0	990.22	99.0	1040.08	104.0	P_
Arsenic__	5000.0	5025.05	100.5	5000.0	4852.64	97.1	5120.91	102.4	P_
Barium___	10000.0	10194.14	101.9	10000.0	9710.27	97.1	10053.28	100.5	P_
Beryllium	1000.0	980.01	98.0	1000.0	952.68	95.3	994.28	99.4	P_
Cadmium__	2500.0	2512.21	100.5	2500.0	2468.01	98.7	2576.06	103.0	P_
Calcium__	125000.0	126858.6	101.5	125000.0	124606.0	99.7	128998.4	103.2	P_
Chromium_	5000.0	5182.50	103.6	5000.0	5052.87	101.1	5272.76	105.5	P_
Cobalt___	2500.0	2534.92	101.4	2500.0	2474.03	99.0	2564.07	102.6	P_
Copper___	12500.0	12734.04	101.9	12500.0	11966.27	95.7	12726.36	101.8	P_
Iron_____	100000.0	98826.44	98.8	100000.0	97094.16	97.1	97768.59	97.8	P_
Lead_____	10000.0	10205.49	102.1	10000.0	10028.81	100.3	10416.56	104.2	P_
Magnesium	125000.0	127601.1	102.1	125000.0	126003.6	100.8	130139.0	104.1	P_
Manganese	5000.0	5134.32	102.7	5000.0	4973.36	99.5	5206.42	104.1	P_
Mercury__	5.0	4.95	99.0	5.0	4.90	98.0	4.85	97.0	CV
Nickel___	2500.0	2510.76	100.4	2500.0	2456.47	98.3	2552.85	102.1	P_
Potassium	50000.0	49985.62	100.0	50000.0	47894.91	95.8	50347.18	100.7	P_
Selenium_	5000.0	4992.64	99.9	5000.0	4810.61	96.2	5051.20	101.0	P_
Silver___	1250.0	1274.73	102.0	1250.0	1214.44	97.2	1272.62	101.8	P_
Sodium___	125000.0	127559.7	102.0	125000.0	122866.1	98.3	127585.3	102.1	P_
Thallium_	5000.0	4998.76	100.0	5000.0	4850.36	97.0	5040.94	100.8	P_
Vanadium_	2500.0	2556.43	102.3	2500.0	2462.19	98.5	2598.41	103.9	P_
Zinc_____	2500.0	2560.55	102.4	2500.0	2473.07	98.9	2599.42	104.0	P_
Molybdenu									NR

(1) Control Limits: Mercury 80-120; ICP Metals 90-110; Furnace AA Metals 80-120

305181

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: H950 _____ Batch No.: 7057__

Initial Calibration Source: INORG VENT__

Continuing Calibration Source: INORG VENT__

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
Aluminum				250000.0	241884.2	96.8	247899.3	99.2	P
Antimony				1000.0	987.44	98.7	1011.46	101.1	P
Arsenic				5000.0	4801.35	96.0	4938.92	98.8	P
Barium				10000.0	9623.36	96.2	9817.74	98.2	P
Beryllium				1000.0	928.34	92.8	955.85	95.6	P
Cadmium				2500.0	2385.94	95.4	2463.82	98.6	P
Calcium				125000.0	120241.5	96.2	123734.1	99.0	P
Chromium				5000.0	4928.52	98.6	5067.32	101.3	P
Cobalt				2500.0	2397.76	95.9	2470.95	98.8	P
Copper				12500.0	12172.52	97.4	12404.21	99.2	P
Iron				100000.0	92041.95	92.0	94996.65	95.0	P
Lead				10000.0	9716.70	97.2	9983.42	99.8	P
Magnesium				125000.0	120738.2	96.6	124506.9	99.6	P
Manganese				5000.0	4874.99	97.5	5009.34	100.2	P
Mercury				5.0	4.81	96.2	4.83	96.6	CV
Nickel				2500.0	2372.18	94.9	2446.21	97.8	P
Potassium				50000.0	48429.10	96.9	49108.38	98.2	P
Selenium				5000.0	4745.57	94.9	4866.17	97.3	P
Silver				1250.0	1215.66	97.3	1241.49	99.3	P
Sodium				125000.0	123315.2	98.7	125538.8	100.4	P
Thallium				5000.0	4709.01	94.2	4836.90	96.7	P
Vanadium				2500.0	2439.19	97.6	2502.26	100.1	P
Zinc				2500.0	2438.89	97.6	2507.99	100.3	P
Molybdenu									NR

(1) Control Limits: Mercury 80-120; ICP Metals 90-110; Furnace AA Metals 80-120

305182

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: H950 _____ Batch No.: 7057__

Initial Calibration Source: INORG VENT__

Continuing Calibration Source: INORG VENT__

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
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium	125000.0	125838.9	100.7	125000.0	124670.3	99.7	126042.7	100.8	P
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium	125000.0	126376.4	101.1	125000.0	125633.2	100.5	126944.2	101.6	P
Manganese									NR
Mercury				5.0	4.81	96.2	4.72	94.4	CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium	125000.0	123803.5	99.0	125000.0	124214.1	99.4	126940.6	101.6	P
Thallium									NR
Vanadium									NR
Zinc									NR
Molybdenu									NR

(1) Control Limits: Mercury 80-120; ICP Metals 90-110; Furnace AA Metals 80-120

305183

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ENVIROTECH_RESEARCH_INC._

Lab Code: 12543_ Lab Job No.: H950 Batch No.: 7057__

Initial Calibration Source: INORG VENT__

Continuing Calibration Source: INORG VENT__

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
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium				125000.0	126032.5	100.8			P
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium				125000.0	126507.0	101.2			P
Manganese									NR
Mercury				5.0	4.68	93.6	4.67	93.4	CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium				125000.0	126152.9	100.9			P
Thallium									NR
Vanadium									NR
Zinc									NR
Molybdenu									NR

(1) Control Limits: Mercury 80-120; ICP Metals 90-110; Furnace AA Metals 80-120

305184

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ENVIROTECH_RESEARCH_INC._

Lab Code: 12543_ Lab Job No.: H950 Batch No.: 7057__

Initial Calibration Source: INORG VENT__

Continuing Calibration Source: INORG VENT__

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
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury				5.0	4.60	92.0	4.65	93.0	CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Molybdenu									NR

(1) Control Limits: Mercury 80-120; ICP Metals 90-110; Furnace AA Metals 80-120

305185

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: _____ _____ Batch No.: 7057__

Initial Calibration Source: INORG VENT__

Continuing Calibration Source: INORG VENT__

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
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury				5.0	4.63	92.6			CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Molybdenu									NR

(1) Control Limits: Mercury 80-120; ICP Metals 90-110; Furnace AA Metals 80-120

305186

ICP INTERFERENCE CHECK SAMPLE

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: _H950 _____ Batch No.: 7057__

ICP ID Number: TRACE1 TJA61 ICS Source: INORG VENT__

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	498780	512339.2	102.5	495535	503751.2	100.8
Antimony		100		102.7	102.7		96.1	96.1
Arsenic		100		105.3	105.3		101.9	101.9
Barium		100		109.6	109.6		107.8	107.8
Beryllium		100		100.9	100.9		98.4	98.4
Cadmium		100		99.0	99.0		96.3	96.3
Calcium	500000	500000	457879	473144.2	94.6	454978	463821.8	92.8
Chromium		100		99.4	99.4		97.2	97.2
Cobalt		100		98.8	98.8		96.6	96.6
Copper		100		101.0	101.0		97.4	97.4
Iron	200000	200000	190084	192028.5	96.0	181706	190572.6	95.3
Lead		100		95.3	95.3		93.1	93.1
Magnesium	500000	500000	507138	524773.6	105.0	503269	513979.9	102.8
Manganese		100		101.7	101.7		99.2	99.2
Mercury								
Nickel		100		96.9	96.9		94.3	94.3
Potassium		10000		10971.5	109.7		10798.7	108.0
Selenium		100		91.4	91.4		88.2	88.2
Silver		100		106.3	106.3		104.3	104.3
Sodium		10000		12294.1	122.9		12159.7	121.6
Thallium		100		96.0	96.0		93.8	93.8
Vanadium		100		105.2	105.2		102.7	102.7
Zinc		100		104.6	104.6		101.9	101.9

305187

ICP INTERFERENCE CHECK SAMPLE

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: _H950 _____ Batch No.: 7057__

ICP ID Number: TRACE1 TJA61 ICS Source: INORG VENT__

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	497833	490077.5	98.0	498440	496120.2	99.2
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium	500000	500000	448712	446514.6	89.3	458176	449485.6	89.9
Chromium								
Cobalt								
Copper								
Iron	200000	200000	188470	185215.7	92.6	195498	189634.9	94.8
Lead								
Magnesium	500000	500000	498740	495447.6	99.1	511799	499611.8	99.9
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium		10000		11706.6	117.1		11727.7	117.3
Thallium								
Vanadium								
Zinc		100		97.1	97.1		96.6	96.6

305188

LAB SAMPLE NO.

SPIKE SAMPLE RECOVERY

BSS101998

Lab Name: ENVIROTECH_RESEARCH_INC.

Lab Code: 12543 Lab Job No.: H950 Batch No.: 7057

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	172.2214		5.8200	U	200.00	86.1		P
Antimony	75-125	42.3735		0.4600	U	50.00	84.7		P
Arsenic	75-125	167.8151		0.3800	U	200.00	83.9		P
Barium	75-125	173.0703		0.1400	U	200.00	86.5		P
Beryllium	75-125	4.5513		0.0200	U	5.00	91.0		P
Cadmium	75-125	4.5022		0.0400	U	5.00	90.0		P
Calcium	75-125	1801.2402		13.0030	B	2000.00	89.4		P
Chromium	75-125	17.9916		0.1000	U	20.00	90.0		P
Cobalt	75-125	45.1071		0.1200	U	50.00	90.2		P
Copper	75-125	21.6587		0.3500	U	25.00	86.6		P
Iron	75-125	87.4833		4.1500	U	100.00	87.5		P
Lead	75-125	45.3597		0.2500	U	50.00	90.7		P
Magnesium	75-125	1756.9176		4.0300	U	2000.00	87.8		P
Manganese	75-125	44.1327		0.1100	U	50.00	88.3		P
Mercury	75-125	0.1585		0.0167	U	0.17	93.2		CV
Nickel	75-125	45.0001		0.2100	U	50.00	90.0		P
Potassium	75-125	1618.4934		33.6715	B	2000.00	79.2		P
Selenium	75-125	178.3651		0.4800	U	200.00	89.2		P
Silver	75-125	4.3020		0.1400	U	5.00	86.0		P
Sodium	75-125	1984.8141		42.6000	U	2000.00	99.2		P
Thallium	75-125	180.1082		0.4800	U	200.00	90.1		P
Vanadium	75-125	44.2878		0.1900	U	50.00	88.6		P
Zinc	75-125	44.8476		0.4500	U	50.00	89.7		P
Molybdenu									NR

Comments:

305189

LAB SAMPLE NO.

SPIKE SAMPLE RECOVERY

88683MS

Lab Name: ENVIROTECH_RESEARCH_INC.

Lab Code: 12543 Lab Job No.: H950 Batch No.: 7057

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 95.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		3714.7359		3040.3637		204.46	329.8		P
Antimony	75-125	29.4610		0.9405	U	51.12	57.6	N	P
Arsenic	75-125	174.4787		4.5493		204.46	83.1		P
Barium	75-125	186.5702		15.6605	B	204.46	83.6		P
Beryllium	75-125	5.0964		0.5232		5.11	89.5		P
Cadmium	75-125	4.4123		0.0818	U	5.11	86.3		P
Calcium		92833.5981		101833.9140		2044.61	-440.2		P
Chromium	75-125	24.3916		6.1275		20.45	89.3		P
Cobalt	75-125	48.0609		5.2684	B	51.12	83.7		P
Copper	75-125	35.4415		11.9933		25.56	91.7		P
Iron		13886.6121		14234.3593		102.23	-340.2		P
Lead	75-125	49.5647		6.5800		51.12	84.1		P
Magnesium		51971.6698		57971.3734		2044.61	-293.4		P
Manganese		324.9020		276.3066		51.12	95.1		P
Mercury	75-125	0.1409		0.0174	U	0.17	82.9		CV
Nickel	75-125	51.9320		9.6802		51.12	82.7		P
Potassium	75-125	2894.5118		876.4135	B	2044.61	98.7		P
Selenium	75-125	175.9570		0.9814	U	204.46	86.1		P
Silver	75-125	4.3540		0.2862	U	5.11	85.2		P
Sodium	75-125	2146.8650		137.6238	B	2044.61	98.3		P
Thallium	75-125	173.1640		0.9814	U	204.46	84.7		P
Vanadium	75-125	56.7350		9.9049	B	51.12	91.6		P
Zinc	75-125	78.1973		38.1901		51.12	78.3		P
Molybdenu									NR

Comments:

305190

LAB SAMPLE NO.

SPIKE SAMPLE RECOVERY

88683MSD

Lab Name: ENVIROTECH_RESEARCH_INC.

Lab Code: 12543 Lab Job No.: H950 Batch No.: 7057

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 95.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		3856.3114		3040.3637		212.81	383.4		P
Antimony	75-125	32.0483		0.9405	U	53.20	60.2	N	P
Arsenic	75-125	179.0728		4.5493		212.81	82.0		P
Barium	75-125	202.0968		15.6605	B	212.81	87.6		P
Beryllium	75-125	5.3108		0.5232		5.32	90.0		P
Cadmium	75-125	4.7186		0.0818	U	5.32	88.7		P
Calcium		92595.4906		101833.9140		2128.07	-434.1		P
Chromium	75-125	26.1452		6.1275		21.28	94.1		P
Cobalt	75-125	50.3367		5.2684	B	53.20	84.7		P
Copper	75-125	32.7233		11.9933		26.60	77.9		P
Iron		13601.4692		14234.3593		106.40	-594.8		P
Lead	75-125	51.9534		6.5800		53.20	85.3		P
Magnesium		52505.6330		57971.3734		2128.07	-256.8		P
Manganese		355.4293		276.3066		53.20	148.7		P
Mercury	75-125	0.1529		0.0174	U	0.17	89.9		CV
Nickel	75-125	54.5634		9.6802		53.20	84.4		P
Potassium	75-125	2859.2718		876.4135	B	2128.07	93.2		P
Selenium	75-125	184.1280		0.9814	U	212.81	86.5		P
Silver	75-125	4.7324		0.2862	U	5.32	89.0		P
Sodium	75-125	2313.4958		137.6238	B	2128.07	102.2		P
Thallium	75-125	184.7971		0.9814	U	212.81	86.8		P
Vanadium	75-125	58.4525		9.9049	B	53.20	91.3		P
Zinc	75-125	88.2569		38.1901		53.20	94.1		P
Molybdenu									NR

Comments:

305191

LAB SAMPLE NO.

DUPLICATES

LCSS238AD

Lab Name: ENVIROTECH_RESEARCH_INC.

Lab Code: 12543 Lab Job No.: H950 Batch No.: 7057

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		4369.4196		4109.0271		6.1		P
Antimony		70.4502		64.7598		8.4		P
Arsenic		65.7429		61.5646		6.6		P
Barium	20.4	88.0278		84.6521		3.9		P
Beryllium		35.8931		34.1048		5.1		P
Cadmium		62.7871		59.4100		5.5		P
Calcium	510.2	1848.9720		1763.6512		4.7		P
Chromium		69.4343		65.5467		5.8		P
Cobalt		103.7476		99.0194		4.7		P
Copper		55.5869		52.4627		5.8		P
Iron		9752.4888		9116.0058		6.7		P
Lead		130.9290		123.6944		5.7		P
Magnesium	510.2	1562.3514		1474.4412		5.8		P
Manganese		205.0980		192.8708		6.1		P
Mercury		0.9767		0.9367		4.2		CV
Nickel		110.7892		105.6446		4.8		P
Potassium		3017.3700		2858.3975		5.4		P
Selenium		84.9020		80.1275		5.8		P
Silver		114.1873		108.9110		4.7		P
Sodium	510.2	982.8382	B	1034.7769	B	5.1		P
Thallium		116.6716		110.8179		5.1		P
Vanadium		51.8880		48.3958		7.0		P
Zinc		72.7304		68.3440		6.2		P
Molybdenu								NR

305192

LAB SAMPLE NO.

DUPLICATES

88683D

Lab Name: ENVIROTECH_RESEARCH_INC.

Lab Code: 12543 Lab Job No.: H950 Batch No.: 7057

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 95.9 % Solids for Duplicate: 95.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		3040.3637		3480.1543		13.5		P
Antimony		0.9405	U	0.9593	U			P
Arsenic		4.5493		4.5898		0.9		P
Barium		15.6605	B	18.2367	B	15.2		P
Beryllium	0.2	0.5232		0.5858		11.3		P
Cadmium		0.0818	U	0.0834	U			P
Calcium		101833.9140		100209.8217		1.6		P
Chromium		6.1275		7.6724		22.4	*	P
Cobalt	5.1	5.2684	B	5.2859	B	0.3		P
Copper	2.6	11.9933		12.0140		0.2		P
Iron		14234.3593		12450.3527		13.4		P
Lead		6.5800		5.7318		13.8		P
Magnesium		57971.3734		56042.8217		3.4		P
Manganese		276.3066		352.3149		24.2	*	P
Mercury		0.0174	U	0.0174	U			CV
Nickel	4.1	9.6802		7.8911	B	20.4		P
Potassium	511.2	876.4135	B	1247.0334		34.9		P
Selenium		0.9814	U	1.0010	U			P
Silver		0.2862	U	0.2920	U			P
Sodium		137.6238	B	114.1322	B	18.7		P
Thallium		0.9814	U	1.0010	U			P
Vanadium	5.1	9.9049	B	12.2776		21.4		P
Zinc		38.1901		30.7577		21.6	*	P
Molybdenu								NR

305193

LAB SAMPLE NO.

DUPLICATES

88683MS/MS

Lab Name: ENVIROTECH_RESEARCH_INC.

Lab Code: 12543 Lab Job No.: H950 Batch No.: 7057

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 95.9 % Solids for Duplicate: 95.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		3714.7359		3856.3114		3.7		P
Antimony		29.4610		32.0483		8.4		P
Arsenic		174.4787		179.0728		2.6		P
Barium		186.5702		202.0968		8.0		P
Beryllium		5.0964		5.3108		4.1		P
Cadmium		4.4123		4.7186		6.7		P
Calcium		92833.5981		92595.4906		0.3		P
Chromium		24.3916		26.1452		6.9		P
Cobalt		48.0609		50.3367		4.6		P
Copper		35.4415		32.7233		8.0		P
Iron		13886.6121		13601.4692		2.1		P
Lead		49.5647		51.9534		4.7		P
Magnesium		51971.6698		52505.6330		1.0		P
Manganese		324.9020		355.4293		9.0		P
Mercury	0.0	0.1409		0.1529		8.2		CV
Nickel		51.9320		54.5634		4.9		P
Potassium		2894.5118		2859.2718		1.2		P
Selenium		175.9570		184.1280		4.5		P
Silver	1.0	4.3540		4.7324		8.3		P
Sodium	511.2	2146.8650		2313.4958		7.5		P
Thallium		173.1640		184.7971		6.5		P
Vanadium		56.7350		58.4525		3.0		P
Zinc		78.1973		88.2569		12.1		P
Molybdenu								NR

305194

LABORATORY CONTROL SAMPLE

Lab Name: ENVIROTECH_RESEARCH_INC._ _____

Lab Code: 12543_ Lab Job No.: __H950 _____ Batch No.: 7057__

Solid LCS Source: ERA_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum_				5370.0	4369.4		2850.0	7890.0	81.4
Antimony_				59.6	70.5		12.0	107.0	118.3
Arsenic__				67.1	65.7		41.4	92.7	97.9
Barium___				106.0	88.0		59.7	152.0	83.0
Beryllium				41.6	35.9		29.2	53.9	86.3
Cadmium__				71.1	62.8		39.3	103.0	88.3
Calcium__				2250.0	1849.0		1210.0	3290.0	82.2
Chromium_				76.4	69.4		53.0	99.9	90.8
Cobalt___				116.0	103.7		73.0	158.0	89.4
Copper___				63.9	55.6		39.4	88.5	87.0
Iron_____				8070.0	9752.5		3470.0	12700.0	120.8
Lead_____				147.0	130.9		88.1	206.0	89.0
Magnesium				1830.0	1562.4		1160.0	2500.0	85.4
Manganese				225.0	205.1		145.0	305.0	91.2
Mercury__				1.3	1.0		0.7	2.0	76.9
Nickel___				120.0	110.8		80.6	160.0	92.3
Potassium				4010.0	3017.4		2340.0	5680.0	75.2
Selenium_				93.7	84.9		61.3	126.0	90.6
Silver___				131.0	114.2		74.1	188.0	87.2
Sodium___				1050.0	982.8	B	540.0	1560.0	93.6
Thallium_				129.0	116.7		73.8	184.0	90.5
Vanadium_				56.9	51.9		38.8	75.0	91.2
Zinc_____				83.0	72.7		50.7	115.0	87.6
Molybdenu									

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LAB SAMPLE NO.

88683L

ICP SERIAL DILUTION

Lab Name: ENVIROTECH_RESEARCH_INC.

Lab Code: 12543 Lab Job No.: H950 Batch No.: 7057

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	14870.12		14554.13		2.1		P
Antimony	4.60	U	23.00	U			P
Arsenic	22.25		32.71		47.0		P
Barium	76.59	B	74.22	B	3.1		P
Beryllium	2.56		2.62	B	2.3		P
Cadmium	0.40	U	2.00	U			P
Calcium	99611.90		103964.27		4.4		P
Chromium	29.97		32.19	B	7.4		P
Cobalt	25.77	B	26.08	B	1.2		P
Copper	58.66		50.89	B	13.2		P
Iron	69618.83		73067.63		5.0		P
Lead	32.18		25.52		20.7		P
Magnesium	56706.44		57627.08		1.6		P
Manganese	1351.39		1373.98		1.7		P
Mercury							NR
Nickel	47.34		49.52	B	4.6		P
Potassium	4286.45	B	5336.62	B	24.5		P
Selenium	4.80	U	24.00	U			P
Silver	1.40	U	7.00	U			P
Sodium	673.10	B	2130.00	U	100.0		P
Thallium	4.80	U	24.00	U			P
Vanadium	48.44	B	48.14	B	0.6		P
Zinc	186.78		192.02		2.8		P

305196

ANALYSIS RUN LOG

Lab Name: ENVIROTECH_RESEARCH_INC._ Contract: _____

Lab Code: 12543_ Case No.: _____ SAS No.: _____ SDG No.:7057__

Instrument ID Number: TRACE1 TJA61_ Method: P_

Start Date: 10/20/98 End Date: 10/20/98

Lab Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	MO
D1-BLANK	1.00	1438		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	X
STD2	1.00	1444		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	_	X	X	_	X	X	X	X
STD3	1.00	1449		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	_	X	X	_	X	X	X	X
STD4	1.00	1454		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	X
ZZZZZZ	1.00	1501																									
ICV/CCV	1.00	1507		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICB/CCB	1.00	1512		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSA	1.00	1517		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.00	1523		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	1528		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
MCL	1.00	1533																									
SS101998	1.00	1539		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
BS101998	1.00	1544		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
LCSS238A	2.00	1549		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
CSS238AD	2.00	1555		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
88683D	2.00	1600		X	X	X	X	X	X	_	X	X	X	X	X	_	X	_	X	X	X	X	_	X	X	X	_
88683	2.00	1605		X	X	X	X	X	X	_	X	X	X	X	X	_	X	_	X	X	X	X	_	X	X	X	_
CCV	1.00	1611		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1616		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
88683L	2.00	1622		X	X	X	X	X	X	_	X	X	X	X	X	_	X	_	X	X	X	X	_	X	X	X	_
88683MS	2.00	1627		X	X	X	X	X	X	_	X	X	X	X	X	_	X	_	X	X	X	X	_	X	X	X	_
88683MSD	2.00	1632		X	X	X	X	X	X	_	X	X	X	X	X	_	X	_	X	X	X	X	_	X	X	X	_
ZZZZZZ	2.00	1638																									
90277	2.00	1643		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
90278	2.00	1648		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
90279	2.00	1654		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
90280	2.00	1659		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
90281	2.00	1704		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
90282	2.00	1710		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
CCV	1.00	1715		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1720		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
90283	2.00	1726		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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ANALYSIS RUN LOG

Lab Name: ENVIROTECH_RESEARCH_INC._ Contract: _____

Lab Code: 12543_ Case No.: _____ SAS No.: _____ SDG No.:7057__

Instrument ID Number: TRACE1 TJA61_ Method: P_

Start Date: 10/20/98 End Date: 10/20/98

Lab Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	MO
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
90284	2.00	1731		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
90285	2.00	1736		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
90286	2.00	1742		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
90289	2.00	1747		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
90290	2.00	1752		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
89341	2.00	1758		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
89343	2.00	1803		_	X	X	_	X	X	_	X	_	X	_	X	_	_	_	X	_	X	X	_	X	_	X	_
89310	2.00	1808		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
88666	2.00	1814		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
CCV	1.00	1819		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1824		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
88677	2.00	1830		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
88684	2.00	1835													X												
88685	2.00	1840		_	_	_	_	_	_	_	_	_	_	_	X	_	_	_	_	_	_	_	_	_	_	_	_
ICSA	1.00	1846		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.00	1851		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV	1.00	1856		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1902		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

305198

ANALYSIS RUN LOG

Lab Name: ENVIROTECH_RESEARCH_INC._ Contract: _____

Lab Code: 12543_ Case No.: _____ SAS No.: _____ SDG No.:7057__

Instrument ID Number: TRACE1 TJA61_ Method: P_

Start Date: 10/21/98 End Date: 10/21/98

Lab Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	MO
D1-BLANK	1.00	1156		X						X				X		X							X			X	
STD2	1.00	1200		X						X				X		X										X	
STD3	1.00	1204		X						X				X		X										X	
STD4	1.00	1208		X						X				X		X							X			X	
ZZZZZZ	1.00	1212																									
ICV/CCV	1.00	1216								X						X							X				
ICB/CCB	1.00	1221								X						X							X				
ICSA	1.00	1225								X						X							X				
ICSAB	1.00	1229								X						X							X				
ZZZZZZ	1.00	1233																									
MCL	1.00	1237																									
SS101998	1.00	1241																					X				
BS101998	1.00	1246																					X				
LCSS238A	2.00	1250																					X				
CSS238AD	2.00	1254																					X				
88683D	2.00	1258																					X				
88683	2.00	1302																					X				
CCV	1.00	1307								X						X							X				
CCB	1.00	1311								X						X							X				
88683L	2.00	1315																					X				
88683MS	2.00	1319																					X				
88683MSD	2.00	1323																					X				
ZZZZZZ	2.00	1327																									
ZZZZZZ	1.00	1332																									
88683D	10.00	1336								X						X											
88683	10.00	1340								X						X											
88683L	10.00	1344								X						X											
88683MS	10.00	1348								X						X											
88683MSD	10.00	1353								X						X											
CCV	1.00	1357								X						X							X				
CCB	1.00	1401								X						X							X				
ZZZZZZ	10.00	1405																									

305199

ANALYSIS RUN LOG

Lab Name: ENVIROTECH_RESEARCH_INC._ Contract: _____

Lab Code: 12543_ Case No.: _____ SAS No.: _____ SDG No.:7057__

Instrument ID Number: TRACE1 TJA61_ Method: P_

Start Date: 10/21/98 End Date: 10/21/98

Lab Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	MO
89310	2.00	1409																					X				
88666	2.00	1414																					X				
88677	2.00	1418																					X				
ICSA	1.00	1422								X						X							X				
ICSAB	1.00	1426								X						X							X				
CCV	1.00	1430								X						X							X				
CCB	1.00	1434								X						X							X				

305200

ANALYSIS RUN LOG

Lab Name: ENVIROTECH_RESEARCH_INC._ Contract: _____

Lab Code: 12543_ Case No.: _____ SAS No.: _____ SDG No.:7057__

Instrument ID Number: LEEMAN PS200_ Method: CV

Start Date: 10/20/98 End Date: 10/20/98

Lab Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	MO
STD1	1.00	0931																X									
STD2	1.00	0934																X									
STD3	1.00	0937																X									
STD4	1.00	0940																X									
STD5	1.00	0943																X									
STD6	1.00	0946																X									
ICV/ACCV	1.00	0949																X									
ICB/CCB	1.00	0952																X									
ZZZZZZ	1.00	0955																									
ZZZZZZ	1.00	0958																									
ZZZZZZ	2.00	1001																									
ZZZZZZ	2.00	1004																									
ZZZZZZ	1.00	1006																									
ZZZZZZ	1.00	1010																									
ZZZZZZ	1.00	1014																									
ZZZZZZ	1.00	1018																									
ZZZZZZ	1.00	1021																									
ZZZZZZ	1.00	1024																									
CCV	1.00	1027																X									
CCB	1.00	1030																X									
ZZZZZZ	1.00	1032																									
ZZZZZZ	1.00	1036																									
ZZZZZZ	1.00	1039																									
ZZZZZZ	1.00	1041																									
ZZZZZZ	1.00	1045																									
ZZZZZZ	1.00	1048																									
ZZZZZZ	1.00	1051																									
ZZZZZZ	1.00	1054																									
ZZZZZZ	1.00	1057																									
ZZZZZZ	1.00	1100																									
CCV	1.00	1103																X									
CCB	1.00	1105																X									

305201

ANALYSIS RUN LOG

Lab Name: ENVIROTECH_RESEARCH_INC._ Contract: _____

Lab Code: 12543_ Case No.: _____ SAS No.: _____ SDG No.:7057__

Instrument ID Number: LEEMAN PS200_ Method: CV

Start Date: 10/20/98 End Date: 10/20/98

Lab Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	MO
ZZZZZZ	1.00	1108																									
ZZZZZZ	1.00	1111																									
ZZZZZZ	1.00	1114																									
ZZZZZZ	1.00	1117																									
ZZZZZZ	1.00	1120																									
ZZZZZZ	1.00	1123																									
ZZZZZZ	20.00	1128																									
ZZZZZZ	20.00	1131																									
ZZZZZZ	20.00	1134																									
ZZZZZZ	20.00	1136																									
CCV	1.00	1139																X									
CCB	1.00	1142																X									
ZZZZZZ	10.00	1145																									
ZZZZZZ	1.00	1148																									
ZZZZZZ	20.00	1151																									
ZZZZZZ	1.00	1154																									
ZZZZZZ	50.00	1157																									
ZZZZZZ	1.00	1200																									
CCV	1.00	1203																X									
CCB	1.00	1206																X									
ZZZZZZ	1.00	1209																									
ZZZZZZ	1.00	1212																									
ZZZZZZ	2.00	1215																									
ZZZZZZ	2.00	1218																									
ZZZZZZ	1.00	1221																									
ZZZZZZ	1.00	1224																									
ZZZZZZ	1.00	1227																									
ZZZZZZ	1.00	1230																									
ZZZZZZ	1.00	1232																									
ZZZZZZ	1.00	1235																									
CCV	1.00	1238																X									
CCB	1.00	1241																X									

305202

ANALYSIS RUN LOG

Lab Name: ENVIROTECH_RESEARCH_INC._ Contract: _____

Lab Code: 12543_ Case No.: _____ SAS No.: _____ SDG No.:7057__

Instrument ID Number: LEEMAN PS200_ Method: CV

Start Date: 10/20/98 End Date: 10/20/98

Lab Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	MO
ZZZZZZ	1.00	1244																									
ZZZZZZ	1.00	1247																									
ZZZZZZ	1.00	1250																									
ZZZZZZ	1.00	1253																									
ZZZZZZ	1.00	1256																									
ZZZZZZ	1.00	1259																									
ZZZZZZ	1.00	1302																									
ZZZZZZ	1.00	1305																									
ZZZZZZ	1.00	1308																									
ZZZZZZ	1.00	1311																									
CCV	1.00	1314																X									
CCB	1.00	1317																X									
ZZZZZZ	1.00	1320																									
ZZZZZZ	1.00	1323																									
ZZZZZZ	1.00	1326																									
ZZZZZZ	1.00	1329																									
ZZZZZZ	1.00	1331																									
ZZZZZZ	1.00	1334																									
ZZZZZZ	1.00	1337																									
ZZZZZZ	1.00	1340																									
CCV	1.00	1343																X									
CCB	1.00	1346																X									
BS101998	1.00	1349																X									
SS101998	1.00	1352																X									
LCSS238A	2.00	1355																X									
CSS238AD	2.00	1358																X									
88683	1.00	1400																X									
88683D	1.00	1403																X									
88683MS	1.00	1406																X									
88683MSD	1.00	1409																X									
90277	2.00	1412																									
90278	1.00	1415																X									

305203

ANALYSIS RUN LOG

Lab Name: ENVIROTECH_RESEARCH_INC._ Contract: _____

Lab Code: 12543_ Case No.: _____ SAS No.: _____ SDG No.:7057__

Instrument ID Number: LEEMAN PS200_ Method: CV

Start Date: 10/20/98 End Date: 10/20/98

Lab Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	MO
CCV	1.00	1418																X									
CCB	1.00	1421																X									
90279	200.00	1424																X									
90280	1.00	1427																									
90281	1.00	1430																									
90282	1.00	1433																X									
90283	1.00	1436																X									
90284	1.00	1438																X									
90285	1.00	1441																									
90286	1.00	1444																									
90289	1.00	1447																									
90290	1.00	1450																X									
CCV	1.00	1453																X									
CCB	1.00	1456																X									
89341	1.00	1500																X									
89343	1.00	1503																X									
89310	1.00	1505																X									
88666	1.00	1508																									
88677	1.00	1511																									
90277	1.00	1514																X									
90280	10.00	1517																X									
90281	1.00	1520																X									
90285	5.00	1523																X									
90286	2.00	1526																X									
CCV	1.00	1529																X									
CCB	1.00	1532																X									
90289	1.00	1535																X									
88666	2.00	1537																X									
88677	1.00	1540																X									
CCV	1.00	1543																X									
CCB	1.00	1546																X									

305204

File : 7057T1.WSL

File Record	Laboratory Sample Name	Customer/EPA Sample Name	Type	Matrix	Instrument Dil.	Date	Time	Flag
1	STD1-BLANK		3		1.0	10/20/98	14:38:00	
2	STD2		3		1.0	10/20/98	14:44:00	
3	STD3		3		1.0	10/20/98	14:49:00	
4	STD4		3		1.0	10/20/98	14:54:00	
5	HSA		0		1.0	10/20/98	15:01:00	
6	ICV/CCV1		0		1.0	10/20/98	15:07:00	
7	ICB/CCB1		0		1.0	10/20/98	15:12:00	
8	ICSA1		0		1.0	10/20/98	15:17:00	
9	ICSAB1		0		1.0	10/20/98	15:23:00	
10	INT-20		0		1.0	10/20/98	15:28:00	
11	MCL		0		1.0	10/20/98	15:33:00	
12	BSS101998		0		1.0	10/20/98	15:39:00	
13	PBS101998		0		1.0	10/20/98	15:44:00	
14	LCSS238A		0		2.0	10/20/98	15:49:00	
15	LCSS238AD		0		2.0	10/20/98	15:55:00	
16	88683D		0		2.0	10/20/98	16:00:00	
17	88683		0		2.0	10/20/98	16:05:00	
18	CCV2		0		1.0	10/20/98	16:11:00	
19	CCB2		0		1.0	10/20/98	16:16:00	
20	88683L		0		2.0	10/20/98	16:22:00	
21	88683MS		0		2.0	10/20/98	16:27:00	
22	88683MSD		0		2.0	10/20/98	16:32:00	
23	88683A		0		2.0	10/20/98	16:38:00	
24	90277		0		2.0	10/20/98	16:43:00	
25	90278		0		2.0	10/20/98	16:48:00	
26	90279		0		2.0	10/20/98	16:54:00	
27	90280		0		2.0	10/20/98	16:59:00	
28	90281		0		2.0	10/20/98	17:04:00	
29	90282		0		2.0	10/20/98	17:10:00	
30	CCV3		0		1.0	10/20/98	17:15:00	
31	CCB3		0		1.0	10/20/98	17:20:00	
32	90283		0		2.0	10/20/98	17:26:00	
33	90284		0		2.0	10/20/98	17:31:00	
34	90285		0		2.0	10/20/98	17:36:00	
35	90286		0		2.0	10/20/98	17:42:00	
36	90289		0		2.0	10/20/98	17:47:00	
37	90290		0		2.0	10/20/98	17:52:00	
38	89341		0		2.0	10/20/98	17:58:00	
39	89343		0		2.0	10/20/98	18:03:00	
40	89310		0		2.0	10/20/98	18:08:00	
41	88666		0		2.0	10/20/98	18:14:00	
42	CCV4		0		1.0	10/20/98	18:19:00	
43	CCB4		0		1.0	10/20/98	18:24:00	
44	88677		0		2.0	10/20/98	18:30:00	
45	88684		0		2.0	10/20/98	18:35:00	
46	88685		0		2.0	10/20/98	18:40:00	
47	ICSA2		0		1.0	10/20/98	18:46:00	
48	ICSAB2		0		1.0	10/20/98	18:51:00	
49	CCV5		0		1.0	10/20/98	18:56:00	
50	CCB5		0		1.0	10/20/98	19:02:00	

305205

Analysis Report Summary Wed 10-21-98 09:31:56 AM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	HSA	Y102098	SW846	10/20/98	15:01		S	CONC
2	ICV/CCV1	Y102098	SW846	10/20/98	15:07		S	CONC
3	ICB/CCB1	Y102098	SW846	10/20/98	15:12		S	CONC
4	ICSA1	Y102098	SW846	10/20/98	15:17		S	CONC
5	ICSAB1	Y102098	SW846	10/20/98	15:23		S	CONC
6	INT-20	Y102098	SW846	10/20/98	15:28		S	CONC
7	MCL	Y102098	SW846	10/20/98	15:33		S	CONC
8	BSS101998	Y102098	SW846	10/20/98	15:39		S	CONC
9	PBS101998	Y102098	SW846	10/20/98	15:44		S	CONC
10	LCSS238A-2X	Y102098	SW846	10/20/98	15:49		S	CONC
11	LCSS238AD-2X	Y102098	SW846	10/20/98	15:55		S	CONC
12	88683D-2X	Y102098	SW846	10/20/98	16:00		S	CONC
13	88683-2X	Y102098	SW846	10/20/98	16:05		S	CONC
14	CCV2	Y102098	SW846	10/20/98	16:11		S	CONC
15	CCB2	Y102098	SW846	10/20/98	16:16		S	CONC
16	88683L-2X	Y102098	SW846	10/20/98	16:22		S	CONC
17	88683MS-2X	Y102098	SW846	10/20/98	16:27		S	CONC
18	88683MSD-2X	Y102098	SW846	10/20/98	16:32		S	CONC
19	88683A-2X	Y102098	SW846	10/20/98	16:38		S	CONC
20	90277-2X	Y102098	SW846	10/20/98	16:43		S	CONC
21	90278-2X	Y102098	SW846	10/20/98	16:48		S	CONC
22	90279-2X	Y102098	SW846	10/20/98	16:54		S	CONC
23	90280-2X	Y102098	SW846	10/20/98	16:59		S	CONC
24	90281-2X	Y102098	SW846	10/20/98	17:04		S	CONC
25	90282-2X	Y102098	SW846	10/20/98	17:10		S	CONC
26	CCV3	Y102098	SW846	10/20/98	17:15		S	CONC
27	CCB3	Y102098	SW846	10/20/98	17:20		S	CONC
28	90283-2X	Y102098	SW846	10/20/98	17:26		S	CONC
29	90284-2X	Y102098	SW846	10/20/98	17:31		S	CONC
30	90285-2X	Y102098	SW846	10/20/98	17:36		S	CONC
31	90286-2X	Y102098	SW846	10/20/98	17:42		S	CONC
32	90289-2X	Y102098	SW846	10/20/98	17:47		S	CONC
33	90290-2X	Y102098	SW846	10/20/98	17:52		S	CONC
34	89341-2X	Y102098	SW846	10/20/98	17:58		S	CONC
35	89343-2X	Y102098	SW846	10/20/98	18:03		S	CONC
36	89310-2X	Y102098	SW846	10/20/98	18:08		S	CONC
37	88666-2X	Y102098	SW846	10/20/98	18:14		S	CONC
38	CCV4	Y102098	SW846	10/20/98	18:19		S	CONC
39	CCB4	Y102098	SW846	10/20/98	18:24		S	CONC
40	88677-2X	Y102098	SW846	10/20/98	18:30		S	CONC
41	88684-2X	Y102098	SW846	10/20/98	18:35		S	CONC
42	88685-2X	Y102098	SW846	10/20/98	18:40		S	CONC
43	ICSA2	Y102098	SW846	10/20/98	18:46		S	CONC
44	ICSAB2	Y102098	SW846	10/20/98	18:51		S	CONC
45	CCV5	Y102098	SW846	10/20/98	18:56		S	CONC
46	CCB5	Y102098	SW846	10/20/98	19:02		S	CONC

10/21/98

305206

#	Sample Name	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179
1	HSA	496400.	9824.	19670.	1957.	4807.	243200.
2	ICV/CCV1	255400.	5025.	10190.	980.0	2512.	126900.
3	ICB/CCB1	8.652	3.516	.2763	.0333	.2116	.2440
4	ICSA1	498800.	-4.341	4.340	-.0099	.9914	457900.
5	ICSAB1	512300.	105.3	109.6	100.9	98.98	473100.
6	INT-20	51.75	3.368	-2.473	11.37	.1531	81.44
7	MCL	213.0	27.63	51.06	4.188	5.199	5348.
8	BSS101998	1722.	1678.	1731.	45.51	45.02	18010.
9	PBS101998	-3.490	3.187	.0301	-.0191	-.0913	130.0
10	LCSS238A-2X	21410.	322.1	431.3	175.9	307.7	9060.
11	LCSS238AD-2X	19720.	295.5	406.3	163.7	285.2	8466.
12	88683D-2X	16690.	22.01	87.45	2.809	.2999	H443600.
13	88683-2X	14870.	22.25	76.59	2.559	.2907	H460100.
14	CCV2	243400.	4853.	9710.	952.7	2468.	124600.
15	CCB2	.2860	2.524	-.0451	.0778	.0124	9.161
16	88683L-2X	2911.	6.542	14.84	.5238	-.0602	98770.
17	88683MS-2X	18170.	853.4	912.5	24.93	21.58	H425100.
18	88683MSD-2X	18120.	841.5	949.7	24.96	22.17	H407100.
19	88683A-2X	16690.	1669.	1933.	51.15	47.46	H482900.
20	90277-2X	20300.	34.35	161.3	1.507	1.807	114600.
21	90278-2X	19230.	24.25	158.1	1.239	.7027	123600.
22	90279-2X	19780.	27.16	121.0	1.211	.8046	111100.
23	90280-2X	21580.	35.72	145.5	1.738	1.042	101900.
24	90281-2X	19790.	23.57	152.8	1.231	.7047	114400.
25	90282-2X	16200.	20.64	110.6	1.032	.8395	107600.
26	CCV3	253200.	5121.	10050.	994.3	2576.	129000.
27	CCB3	.0137	2.009	-.0871	.0133	-.0266	-2.123
28	90283-2X	21040.	17.15	140.0	1.219	1.070	166400.
29	90284-2X	20080.	27.31	156.6	1.294	1.173	122800.
30	90285-2X	18710.	22.69	155.4	1.218	1.289	104500.
31	90286-2X	21130.	34.24	138.4	1.455	2.140	161200.
32	90289-2X	34910.	14.28	122.4	1.023	-.0598	H253200.
33	90290-2X	31010.	19.68	172.8	1.530	.1419	H335600.
34	89341-2X	45320.	18.95	334.4	3.300	.6135	4192.
35	89343-2X	46420.	24.20	285.7	2.635	.2555	6141.
36	89310-2X	40770.	45.57	244.5	2.359	1.608	24120.
37	88666-2X	37390.	92.97	890.8	2.311	3.531	50670.
38	CCV4	241900.	4801.	9623.	928.3	2386.	120200.
39	CCB4	-2.548	2.318	-.1522	-.0024	-.0192	-3.060
40	88677-2X	26490.	13.19	341.0	1.826	4.830	20220.
41	88684-2X	24770.	10.95	88.37	2.244	-.1230	2408.
42	88685-2X	31430.	16.35	125.4	2.824	.9694	2734.
43	ICSA2	495500.	1.621	3.898	-.0613	.0781	455000.
44	ICSAB2	503800.	101.9	107.8	98.41	96.26	463800.
45	CCV5	247900.	4939.	9818.	955.8	2464.	123700.
46	CCB5	10.64	1.529	-.2124	.0029	-.1303	6.448

305207

#	Sample Name	Cr2677	Co2286	Cu3247	Fe2714	Mg2790	Mn2576
1	HSA	9783.	4840.	24960.	197200.	252100.	9731.
2	ICV/CCV1	5183.	2535.	12730.	98830.	127600.	5134.
3	ICB/CCB1	.0350	.2166	.0097	-1.935	7.510	.0107
4	ICSA1	.2431	.3535	-2.270	190100.	507100.	1.035
5	ICSAB1	99.37	98.82	101.0	192000.	524800.	101.7
6	INT-20	19990.	20390.	-6.960	-139.6	7.161	19160.
7	MCL	22.51	57.62	49.70	183.6	5282.	22.43
8	BSS101998	179.9	451.1	216.6	874.8	17570.	441.3
9	PBS101998	.9488	.5715	1.598	4.871	38.63	.1184
10	LCSS238A-2X	340.2	508.4	272.4	47790.	7656.	1005.
11	LCSS238AD-2X	314.6	475.3	251.8	43760.	7077.	925.8
12	88683D-2X	36.79	25.35	57.61	59700.	H270600.	1689.
13	88683-2X	29.97	25.77	58.66	69620.	H285500.	1351.
14	CCV2	5053.	2474.	11970.	97090.	126000.	4973.
15	CCB2	.4462	.5890	-.2300	-.4553	16.81	-.1423
16	88683L-2X	6.438	5.215	10.18	14610.	55920.	274.8
17	88683MS-2X	119.3	235.1	173.3	67920.	H259400.	1589.
18	88683MSD-2X	122.9	236.5	153.8	63910.	250000.	1670.
19	88683A-2X	222.5	499.3	290.0	71160.	H311300.	1830.
20	90277-2X	583.0	27.61	160.5	116000.	17320.	614.6
21	90278-2X	135.6	10.24	73.44	66740.	15320.	455.1
22	90279-2X	173.0	12.89	88.55	66610.	15700.	435.4
23	90280-2X	147.8	15.64	110.6	107400.	16600.	619.7
24	90281-2X	211.9	11.94	85.04	62690.	18730.	390.3
25	90282-2X	127.3	9.925	72.19	51830.	12480.	327.4
26	CCV3	5273.	2564.	12730.	97770.	130100.	5206.
27	CCB3	-.0022	.0850	.0629	3.300	6.267	-.1584
28	90283-2X	208.4	9.866	61.80	48790.	14090.	385.4
29	90284-2X	157.4	15.91	102.2	82660.	101100.	557.9
30	90285-2X	158.6	11.19	76.86	58130.	13440.	367.2
31	90286-2X	108.0	14.38	79.89	115600.	17240.	625.7
32	90289-2X	284.4	7.798	51.17	26720.	43260.	576.2
33	90290-2X	89.78	8.977	35.51	47940.	18910.	507.5
34	89341-2X	79.61	42.11	48.80	90970.	8959.	3953.
35	89343-2X	83.40	31.97	46.15	89420.	8048.	2196.
36	89310-2X	54.08	35.14	126.0	133100.	11160.	2006.
37	88666-2X	64.16	21.56	222.6	63600.	9711.	1108.
38	CCV4	4929.	2398.	12170.	92040.	120700.	4875.
39	CCB4	-.0501	.2080	-.0516	1.174	6.130	-.1106
40	88677-2X	192.7	74.28	303.7	119400.	16370.	1041.
41	88684-2X	40.79	17.04	47.20	58860.	6876.	1478.
42	88685-2X	38.62	25.63	54.71	87230.	9949.	746.4
43	ICSA2	-.0301	.3850	-2.602	181700.	503300.	1.009
44	ICSAB2	97.23	96.60	97.43	190600.	514000.	99.16
45	CCV5	5067.	2471.	12400.	95000.	124500.	5009.
46	CCB5	.1209	-.1060	-.1846	.6364	17.58	-.2085

305208

#	Sample Name	Ni2316	K_7664	Ag3280	Na3302	Tl1908	V_2924
1	HSA	4816.	100400.	2535.	250900.	9720.	4913.
2	ICV/CCV1	2511.	49990.	1275.	127600.	4999.	2556.
3	ICB/CCB1	-.4170	185.0	.1313	-231.6	.8724	-.0465
4	ICSA1	.8681	101.5	.8087	-172.9	-6.149	1.860
5	ICSAB1	96.91	10970.	106.3	H12290.	95.99	105.2
6	INT-20	20360.	191.5	-3.869	-3582.	-59.91	19900.
7	MCL	56.46	10400.	19.55	12020.	20.74	54.83
8	BSS101998	450.0	16180.	43.02	19660.	1801.	442.9
9	PBS101998	.2424	336.7	.3810	423.4	1.221	.7273
10	LCSS238A-2X	542.9	14790.	559.5	5101.	571.7	254.3
11	LCSS238AD-2X	507.1	13720.	522.8	4809.	531.9	232.3
12	88683D-2X	37.84	5980.	.9037	514.7	-1.020	58.87
13	88683-2X	47.35	4286.	.5046	566.7	-1.623	48.44
14	CCV2	2456.	47890.	1214.	122900.	4850.	2462.
15	CCB2	.7041	415.0	.2258	447.9	.9014	1.823
16	88683L-2X	9.905	1067.	.0518	529.5	-.9903	9.627
17	88683MS-2X	254.0	14160.	21.30	10340.	846.9	277.5
18	88683MSD-2X	256.4	13440.	22.24	10730.	868.4	274.7
19	88683A-2X	517.4	22910.	47.37	21820.	1887.	534.4
20	90277-2X	1462.	2961.	-.0094	1984.	.2999	126.0
21	90278-2X	42.73	2957.	.0331	1602.	-2.276	104.5
22	90279-2X	53.89	2652.	.0826	2045.	-1.808	116.2
23	90280-2X	60.32	3024.	.1654	2279.	-3.870	161.1
24	90281-2X	38.93	2640.	.3797	2002.	-1.735	107.4
25	90282-2X	39.92	2309.	1.371	1852.	-3.394	109.6
26	CCV3	2553.	50350.	1273.	127600.	5041.	2598.
27	CCB3	-.4551	269.0	.7652	-337.0	-1.111	.4797
28	90283-2X	38.14	2594.	.4238	2474.	-5.374	119.4
29	90284-2X	85.73	3003.	.1246	2203.	-1.191	109.6
30	90285-2X	43.02	2896.	1.722	1724.	-3.921	94.33
31	90286-2X	47.29	2782.	.1152	1730.	-4.822	138.8
32	90289-2X	18.91	2683.	.7945	2666.	-6.484	57.82
33	90290-2X	23.67	3437.	-.3924	2635.	-4.306	72.98
34	89341-2X	53.04	2545.	-.6538	213.9	-4.711	120.7
35	89343-2X	49.89	2715.	-.6229	813.7	-5.586	125.3
36	89310-2X	67.62	4097.	-.5638	256.9	-3.842	114.6
37	88666-2X	44.68	3612.	.2182	1135.	-5.892	94.71
38	CCV4	2372.	48430.	1216.	123300.	4709.	2439.
39	CCB4	-.6927	203.8	.2779	-110.6	.5209	.1770
40	88677-2X	129.6	7946.	-.1801	557.4	-9.039	253.1
41	88684-2X	39.22	1431.	-.0610	371.2	-3.700	54.20
42	88685-2X	57.63	1335.	-.2802	475.7	-4.287	76.25
43	ICSA2	.5344	111.0	-.2065	7.401	-8.241	2.135
44	ICSAB2	94.26	10800.	104.3	H12160.	93.77	102.7
45	CCV5	2446.	49110.	1241.	125500.	4837.	2502.
46	CCB5	-.1461	240.9	.1646	135.2	1.952	.5283

305209

#	Sample Name	Zn2138	Mo2020	P_1782	Sr4215	Sn1899	Ti3349
1	HSA	4865.	4883.	4948.	9700.	1948.	19930.
2	ICV/CCV1	2561.	2557.	2543.	5033.	1027.	10130.
3	ICB/CCB1	.0334	1.755	-.8837	.0091	-.9106	.3306
4	ICSA1	-.8695	.3488	-1.366	.9509	-.2465	3.604
5	ICSAB1	104.6	103.5	L3.404	107.0	105.3	104.1
6	INT-20	11.97	19440.	-2.854	18280.	19860.	19760.
7	MCL	54.75	62.76	221.5	105.6	132.9	42.16
8	BSS101998	448.5	455.5	L55.36	449.8	L337.5	436.7
9	PBS101998	2.533	2.145	H50.04	.1717	H12.57	1.329
10	LCSS238A-2X	356.4	369.5	1692.	310.8	540.6	1437.
11	LCSS238AD-2X	328.1	337.7	1564.	292.5	495.3	1323.
12	88683D-2X	147.5	1.533	1345.	239.7	5.499	684.5
13	88683-2X	186.8	1.385	1225.	308.5	3.936	547.8
14	CCV2	2473.	2464.	2427.	4805.	998.7	9758.
15	CCB2	.1518	1.382	1.981	-.1524	.8935	1.692
16	88683L-2X	38.40	-.0306	247.0	60.69	1.421	112.0
17	88683MS-2X	382.5	221.7	1433.	511.1	162.0	906.9
18	88683MSD-2X	414.7	221.7	1625.	604.2	159.5	875.7
19	88683A-2X	665.2	486.1	1227.	790.5	129.4	983.1
20	90277-2X	871.9	5.383	1761.	587.8	28.82	916.0
21	90278-2X	306.0	2.606	1460.	591.1	16.86	701.9
22	90279-2X	359.0	2.476	1531.	547.8	22.43	711.6
23	90280-2X	391.5	2.043	2373.	543.7	25.55	791.1
24	90281-2X	306.2	2.925	1355.	558.6	16.75	772.1
25	90282-2X	287.4	2.195	1163.	521.0	16.91	697.5
26	CCV3	2599.	2591.	2556.	5010.	1050.	10110.
27	CCB3	.0348	.5881	-.4073	-.1674	.9180	1.940
28	90283-2X	341.2	1.781	1553.	784.5	22.39	873.0
29	90284-2X	381.3	2.520	1740.	667.2	24.72	803.8
30	90285-2X	383.2	2.196	1261.	563.8	26.86	730.5
31	90286-2X	343.7	2.340	2158.	811.0	14.19	776.0
32	90289-2X	56.76	2.337	814.3	851.8	7.754	1667.
33	90290-2X	160.3	.7149	1514.	1772.	6.138	1296.
34	89341-2X	185.1	1.481	1733.	21.45	6.951	980.1
35	89343-2X	166.7	2.181	1553.	39.77	8.924	1179.
36	89310-2X	438.2	3.852	H10200.	49.07	28.34	1426.
37	88666-2X	1301.	3.777	H16420.	181.9	58.64	1174.
38	CCV4	2439.	2428.	2374.	4783.	975.8	9568.
39	CCB4	.0316	.4726	-.6551	-.1905	-.4784	1.602
40	88677-2X	1595.	9.015	H6905.	43.96	22.96	2079.
41	88684-2X	116.8	1.094	1243.	20.21	6.431	896.1
42	88685-2X	404.7	1.245	1316.	18.21	6.806	698.8
43	ICSA2	-.2128	-1.747	1.264	.8449	-2.231	.2277
44	ICSAB2	101.9	98.94	L5.067	105.3	101.9	100.5
45	CCV5	2508.	2498.	2447.	4887.	996.9	9808.
46	CCB5	-.1953	.6680	1.412	-.2324	.1657	.7380

305210

#	Sample Name	Pb2203	Se1960	Sb2068	B_2496		
1	HSA	19460.	9917.	2013.	1995.		
2	ICV/CCV1	10210.	4993.	1037.	1023.		
3	ICB/CCB1	.1204	-2.622	-.4934	2.155		
4	ICSA1	.0832	-6.348	.5210	.3496		
5	ICSAB1	95.28	91.38	102.7	108.5		
6	INT-20	4.482	-2.809	-1.657	-.2534		
7	MCL	9.447	10.16	16.79	106.5		
8	BSS101998	453.6	1784.	423.7	449.8		
9	PBS101998	-1.054	-2.737	-.5832	1.746		
10	LCSS238A-2X	641.6	416.0	345.2	310.4		
11	LCSS238AD-2X	593.7	384.6	310.8	289.8		
12	88683D-2X	27.48	-3.511	.1917	11.20		
13	88683-2X	32.18	-4.033	.2937	10.46		
14	CCV2	10030.	4811.	990.2	977.2		
15	CCB2	-.4943	-1.354	-1.035	-.2068		
16	88683L-2X	5.104	-.7656	-1.891	1.194		
17	88683MS-2X	242.4	860.6	144.1	228.0		
18	88683MSD-2X	244.1	865.2	150.6	230.8		
19	88683A-2X	507.0	1882.	444.8	498.8		
20	90277-2X	1089.	-1.533	4.058	67.27		
21	90278-2X	661.3	-.4940	.9738	77.10		
22	90279-2X	733.4	-4.365	2.450	69.55		
23	90280-2X	750.5	-1.005	.4601	62.92		
24	90281-2X	879.4	-2.089	4.405	72.31		
25	90282-2X	664.2	.5894	-2.016	58.18		
26	CCV3	10420.	5051.	1040.	1021.		
27	CCB3	-1.510	-2.408	-.1031	.9788		
28	90283-2X	554.7	-3.303	2.461	95.82		
29	90284-2X	674.5	-3.976	.8208	71.65		
30	90285-2X	848.4	-4.731	1.936	77.57		
31	90286-2X	609.4	-3.543	.9197	65.16		
32	90289-2X	46.17	-.7387	-1.012	63.92		
33	90290-2X	167.0	L-7.032	-1.682	109.4		
34	89341-2X	83.38	-3.290	-.0856	4.245		
35	89343-2X	67.68	.1498	-2.158	6.350		
36	89310-2X	780.9	-4.179	.1675	3.084		
37	88666-2X	1393.	-.7239	.1640	52.83		
38	CCV4	9717.	4746.	987.4	963.1		
39	CCB4	-1.238	-2.089	-1.440	-.9191		
40	88677-2X	335.0	-3.168	-1.633	9.483		
41	88684-2X	12.19	-1.614	-3.377	.2421		
42	88685-2X	21.03	-2.967	-3.459	-.5297		
43	ICSA2	-1.369	L-14.35	-.3222	-1.576		
44	ICSAB2	93.10	88.17	96.06	103.7		
45	CCV5	9983.	4866.	1011.	990.7		
46	CCB5	-1.438	-4.451	-1.299	-.4687		

305211

Method: SW846 Standard: STD1-Blank

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Avge	.2666	-.0193	.0102	-.0315	.0101	.2082	.0295
SDev	.0088	.0071	.0015	.0006	.0028	.0022	.0023
%RSD	3.313	36.89	14.49	1.931	27.95	1.040	7.664
#1	.2728	-.0143	.0112	-.0310	.0081	.2097	.0310
#2	.2603	-.0243	.0091	-.0319	.0122	.2066	.0279

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Avge	-.0041	.0818	-.0061	.0163	.0056	.0782	5.227
SDev	.0036	.0039	.0029	.0072	.0007	.0118	.019
%RSD	88.60	4.742	47.45	44.51	13.20	15.04	.3638
#1	-.0066	.0845	-.0081	.0214	.0061	.0865	5.240
#2	-.0015	.0790	-.0041	.0111	.0051	.0699	5.214

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Avge	-.1434	.0041	-.0228	.0055	.0564	.0124	.2260
SDev	.0006	.0043	.0236	.0041	.0016	.0132	.0144
%RSD	.4009	106.2	103.5	74.61	2.898	106.6	6.388
#1	-.1430	.0071	-.0061	.0084	.0575	.0031	.2362
#2	-.1438	.0010	-.0395	.0026	.0552	.0218	.2158

Elem	Sr4215	Sn1899	Ti3349	2203/1	2203/2	2068/1	2068/2
Avge	.0358	.0355	-.3311	-.0562	.0467	-.0111	.0076
SDev	.0012	.0339	.0126	.2099	.0002	.0416	.0007
%RSD	3.359	95.52	3.820	373.3	.3500	374.9	9.777
#1	.0366	.0595	-.3400	-.2046	.0468	.0183	.0081
#2	.0349	.0115	-.3221	.0922	.0466	-.0405	.0071

Elem	1960/1	1960/2	B_2496
Avge	-.2831	.1646	.0304
SDev	.1611	.0623	.0100
%RSD	56.91	37.86	32.67
#1	-.3970	.2087	.0234
#2	-.1692	.1205	.0375

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	985	--	--	--	--	--	--
SDev	3.447145	--	--	--	--	--	--
%RSD	.3500395	--	--	--	--	--	--
#1	982	--	--	--	--	--	--

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#2	987	--	--	--	--	--	--

Method: SW846 Standard: ~~STD4~~ STDL [illegible] 10/21/91

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Avge	86.36	11.36	42.59	9.278	65.32	89.39	23.11
SDev	.42	.05	.22	.030	.16	.32	.04
%RSD	.4819	.4601	.5054	.3227	.2377	.3528	.1571
#1	86.66	11.40	42.75	9.299	65.43	89.61	23.14
#2	86.07	11.33	42.44	9.257	65.21	89.17	23.09

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	Ag3280
Avge	15.47	28.94	18.85	45.34	19.46	48.73	3.652
SDev	.02	.09	.10	.20	.05	.22	.000
%RSD	.1382	.3276	.5446	.4320	.2812	.4585	.0034
#1	15.49	29.01	18.92	45.48	19.50	48.89	3.652
#2	15.46	28.87	18.78	45.20	19.43	48.57	3.652

Elem	Tl1908	V_2924	Zn2138	Mo2020	P_1782	Sr4215	Sn1899
Avge	11.09	3.667	12.63	16.57	5.753	106.3	5.339
SDev	.06	.011	.04	.07	.007	.4	.022
%RSD	.5570	.2988	.3412	.4021	.1198	.4189	.4190
#1	11.13	3.674	12.66	16.52	5.748	106.6	5.355
#2	11.05	3.659	12.59	16.61	5.758	106.0	5.323

Elem	Ti3349	2203/1	2203/2	2068/1	2068/2	1960/1	1960/2
Avge	146.9	232.7	56.74	2.414	.6226	23.80	17.61
SDev	.5	1.1	.03	.008	.0077	.18	.18
%RSD	.3733	.4667	.0452	.3374	1.232	.7458	1.041
#1	147.3	233.5	56.76	2.419	.6280	23.92	17.74
#2	146.5	231.9	56.72	2.408	.6171	23.67	17.48

Elem	B_2496
Avge	2.416
SDev	.010
%RSD	.4230
#1	2.423
#2	2.409

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1031	--	--	--	--	--	--
SDev	8.167118	--	--	--	--	--	--
%RSD	.7919437	--	--	--	--	--	--
#1	1026	--	--	--	--	--	--
#2	1037	--	--	--	--	--	--

305213

Method: SW846 Standard: STD3

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Avge	434.8	55.79	212.1	45.17	310.7	432.8	112.5
SDev	.1	.30	.5	.12	1.6	1.0	.3
%RSD	.0329	.5305	.2242	.2653	.5291	.2299	.2427
#1	434.7	56.00	211.7	45.25	311.9	433.5	112.7
#2	434.9	55.58	212.4	45.08	309.5	432.1	112.3

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	Ag3280
Avge	74.42	144.5	92.60	228.8	94.61	232.1	19.12
SDev	.16	.1	.14	.6	.23	.5	.00
%RSD	.2195	.0786	.1462	.2460	.2397	.2258	.0107
#1	74.53	144.6	92.50	229.2	94.77	232.5	19.12
#2	74.30	144.4	92.70	228.4	94.45	231.8	19.12

Elem	Tl1908	V_2924	Zn2138	Mo2020	P_1782	Sr4215	Sn1899
Avge	53.84	18.00	61.08	80.49	27.39	521.9	25.75
SDev	.14	.04	.19	.31	.17	.4	.02
%RSD	.2536	.2263	.3056	.3889	.6154	.0765	.0928
#1	53.93	18.03	61.22	80.71	27.51	521.6	25.77
#2	53.74	17.98	60.95	80.27	27.27	522.2	25.73

Elem	Ti3349	2203/1	2203/2	2068/1	2068/2	1960/1	1960/2
Avge	735.0	1116.	269.6	12.18	3.094	117.1	85.77
SDev	.2	5.	.7	.11	.012	.7	.19
%RSD	.0312	.4634	.2667	.9107	.3858	.6118	.2165
#1	734.8	1119.	270.1	12.10	3.103	117.6	85.90
#2	735.2	1112.	269.1	12.25	3.086	116.6	85.64

Elem	B_2496
Avge	11.94
SDev	.03
%RSD	.2190
#1	11.96
#2	11.92

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	999	--	--	--	--	--	--
SDev	4.083516	--	--	--	--	--	--
%RSD	.4087143	--	--	--	--	--	--
#1	996	--	--	--	--	--	--
#2	1002	--	--	--	--	--	--

305214

Method: SW846 Standard: ~~STD2~~ STD4 [illegible] 12/21/88

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Avge	851.0	110.3	409.6	88.40	601.8	840.0	219.8
SDev	9.0	1.4	4.2	1.21	8.6	12.2	3.0
%RSD	1.062	1.305	1.017	1.371	1.429	1.447	1.368
#1	844.6	109.3	406.6	87.54	595.7	831.4	217.7
#2	857.3	111.3	412.5	89.25	607.8	848.6	221.9

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Avge	144.0	287.6	180.3	459.1	183.7	447.4	187.3
SDev	1.9	3.6	2.0	6.3	2.5	5.9	1.7
%RSD	1.288	1.240	1.106	1.382	1.380	1.326	.9222
#1	142.7	285.1	178.9	454.6	182.0	443.2	186.1
#2	145.3	290.2	181.8	463.5	185.5	451.6	188.5

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Avge	38.67	23.26	104.6	35.38	119.1	157.5	53.33
SDev	.46	.19	1.2	.50	1.7	2.2	.47
%RSD	1.191	.8043	1.185	1.407	1.421	1.426	.8850
#1	38.35	23.13	103.7	35.03	117.9	155.9	52.99
#2	39.00	23.39	105.5	35.73	120.3	159.1	53.66

Elem	Sr4215	Sn1899	Ti3349	2203/1	2203/2	2068/1	2068/2
Avge	999.2	50.46	1454.	2175.	523.6	24.24	6.138
SDev	11.6	.75	17.	31.	9.9	.40	.070
%RSD	1.157	1.495	1.155	1.406	1.899	1.639	1.135
#1	991.0	49.93	1442.	2153.	516.6	23.96	6.088
#2	1007.	50.99	1466.	2196.	530.6	24.52	6.187

Elem	1960/1	1960/2	B_2496
Avge	232.5	169.8	23.71
SDev	2.3	2.9	.32
%RSD	.9780	1.713	1.362
#1	230.9	167.8	23.49
#2	234.1	171.9	23.94

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	987	--	--	--	--	--	--
SDev	7.636788	--	--	--	--	--	--
%RSD	.7734827	--	--	--	--	--	--
#1	993	--	--	--	--	--	--
#2	982	--	--	--	--	--	--

Method: SW846 Slope = Conc(SIR)/IR

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Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Al3082	308.215	Multiple	Standards	581.397	-155.857	10/20/98 02:54:55
As1890	189.042	Multiple	Standards	89.3633	1.57301	10/20/98 02:54:55
Ba4394	439.409	Multiple	Standards	47.6437	-.759988	10/20/98 02:54:55
Be3130	313.042	Multiple	Standards	21.9579	.643500	10/20/98 02:54:55
Cd2265	226.502	Multiple	Standards	8.01831	-.276840	10/20/98 02:54:55
Ca3179	317.933	Multiple	Standards	288.857	-66.9027	10/20/98 02:54:55
Cr2677	267.716	Multiple	Standards	44.4197	-1.53194	10/20/98 02:54:55
Co2286	228.616	Multiple	Standards	33.7196	-.029675	10/20/98 02:54:55
Cu3247	324.753	Multiple	Standards	86.7330	-7.11481	10/20/98 02:54:55
Fe2714	271.441	Multiple	Standards	1083.55	2.82180	10/20/98 02:54:55
Mg2790	279.078	Multiple	Standards	547.474	-7.29955	10/20/98 02:54:55
Mn2576	257.610	Multiple	Standards	52.8941	-.551649	10/20/98 02:54:55
Ni2316	231.604	Multiple	Standards	10.7188	-1.03361	10/20/98 02:54:55
K_7664	766.491	STD2	STD1-Blank	.774714	-1.44947	10/20/98 02:54:55
Ag3280	328.068	Multiple	Standards	65.0834	9.36218	10/20/98 02:54:55
Na3302	330.232	STD2	STD1-Blank	.906031	.019313	10/20/98 02:54:55
Tl1908	190.864	Multiple	Standards	93.6006	1.85879	10/20/98 02:54:55
V_2924	292.402	Multiple	Standards	138.660	-.836438	10/20/98 02:54:55
Zn2138	213.856	Multiple	Standards	41.3681	-2.45793	10/20/98 02:54:55
Mo2020	202.030	Multiple	Standards	30.9968	-.500780	10/20/98 02:54:55
P_1782	178.287	Multiple	Standards	92.3811	-20.9614	10/20/98 02:54:55
Sr4215	421.552	Multiple	Standards	9.67942	-.594431	10/20/98 02:54:55
Sn1899	189.989	Multiple	Standards	38.0866	-1.39878	10/20/98 02:54:55
Ti3349	334.941	Multiple	Standards	13.6583	4.43441	10/20/98 02:54:55
Pb2203	220.353	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
Se1960	196.026	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
Sb2068	206.838	NONE	NONE	1.00000	.000000	*NOT STANDARDIZED
2203/1	220.351	Multiple	Standards	8.99114	-.151087	10/20/98 02:54:55
2203/2	220.352	Multiple	Standards	36.6602	-2.47647	10/20/98 02:54:55
2068/1	206.831	Multiple	Standards	85.9938	.957062	10/20/98 02:54:55
2068/2	206.832	Multiple	Standards	328.157	-2.49993	10/20/98 02:54:55
1960/1	196.021	Multiple	Standards	42.3375	11.8132	10/20/98 02:54:55
1960/2	196.022	Multiple	Standards	57.7386	-9.64004	10/20/98 02:54:55
B_2496	249.678	Multiple	Standards	84.3838	-2.57479	10/20/98 02:54:55

Method: SW846

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al3082	308.215	STD1-Blank	.000000	-.873635	.873635
		STD4	50000.0	50054.8	-54.7617
		STD3	250000.	252659.	-2659.45
		STD2	500000.	494587.	5413.19

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
As1890	189.042	STD1-Blank	.000000	-.150008	.150008
		STD4	1000.00	1017.04	-17.0371
		STD3	5000.00	4987.52	12.4810
		STD2	10000.0	9857.08	142.919

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba4394	439.409	STD1-Blank	.000000	-.276069	.276069
		STD4	2000.00	2028.56	-28.5623
		STD3	10000.0	10102.8	-102.791

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	STD2	20000.0	19513.4	486.555

CorCoef: 0.99983

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be3130	313.042	STD1-Blank	.000000	-.047687	.047687
		STD4	200.000	204.363	-4.36270
		STD3	1000.00	992.462	7.53766
		STD2	2000.00	1941.66	58.3413

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd2265	226.502	STD1-Blank	.000000	-.195458	.195458
		STD4	500.000	523.454	-23.4540
		STD3	2500.00	2491.06	8.94043
		STD2	5000.00	4824.86	175.138

CorCoef: 0.99985

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca3179	317.933	STD1-Blank	.000000	-6.77116	6.77116
		STD4	25000.0	25753.6	-753.602
		STD3	125000.	124944.	56.2500
		STD2	250000.	242577.	7423.50

CorCoef: 0.99988

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr2677	267.716	STD1-Blank	.000000	-.223697	.223697
		STD4	1000.00	1025.15	-25.1523
		STD3	5000.00	4996.63	3.36768
		STD2	10000.0	9761.21	238.788

CorCoef: 0.99992

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co2286	228.616	STD1-Blank	.000000	-.166849	.166849
		STD4	500.000	521.645	-21.6453
		STD3	2500.00	2509.36	-9.36011
		STD2	5000.00	4854.32	145.683

CorCoef: 0.99984

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu3247	324.753	STD1-Blank	.000000	-.024359	.024359
		STD4	2500.00	2502.88	-2.87793
		STD3	12500.0	12524.6	-24.6279
		STD2	25000.0	24941.4	58.6270

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe2714	271.441	STD1-Blank	.000000	-3.78542	3.78542
		STD4	20000.0	20425.5	-425.531
		STD3	100000.	100340.	-339.500
		STD2	200000.	195413.	4587.00

CorCoef: 0.99990

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg2790	279.078	STD1-Blank	.000000	1.60228	-1.60228
		STD4	25000.0	24816.1	183.889
		STD3	125000.	125264.	-263.578

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	STD2	250000.	251312.	-1311.72

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn2576	257.610	STD1-Blank	.000000	-.256169	.256169
		STD4	1000.00	1028.98	-28.9794
		STD3	5000.00	5004.00	-3.99854
		STD2	10000.0	9718.54	281.455

CorCoef: 0.99988

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni2316	231.604	STD1-Blank	.000000	-.195289	.195289
		STD4	500.000	521.318	-21.3184
		STD3	2500.00	2487.24	12.7590
		STD2	5000.00	4794.41	205.591

CorCoef: 0.99981

Element	Wavelength	Standard	Known Signal	Measured Signal	Residual Signal
K_7664	766.491	STD1-Blank	2.60000	5.22705	-2.62705
		STD2	143.640	187.281	-43.6413

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag3280	328.068	STD1-Blank	.000000	.027215	-.027215
		STD4	250.000	247.033	2.96700
		STD3	1250.00	1253.54	-3.54260
		STD2	2500.00	2526.24	-26.2449

CorCoef: 0.99999

Element	Wavelength	Standard	Known Signal	Measured Signal	Residual Signal
Na3302	330.232	STD1-Blank	.023000	.004069	.018931
		STD2	21.0913	23.2575	-2.16617

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Tl1908	190.864	STD1-Blank	.000000	-.275884	.275884
		STD4	1000.00	1039.84	-39.8362
		STD3	5000.00	5041.04	-41.0405
		STD2	10000.0	9792.11	207.894

CorCoef: 0.99988

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
V_2924	292.402	STD1-Blank	.000000	-.076683	.076683
		STD4	500.000	507.567	-7.56671
		STD3	2500.00	2495.66	4.33813
		STD2	5000.00	4904.66	95.3403

CorCoef: 0.99996

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn2138	213.856	STD1-Blank	.000000	-.126411	.126411
		STD4	500.000	519.828	-19.8278
		STD3	2500.00	2524.43	-24.4346
		STD2	5000.00	4923.63	76.3716

CorCoef: 0.99991

			Known	Measured	Residual

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Element	Wavelength	Standard	Concentration	Concentration	Concentration
Mo2020	202.030	STD1-Blank	.000000	-.115921	.115921
		STD4	500.000	513.004	-13.0040
		STD3	2500.00	2494.43	5.57153
		STD2	5000.00	4881.10	118.896

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
P_1782	178.287	STD1-Blank	.000000	-.086722	.086722
		STD4	500.000	510.533	-10.5334
		STD3	2500.00	2509.60	-9.60083
		STD2	5000.00	4905.46	94.5361

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sr4215	421.552	STD1-Blank	.000000	-.247940	.247940
		STD4	1000.00	1028.64	-28.6381
		STD3	5000.00	5051.24	-51.2417
		STD2	10000.0	9671.29	328.714

CorCoef: 0.99973

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn1899	189.989	STD1-Blank	.000000	-.047193	.047193
		STD4	200.000	201.947	-1.94722
		STD3	1000.00	979.339	20.6612
		STD2	2000.00	1920.45	79.5503

CorCoef: 0.99994

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti3349	334.941	STD1-Blank	.000000	-.087293	.087293
		STD4	2000.00	2010.88	-10.8757
		STD3	10000.0	10043.3	-43.2715
		STD2	20000.0	19865.2	134.754

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb2203	220.353	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se1960	196.026	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb2068	206.838	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2203/1	220.351	STD1-Blank	.000000	-.656541	.656541
		STD4	2000.00	2092.23	-92.2327
		STD3	10000.0	10032.3	-32.2773
		STD2	20000.0	19553.1	446.857

CorCoef: 0.99990

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Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2203/2	220.352	STD1-Blank	.000000	-.764041	.764041
		STD4	2000.00	2077.71	-77.7146
		STD3	10000.0	9882.63	117.372
		STD2	20000.0	19193.3	806.652

CorCoef: 0.99987

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2068/1	206.831	STD1-Blank	.000000	.002780	-.002780
		STD4	200.000	208.507	-8.50723
		STD3	1000.00	1048.02	-48.0238
		STD2	2000.00	2085.73	-85.7295

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2068/2	206.832	STD1-Blank	.000000	-.000303	.000303
		STD4	200.000	201.798	-1.79785
		STD3	1000.00	1012.91	-12.9072
		STD2	2000.00	2011.58	-11.5845

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
1960/1	196.021	STD1-Blank	.000000	-.171860	.171860
		STD4	1000.00	1019.34	-19.3370
		STD3	5000.00	4970.14	29.8613
		STD2	10000.0	9854.95	145.046

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
1960/2	196.022	STD1-Blank	.000000	-.135595	.135595
		STD4	1000.00	1007.25	-7.24884
		STD3	5000.00	4942.78	57.2246
		STD2	10000.0	9796.56	203.439

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
B_2496	249.678	STD1-Blank	.000000	-.005642	.005642
		STD4	200.000	201.295	-1.29500
		STD3	1000.00	1004.69	-4.68518
		STD2	2000.00	1998.53	1.47021

CorCoef: 1.00000

Method: SW846 Sample Name: HSA Operator:
Run Time: 10/20/98 15:01:56
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	496400.	9824.	19670.	1957.	4807.	243200.	9783.
SDev	3398.	32.	155.	11.	21.	1500.	57.
%RSD	.6845	.3258	.7880	.5387	.4358	.6169	.5843
#1	494000.	9802.	19570.	1950.	4792.	242100.	9743.
#2	498800.	9847.	19780.	1964.	4822.	244300.	9824.

305220

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	527200.	10540.	21080.	2108.	5272.	263600.	10540.
Low	472800.	9460.	18920.	1892.	4728.	236400.	9460.

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	4840.	24960.	197200.	252100.	9731.	4816.	100400.
SDev	25.	125.	1584.	1593.	56.	23.	654.
%RSD	.5145	.4990	.8033	.6317	.5780	.4679	.6514
#1	4822.	24880.	196000.	251000.	9691.	4800.	99920.
#2	4857.	25050.	198300.	253300.	9770.	4832.	100800.

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5272.	26360.	210800.	263600.	10540.	5272.	105400.
Low	4728.	23640.	189200.	236400.	9460.	4728.	94600.

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2535.	250900.	9720.	4913.	4865.	4883.	4948.
SDev	14.	1409.	65.	29.	22.	29.	10.
%RSD	.5406	.5616	.6672	.5919	.4516	.5868	.1951
#1	2525.	249900.	9674.	4892.	4850.	4862.	4942.
#2	2545.	251900.	9766.	4933.	4881.	4903.	4955.

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2636.	263600.	10540.	5272.	5272.	5272.	5272.
Low	2364.	236400.	9460.	4728.	4728.	4728.	4728.

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	9700.	1948.	19930.	19460.	9917.	2013.	19560.
SDev	69.	6.	140.	71.	35.	16.	71.
%RSD	.7135	.3281	.7045	.3626	.3526	.7817	.3650
#1	9651.	1943.	19830.	19410.	9892.	2002.	19510.
#2	9749.	1952.	20030.	19510.	9942.	2024.	19610.

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10540.	2108.	21080.	21080.	10540.	2108.	
Low	9460.	1892.	18920.	18920.	9460.	1892.	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	19410.	2009.	2021.	9933.	9909.	1995.
SDev	70.	19.	9.	43.	31.	11.
%RSD	.3614	.9387	.4692	.4330	.3123	.5279
#1	19360.	1996.	2014.	9903.	9887.	1988.
#2	19460.	2022.	2028.	9964.	9930.	2003.

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						2108.
Low						1892.

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	975	--	--	--	--	--	--
SDev	1.750115	--	--	--	--	--	--
%RSD	.1794323	--	--	--	--	--	--
#1	977	--	--	--	--	--	--
#2	974	--	--	--	--	--	--

Method: SW846 Sample Name: ICV/CCV1 Operator:
Run Time: 10/20/98 15:07:17
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	255400.	5025.	10190.	980.0	2512.	126900.	5183.
SDev	1019.	25.	32.	6.2	16.	746.	34.
%RSD	.3991	.5021	.3166	.6372	.6295	.5882	.6602
#1	254700.	5007.	10170.	975.6	2501.	126300.	5158.
#2	256100.	5043.	10220.	984.4	2523.	127400.	5207.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	276000.	5520.	11040.	1104.	2760.	138000.	5520.
Low	223900.	4478.	8960.	896.0	2239.	112000.	4478.

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2535.	12730.	98830.	127600.	5134.	2511.	49990.
SDev	13.	67.	218.	706.	32.	12.	272.
%RSD	.5202	.5258	.2207	.5534	.6271	.4669	.5439
#1	2526.	12690.	98670.	127100.	5112.	2502.	49790.
#2	2544.	12780.	98980.	128100.	5157.	2519.	50180.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2760.	13800.	110400.	138000.	5520.	2760.	55200.
Low	2239.	11200.	89600.	112000.	4478.	2239.	44780.

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1275.	127600.	4999.	2556.	2561.	2557.	2543.
SDev	7.	162.	28.	17.	17.	16.	14.
%RSD	.5451	.1267	.5630	.6664	.6741	.6065	.5462
#1	1270.	127400.	4979.	2544.	2548.	2546.	2533.
#2	1280.	127700.	5019.	2568.	2573.	2568.	2553.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1380.	138000.	5520.	2760.	2760.	2760.	2760.
Low	1120.	112000.	4478.	2239.	2239.	2239.	2239.

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1

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Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	5033.	1027.	10130.	10210.	4993.	1037.	10160.
SDev	24.	2.	46.	86.	30.	1.	117.
%RSD	.4763	.1703	.4583	.8383	.5966	.0502	1.148
#1	5016.	1025.	10090.	10140.	4972.	1037.	10080.
#2	5050.	1028.	10160.	10270.	5014.	1036.	10250.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5520.	1104.	11040.	11040.	5520.	1104.	
Low	4478.	896.0	8960.	8960.	4478.	896.0	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	10230.	1042.	1025.	4958.	5010.	1023.
SDev	70.	9.	16.	43.	23.	2.
%RSD	.6848	.8610	1.602	.8726	.4603	.2111
#1	10180.	1049.	1013.	4927.	4994.	1021.
#2	10280.	1036.	1037.	4988.	5026.	1024.
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						1104.
Low						896.0

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	995	--	--	--	--	--	--
SDev	3.500144	--	--	--	--	--	--
%RSD	.3518352	--	--	--	--	--	--
#1	997	--	--	--	--	--	--
#2	992	--	--	--	--	--	--

Method: SW846 Sample Name: ICB/CCB1 Operator:
Run Time: 10/20/98 15:12:37
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8.652	3.516	.2763	.0333	.2116	.2440	.0350
SDev	9.693	.310	.1326	.0079	.0283	1.932	.1178
%RSD	112.0	8.807	48.01	23.61	13.36	791.8	337.1
#1	15.51	3.735	.3700	.0277	.2316	1.610	-.0484
#2	1.798	3.297	.1825	.0389	.1916	-1.122	.1183
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	4.000	5.000	1.000	1.500	400.0	5.000
Low	-199.0	-4.000	-5.000	-1.000	-1.500	-400.0	-5.000

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	.2166	.0097	-1.935	7.510	.0107	-.4170	185.0
SDev	.1190	.1027	3.666	5.952	.1460	.3397	4.0
%RSD	54.94	1063.	189.5	79.26	1364.	81.46	2.154
#1	.3008	-.0630	.6572	3.301	.1139	-.1768	182.1
#2	.1325	.0823	-4.527	11.72	-.0925	-.6572	187.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	5.000	50.00	200.0	5.000	5.000	1000.
Low	-5.000	-5.000	-50.00	-200.0	-5.000	-5.000	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1313	-231.6	.8724	-.0465	.0334	1.755	-.8837
SDev	.2234	439.9	1.542	.7930	.0460	1.033	5.9505
%RSD	170.1	190.0	176.7	1706.	137.8	58.85	673.4
#1	.2892	79.47	1.962	.5142	.0660	2.485	3.324
#2	-.0267	-542.6	-.2176	-.6072	.0009	1.025	-5.091
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	1000.	9.900	5.000	15.00	10.00	20.00
Low	-5.000	-1000.	-9.900	-5.000	-9.900	-10.00	-20.00
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	.0091	-.9106	.3306	.1204	-2.622	-.4934	2.124
SDev	.0740	1.0004	1.074	1.051	2.204	1.3341	.285
%RSD	817.1	109.9	324.9	872.7	84.07	270.4	13.41
#1	.0614	-1.618	-.4288	.8636	-4.180	.4499	2.325
#2	-.0433	-.2032	1.090	-.6227	-1.063	-1.437	1.922
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5.000	5.000	5.000	3.000	5.000	10.00	
Low	-3.000	-3.000	-5.000	-3.000	-5.000	-10.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	-.8941	-.7060	-.0907	4.104	-5.991	2.155	
SDev	1.4335	1.8760	.2485	3.715	5.159	.011	
%RSD	160.3	265.7	274.1	90.52	86.11	.5039	
#1	.1196	.6205	.0851	6.731	-9.640	2.163	
#2	-1.908	-2.033	-.2664	1.477	-2.343	2.148	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						15.00	
Low						-9.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1035	--	--	--	--	--	--
SDev	2.386485	--	--	--	--	--	--

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%RSD	.2306591	--	--	--	--	--	--
#1	1033	--	--	--	--	--	--
#2	1036	--	--	--	--	--	--

Method: SW846 Sample Name: ICSA1 Operator:
Run Time: 10/20/98 15:17:57
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498800.	-4.341	4.340	-.0099	.9914	457900.	.2431
SDev	3215.	1.229	.019	.0109	.2302	2791.	.2750
%RSD	.6446	28.30	.4425	110.3	23.22	.6097	113.1
#1	501100.	-5.210	4.354	-.0176	1.154	459900.	.4376
#2	496500.	-3.473	4.326	-.0022	.8286	455900.	.0486
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600000.	10.00	20.00	5.000	3.500	600000.	5.000
Low	400000.	-10.00	-10.00	-5.000	-3.500	400000.	-5.000

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3535	-2.270	190100.	507100.	1.035	.8681	101.5
SDev	.1664	.001	1608.	2574.	.032	.6504	5.5
%RSD	47.07	.0493	.8462	.5076	3.044	74.93	5.406
#1	.2358	-2.270	191200.	509000.	1.057	.4081	105.4
#2	.4712	-2.271	188900.	505300.	1.013	1.328	97.63
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	20.00	240000.	600000.	10.00	10.00	500.0
Low	-5.000	-10.00	160000.	400000.	-5.000	-5.000	-500.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.8087	-172.9	-6.149	1.860	-.8695	.3488	-1.366
SDev	.0553	162.6	1.517	.459	.1062	.3226	.941
%RSD	6.843	94.04	24.68	24.66	12.21	92.49	68.92
#1	.7695	-57.93	-5.076	1.536	-.7945	.5770	-.7003
#2	.8478	-287.9	-7.222	2.185	-.9446	.1207	-2.032
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.00	1000.	10.00	10.00	10.00	10.00	15.00
Low	-10.00	-2000.	-10.00	-5.000	-10.00	-5.000	-15.00

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	.9509	-.2465	3.604	.0832	-6.348	.5210	27.82
SDev	.0407	1.4437	.375	1.907	.547	.2370	2.04
%RSD	4.276	585.7	10.40	2292.	8.623	45.48	7.346
#1	.9797	.7743	3.869	-1.265	-6.735	.6886	26.37

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#2	.9222	-1.267	3.339	1.432	-5.961	.3535	29.26
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10.00	10.00	10.00	5.000	10.00	10.00	
Low	-5.000	-5.000	-5.000	-5.000	-10.00	-10.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	8_2496	
Units						ppb	
Avge	-13.78	3.541	-5.552	5.556	-12.30	.3496	
SDev	1.84	.314	1.341	.813	.42	.7686	
%RSD	13.35	8.872	24.15	14.63	3.374	219.9	
#1	-15.08	3.319	-4.604	4.981	-12.60	-.1939	
#2	-12.48	3.763	-6.500	6.130	-12.01	.8931	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						15.00	
Low						-15.00	
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	995	--	--	--	--	--	--
SDev	3.747657	--	--	--	--	--	--
%RSD	.3766868	--	--	--	--	--	--
#1	992	--	--	--	--	--	--
#2	998	--	--	--	--	--	--

Method: SW846 Sample Name: ICSAB1 Operator:
Run Time: 10/20/98 15:23:17
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	512300.	105.3	109.6	100.9	98.98	473100.	99.37
SDev	14944.	5.7	3.0	3.1	2.53	14124.	3.19
%RSD	2.917	5.447	2.777	3.094	2.561	2.985	3.211
#1	501800.	101.3	107.5	98.72	97.19	463200.	97.12
#2	522900.	109.4	111.8	103.1	100.8	483100.	101.6
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600000.	120.0	120.0	120.0	120.0	600000.	120.0
Low	400000.	80.00	80.00	80.00	80.00	400000.	80.00
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	98.82	101.0	192000.	524800.	101.7	96.91	10970.
SDev	3.26	3.5	5207.	16019.	3.2	3.08	326.
%RSD	3.302	3.506	2.711	3.052	3.158	3.182	2.967
#1	96.51	98.46	188300.	513400.	99.43	94.73	10740.
#2	101.1	103.5	195700.	536100.	104.0	99.09	11200.

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	120.0	120.0	240000.	600000.	120.0	120.0	12000.
Low	80.00	80.00	160000.	400000.	80.00	80.00	8000.
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	106.3	H12290.	95.99	105.2	104.6	103.5	L3.404
SDev	4.1	146.	3.33	4.5	3.5	3.3	4.600
%RSD	3.819	1.191	3.465	4.245	3.330	3.195	135.2
#1	103.4	H12190.	93.64	102.0	102.2	101.1	L.1507
#2	109.1	H12400.	98.35	108.3	107.1	105.8	L6.657

Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	120.0	12000.	120.0	120.0	120.0	120.0	120.0
Low	80.00	8000.	80.00	80.00	80.00	80.00	80.00
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	107.0	105.3	104.1	95.28	91.38	102.7	134.0
SDev	3.1	5.7	4.0	2.71	4.21	5.0	1.4
%RSD	2.922	5.398	3.844	2.845	4.606	4.825	1.076
#1	104.8	101.3	101.3	93.37	88.40	99.19	135.0
#2	109.3	109.3	107.0	97.20	94.35	106.2	133.0

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	120.0	120.0	120.0	120.0	120.0	120.0	
Low	80.00	80.00	80.00	80.00	80.00	80.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	75.94	103.2	101.6	116.1	79.02	108.5	
SDev	4.78	3.1	8.7	2.4	5.10	3.8	
%RSD	6.297	3.007	8.528	2.092	6.450	3.483	
#1	72.56	101.0	95.45	114.4	75.42	105.9	
#2	79.33	105.4	107.7	117.8	82.63	111.2	

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						120.0
Low						80.00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	977	--	--	--	--	--	--
SDev	23.58199	--	--	--	--	--	--
%RSD	2.413962	--	--	--	--	--	--
#1	994	--	--	--	--	--	--
#2	960	--	--	--	--	--	--

305227

Method: SW846 Sample Name: INT-20 Operator:
Run Time: 10/20/98 15:28:37
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	51.75	3.368	-2.473	11.37	.1531	81.44	19990.
SDev	8.20	.986	.227	.58	.1315	9.31	55.
%RSD	15.85	29.29	9.166	5.123	85.87	11.43	.2733
#1	45.95	2.670	-2.633	11.78	.0601	74.86	20030.
#2	57.54	4.065	-2.313	10.96	.2461	88.02	19960.

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	20390.	-6.960	-139.6	7.161	19160.	20360.	191.5
SDev	41.	.013	16.7	9.318	54.	55.	3.9
%RSD	.2027	.1936	11.99	130.1	.2807	.2698	2.061
#1	20420.	-6.950	-151.4	.5721	19200.	20400.	188.8
#2	20370.	-6.970	-127.7	13.75	19130.	20320.	194.3

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-3.869	-3582.	-59.91	19900.	11.97	19440.	-2.854
SDev	.348	36.	.28	83.	.68	47.	.223
%RSD	8.994	1.008	.4690	.4166	5.713	.2424	7.798
#1	-3.623	-3608.	-60.11	19960.	11.48	19470.	-2.696
#2	-4.115	-3557.	-59.72	19840.	12.45	19400.	-3.011

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	18280.	19860.	19760.	4.482	-2.809	-1.657	1.165
SDev	12.	106.	2.	.259	1.484	3.836	.973
%RSD	.0659	.5331	.0083	5.789	52.83	231.5	83.56
#1	18270.	19930.	19760.	4.666	-3.859	-4.369	1.853
#2	18290.	19780.	19760.	4.299	-1.760	1.055	.4766

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	6.123	16.76	-38.57	10.85	-9.641	-.2534
SDev	.099	2.29	6.92	1.18	1.638	.4201
%RSD	1.616	13.69	17.95	10.84	16.99	165.8
#1	6.053	15.14	-43.47	10.02	-10.80	.0436
#2	6.193	18.39	-33.68	11.68	-8.483	-.5505

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1042	--	--	--	--	--	--
SDev	2.032932	--	--	--	--	--	--
%RSD	.1951342	--	--	--	--	--	--

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#1	1043	--	--	--	--	--	--
#2	1040	--	--	--	--	--	--

Method: SW846 Sample Name: MCL Operator:
Run Time: 10/20/98 15:33:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	213.0	27.63	51.06	4.188	5.199	5348.	22.51
SDev	3.7	1.56	.39	.021	.078	30.	.33
%RSD	1.734	5.631	.7560	.5062	1.506	.5700	1.472
#1	215.7	26.53	51.33	4.203	5.144	5370.	22.74
#2	210.4	28.73	50.79	4.173	5.255	5327.	22.28

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	57.62	49.70	183.6	5282.	22.43	56.46	10400.
SDev	.37	.62	3.1	23.	.45	.56	71.
%RSD	.6430	1.249	1.677	.4320	1.990	.9909	.6858
#1	57.88	50.14	181.4	5299.	22.75	56.85	10450.
#2	57.36	49.26	185.8	5266.	22.12	56.06	10350.

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19.55	12020.	20.74	54.83	54.75	62.76	221.5
SDev	.21	24.	.34	.68	.11	7.10	.3
%RSD	1.060	.1962	1.654	1.236	.2007	11.32	.1231
#1	19.40	12040.	20.50	55.30	54.82	67.78	221.7
#2	19.69	12010.	20.98	54.35	54.67	57.74	221.3

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	105.6	132.9	42.16	9.447	10.16	16.79	14.63
SDev	1.2	.3	.28	.138	1.75	.45	2.06
%RSD	1.147	.2149	.6527	1.461	17.18	2.700	14.08
#1	106.4	132.7	41.96	9.349	11.39	16.47	16.09
#2	104.7	133.1	42.35	9.544	8.925	17.11	13.17

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	6.848	17.82	14.70	20.46	5.004	106.5
SDev	1.236	.21	.94	4.35	.447	1.0
%RSD	18.04	1.174	6.411	21.24	8.937	.9183
#1	5.974	17.67	14.03	23.54	5.320	107.2
#2	7.721	17.97	15.37	17.39	4.687	105.8

IntStd	1	2	3	4	5	6	7

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Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1034	--	--	--	--	--	--
SDev	3.800699	--	--	--	--	--	--
%RSD	.3677191	--	--	--	--	--	--
#1	1031	--	--	--	--	--	--
#2	1036	--	--	--	--	--	--

Method: SW846 Sample Name: BSS101998 Operator:
Run Time: 10/20/98 15:39:17
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1722.	1678.	1731.	45.51	45.02	18010.	179.9
SDev	9.	15.	1.	.23	.53	88.	2.7
%RSD	.4999	.9065	.0629	.5153	1.172	.4887	1.503
#1	1728.	1689.	1731.	45.68	45.40	18070.	181.8
#2	1716.	1667.	1730.	45.35	44.65	17950.	178.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2400.	2400.	2400.	60.00	60.00	24000.	240.0
Low	1600.	1600.	1600.	40.00	40.00	16000.	160.0

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	451.1	216.6	874.8	17570.	441.3	450.0	16180.
SDev	2.5	1.1	15.6	94.	2.1	4.0	85.
%RSD	.5487	.5122	1.780	.5356	.4820	.8902	.5259
#1	452.8	217.4	863.8	17640.	442.8	452.8	16250.
#2	449.3	215.8	885.8	17500.	439.8	447.2	16120.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.0	300.0	1200.	24000.	600.0	600.0	24000.
Low	400.0	200.0	800.0	16000.	400.0	400.0	16000.

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	43.02	19660.	1801.	442.9	448.5	455.5	L55.36
SDev	.13	416.	8.	2.4	3.2	3.0	1.73
%RSD	.3050	2.115	.4221	.5388	.7239	.6635	3.131
#1	43.11	19950.	1806.	444.6	450.8	457.6	L56.58
#2	42.93	19360.	1796.	441.2	446.2	453.3	L54.13
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	60.00	24000.	2400.	600.0	600.0	600.0	1200.
Low	40.00	16000.	1600.	400.0	400.0	400.0	800.0

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	

305230

Avge	449.8	L337.5	436.7	453.6	1784.	423.7	449.6
SDev	.8	3.0	1.7	2.6	14.	3.9	1.6
%RSD	.1830	.8995	.3921	.5794	.8105	.9109	.3621
#1	450.4	L339.6	437.9	455.5	1794.	426.5	450.8
#2	449.2	L335.3	435.5	451.7	1773.	421.0	448.5
Errors	LC Pass	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	600.0	600.0	600.0	600.0	2400.	600.0	
Low	400.0	400.0	400.0	400.0	1600.	400.0	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	455.6	424.5	422.2	1775.	1788.	449.8	
SDev	3.1	5.6	.4	3.	20.	.6	
%RSD	.6861	1.315	.0972	.1681	1.129	.1255	
#1	457.8	428.4	422.5	1777.	1802.	450.2	
#2	453.3	420.5	422.0	1773.	1774.	449.4	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						600.0	
Low						400.0	
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1028	--	--	--	--	--	--
SDev	5.374081	--	--	--	--	--	--
%RSD	.5225671	--	--	--	--	--	--
#1	1025	--	--	--	--	--	--
#2	1032	--	--	--	--	--	--

Method: SW846 Sample Name: PBS101998 Operator:
Run Time: 10/20/98 15:44:37
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-3.490	3.187	.0301	-.0191	-.0913	130.0	.9488
SDev	2.899	1.421	.1330	.0149	.1016	1.6	.4798
%RSD	83.06	44.59	442.1	77.64	111.3	1.225	50.57
#1	-1.440	4.191	.1241	-.0086	-.0195	131.2	1.288
#2	-5.540	2.182	-.0640	-.0297	-.1631	128.9	.6095
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	5.000	20.00	4.900	4.900	500.0	9.900
Low	-199.0	-5.000	-20.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5715	1.598	4.871	38.63	.1184	.2424	336.7

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SDev	.5216	.855	16.41	5.38	.0742	.4474	15.3
%RSD	91.28	53.48	336.9	13.92	62.66	184.6	4.533
#1	.9403	2.202	16.47	42.43	.1709	.5588	347.5
#2	.2026	.9937	-6.732	34.82	.0659	-.0739	325.9
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	9.900	9.900	99.00	500.0	9.900	9.900	1000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-500.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3810	423.4	1.221	.7273	2.533	2.145	H50.04
SDev	.8347	325.0	.784	.5669	.077	.283	2.40
%RSD	219.1	76.77	64.20	77.94	3.036	13.21	4.806
#1	.9712	653.2	.6666	1.128	2.587	2.345	H48.34
#2	-.2093	193.6	1.775	.3265	2.479	1.945	H51.74
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	4.900	1000.	9.900	9.900	15.00	10.00	20.00
Low	-4.900	-1000.	-9.900	-9.900	-9.900	-10.00	-20.00
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	.1717	H12.57	1.329	-1.054	-2.737	-.5832	-.4966
SDev	.0315	2.98	1.735	1.167	3.854	.8040	1.5223
%RSD	18.34	23.69	130.5	110.7	140.8	137.9	306.5
#1	.1939	H14.67	2.556	-.2287	-.0118	-.0147	.5798
#2	.1494	H10.46	.1029	-1.879	L-5.462	-1.152	-1.573
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10.00	10.00	10.00	2.900	4.900	9.900	
Low	-3.000	-3.000	-5.000	-2.900	-4.900	-9.900	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	-1.346	.5882	-2.953	2.025	-5.125	1.746	
SDev	.990	1.093	.225	2.180	6.866	.765	
%RSD	73.58	185.9	7.605	107.7	134.0	43.80	
#1	-.6455	1.361	-2.794	.4833	-.2707	2.287	
#2	-2.046	-.1849	-3.112	3.566	-9.980	1.205	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						15.00	
Low						-9.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1025	--	--	--	--	--	--
SDev	2.068279	--	--	--	--	--	--
%RSD	.2017267	--	--	--	--	--	--

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#1	1024	--	--	--	--	--	--
#2	1027	--	--	--	--	--	--

Method: SW846 Sample Name: LCSS238A-2X Operator:
Run Time: 10/20/98 15:49:57
Comment: 5062_W
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	21410.	322.1	431.3	175.9	307.7	9060.	340.2
SDev	64.	.8	2.4	.1	1.2	2.	.2
%RSD	.3005	.2379	.5644	.0394	.3941	.0244	.0573
#1	21360.	322.7	429.6	175.8	308.5	9058.	340.1
#2	21460.	321.6	433.1	175.9	306.8	9062.	340.4
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	39450.	463.5	760.0	269.5	515.0	16450.	499.5
Low	14250.	207.0	298.5	146.0	196.5	6050.	265.0

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	508.4	272.4	47790.	7656.	1005.	542.9	14790.
SDev	.3	.7	240.	6.	1.	1.1	26.
%RSD	.0675	.2450	.5032	.0747	.0807	.2025	.1789
#1	508.6	271.9	47620.	7660.	1004.	543.6	14770.
#2	508.1	272.8	47960.	7651.	1006.	542.1	14800.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	790.0	442.5	63500.	12500.	1525.	800.0	28400.
Low	365.0	197.0	17350.	5800.	725.0	403.0	11700.

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	559.5	5101.	571.7	254.3	356.4	369.5	1692.
SDev	1.4	93.	.6	.2	.2	1.0	11.
%RSD	.2552	1.817	.1098	.0747	.0469	.2631	.6394
#1	558.5	5167.	572.1	254.4	356.3	370.2	1685.
#2	560.5	5036.	571.2	254.1	356.5	368.8	1700.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	940.0	7800.	920.0	375.0	575.0	520.0	
Low	370.5	2700.	369.0	194.0	253.5	256.5	

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	310.8	540.6	1437.	641.6	416.0	345.2	643.6
SDev	1.3	.4	5.	2.1	1.3	3.3	4.3
%RSD	.4271	.0825	.3283	.3220	.3054	.9545	.6616
#1	309.9	540.3	1434.	640.1	416.9	342.9	646.6
#2	311.8	540.9	1440.	643.0	415.1	347.5	640.6

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	545.0	875.0	2380.	1030.	630.0	535.0	
Low	237.0	242.0	695.0	440.5	306.5	60.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	640.5	345.6	344.4	417.6	415.2	310.4	
SDev	5.2	6.0	2.1	6.9	1.6	.3	
%RSD	.8155	1.736	.6159	1.664	.3768	.1008	
#1	636.8	341.4	345.9	422.5	414.1	310.6	
#2	644.2	349.9	342.9	412.7	416.3	310.2	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						560.0	
Low						206.5	
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1029	--	--	--	--	--	--
SDev	.4950265	--	--	--	--	--	--
%RSD	.0481145	--	--	--	--	--	--
#1	1029	--	--	--	--	--	--
#2	1028	--	--	--	--	--	--

Method: SW846 Sample Name: LCSS238AD-2X Operator:
Run Time: 10/20/98 15:55:17
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19720.	295.5	406.3	163.7	285.2	8466.	314.6
SDev	1184.	18.0	24.4	9.9	16.2	492.	18.0
%RSD	6.002	6.097	6.002	6.025	5.670	5.812	5.710
#1	18890.	282.8	389.1	156.7	273.7	8118.	301.9
#2	20560.	308.3	423.6	170.7	296.6	8813.	327.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	39450.	463.5	760.0	269.5	515.0	16450.	499.5
Low	14250.	207.0	298.5	146.0	196.5	6050.	265.0
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	475.3	251.8	43760.	7077.	925.8	507.1	13720.
SDev	27.2	15.5	2512.	428.	55.2	31.3	761.
%RSD	5.730	6.144	5.740	6.047	5.965	6.176	5.548
#1	456.0	240.9	41980.	6775.	886.7	484.9	13180.
#2	494.6	262.8	45530.	7380.	964.8	529.2	14260.

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	790.0	442.5	63500.	12500.	1525.	800.0	28400.
Low	365.0	197.0	17350.	5800.	725.0	403.0	11700.
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	522.8	4809.	531.9	232.3	328.1	337.7	1564.
SDev	31.2	195.	35.1	13.8	19.6	19.2	91.
%RSD	5.978	4.046	6.600	5.922	5.964	5.686	5.848
#1	500.7	4671.	507.1	222.6	314.2	324.1	1499.
#2	544.9	4947.	556.8	242.0	341.9	351.3	1629.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	940.0	7800.	920.0	375.0	575.0	520.0	
Low	370.5	2700.	369.0	194.0	253.5	256.5	
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	292.5	495.3	1323.	593.7	384.6	310.8	605.2
SDev	17.6	30.3	77.	40.0	25.0	21.1	31.1
%RSD	6.022	6.110	5.828	6.729	6.503	6.796	5.142
#1	280.0	473.9	1268.	565.5	366.9	295.9	583.2
#2	304.9	516.7	1377.	622.0	402.3	325.8	627.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	545.0	875.0	2380.	1030.	630.0	535.0	
Low	237.0	242.0	695.0	440.5	306.5	60.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	588.0	308.4	315.7	392.6	380.6	289.8	
SDev	44.4	22.3	18.7	16.2	29.4	17.6	
%RSD	7.544	7.244	5.918	4.134	7.723	6.062	
#1	556.6	292.6	302.5	381.1	359.8	277.4	
#2	619.4	324.2	329.0	404.1	401.4	302.2	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						560.0	
Low						206.5	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1067	--	--	--	--	--	--
SDev	2.315705	--	--	--	--	--	--
%RSD	.2170372	--	--	--	--	--	--
#1	1065	--	--	--	--	--	--
#2	1069	--	--	--	--	--	--

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Method: SW846 Sample Name: 88683D-2X Operator:
Run Time: 10/20/98 16:00:38
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	16690.	22.01	87.45	2.809	.2999	H443600.	36.79
SDev	226.	2.99	1.30	.026	.0038	5775.	.61
%RSD	1.357	13.57	1.492	.9264	1.270	1.302	1.645
#1	16850.	24.12	88.37	2.827	.3026	H447700.	37.22
#2	16530.	19.90	86.52	2.790	.2972	H439500.	36.36
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	25.35	57.61	59700.	H270600.	1689.	37.84	5980.
SDev	.53	1.18	974.	3751.	21.	.82	90.
%RSD	2.081	2.041	1.631	1.386	1.240	2.157	1.500
#1	25.72	58.44	60390.	H273300.	1704.	38.42	6043.
#2	24.97	56.78	59010.	H268000.	1675.	37.26	5916.
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.9037	514.7	-1.020	58.87	147.5	1.533	1345.
SDev	.7216	8.0	2.026	.82	2.1	.082	21.
%RSD	79.85	1.559	198.6	1.386	1.429	5.328	1.568
#1	1.414	520.4	.4123	59.45	149.0	1.476	1359.
#2	.3935	509.0	-2.453	58.29	146.0	1.591	1330.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	239.7	5.499	684.5	27.48	-3.511	.1917	35.74
SDev	3.3	.351	9.7	.31	.454	.6021	.03
%RSD	1.367	6.385	1.420	1.121	12.94	314.1	.0811
#1	242.1	5.747	691.4	27.27	-3.189	.6174	35.76
#2	237.4	5.251	677.7	27.70	-3.832	-.2341	35.72
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496

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Units						ppb
Avge	23.35	1.528	-2.507	-2.270	-4.141	11.20
SDev	.48	.766	3.342	2.463	1.911	.01
%RSD	2.050	50.12	133.3	108.5	46.14	.0881
#1	23.01	.9862	-.1446	-4.012	-2.790	11.19
#2	23.68	2.069	-4.870	-.5284	-5.492	11.21
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1036	--	--	--	--	--	--
SDev	12.26829	--	--	--	--	--	--
%RSD	1.184283	--	--	--	--	--	--
#1	1027	--	--	--	--	--	--
#2	1045	--	--	--	--	--	--

Method: SW846 Sample Name: 88683-2X Operator:
Run Time: 10/20/98 16:05:58
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	14870.	22.25	76.59	2.559	.2907	H460100.	29.97
SDev	54.	.38	.03	.029	.0901	2943.	.52
%RSD	.3615	1.703	.0384	1.120	30.98	.6396	1.748
#1	14910.	21.98	76.57	2.580	.3544	H462200.	30.34
#2	14830.	22.52	76.61	2.539	.2271	H458000.	29.60
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	25.77	58.66	69620.	H285500.	1351.	47.35	4286.
SDev	.22	.17	24.	1898.	9.	.74	33.
%RSD	.8352	.2953	.0351	.6646	.6588	1.559	.7686
#1	25.92	58.54	69640.	H286800.	1358.	47.87	4310.
#2	25.61	58.78	69600.	H284200.	1345.	46.82	4263.
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	.5046	566.7	-1.623	48.44	186.8	1.385	1225.
SDev	.4748	273.8	.427	.27	1.3	.016	17.
%RSD	94.09	48.31	26.33	.5519	.7014	1.177	1.427
#1	.8404	760.2	-1.925	48.63	187.7	1.373	1237.
#2	.1689	373.1	-1.321	48.26	185.9	1.397	1212.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	308.5	3.936	547.8	32.18	-4.033	.2937	40.69
SDev	.4	.791	1.4	1.10	3.591	.4988	1.13
%RSD	.1181	20.08	.2616	3.422	89.05	169.8	2.779
#1	308.7	4.495	548.8	31.40	-1.493	.6464	41.49
#2	308.2	3.377	546.8	32.96	L-6.572	-.0590	39.89
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	27.92	1.973	-3.093	-1.164	-5.477	10.46	
SDev	2.22	.975	.456	6.465	2.157	.61	
%RSD	7.935	49.44	14.73	555.4	39.38	5.855	
#1	26.35	2.662	-3.415	3.407	-3.952	10.03	
#2	29.49	1.283	-2.770	-5.735	-7.002	10.89	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1011	--	--	--	--	--	--
SDev	2.881469	--	--	--	--	--	--
%RSD	.2850505	--	--	--	--	--	--
#1	1009	--	--	--	--	--	--
#2	1013	--	--	--	--	--	--

Method: SW846 Sample Name: CCV2 Operator:
Run Time: 10/20/98 16:11:19
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	243400.	4853.	9710.	952.7	2468.	124600.	5053.
SDev	7010.	132.	279.	27.3	73.	3616.	145.
%RSD	2.880	2.714	2.877	2.864	2.959	2.902	2.872
#1	248300.	4946.	9908.	972.0	2520.	127200.	5155.
#2	238400.	4760.	9513.	933.4	2416.	122000.	4950.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	276000.	5520.	11040.	1104.	2760.	138000.	5520.
Low	223900.	4478.	8960.	896.0	2239.	112000.	4478.
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2474.	11970.	97090.	126000.	4973.	2456.	47890.
SDev	73.	326.	3029.	3804.	141.	69.	1305.
%RSD	2.949	2.725	3.120	3.019	2.834	2.825	2.725
#1	2526.	12200.	99240.	128700.	5073.	2506.	48820.
#2	2422.	11740.	94950.	123300.	4874.	2407.	46970.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2760.	13800.	110400.	138000.	5520.	2760.	55200.
Low	2239.	11200.	89600.	112000.	4478.	2239.	44780.
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1214.	122900.	4850.	2462.	2473.	2464.	2427.
SDev	33.	3233.	130.	68.	70.	64.	77.
%RSD	2.729	2.632	2.681	2.769	2.814	2.607	3.163
#1	1238.	125200.	4942.	2510.	2522.	2510.	2481.
#2	1191.	120600.	4758.	2414.	2424.	2419.	2373.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1380.	138000.	5520.	2760.	2760.	2760.	2760.
Low	1120.	112000.	4478.	2239.	2239.	2239.	2239.
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	4805.	998.7	9758.	10030.	4811.	990.2	10060.
SDev	134.	30.7	283.	202.	92.	12.8	262.
%RSD	2.786	3.076	2.897	2.018	1.911	1.290	2.605
#1	4899.	1020.	9958.	10170.	4876.	999.3	10240.
#2	4710.	977.0	9559.	9886.	4746.	981.2	9874.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5520.	1104.	11040.	11040.	5520.	1104.	
Low	4478.	896.0	8960.	8960.	4478.	896.0	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	10010.	989.1	992.4	4792.	4820.	977.2	
SDev	173.	9.4	19.6	111.	82.	27.2	
%RSD	1.723	.9491	1.972	2.324	1.705	2.782	
#1	10140.	995.7	1006.	4871.	4878.	996.4	

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#2	9892.	982.5	978.6	4713.	4762.	957.9
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						1104.
Low						896.0

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1022	--	--	--	--	--	--
SDev	24.48353	--	--	--	--	--	--
%RSD	2.395268	--	--	--	--	--	--
#1	1005	--	--	--	--	--	--
#2	1039	--	--	--	--	--	--

Method: SW846 Sample Name: CCB2 Operator:
Run Time: 10/20/98 16:16:40
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2860	2.524	-.0451	.0778	.0124	9.161	.4462
SDev	3.372	1.344	.0642	.0075	.1179	2.068	.0885
%RSD	1179.	53.28	142.5	9.645	953.5	22.58	19.82
#1	2.670	3.474	.0003	.0725	.0957	10.62	.5087
#2	-2.098	1.573	-.0905	.0831	-.0710	7.698	.3837
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	4.000	5.000	1.000	1.500	400.0	5.000
Low	-199.0	-4.000	-5.000	-1.000	-1.500	-400.0	-5.000

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5890	-.2300	-.4553	16.81	-.1423	.7041	415.0
SDev	.3003	.1286	2.9692	3.34	.0007	.2497	13.8
%RSD	50.98	55.91	652.1	19.86	.4618	35.47	3.314
#1	.8013	-.3210	-2.555	19.18	-.1428	.8807	405.3
#2	.3767	-.1391	1.644	14.45	-.1418	.5275	424.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	5.000	50.00	200.0	5.000	5.000	1000.
Low	-5.000	-5.000	-50.00	-200.0	-5.000	-5.000	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2258	447.9	.9014	1.823	.1518	1.382	1.981
SDev	.2356	189.7	.0593	.506	.0663	.496	1.426
%RSD	104.3	42.37	6.580	27.75	43.64	35.89	71.98
#1	.3924	313.7	.8595	1.466	.1987	1.733	2.990
#2	.0592	582.0	.9434	2.181	.1050	1.031	.9728

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	1000.	9.900	5.000	15.00	10.00	20.00
Low	-5.000	-1000.	-9.900	-5.000	-9.900	-10.00	-20.00

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	-.1524	.8935	1.692	-.4943	-1.354	-1.035	1.343
SDev	.0555	.1905	.248	.4971	1.703	5.748	4.392
%RSD	36.43	21.32	14.66	100.6	125.8	555.3	327.0
#1	-.1132	1.028	1.516	-.8458	-.1500	-5.099	4.448
#2	-.1917	.7588	1.867	-.1428	-2.558	3.029	-1.763

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5.000	5.000	5.000	3.000	5.000	10.00	
Low	-3.000	-3.000	-5.000	-3.000	-5.000	-10.00	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	-1.424	-.5634	-2.003	2.569	-3.324	-.2068
SDev	2.937	8.0601	1.116	1.491	1.808	.8052
%RSD	206.3	1431.	55.71	58.03	54.40	389.3
#1	-3.500	-6.263	-2.792	3.623	-2.046	.3625
#2	.6528	5.136	-1.214	1.515	-4.603	-.7761

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						15.00
Low						-9.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1033	--	--	--	--	--	--
SDev	1.449603	--	--	--	--	--	--
%RSD	.1403397	--	--	--	--	--	--
#1	1034	--	--	--	--	--	--
#2	1032	--	--	--	--	--	--

Method: SW846 Sample Name: 88683L-2X Operator:
Run Time: 10/20/98 16:22:00
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2911.	6.542	14.84	.5238	-.0602	98770.	6.438
SDev	39.	.887	.17	.0017	.1149	1379.	.188
%RSD	1.341	13.56	1.173	.3254	190.7	1.396	2.919
#1	2883.	7.170	14.72	.5250	.0210	97790.	6.571
#2	2938.	5.915	14.97	.5226	-.1414	99740.	6.306

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5.215	10.18	14610.	55920.	274.8	9.905	1067.
SDev	.110	.26	202.	781.	4.1	.043	19.
%RSD	2.105	2.553	1.385	1.397	1.486	.4316	1.773
#1	5.293	9.994	14470.	55370.	271.9	9.935	1054.
#2	5.138	10.36	14760.	56470.	277.7	9.875	1081.

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0518	529.5	-.9903	9.627	38.40	-.0306	247.0
SDev	.1349	211.4	1.0209	.617	.61	.1394	1.8
%RSD	260.5	39.92	103.1	6.413	1.584	455.4	.7255
#1	.1472	380.0	-1.712	10.06	37.97	-.1292	245.7
#2	-.0436	679.0	-.2684	9.190	38.84	.0680	248.3

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	60.69	1.421	112.0	5.104	-.7656	-1.891	11.94
SDev	.87	.030	.4	.295	3.7775	1.653	4.25
%RSD	1.428	2.111	.3942	5.773	493.4	87.40	35.58
#1	60.07	1.443	112.3	4.896	1.905	-3.060	8.937
#2	61.30	1.400	111.7	5.313	-3.437	-.7225	14.95

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	1.676	-1.876	-1.946	1.766	-2.041	1.194	
SDev	1.680	.309	5.583	.821	5.253	.383	
%RSD	100.2	16.45	286.9	46.50	257.4	32.08	
#1	2.864	-1.658	-5.893	2.347	1.673	1.465	
#2	.4885	-2.094	2.002	1.186	-5.756	.9234	

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1039	--	--	--	--	--	--
SDev	5.126524	--	--	--	--	--	--
%RSD	.4933501	--	--	--	--	--	--
#1	1043	--	--	--	--	--	--
#2	1036	--	--	--	--	--	--

Method: SW846 Sample Name: 88683MS-2X Operator:
Run Time: 10/20/98 16:27:20
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	18170.	853.4	912.5	24.93	21.58	H425100.	119.3
SDev	215.	8.1	12.2	.25	.19	4551.	1.1
%RSD	1.184	.9463	1.334	1.001	.9028	1.071	.9301
#1	18020.	847.6	903.9	24.75	21.44	H421900.	118.5
#2	18320.	859.1	921.1	25.10	21.72	H428300.	120.1
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	X_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	235.1	173.3	67920.	H259400.	1589.	254.0	14160.
SDev	2.0	.6	672.	2654.	19.	4.0	173.
%RSD	.8313	.3496	.9901	1.023	1.197	1.574	1.221
#1	233.7	172.9	67440.	H257500.	1576.	251.2	14030.
#2	236.4	173.8	68390.	H261300.	1603.	256.8	14280.
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	21.30	10340.	846.9	277.5	382.5	221.7	1433.
SDev	.19	21.	6.6	2.4	4.2	4.1	20.
%RSD	.8884	.2033	.7739	.8827	1.097	1.836	1.413
#1	21.43	10320.	842.3	275.8	379.5	218.9	1419.
#2	21.16	10350.	851.6	279.2	385.4	224.6	1447.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1

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Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	511.1	162.0	906.9	242.4	860.6	144.1	250.3
SDev	6.8	1.7	12.4	1.5	9.8	3.5	.1
%RSD	1.335	1.021	1.370	.6297	1.136	2.447	.0354
#1	506.3	160.8	898.2	241.3	853.7	141.6	250.3
#2	515.9	163.2	915.7	243.5	867.5	146.6	250.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	238.5	145.2	141.9	860.3	860.7	228.0
SDev	2.3	4.6	1.3	1.3	15.3	2.2
%RSD	.9776	3.198	.9061	.1561	1.780	.9805
#1	236.8	141.9	141.0	861.3	849.9	226.4
#2	240.1	148.5	142.8	859.4	871.6	229.6
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1024	--	--	--	--	--	--
SDev	8.891833	--	--	--	--	--	--
%RSD	.8683961	--	--	--	--	--	--
#1	1030	--	--	--	--	--	--
#2	1018	--	--	--	--	--	--

Method: SW846 Sample Name: 88683MSD-2X Operator:
Run Time: 10/20/98 16:32:41
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	18120.	841.5	949.7	24.96	22.17	H407100.	122.9
SDev	38.	4.2	.0	.07	.10	1333.	.1
%RSD	.2122	.5023	.0010	.2857	.4602	.3275	.1100
#1	18150.	844.5	949.7	25.01	22.10	H408000.	123.0
#2	18090.	838.5	949.7	24.91	22.24	H406100.	122.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	236.5	153.8	63910.	250000.	1670.	256.4	13440.
SDev	1.3	.9	149.	1136.	4.	.8	49.
%RSD	.5420	.6169	.2338	.4546	.2652	.3307	.3618
#1	237.4	153.1	64020.	H250800.	1673.	257.0	13470.
#2	235.6	154.4	63810.	249200.	1667.	255.8	13400.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	22.24	10730.	868.4	274.7	414.7	221.7	1625.
SDev	.14	151.	.6	1.4	1.7	1.8	15.
%RSD	.6403	1.406	.0735	.5209	.4094	.8037	.9478
#1	22.34	10840.	868.8	275.7	415.9	222.9	1636.
#2	22.14	10630.	867.9	273.7	413.5	220.4	1614.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	604.2	159.5	875.7	244.1	865.2	150.6	252.1
SDev	.1	.6	1.7	.3	1.8	1.2	3.0
%RSD	.0099	.3967	.1979	.1033	.2058	.8214	1.178
#1	604.3	159.9	876.9	244.0	866.5	149.7	254.2
#2	604.2	159.0	874.5	244.3	864.0	151.5	250.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	240.1	152.3	147.1	859.2	868.2	230.8	
SDev	1.9	2.3	1.0	4.3	.5	.5	
%RSD	.7759	1.531	.6494	.4948	.0629	.2170	
#1	238.8	150.7	147.8	862.2	868.6	231.2	
#2	241.5	154.0	146.4	856.2	867.8	230.4	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1020	--	--	--	--	--	--
SDev	2.916815	--	--	--	--	--	--

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%RSD	.2859167	--	--	--	--	--	--
#1	1022	--	--	--	--	--	--
#2	1018	--	--	--	--	--	--

Method: SW846 Sample Name: 88683A-2X Operator:
Run Time: 10/20/98 16:38:01
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	16690.	1669.	1933.	51.15	47.46	H482900.	222.5
SDev	15.	4.	1.	.02	.13	1742.	.7
%RSD	.0902	.2600	.0714	.0381	.2666	.3607	.3224
#1	16680.	1672.	1932.	51.14	47.55	H484100.	223.0
#2	16710.	1665.	1934.	51.16	47.37	H481600.	221.9
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	499.3	290.0	71160.	H311300.	1830.	517.4	22910.
SDev	.9	.8	444.	1145.	1.	1.4	27.
%RSD	.1755	.2832	.6241	.3678	.0305	.2610	.1198
#1	499.9	289.4	71470.	H312100.	1831.	518.4	22900.
#2	498.7	290.6	70850.	H310400.	1830.	516.5	22930.
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	47.37	21820.	1887.	534.4	665.2	486.1	1227.
SDev	.21	116.	4.	.4	1.1	.7	5.
%RSD	.4523	.5316	.1879	.0687	.1617	.1378	.3865
#1	47.52	21910.	1889.	534.1	665.9	485.6	1230.
#2	47.21	21740.	1884.	534.6	664.4	486.6	1223.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	790.5	129.4	983.1	507.0	1882.	444.8	512.7
SDev	1.2	.6	2.1	.9	1.	1.7	3.9
%RSD	.1500	.4770	.2145	.1789	.0316	.3905	.7522
#1	789.7	129.9	984.6	507.7	1883.	443.6	515.4

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#2	791.4	129.0	981.6	506.4	1882.	446.0	510.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	504.2	444.8	444.8	1872.	1887.	498.8	
SDev	.6	4.7	4.1	4.	3.	1.1	
%RSD	.1114	1.048	.9255	.2203	.1564	.2299	
#1	503.8	441.5	447.8	1869.	1889.	498.0	
#2	504.6	448.1	441.9	1875.	1885.	499.6	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1029	--	--	--	--	--	--
SDev	3.358757	--	--	--	--	--	--
%RSD	.3265288	--	--	--	--	--	--
#1	1026	--	--	--	--	--	--
#2	1031	--	--	--	--	--	--

Method: SW846 Sample Name: 90277-2X Operator:
Run Time: 10/20/98 16:43:21
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	20300.	34.35	161.3	1.507	1.807	114600.	583.0
SDev	34.	.77	1.0	.023	.029	485.	2.3
%RSD	.1653	2.251	.6089	1.555	1.613	.4232	.3962
#1	20270.	34.90	160.6	1.523	1.787	115000.	584.6
#2	20320.	33.80	162.0	1.490	1.828	114300.	581.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	27.61	160.5	116000.	17320.	614.6	1462.	2961.
SDev	.60	.1	254.	101.	2.1	7.	57.
%RSD	2.180	.0595	.2192	.5842	.3434	.5122	1.917
#1	28.03	160.4	115800.	17390.	616.1	1467.	3001.
#2	27.18	160.6	116200.	17250.	613.1	1456.	2921.

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0094	1984.	.2999	126.0	871.9	5.383	1761.
SDev	.0673	316.	1.221	.4	3.9	.656	9.
%RSD	716.2	15.95	407.1	.3465	.4444	12.19	.4841
#1	-.0570	2208.	1.163	126.3	874.7	5.846	1767.
#2	.0382	1760.	-.5635	125.7	869.2	4.919	1755.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	587.8	28.82	916.0	1089.	-1.533	4.058	1093.
SDev	2.4	.15	2.4	5.	1.989	.061	15.
%RSD	.4099	.5359	.2656	.4513	129.8	1.499	1.387
#1	586.1	28.71	914.3	1086.	-2.940	4.015	1104.
#2	589.5	28.93	917.7	1093.	-.1264	4.101	1082.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	1087.	7.456	-2.772	2.152	-3.384	67.27	
SDev	15.	1.183	2.186	5.558	5.757	.78	
%RSD	1.374	15.86	78.87	258.3	170.1	1.155	
#1	1076.	6.620	-1.226	6.082	-7.455	67.81	
#2	1098.	8.293	-4.318	-1.778	.6867	66.72	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1036	--	--	--	--	--	--
SDev	14.91994	--	--	--	--	--	--
%RSD	1.440009	--	--	--	--	--	--
#1	1026	--	--	--	--	--	--
#2	1047	--	--	--	--	--	--

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Method: SW846 Sample Name: 90278-2X Operator:
Run Time: 10/20/98 16:48:42
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19230.	24.25	158.1	1.239	.7027	123600.	135.6
SDev	365.	.09	3.0	.035	.0379	2039.	2.8
%RSD	1.899	.3849	1.906	2.838	5.399	1.650	2.050
#1	18970.	24.19	156.0	1.214	.6759	122100.	133.7
#2	19490.	24.32	160.3	1.264	.7296	125000.	137.6
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.24	73.44	66740.	15320.	455.1	42.73	2957.
SDev	.00	1.94	986.	249.	8.7	.68	35.
%RSD	.0290	2.643	1.477	1.624	1.917	1.581	1.187
#1	10.24	72.07	66040.	15140.	448.9	42.25	2932.
#2	10.24	74.81	67430.	15500.	461.2	43.21	2981.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0331	1602.	-2.276	104.5	306.0	2.606	1460.
SDev	.5735	93.	1.683	1.9	6.2	.089	19.
%RSD	1730.	5.780	73.96	1.804	2.029	3.434	1.317
#1	.4386	1667.	-3.466	103.2	301.6	2.543	1447.
#2	-.3724	1536.	-1.086	105.9	310.4	2.669	1474.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	591.1	16.86	701.9	661.3	-.4940	.9738	666.0
SDev	11.8	1.56	13.4	14.6	1.3409	2.326	4.7
%RSD	1.995	9.271	1.903	2.203	271.5	238.8	.7096
#1	582.7	15.76	692.4	651.0	.4542	2.618	662.7
#2	599.4	17.97	711.3	671.5	-1.442	-.6706	669.4
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	

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Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496

Units						ppb
Avge	658.8	2.390	-1.886	4.386	-2.942	77.10
SDev	19.5	.407	6.169	1.127	1.448	.69
%RSD	2.957	17.03	327.1	25.69	49.22	.8906
#1	645.1	2.678	2.476	5.182	-1.918	76.62
#2	672.6	2.102	-6.248	3.589	-3.966	77.59
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1028	--	--	--	--	--	--
SDev	1.378910	--	--	--	--	--	--
%RSD	.1341744	--	--	--	--	--	--
#1	1029	--	--	--	--	--	--
#2	1027	--	--	--	--	--	--

Method: SW846 Sample Name: 90279-2X Operator:
Run Time: 10/20/98 16:54:02
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19780.	27.16	121.0	1.211	.8046	111100.	173.0
SDev	50.	3.15	.8	.022	.0495	69.	.3
%RSD	.2537	11.60	.6640	1.830	6.153	.0626	.1667
#1	19750.	29.39	120.4	1.227	.7696	111000.	173.2
#2	19820.	24.94	121.5	1.196	.8396	111100.	172.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	12.89	88.55	66610.	15700.	435.4	53.89	2652.
SDev	.08	.31	338.	6.	.3	.78	5.
%RSD	.6219	.3525	.5079	.0376	.0737	1.439	.1726
#1	12.83	88.33	66370.	15700.	435.2	54.44	2649.
#2	12.95	88.77	66850.	15690.	435.6	53.34	2656.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	.0826	2045.	-1.808	116.2	359.0	2.476	1531.
SDev	.0246	192.	.331	.3	.3	.287	8.
%RSD	29.79	9.405	18.29	.2864	.0949	11.60	.5470
#1	.1001	2180.	-2.041	116.4	359.2	2.273	1537.
#2	.0652	1909.	-1.574	116.0	358.7	2.679	1525.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	547.8	22.43	711.6	733.4	-4.365	2.450	732.7
SDev	2.2	.29	2.7	.3	1.933	2.082	.5
%RSD	.4038	1.279	.3803	.0402	44.29	85.00	.0668
#1	546.2	22.64	709.7	733.2	L-5.733	.9774	733.0
#2	549.4	22.23	713.5	733.6	-2.998	3.922	732.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	733.7	3.631	.0603	.1447	-6.629	69.55
SDev	.7	4.593	2.946	1.006	2.397	1.13
%RSD	.0936	126.5	4885.	695.0	36.15	1.622
#1	733.2	.3834	2.144	-.5665	-8.324	68.75
#2	734.2	6.879	-2.023	.8559	-4.934	70.35
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1020	--	--	--	--	--	--
SDev	2.722344	--	--	--	--	--	--
%RSD	.2667657	--	--	--	--	--	--
#1	1022	--	--	--	--	--	--
#2	1019	--	--	--	--	--	--

Method: SW846 Sample Name: 90280-2X Operator:
Run Time: 10/20/98 16:59:22
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	21580.	35.72	145.5	1.738	1.042	101900.	147.8
SDev	2.	.29	.2	.005	.100	137.	.1
%RSD	.0114	.7982	.1152	.2945	9.565	.1344	.0523
#1	21580.	35.52	145.7	1.734	.9713	101800.	147.7
#2	21580.	35.92	145.4	1.741	1.112	102000.	147.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	15.64	110.6	107400.	16600.	619.7	60.32	3024.
SDev	.24	.1	164.	28.	1.2	.19	1.
%RSD	1.555	.1249	.1525	.1699	.1901	.3093	.0196
#1	15.81	110.7	107500.	16580.	618.9	60.46	3024.
#2	15.47	110.5	107300.	16620.	620.6	60.19	3023.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1654	2279.	-3.870	161.1	391.5	2.043	2373.
SDev	.0597	90.	.093	.5	1.5	.528	1.
%RSD	36.09	3.965	2.400	.2927	.3844	25.83	.0491
#1	.1232	2343.	-3.936	160.8	390.4	1.670	2372.
#2	.2076	2215.	-3.805	161.4	392.6	2.417	2374.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	543.7	25.55	791.1	750.5	-1.005	.4601	750.3
SDev	.6	.46	.5	1.1	3.411	1.970	4.8
%RSD	.1032	1.788	.0667	.1432	339.5	428.1	.6398
#1	543.3	25.87	790.8	751.3	-3.416	-.9327	753.7
#2	544.1	25.23	791.5	749.8	1.407	1.853	747.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	750.6	.2408	.8762	4.561	-3.795	62.92	
SDev	.8	4.082	2.262	.765	4.731	.44	
%RSD	.1047	1695.	258.2	16.78	124.7	.7049	
#1	750.0	-2.646	2.476	4.020	-7.140	63.23	

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#2	751.1	3.128	-.7233	5.102	-.4494	62.61
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1038	--	--	--	--	--	--
SDev	4.295639	--	--	--	--	--	--
%RSD	.4137633	--	--	--	--	--	--
#1	1035	--	--	--	--	--	--
#2	1041	--	--	--	--	--	--

Method: SW846 Sample Name: 90281-2X Operator:
Run Time: 10/20/98 17:04:43
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19790.	23.57	152.8	1.231	.7047	114400.	211.9
SDev	87.	2.24	.3	.004	.1361	638.	2.5
%RSD	.4400	9.505	.1848	.3268	19.31	.5577	1.156
#1	19850.	21.99	153.0	1.234	.6010	114800.	213.6
#2	19730.	25.15	152.6	1.229	.6085	113900.	210.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.94	85.04	62690.	18730.	390.3	38.93	2640.
SDev	.20	.98	127.	100.	2.5	.23	26.
%RSD	1.646	1.150	.2020	.5315	.6325	.5912	.9706
#1	12.08	85.73	62780.	18800.	392.1	39.09	2658.
#2	11.81	84.35	62600.	18660.	388.6	38.76	2622.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3797	2002.	-1.735	107.4	306.2	2.925	1355.
SDev	.5864	93.	1.523	1.4	2.0	.294	5.
%RSD	154.4	4.627	87.80	1.276	.6512	10.05	.3389
#1	.7943	2068.	-2.812	108.3	307.6	2.717	1358.
#2	-.0349	1937.	-.6579	106.4	304.8	3.133	1352.

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	558.6	16.75	772.1	879.4	-2.089	4.405	873.8
SDev	1.9	1.21	3.3	.8	1.737	.421	.5
%RSD	.3374	7.235	.4294	.0862	83.15	9.559	.0599
#1	559.9	17.61	774.4	880.0	-.8607	4.702	874.2
#2	557.2	15.89	769.8	878.9	-3.317	4.107	873.5

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	882.2	5.680	1.828	1.298	-3.792	72.31
SDev	.9	.392	2.050	8.736	1.758	.11
%RSD	.0991	6.904	112.1	672.8	46.36	.1555
#1	882.8	5.402	3.277	7.476	-5.035	72.23
#2	881.6	5.957	.3784	-4.879	-2.549	72.39

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1024	--	--	--	--	--	--
SDev	4.843708	--	--	--	--	--	--
%RSD	.4728451	--	--	--	--	--	--
#1	1021	--	--	--	--	--	--
#2	1028	--	--	--	--	--	--

Method: SW846 Sample Name: 90282-2X Operator:
Run Time: 10/20/98 17:10:04
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	16200.	20.64	110.6	1.032	.8395	107600.	127.3
SDev	14.	5.17	.2	.032	.1653	295.	.3
%RSD	.0860	25.06	.1406	3.082	19.69	.2747	.2356
#1	16210.	24.30	110.7	1.055	.9564	107400.	127.5
#2	16190.	16.98	110.5	1.010	.7226	107800.	127.1

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9.925	72.19	51830.	12480.	327.4	39.92	2309.
SDev	.770	9.56	12.	35.	1.0	.26	6.
%RSD	7.759	13.24	.0240	.2773	.2935	.6579	.2429
#1	10.47	65.43	51840.	12450.	326.7	40.11	2305.
#2	9.381	78.94	51830.	12500.	328.0	39.74	2313.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.371	1852.	-3.394	109.6	287.4	2.195	1163.
SDev	1.412	617.	.844	1.1	.4	.673	8.
%RSD	103.0	33.29	24.85	1.028	.1416	30.66	.7068
#1	2.370	2288.	-2.798	110.4	287.1	2.671	1157.
#2	.3727	1416.	-3.991	108.8	287.7	1.719	1169.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	521.0	16.91	697.5	664.2	.5894	-2.016	672.5
SDev	.6	2.51	1.0	7.0	1.362	3.667	4.8
%RSD	.1120	14.82	.1422	1.056	231.1	181.9	.7199
#1	520.6	18.68	696.8	659.3	-.3736	-4.610	675.9
#2	521.4	15.13	698.2	669.2	1.552	.5769	669.1
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	660.1	-3.908	1.748	10.64	-4.439	58.18	
SDev	12.9	5.954	.913	5.22	4.649	.18	
%RSD	1.960	152.4	52.21	49.09	104.7	.3058	
#1	650.9	-8.118	2.394	14.33	-7.726	58.31	
#2	669.2	.3026	1.103	6.945	-1.152	58.06	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1026	--	--	--	--	--	--
SDev	.0707797	--	--	--	--	--	--
%RSD	.0068968	--	--	--	--	--	--
#1	1026	--	--	--	--	--	--
#2	1026	--	--	--	--	--	--

Method: SW846 Sample Name: CCV3 Operator:
Run Time: 10/20/98 17:15:25
Comment: 5067T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	253200.	5121.	10050.	994.3	2576.	129000.	5273.
SDev	189.	3.	12.	1.7	4.	231.	9.
%RSD	.0747	.0496	.1175	.1753	.1626	.1792	.1727
#1	253300.	5123.	10060.	993.1	2573.	128800.	5266.
#2	253000.	5119.	10040.	995.5	2579.	129200.	5279.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	276000.	5520.	11040.	1104.	2760.	138000.	5520.
Low	223900.	4478.	8960.	896.0	2239.	112000.	4478.

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2564.	12730.	97770.	130100.	5206.	2553.	50350.
SDev	4.	4.	43.	249.	10.	3.	27.
%RSD	.1739	.0302	.0444	.1917	.1871	.1095	.0543
#1	2561.	12730.	97800.	130000.	5200.	2551.	50370.
#2	2567.	12720.	97740.	130300.	5213.	2555.	50330.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2760.	13800.	110400.	138000.	5520.	2760.	55200.
Low	2239.	11200.	89600.	112000.	4478.	2239.	44780.

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1273.	127600.	5041.	2598.	2599.	2591.	2556.
SDev	.	345.	11.	2.	3.	7.	13.
%RSD	.0198	.2704	.2116	.0602	.1205	.2587	.5011
#1	1272.	127800.	5033.	2597.	2597.	2586.	2547.
#2	1273.	127300.	5048.	2600.	2602.	2596.	2565.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1380.	138000.	5520.	2760.	2760.	2760.	2760.
Low	1120.	112000.	4478.	2239.	2239.	2239.	2239.

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1

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Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	5010.	1050.	10110.	10420.	5051.	1040.	10400.
SDev	.	1.	1.	76.	20.	11.	27.
%RSD	.0016	.1271	.0118	.7269	.3961	1.065	.2630
#1	5011.	1051.	10110.	10360.	5037.	1032.	10380.
#2	5010.	1049.	10110.	10470.	5065.	1048.	10420.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5520.	1104.	11040.	11040.	5520.	1104.	
Low	4478.	896.0	8960.	8960.	4478.	896.0	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	10420.	1038.	1043.	5031.	5061.	1021.
SDev	100.	15.	4.	15.	37.	.
%RSD	.9580	1.416	.3652	.2906	.7369	.0135
#1	10350.	1028.	1041.	5041.	5035.	1021.
#2	10490.	1049.	1046.	5021.	5088.	1021.
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						1104.
Low						896.0

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	985	--	--	--	--	--	--
SDev	1.325825	--	--	--	--	--	--
%RSD	.1345964	--	--	--	--	--	--
#1	986	--	--	--	--	--	--
#2	984	--	--	--	--	--	--

Method: SW846 Sample Name: CC83 Operator:
Run Time: 10/20/98 17:20:45
Comment: 5067T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0137	2.009	-.0871	.0133	-.0266	-2.123	-.0022
SDev	.0996	2.503	.0462	.0040	.0239	.073	.1001
%RSD	727.3	124.6	52.98	30.34	89.72	3.445	4555.
#1	-.0567	3.778	-.0545	.0161	-.0435	-2.175	.0686
#2	.0841	.2389	-.1198	.0104	-.0097	-2.072	-.0730
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	4.000	5.000	1.000	1.500	400.0	5.000
Low	-199.0	-4.000	-5.000	-1.000	-1.500	-400.0	-5.000
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	.0850	.0629	3.300	6.267	-.1584	-.4551	269.0
SDev	.1427	.1403	.755	.079	.0394	.2294	12.3
%RSD	167.9	223.0	22.89	1.259	24.84	50.40	4.590
#1	-.0159	.1621	2.766	6.211	-.1863	-.2929	260.3
#2	.1859	-.0363	3.834	6.323	-.1306	-.6173	277.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	5.000	50.00	200.0	5.000	5.000	1000.
Low	-5.000	-5.000	-50.00	-200.0	-5.000	-5.000	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.7652	-337.0	-1.111	.4797	.0348	.5881	-.4073
SDev	.3466	114.2	1.950	.1911	.0569	.6237	1.4357
%RSD	45.29	33.88	175.6	39.85	163.6	106.1	352.5
#1	1.010	-417.8	-2.490	.6148	.0750	1.029	.6079
#2	.5201	-256.3	.2682	.3445	-.0055	.1471	-1.422
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	1000.	9.900	5.000	15.00	10.00	20.00
Low	-5.000	-1000.	-9.900	-5.000	-9.900	-10.00	-20.00
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	-.1674	.9180	1.940	-1.510	-2.408	-.1031	-.3841
SDev	.0179	1.392	.551	1.746	.073	.1600	1.1769
%RSD	10.68	151.7	28.39	115.7	3.030	155.2	306.4
#1	-.1547	1.903	2.330	-2.745	-2.356	-.2163	-1.216
#2	-.1800	-.0666	1.551	-.2747	-2.459	.0100	.4481
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5.000	5.000	5.000	3.000	5.000	10.00	
Low	-3.000	-3.000	-5.000	-3.000	-5.000	-10.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	-2.087	-1.030	1.729	.8183	-4.030	.9788	
SDev	2.031	1.840	3.205	.1233	.048	.3934	
%RSD	97.33	178.7	185.4	15.07	1.188	40.19	
#1	-3.522	-2.331	3.996	.9055	-3.996	1.257	
#2	-.6505	.2714	-.5373	.7311	-4.064	.7006	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						15.00	
Low						-9.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1009	--	--	--	--	--	--
SDev	5.868977	--	--	--	--	--	--

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%RSD	.5817348	--	--	--	--	--	--
#1	1013	--	--	--	--	--	--
#2	1005	--	--	--	--	--	--

Method: SW846 Sample Name: 90283-2X Operator:
Run Time: 10/20/98 17:26:06
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	21040.	17.15	140.0	1.219	1.070	166400.	208.4
SDev	91.	.80	.5	.030	.035	115.	.3
%RSD	.4325	4.638	.3494	2.450	3.248	.0690	.1334
#1	21110.	16.59	140.3	1.198	1.045	166500.	208.2
#2	20980.	17.72	139.6	1.240	1.094	166300.	208.6
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	9.866	61.80	48790.	14090.	385.4	38.14	2594.
SDev	.044	.89	197.	7.	.5	.79	10.
%RSD	.4450	1.446	.4030	.0516	.1272	2.063	.3731
#1	9.897	62.43	48930.	14090.	385.7	37.58	2601.
#2	9.835	61.17	48650.	14080.	385.0	38.69	2587.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.4238	2474.	-5.374	119.4	341.2	1.781	1553.
SDev	.3656	.	2.669	.8	.2	.031	12.
%RSD	86.27	.0119	49.67	.6706	.0579	1.750	.7670
#1	.6823	2474.	-7.261	118.9	341.3	1.803	1562.
#2	.1653	2474.	-3.486	120.0	341.0	1.759	1545.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	784.5	22.39	873.0	554.7	-3.303	2.461	555.1
SDev	2.5	.43	3.0	1.1	1.150	.978	2.5
%RSD	.3241	1.905	.3432	.1951	34.81	39.75	.4479
#1	786.3	22.69	875.1	553.9	-2.490	1.769	556.8

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#2	782.7	22.09	870.8	555.4	-4.116	3.152	553.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	554.5	2.779	1.800	1.765	-5.846	95.82	
SDev	2.9	1.934	.935	1.035	2.241	.19	
%RSD	.5173	69.58	51.96	58.65	38.33	.1982	
#1	552.4	1.412	2.462	1.033	-4.261	95.95	
#2	556.5	4.146	1.139	2.497	-7.430	95.69	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1026	--	--	--	--	--	--
SDev	4.401766	--	--	--	--	--	--
%RSD	.4291108	--	--	--	--	--	--
#1	1023	--	--	--	--	--	--
#2	1029	--	--	--	--	--	--

Method: SW846 Sample Name: 90284-2X Operator:
Run Time: 10/20/98 17:31:26
Comment: 5067T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	20080.	27.31	156.6	1.294	1.173	122800.	157.4
SDev	56.	1.69	.1	.010	.245	517.	1.2
%RSD	.2770	6.196	.0485	.7437	20.88	.4212	.7661
#1	20120.	28.50	156.5	1.301	1.346	123200.	158.3
#2	20040.	26.11	156.6	1.287	.9996	122500.	156.6
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	15.91	102.2	82660.	101100.	557.9	85.73	3003.
SDev	.12	.7	123.	500.	2.6	.55	15.
%RSD	.7315	.6629	.1486	.4946	.4678	.6463	.5008
#1	15.83	102.6	82750.	101500.	559.7	86.12	3013.
#2	15.99	101.7	82580.	100700.	556.0	85.34	2992.

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1246	2203.	-1.191	109.6	381.3	2.520	1740.
SDev	.0703	26.	.450	.5	2.6	.966	15.
%RSD	56.36	1.180	37.77	.4841	.6739	38.32	.8414
#1	.1743	2222.	-.8728	110.0	383.1	3.203	1751.
#2	.0750	2185.	-1.509	109.3	379.5	1.838	1730.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	667.2	24.72	803.8	674.5	-3.976	.8208	671.7
SDev	1.2	.32	1.9	4.6	.722	2.121	6.4
%RSD	.1748	1.313	.2307	.6757	18.16	258.4	.9592
#1	668.0	24.95	805.1	677.7	-4.487	2.320	676.3
#2	666.4	24.49	802.5	671.3	-3.466	-.6788	667.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	675.9	.7721	.8946	1.011	-6.478	71.65	
SDev	3.6	2.478	1.404	.476	1.320	.36	
%RSD	.5350	321.0	157.0	47.14	20.38	.5087	
#1	678.4	2.525	1.888	1.348	-7.412	71.39	
#2	673.3	-.9804	-.0984	.6738	-5.544	71.91	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1006	--	--	--	--	--	--
SDev	2.298097	--	--	--	--	--	--
%RSD	.2284731	--	--	--	--	--	--
#1	1004	--	--	--	--	--	--
#2	1007	--	--	--	--	--	--

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Method: SW846 Sample Name: 90285-2X Operator:
Run Time: 10/20/98 17:36:47
Comment: S027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	18710.	22.69	155.4	1.218	1.289	104500.	158.6
SDev	24.	.31	.6	.047	.086	1313.	2.7
%RSD	.1280	1.364	.3674	3.859	6.639	1.257	1.686
#1	18730.	22.47	155.8	1.185	1.229	103600.	156.8
#2	18700.	22.91	155.0	1.251	1.350	105400.	160.5
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	11.19	76.86	58130.	13440.	367.2	43.02	2896.
SDev	1.15	.07	362.	202.	3.3	.82	22.
%RSD	10.32	.0924	.6225	1.500	.9010	1.906	.7464
#1	10.37	76.81	57880.	13300.	364.9	42.44	2881.
#2	12.01	76.91	58390.	13590.	369.6	43.60	2911.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.722	1724.	-3.921	94.33	383.2	2.196	1261.
SDev	2.069	63.	.357	3.51	4.2	.161	12.
%RSD	120.2	3.638	9.116	3.726	1.102	7.338	.9279
#1	.2586	1768.	-3.668	91.85	380.2	2.082	1253.
#2	3.185	1679.	-4.174	96.82	386.2	2.310	1269.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	563.8	26.86	730.5	848.4	-4.731	1.936	847.7
SDev	.7	1.49	2.0	14.2	.896	1.738	11.6
%RSD	.1243	5.544	.2806	1.670	18.95	89.77	1.368
#1	564.3	25.80	729.1	838.4	L-5.365	.7070	839.5
#2	563.3	27.91	732.0	858.4	-4.097	3.165	855.9
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	

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Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496

Units						ppb
Avge	848.8	2.328	1.127	3.307	-8.756	77.57
SDev	15.5	1.996	1.221	2.478	2.581	1.27
%RSD	1.821	85.75	108.3	74.91	29.48	1.639
#1	837.8	.9164	.2639	5.059	-10.58	76.67
#2	859.7	3.739	1.990	1.556	-6.931	78.47
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1023	--	--	--	--	--	--
SDev	12.03851	--	--	--	--	--	--
%RSD	1.177346	--	--	--	--	--	--
#1	1014	--	--	--	--	--	--
#2	1031	--	--	--	--	--	--

Method: SW846 Sample Name: 90286-2X Operator:
Run Time: 10/20/98 17:42:07
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	21130.	34.24	138.4	1.455	2.140	161200.	108.0
SDev	32.	.37	.1	.011	.033	472.	.4
%RSD	.1522	1.084	.0438	.7603	1.536	.2928	.3757
#1	21150.	34.50	138.5	1.447	2.163	161600.	108.3
#2	21100.	33.97	138.4	1.463	2.116	160900.	107.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	14.38	79.89	115600.	17240.	625.7	47.29	2782.
SDev	.05	1.05	88.	58.	2.0	.39	18.
%RSD	.3769	1.313	.0759	.3337	.3270	.8159	.6605
#1	14.34	80.63	115600.	17280.	627.2	47.56	2795.
#2	14.41	79.14	115500.	17200.	624.3	47.01	2769.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	.1152	1730.	-4.822	138.8	343.7	2.340	2158.
SDev	.3332	233.	.339	.8	1.1	.005	8.
%RSD	289.2	13.48	7.024	.5553	.3194	.2336	.3543
#1	.3508	1895.	-5.062	139.3	344.5	2.336	2163.
#2	-.1204	1565.	-4.583	138.2	342.9	2.344	2152.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	811.0	14.19	776.0	609.4	-3.543	.9197	606.8
SDev	1.1	.59	1.6	.4	1.318	.4632	5.2
%RSD	.1353	4.146	.2112	.0737	37.21	50.37	.8519
#1	811.8	14.60	777.2	609.1	-4.476	.5921	610.4
#2	810.3	13.77	774.8	609.7	-2.611	1.247	603.1
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496
Units						ppb
Avge	610.6	3.836	-4.945	1.438	-6.042	65.16
SDev	3.3	.133	1.124	2.718	.620	.86
%RSD	.5329	3.479	22.73	189.0	10.26	1.313
#1	608.3	3.742	-5.740	-.4839	-6.480	65.76
#2	612.9	3.930	-4.151	3.360	-5.604	64.55
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1015	--	--	--	--	--	--
SDev	5.762937	--	--	--	--	--	--
%RSD	.5679449	--	--	--	--	--	--
#1	1011	--	--	--	--	--	--
#2	1019	--	--	--	--	--	--

Method: SW846 Sample Name: 90289-2X Operator:
Run Time: 10/20/98 17:47:28
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	34910.	14.28	122.4	1.023	-.0598	H253200.	284.4
SDev	164.	1.50	.8	.003	.0338	957.	1.6
%RSD	.4700	10.48	.6151	.2877	56.56	.3778	.5658
#1	35020.	13.22	122.9	1.025	-.0837	H253900.	285.5
#2	34790.	15.33	121.9	1.021	-.0359	H252600.	283.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	7.798	51.17	26720.	43260.	576.2	18.91	2683.
SDev	.045	.31	160.	168.	1.8	.68	18.
%RSD	.5731	.6027	.5978	.3884	.3123	3.591	.6729
#1	7.829	51.39	26830.	43380.	577.5	19.39	2695.
#2	7.766	50.95	26600.	43140.	574.9	18.43	2670.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.7945	2666.	-6.484	57.82	56.76	2.337	814.3
SDev	.7517	158.	1.735	1.06	.11	.384	6.1
%RSD	94.62	5.909	26.76	1.832	.1870	16.42	.7460
#1	1.326	2778.	-5.257	58.57	56.84	2.609	810.0
#2	.2629	2555.	-7.711	57.07	56.69	2.066	818.6
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	851.8	7.754	1667.	46.17	-.7387	-1.012	55.82
SDev	4.2	1.514	7.	.13	1.3625	.568	1.58
%RSD	.4883	19.52	.4379	.2790	184.4	56.13	2.825
#1	854.7	8.824	1673.	46.26	-1.702	-1.414	56.94
#2	848.8	6.684	1662.	46.08	.2247	-.6106	54.71
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	41.33	-1.228	-.6052	3.620	-2.927	63.92	
SDev	.59	2.579	3.4586	7.068	5.572	.41	
%RSD	1.438	210.1	571.5	195.3	190.4	.6437	
#1	40.91	-3.051	1.840	8.618	-6.866	64.21	

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#2	41.75	.5958	-3.051	-1.378	1.013	63.63
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1011	--	--	--	--	--	--
SDev	5.356342	--	--	--	--	--	--
%RSD	.5300357	--	--	--	--	--	--
#1	1007	--	--	--	--	--	--
#2	1014	--	--	--	--	--	--

Method: SW846 Sample Name: 90290-2X Operator:
Run Time: 10/20/98 17:52:49
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	31010.	19.68	172.8	1.530	.1419	H335600.	89.78
SDev	182.	1.53	1.1	.005	.0222	981.	.55
%RSD	.5872	7.759	.6575	.3093	15.62	.2922	.6174
#1	31130.	20.76	173.7	1.526	.1576	H336300.	90.17
#2	30880.	18.60	172.0	1.533	.1262	H334900.	89.39
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	8.977	35.51	47940.	18910.	507.5	23.67	3437.
SDev	.180	.26	217.	50.	1.7	.12	20.
%RSD	2.008	.7193	.4535	.2658	.3415	.5186	.5687
#1	9.105	35.69	48090.	18950.	508.7	23.58	3451.
#2	8.850	35.32	47790.	18880.	506.2	23.75	3423.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.3924	2635.	-4.306	72.98	160.3	.7149	1514.
SDev	.6216	19.	1.449	.25	.6	.1479	9.
%RSD	158.4	.7071	33.64	.3466	.3945	20.70	.5729
#1	.0471	2648.	-3.281	73.16	160.7	.8195	1520.
#2	-.8319	2621.	-5.330	72.80	159.8	.6102	1508.

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	1772.	6.138	1296.	167.0	L-7.032	-1.682	175.3
SDev	8.	.095	7.	.7	1.801	.554	2.4
%RSD	.4719	1.551	.5154	.4104	25.61	32.91	1.371
#1	1778.	6.071	1301.	166.5	L-5.759	-2.073	177.0
#2	1766.	6.205	1291.	167.5	L-8.306	-1.290	173.6
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	162.9	-1.515	-2.041	-.4897	-10.31	109.4	
SDev	2.2	1.063	.467	5.0246	.19	1.0	
%RSD	1.368	70.19	22.89	1026.	1.861	.9256	
#1	161.3	-2.266	-1.710	3.063	-10.17	110.1	
#2	164.4	-.7629	-2.371	-4.043	-10.45	108.7	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	988	--	--	--	--	--	--
SDev	3.075897	--	--	--	--	--	--
%RSD	.3112469	--	--	--	--	--	--
#1	986	--	--	--	--	--	--
#2	990	--	--	--	--	--	--

Method: SW846 Sample Name: 89341-2X Operator:
Run Time: 10/20/98 17:58:09
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	45320.	18.95	334.4	3.300	.6135	4192.	79.61
SDev	100.	1.51	1.1	.004	.0733	3.	.00
%RSD	.2209	7.991	.3305	.1189	11.95	.0682	.0005
#1	45250.	17.88	333.7	3.303	.5616	4194.	79.61
#2	45390.	20.02	335.2	3.297	.6654	4190.	79.61

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	42.11	48.80	90970.	8959.	3953.	53.04	2545.
SDev	.06	.49	337.	12.	6.	.85	4.
%RSD	.1348	1.010	.3703	.1297	.1635	1.595	.1640
#1	42.07	49.15	90730.	8967.	3958.	53.63	2548.
#2	42.15	48.46	91210.	8951.	3949.	52.44	2542.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.6538	213.9	-4.711	120.7	185.1	1.481	1733.
SDev	.3949	37.1	1.284	.4	.5	.192	7.
%RSD	60.39	17.35	27.26	.3666	.2949	12.98	.4216
#1	-.3746	240.1	-5.619	121.0	185.5	1.345	1738.
#2	-.9330	187.6	-3.803	120.4	184.7	1.617	1728.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	21.45	6.951	980.1	83.38	-3.290	-.0856	88.55
SDev	.03	1.625	1.4	.38	.399	.4443	.96
%RSD	.1360	23.38	.1384	.4543	12.14	518.9	1.083
#1	21.47	8.100	979.1	83.64	-3.572	.2285	89.22
#2	21.43	5.802	981.0	83.11	-3.007	-.3998	87.87
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	80.78	1.409	-3.102	4.477	-7.179	4.245	
SDev	.09	.438	.458	1.335	1.265	.214	
%RSD	.1116	31.05	14.76	29.81	17.62	5.029	
#1	80.85	1.719	-2.779	5.421	-8.073	4.095	
#2	80.72	1.100	-3.426	3.533	-6.284	4.396	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1067	--	--	--	--	--	--
SDev	1.555687	--	--	--	--	--	--
%RSD	.1457386	--	--	--	--	--	--
#1	1066	--	--	--	--	--	--
#2	1069	--	--	--	--	--	--

Method: SW846 Sample Name: 89343-2X Operator:
Run Time: 10/20/98 18:03:30
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	46420.	24.20	285.7	2.635	.2555	6141.	83.40
SDev	884.	.70	5.1	.071	.1811	127.	1.71
%RSD	1.904	2.889	1.777	2.691	70.88	2.073	2.045
#1	45790.	24.69	282.1	2.585	.3836	6051.	82.19
#2	47040.	23.70	289.3	2.685	.1275	6231.	84.60
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	31.97	46.15	89420.	8048.	2196.	49.89	2715.
SDev	.42	1.65	1566.	175.	46.	.14	73.
%RSD	1.311	3.579	1.751	2.172	2.104	.2823	2.681
#1	31.67	44.99	88320.	7925.	2163.	49.79	2663.
#2	32.26	47.32	90530.	8172.	2229.	49.99	2766.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.6229	813.7	-5.586	125.3	166.7	2.181	1553.
SDev	.2274	252.2	4.260	3.1	3.7	.427	26.
%RSD	36.51	31.00	76.27	2.477	2.206	19.55	1.652
#1	-.4621	992.0	-2.573	123.1	164.1	1.880	1535.
#2	-.7837	635.3	-8.599	127.5	169.3	2.483	1571.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1

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Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	39.77	8.924	1179.	67.68	.1498	-2.158	74.30
SDev	.77	1.091	24.	2.22	.4822	.181	.31
%RSD	1.943	12.22	1.996	3.276	321.8	8.376	.4191
#1	39.22	9.695	1162.	66.11	-.1911	-2.285	74.08
#2	40.32	8.153	1195.	69.25	.4908	-2.030	74.52
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	64.36	-2.378	-1.738	10.70	-5.128	6.350	
SDev	3.17	1.822	3.108	5.37	3.404	.578	
%RSD	4.923	76.62	178.8	50.19	66.37	9.098	
#1	62.12	-3.667	.4592	14.50	-7.535	6.758	
#2	66.60	-1.090	-3.936	6.902	-2.721	5.941	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1053	--	--	--	--	--	--
SDev	12.12690	--	--	--	--	--	--
%RSD	1.152090	--	--	--	--	--	--
#1	1061	--	--	--	--	--	--
#2	1044	--	--	--	--	--	--

Method: SW846 Sample Name: 89310-2X Operator:
Run Time: 10/20/98 18:08:50
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	40770.	45.57	244.5	2.359	1.608	24120.	54.08
SDev	160.	.61	.7	.038	.235	159.	.22
%RSD	.3931	1.336	.2766	1.623	14.63	.6586	.3994
#1	40880.	46.00	244.9	2.331	1.442	24230.	54.23
#2	40650.	45.14	244.0	2.386	1.775	24010.	53.93
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	35.14	126.0	133100.	11160.	2006.	67.62	4097.
SDev	.70	1.0	310.	78.	16.	.64	31.
%RSD	1.989	.8120	.2332	.6965	.7930	.9475	.7452
#1	35.63	126.7	133300.	11210.	2017.	67.17	4118.
#2	34.64	125.2	132900.	11100.	1994.	68.08	4075.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.5638	256.9	-3.842	114.6	438.2	3.852	H10200.
SDev	.0549	297.3	2.397	.7	4.5	.360	74.
%RSD	9.731	115.7	62.40	.6402	1.025	9.359	.7246
#1	-.5250	467.1	-2.147	115.1	441.3	4.106	H10250.
#2	-.6026	46.72	-5.537	114.1	435.0	3.597	H10150.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	49.07	28.34	1426.	780.9	-4.179	.1675	776.3
SDev	.24	.78	7.	6.3	.124	5.357	8.9
%RSD	.4988	2.758	.4708	.8059	2.973	3199.	1.144
#1	49.24	27.79	1431.	785.4	-4.091	-3.620	782.6
#2	48.90	28.89	1421.	776.5	-4.267	3.955	770.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	783.3	2.951	-5.429	4.390	-8.467	3.084	
SDev	5.0	7.644	.776	6.446	3.032	.728	
%RSD	.6383	259.0	14.30	146.8	35.81	23.62	
#1	786.8	-2.454	-5.978	8.949	-10.61	3.599	
#2	779.7	8.356	-4.880	-.1679	-6.323	2.568	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1184	--	--	--	--	--	--
SDev	4.914444	--	--	--	--	--	--

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%RSD	.4149924	--	--	--	--	--	--
#1	1181	--	--	--	--	--	--
#2	1188	--	--	--	--	--	--

Method: SW846 Sample Name: 88666-2X Operator:
Run Time: 10/20/98 18:14:11
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	37390.	92.97	890.8	2.311	3.531	50670.	64.16
SDev	235.	1.50	6.4	.015	.047	163.	.11
%RSD	.6297	1.608	.7163	.6362	1.328	.3220	.1771
#1	37560.	94.02	895.3	2.300	3.565	50780.	64.24
#2	37220.	91.91	886.3	2.321	3.498	50550.	64.08
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	21.56	222.6	63600.	9711.	1108.	44.68	3612.
SDev	.00	1.6	409.	29.	4.	.55	24.
%RSD	.0205	.7382	.6429	.3031	.3393	1.223	.6513
#1	21.55	223.8	63890.	9732.	1111.	45.06	3629.
#2	21.56	221.5	63320.	9691.	1106.	44.29	3596.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2182	1135.	-5.892	94.71	1301.	3.777	H16420.
SDev	.2792	74.	.202	.08	4.	.315	61.
%RSD	128.0	6.512	3.423	.0874	.3279	8.350	.3698
#1	.4157	1083.	-6.035	94.65	1304.	3.554	H16460.
#2	.0208	1187.	-5.750	94.76	1298.	3.999	H16370.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	181.9	58.64	1174.	1393.	-.7239	.1640	1392.
SDev	1.0	1.10	5.	11.	1.2517	.7880	5.
%RSD	.5629	1.871	.4231	.7993	172.9	480.6	.3607
#1	182.6	59.41	1177.	1385.	.1613	.7212	1389.

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#2	181.2	57.86	1170.	1401.	-1.609	-.3932	1396.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	8_2496	
Units						ppb	
Avge	1393.	-.1085	.6917	3.021	-2.602	52.83	
SDev	14.	2.1521	1.944	1.448	1.154	.44	
%RSD	1.018	1983.	281.1	47.94	44.33	.8415	
#1	1383.	1.413	-.6831	4.045	-1.787	52.51	
#2	1403.	-1.630	2.067	1.997	-3.418	53.14	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1324	--	--	--	--	--	--
SDev	2.298097	--	--	--	--	--	--
%RSD	.1735362	--	--	--	--	--	--
#1	1323	--	--	--	--	--	--
#2	1326	--	--	--	--	--	--

Method: SW846 Sample Name: CCV4 Operator:
Run Time: 10/20/98 18:19:32
Comment: 5067TI
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	241900.	4801.	9623.	928.3	2386.	120200.	4929.
SDev	7625.	143.	306.	28.4	71.	3678.	151.
%RSD	3.152	2.972	3.175	3.057	2.964	3.059	3.059
#1	236500.	4700.	9407.	908.3	2336.	117600.	4822.
#2	247300.	4902.	9839.	948.4	2436.	122800.	5035.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	276000.	5520.	11040.	1104.	2760.	138000.	5520.
Low	223900.	4478.	8960.	896.0	2239.	112000.	4478.

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2398.	12170.	92040.	120700.	4875.	2372.	48430.
SDev	74.	377.	3009.	3795.	150.	71.	1466.
%RSD	3.090	3.095	3.269	3.143	3.067	3.008	3.026
#1	2345.	11910.	89910.	118100.	4769.	2322.	47390.
#2	2450.	12440.	94170.	123400.	4981.	2423.	49470.

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2760.	13800.	110400.	138000.	5520.	2760.	55200.
Low	2239.	11200.	89600.	112000.	4478.	2239.	44780.
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1216.	123300.	4709.	2439.	2439.	2428.	2374.
SDev	36.	3519.	146.	75.	73.	77.	87.
%RSD	2.943	2.854	3.104	3.056	2.999	3.165	3.646
#1	1190.	120800.	4606.	2386.	2387.	2373.	2313.
#2	1241.	125800.	4812.	2492.	2491.	2482.	2435.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1380.	138000.	5520.	2760.	2760.	2760.	2760.
Low	1120.	112000.	4478.	2239.	2239.	2239.	2239.
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	4783.	975.8	9568.	9717.	4746.	987.4	9691.
SDev	151.	27.6	304.	235.	102.	18.7	231.
%RSD	3.157	2.833	3.174	2.416	2.144	1.893	2.388
#1	4676.	956.3	9353.	9551.	4674.	974.2	9527.
#2	4889.	995.4	9783.	9883.	4818.	1001.	9855.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5520.	1104.	11040.	11040.	5520.	1104.	
Low	4478.	896.0	8960.	8960.	4478.	896.0	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	9730.	985.2	991.9	4741.	4748.	963.1	
SDev	236.	16.7	22.6	93.	106.	30.4	
%RSD	2.430	1.697	2.283	1.967	2.232	3.157	
#1	9562.	973.4	975.9	4675.	4673.	941.6	
#2	9897.	997.0	1008.	4807.	4823.	984.6	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						1104.	
Low						896.0	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1012	--	--	--	--	--	--
SDev	18.70294	--	--	--	--	--	--
%RSD	1.847204	--	--	--	--	--	--
#1	1026	--	--	--	--	--	--
#2	999	--	--	--	--	--	--

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Method: SW846 Sample Name: CC84 Operator:
Run Time: 10/20/98 18:24:53
Comment: 5067T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.548	2.318	-.1522	-.0024	-.0192	-3.060	-.0501
SDev	4.165	1.302	.0659	.0141	.0020	.876	.4617
%RSD	163.5	56.16	43.26	586.0	10.17	28.64	921.5
#1	.3969	3.239	-.1057	-.0124	-.0178	-2.440	.2764
#2	-5.493	1.397	-.1988	.0076	-.0206	-3.679	-.3766
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	4.000	5.000	1.000	1.500	400.0	5.000
Low	-199.0	-4.000	-5.000	-1.000	-1.500	-400.0	-5.000

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2080	-.0516	1.174	6.130	-.1106	-.6927	203.8
SDev	.0611	.7193	9.775	2.274	.1099	.2988	.6
%RSD	29.37	1395.	832.5	37.09	99.33	43.14	.2745
#1	.1648	.4571	8.086	7.738	-.0329	-.9040	204.2
#2	.2512	-.5602	-5.738	4.522	-.1883	-.4814	203.4
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	5.000	50.00	200.0	5.000	5.000	1000.
Low	-5.000	-5.000	-50.00	-200.0	-5.000	-5.000	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2779	-110.6	.5209	.1770	.0316	.4726	-.6551
SDev	.2068	434.3	3.695	.5053	.0995	.3230	1.0173
%RSD	74.41	392.6	709.3	285.5	314.9	68.35	155.3
#1	.4242	196.5	3.134	.5343	.1020	.2442	.0643
#2	.1317	-417.7	-2.092	-.1803	-.0388	.7009	-1.374
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	1000.	9.900	5.000	15.00	10.00	20.00
Low	-5.000	-1000.	-9.900	-5.000	-9.900	-10.00	-20.00

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	-.1905	-.4784	1.602	-1.238	-2.089	-1.440	.7447
SDev	.0468	.0506	1.204	1.182	.185	1.331	1.663
%RSD	24.55	10.58	75.18	95.49	8.873	92.39	223.3
#1	-.1575	-.4426	2.454	-.4021	-2.220	-2.381	1.921
#2	-.2236	-.5142	.7503	-2.074	-1.958	-.4994	-.4313
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5.000	5.000	5.000	3.000	5.000	10.00	
Low	-3.000	-3.000	-5.000	-3.000	-5.000	-10.00	

Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496

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Units						ppb
Avge	-2.241	-1.410	-1.525	1.719	-4.003	-.9191
SDev	.942	1.081	1.832	4.813	2.125	.8189
%RSD	42.03	76.63	120.2	279.9	53.09	89.10
#1	-1.575	-2.174	-2.821	-1.684	-2.500	-.3401
#2	-2.907	-.6459	-.2293	5.123	-5.505	-1.498
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						15.00
Low						-9.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1019	--	--	--	--	--	--
SDev	.4065519	--	--	--	--	--	--
%RSD	.0398918	--	--	--	--	--	--
#1	1019	--	--	--	--	--	--
#2	1019	--	--	--	--	--	--

Method: SW846 Sample Name: 88677-2X Operator:
Run Time: 10/20/98 18:30:14
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	26490.	13.19	341.0	1.826	4.830	20220.	192.7
SDev	44.	1.86	.7	.010	.045	4.	.2
%RSD	.1664	14.08	.2051	.5489	.9226	.0206	.0827
#1	26520.	14.51	341.5	1.833	4.862	20220.	192.6
#2	26450.	11.88	340.5	1.819	4.799	20220.	192.8
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	74.28	303.7	119400.	16370.	1041.	129.6	7946.
SDev	.27	1.2	44.	5.	.	.9	10.
%RSD	.3625	.3931	.0371	.0296	.0107	.7279	.1269
#1	74.08	304.6	119400.	16370.	1041.	130.3	7954.
#2	74.47	302.9	119300.	16380.	1041.	129.0	7939.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	-.1801	557.4	-9.039	253.1	1595.	9.015	H6905.
SDev	.2570	141.9	1.683	.6	1.	.053	7.
%RSD	142.7	25.47	18.62	.2359	.0381	.5842	.0973
#1	.0017	657.7	-7.849	253.5	1596.	9.052	H6900.
#2	-.3619	457.0	L-10.23	252.7	1595.	8.978	H6909.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	43.96	22.96	2079.	335.0	-3.168	-1.633	336.1
SDev	.06	1.08	2.	3.3	3.299	1.060	3.2
%RSD	.1322	4.707	.0998	.9774	104.1	64.94	.9434
#1	44.00	23.73	2080.	332.7	L-5.501	-.8830	338.3
#2	43.92	22.20	2077.	337.3	-.8356	-2.383	333.9
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	334.5	.0181	-4.961	4.171	-6.843	9.483	
SDev	6.5	.7464	1.689	2.414	3.740	.418	
%RSD	1.942	4120.	34.04	57.89	54.66	4.407	
#1	329.9	.5459	-3.767	2.463	-9.487	9.779	
#2	339.1	-.5097	-6.155	5.878	-4.198	9.188	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						5000.	
Low						-4.900	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1112	--	--	--	--	--	--
SDev	3.853697	--	--	--	--	--	--
%RSD	.3464231	--	--	--	--	--	--
#1	1110	--	--	--	--	--	--
#2	1115	--	--	--	--	--	--

Method: SW846 Sample Name: 88684-2X Operator:
Run Time: 10/20/98 18:35:35
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	24770.	10.95	88.37	2.244	-.1230	2408.	40.79
SDev	40.	.88	.09	.012	.0825	7.	.07
%RSD	.1619	8.081	.1025	.5327	67.07	.2712	.1812
#1	24800.	11.57	88.31	2.235	-.0646	2413.	40.84
#2	24740.	10.32	88.44	2.252	-.1813	2404.	40.74
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	17.04	47.20	58860.	6876.	1478.	39.22	1431.
SDev	.10	.45	132.	17.	5.	.26	7.
%RSD	.5643	.9475	.2239	.2429	.3297	.6677	.5079
#1	17.11	46.89	58770.	6888.	1481.	39.04	1436.
#2	16.97	47.52	58950.	6864.	1474.	39.41	1426.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.0610	371.2	-3.700	54.20	116.8	1.094	1243.
SDev	.0106	80.6	2.781	.53	.7	.008	21.
%RSD	17.39	21.72	75.16	.9762	.5825	.7674	1.700
#1	-.0535	428.2	-1.734	54.58	117.3	1.088	1258.
#2	-.0685	314.2	-5.667	53.83	116.3	1.100	1228.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	20.21	6.431	896.1	12.19	-1.614	-3.377	16.10
SDev	.01	1.440	.6	.19	.232	1.186	.10
%RSD	.0470	22.38	.0643	1.558	14.40	35.12	.6306
#1	20.20	5.413	896.5	12.05	-1.779	-4.215	16.18
#2	20.21	7.449	895.6	12.32	-1.450	-2.538	16.03
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	10.22	-2.899	-4.356	5.341	-5.098	.2421	
SDev	.34	.998	5.560	1.596	.448	.2724	
%RSD	3.283	34.42	127.6	29.88	8.791	112.5	
#1	9.980	-2.194	-8.287	4.213	-4.781	.0495	

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#2	10.45	-3.605	-.4242	6.470	-5.415	.4347
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1083	--	--	--	--	--	--
SDev	1.166743	--	--	--	--	--	--
%RSD	.1076903	--	--	--	--	--	--
#1	1083	--	--	--	--	--	--
#2	1084	--	--	--	--	--	--

Method: SW846 Sample Name: 88685-2X Operator:
Run Time: 10/20/98 18:40:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	31430.	16.35	125.4	2.824	.9694	2734.	38.62
SDev	644.	1.93	2.6	.053	.0942	48.	.90
%RSD	2.049	11.79	2.053	1.863	9.716	1.759	2.340
#1	31880.	14.99	127.2	2.861	1.036	2768.	39.26
#2	30970.	17.71	123.5	2.787	.9028	2700.	37.98
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	10000.	20000.	2000.	5000.	250000.	10000.
Low	-199.0	-9.900	-10.00	-4.900	-4.900	-400.0	-9.900

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	25.63	54.71	87230.	9949.	746.4	57.63	1335.
SDev	.16	1.47	1901.	179.	13.2	1.59	43.
%RSD	.6052	2.678	2.180	1.804	1.771	2.755	3.248
#1	25.74	55.75	88570.	10080.	755.8	58.75	1365.
#2	25.52	53.67	85890.	9822.	737.1	56.50	1304.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5000.	25000.	200000.	250000.	10000.	5000.	100000.
Low	-9.900	-9.900	-99.00	-400.0	-9.900	-9.900	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.2802	475.7	-4.287	76.25	404.7	1.245	1316.
SDev	.7055	212.4	.563	1.41	7.1	.226	24.
%RSD	251.8	44.66	13.14	1.844	1.761	18.13	1.856
#1	.2187	325.5	-3.889	77.25	409.7	1.086	1333.
#2	-.7791	625.9	-4.686	75.26	399.7	1.405	1299.

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2500.	250000.	10000.	5000.	5000.	5000.	5000.
Low	-4.500	-1000.	-9.900	-9.900	-9.900	-2.900	-4.900
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	18.21	6.806	698.8	21.03	-2.967	-3.459	27.52
SDev	.35	.448	13.2	.82	3.497	1.612	1.54
%RSD	1.933	6.585	1.891	3.877	117.9	46.62	5.609
#1	18.46	7.123	708.1	21.61	L-5.439	-2.319	28.61
#2	17.96	6.489	689.4	20.45	-.4940	-4.599	26.43

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	10000.	2000.	100000.	20000.	10000.	2000.	
Low	-2.900	-2.900	-10.00	-2.900	-4.900	-15.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	17.78	-3.349	-3.701	6.335	-7.622	-.5297	
SDev	.45	3.189	1.546	5.231	2.631	.5162	
%RSD	2.535	95.22	41.77	82.56	34.53	97.46	
#1	18.09	-1.094	-4.794	2.637	-9.482	-.8947	
#2	17.46	-5.604	-2.608	10.03	-5.761	-.1647	

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass
High						5000.
Low						-4.900

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1095	--	--	--	--	--	--
SDev	15.27349	--	--	--	--	--	--
%RSD	1.394553	--	--	--	--	--	--
#1	1084	--	--	--	--	--	--
#2	1106	--	--	--	--	--	--

Method: SW846 Sample Name: ICSA2 Operator:
Run Time: 10/20/98 18:46:16
Comment: 5037T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	495500.	1.621	3.898	-.0613	.0781	455000.	-.0301
SDev	3765.	1.695	.044	.0115	.1309	3194.	.3813
%RSD	.7598	104.6	1.137	18.75	167.7	.7020	1267.
#1	498200.	.4222	3.929	-.0694	-.0145	457200.	.2396
#2	492900.	2.819	3.866	-.0532	.1707	452700.	-.2997

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600000.	10.00	20.00	5.000	3.500	600000.	5.000
Low	400000.	-10.00	-10.00	-5.000	-3.500	400000.	-5.000
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3850	-2.602	181700.	503300.	1.009	.5344	111.0
SDev	.0213	.110	1550.	3575.	.190	.1436	10.5
%RSD	5.522	4.237	.8531	.7103	18.82	26.87	9.438
#1	.3699	-2.680	182800.	505800.	1.144	.4329	118.4
#2	.4000	-2.524	180600.	500700.	.8749	.6359	103.6
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	20.00	240000.	600000.	10.00	10.00	500.0
Low	-5.000	-10.00	160000.	400000.	-5.000	-5.000	-500.0
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.2065	7.401	-8.241	2.135	-.2128	-1.747	1.264
SDev	.1821	508.8	.489	.415	.1641	.536	1.183
%RSD	88.17	6875.	5.928	19.41	77.11	30.66	93.60
#1	-.0778	367.2	-8.587	2.429	-.0968	-1.368	.4275
#2	-.3353	-352.4	-7.896	1.842	-.3288	-2.125	2.101
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	10.00	1000.	10.00	10.00	10.00	10.00	15.00
Low	-10.00	-2000.	-10.00	-5.000	-10.00	-5.000	-15.00
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	.8449	-2.231	.2277	-1.369	L-14.35	-.3222	32.51
SDev	.0232	.312	.0869	.117	.39	5.7228	.38
%RSD	2.743	13.98	38.19	8.525	2.705	1776.	1.184
#1	.8613	-2.011	.1662	-1.287	L-14.63	-4.369	32.24
#2	.8285	-2.452	.2891	-1.452	L-14.08	3.724	32.78
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	NOCHECK
High	10.00	10.00	10.00	5.000	10.00	10.00	
Low	-5.000	-5.000	-5.000	-5.000	-10.00	-10.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	-18.30	1.878	-4.753	8.094	-25.57	-1.576	
SDev	.36	7.726	1.711	3.173	1.00	.672	
%RSD	1.994	411.5	36.00	39.21	3.919	42.62	
#1	-18.04	-3.585	-5.963	5.850	-24.86	-2.051	
#2	-18.56	7.341	-3.544	10.34	-26.28	-1.101	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						15.00	
Low						-15.00	

305281

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	969	--	--	--	--	--	--
SDev	5.603813	--	--	--	--	--	--
%RSD	.5781820	--	--	--	--	--	--
#1	965	--	--	--	--	--	--
#2	973	--	--	--	--	--	--

Method: SW846 Sample Name: ICSAB2 Operator:
Run Time: 10/20/98 18:51:37
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	503800.	101.9	107.8	98.41	96.26	463800.	97.23
SDev	848.	.1	.2	.01	.10	126.	.49
%RSD	.1684	.1183	.1848	.0075	.1030	.0271	.5059
#1	504400.	102.0	107.9	98.42	96.19	463700.	96.88
#2	503200.	101.8	107.6	98.41	96.33	463900.	97.58
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600000.	120.0	120.0	120.0	120.0	600000.	120.0
Low	400000.	80.00	80.00	80.00	80.00	400000.	80.00

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	96.60	97.43	190600.	514000.	99.16	94.26	10800.
SDev	.02	.19	59.	108.	.13	.27	18.
%RSD	.0180	.1906	.0308	.0210	.1296	.2839	.1663
#1	96.61	97.57	190600.	513900.	99.07	94.45	10810.
#2	96.59	97.30	190500.	514100.	99.25	94.08	10790.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	120.0	120.0	240000.	600000.	120.0	120.0	12000.
Low	80.00	80.00	160000.	400000.	80.00	80.00	8000.

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	104.3	H12160.	93.77	102.7	101.9	98.94	L5.067
SDev	.5	59.	.25	.2	.2	.44	1.450
%RSD	.4917	.4822	.2644	.1894	.2174	.4432	28.62
#1	103.9	H12120.	93.95	102.9	101.7	98.63	L4.041
#2	104.7	H12200.	93.59	102.6	102.0	99.25	L6.093
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	120.0	12000.	120.0	120.0	120.0	120.0	120.0
Low	80.00	8000.	80.00	80.00	80.00	80.00	80.00

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1

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Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	105.3	101.9	100.5	93.10	88.17	96.06	132.1
SDev	.1	1.0	.2	.70	6.42	4.34	2.7
%RSD	.0992	1.029	.2387	.7571	7.278	4.514	2.059
#1	105.4	102.7	100.3	93.60	92.71	99.12	130.2
#2	105.3	101.2	100.6	92.60	83.63	92.99	134.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	120.0	120.0	120.0	120.0	120.0	120.0	
Low	80.00	80.00	80.00	80.00	80.00	80.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	73.60	99.29	89.56	101.2	81.68	103.7	
SDev	2.42	8.61	4.23	6.8	6.23	.2	
%RSD	3.281	8.676	4.725	6.722	7.623	.2372	
#1	75.31	105.4	86.57	106.0	86.08	103.5	
#2	71.89	93.20	92.55	96.35	77.27	103.9	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						120.0	
Low						80.00	
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	975	--	--	--	--	--	--
SDev	.5480250	--	--	--	--	--	--
%RSD	.0561882	--	--	--	--	--	--
#1	975	--	--	--	--	--	--
#2	976	--	--	--	--	--	--

Method: SW846 Sample Name: CCV5 Operator:
Run Time: 10/20/98 18:56:58
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	247900.	4939.	9818.	955.8	2464.	123700.	5067.
SDev	755.	7.	44.	.4	4.	14.	3.
%RSD	.3044	.1376	.4518	.0380	.1474	.0111	.0575
#1	248400.	4934.	9849.	956.1	2461.	123700.	5065.
#2	247400.	4944.	9786.	955.6	2466.	123700.	5069.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	276000.	5520.	11040.	1104.	2760.	138000.	5520.
Low	223900.	4478.	8960.	896.0	2239.	112000.	4478.
Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb

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Avge	2471.	12400.	95000.	124500.	5009.	2446.	49110.
SDev	2.	22.	435.	70.	1.	1.	40.
%RSD	.0788	.1780	.4575	.0560	.0268	.0314	.0812
#1	2472.	12420.	95300.	124500.	5008.	2447.	49140.
#2	2470.	12390.	94690.	124600.	5010.	2446.	49080.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2760.	13800.	110400.	138000.	5520.	2760.	55200.
Low	2239.	11200.	89600.	112000.	4478.	2239.	44780.
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1241.	125500.	4837.	2502.	2508.	2498.	2447.
SDev	3.	149.	12.	3.	.	2.	5.
%RSD	.2535	.1189	.2547	.1250	.0026	.0668	.2217
#1	1244.	125600.	4828.	2500.	2508.	2496.	2450.
#2	1239.	125400.	4846.	2504.	2508.	2499.	2443.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1380.	138000.	5520.	2760.	2760.	2760.	2760.
Low	1120.	112000.	4478.	2239.	2239.	2239.	2239.
Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	4887.	996.9	9808.	9983.	4866.	1011.	9938.
SDev	13.	1.6	23.	41.	11.	1.	25.
%RSD	.2627	.1615	.2300	.4081	.2232	.0772	.2522
#1	4896.	998.1	9824.	9955.	4858.	1012.	9920.
#2	4877.	995.8	9792.	10010.	4874.	1011.	9956.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5520.	1104.	11040.	11040.	5520.	1104.	
Low	4478.	896.0	8960.	8960.	4478.	896.0	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	10010.	1008.	1019.	4834.	4882.	990.7	
SDev	49.	.	2.	10.	11.	.4	
%RSD	.4854	.0052	.2198	.2067	.2313	.0426	
#1	9972.	1008.	1021.	4826.	4874.	990.9	
#2	10040.	1008.	1018.	4841.	4890.	990.4	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						1104.	
Low						896.0	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	999	--	--	--	--	--	--
SDev	6.470044	--	--	--	--	--	--

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%RSD	.6477169	--	--	--	--	--	--
#1	994	--	--	--	--	--	--
#2	1003	--	--	--	--	--	--

Method: SW846 Sample Name: CCB5 Operator:
Run Time: 10/20/98 19:02:19
Comment: 5033T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	10.64	1.529	-.2124	.0029	-.1303	6.448	.1209
SDev	4.83	.568	.2372	.0053	.3197	1.755	.2090
%RSD	45.40	37.13	111.7	182.3	245.4	27.22	172.8
#1	14.05	1.931	-.0447	.0067	.0958	7.690	.2687
#2	7.223	1.128	-.3801	-.0008	-.3563	5.207	-.0268
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	4.000	5.000	1.000	1.500	400.0	5.000
Low	-199.0	-4.000	-5.000	-1.000	-1.500	-400.0	-5.000

Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.1060	-.1846	.6364	17.58	-.2085	-.1461	240.9
SDev	.0607	.5111	9.184	2.78	.0383	.1078	12.6
%RSD	57.30	276.9	1443.	15.83	18.37	73.75	5.228
#1	-.1489	.1768	7.130	19.55	-.1814	-.0699	249.8
#2	-.0630	-.5460	-5.858	15.62	-.2356	-.2223	232.0
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	5.000	50.00	200.0	5.000	5.000	1000.
Low	-5.000	-5.000	-50.00	-200.0	-5.000	-5.000	-400.0

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1646	135.2	1.952	.5283	-.1953	.6680	1.412
SDev	.0742	121.6	.132	.3365	.0387	.0802	1.497
%RSD	45.10	89.94	6.757	63.70	19.82	12.01	106.0
#1	.1121	49.20	2.046	.2903	-.2226	.7247	.3535
#2	.2170	221.1	1.859	.7662	-.1679	.6113	2.470
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.000	1000.	9.900	5.000	15.00	10.00	20.00
Low	-5.000	-1000.	-9.900	-5.000	-9.900	-10.00	-20.00

Elem	Sr4215	Sn1899	Ti3349	Pb2203	Se1960	Sb2068	2203/1
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avge	-.2324	.1657	.7380	-1.438	-4.451	-1.299	.2130
SDev	.0352	.0964	.5859	1.706	1.639	1.003	.4075
%RSD	15.13	58.20	79.40	118.7	36.83	77.22	191.3
#1	-.2075	.2339	1.152	-2.644	L-5.610	-2.008	-.0751

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#2	-.2572	.0975	.3237	-.2315	-3.291	-.5896	.5012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	5.000	5.000	5.000	3.000	5.000	10.00	
Low	-3.000	-3.000	-5.000	-3.000	-5.000	-10.00	
Elem	2203/2	2068/1	2068/2	1960/1	1960/2	B_2496	
Units						ppb	
Avge	-2.276	-.7156	-2.491	.6705	-7.019	-.4687	
SDev	2.354	1.0404	.928	.7812	2.068	.5895	
%RSD	103.5	145.4	37.26	116.5	29.46	125.8	
#1	-3.940	-1.451	-3.147	.1181	-8.481	-.8856	
#2	-.6107	.0201	-1.835	1.223	-5.557	-.0519	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	
High						15.00	
Low						-9.900	
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1001	--	--	--	--	--	--
SDev	3.075897	--	--	--	--	--	--
%RSD	.3071981	--	--	--	--	--	--
#1	999	--	--	--	--	--	--
#2	1003	--	--	--	--	--	--

Method: SW846 Standard: STD1-Blank

Elem	Al3082	As1890	Ba4394	Be3130	Cd2265	Ca3179	Cr2677
Avge	.2923	-.0239	.0162	-.0291	.0418	.2503	.0338
SDev	.0006	.0043	.0011	.0003	.0121	.0010	.0041
%RSD	.2104	17.94	6.797	.9381	28.88	.4111	12.21
#1	.2918	-.0269	.0169	-.0289	.0503	.2510	.0309
#2	.2927	-.0208	.0154	-.0293	.0332	.2495	.0367

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Elem	Co2286	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Avge	.0072	.0820	-.0020	.0432	.0084	.0467	5.199
SDev	.0039	.0005	.0000	.0034	.0007	.0406	.013
%RSD	53.87	.5865	.2706	7.858	8.049	87.09	.2571
#1	.0100	.0817	-.0020	.0408	.0080	.0179	5.208
#2	.0045	.0824	-.0020	.0456	.0089	.0754	5.189

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	Mo2020	P_1782
Avge	-.1379	.0060	-.0408	.0039	.0577	.0090	.2008
SDev	.0035	.0099	.0212	.0007	.0016	.0120	.0093
%RSD	2.564	164.9	51.97	17.66	2.709	133.6	4.630
#1	-.1404	.0129	-.0558	.0034	.0588	.0174	.1942
#2	-.1354	-.0010	-.0258	.0044	.0566	.0005	.2074

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File : 7057T2.WSL

File Record	Laboratory Sample Name	Customer/EPA Sample Name	Type	Matrix	Instrument Dil.	Date	Time	Flag
1	STD1-BLANK		3		1.0	10/21/98	11:56:00	
2	STD2		3		1.0	10/21/98	12:00:00	
3	STD3		3		1.0	10/21/98	12:04:00	
4	STD4		3		1.0	10/21/98	12:08:00	
5	HSA		0		1.0	10/21/98	12:12:00	
6	ICV/CCV1		0		1.0	10/21/98	12:16:00	
7	ICB/CCB1		0		1.0	10/21/98	12:21:00	
8	ICSA1		0		1.0	10/21/98	12:25:00	
9	ICSAB1		0		1.0	10/21/98	12:29:00	
10	INT-20		0		1.0	10/21/98	12:33:00	
11	MCL		0		1.0	10/21/98	12:37:00	
12	BSS101998 Na		0		1.0	10/21/98	12:41:00	
13	PBS101998		0		1.0	10/21/98	12:46:00	
14	LCSS238A		0		2.0	10/21/98	12:50:00	
15	LCSS238AD		0		2.0	10/21/98	12:54:00	
16	88683D		0		2.0	10/21/98	12:58:00	
17	88683		0		2.0	10/21/98	13:02:00	
18	CCV2		0		1.0	10/21/98	13:07:00	
19	CCB2		0		1.0	10/21/98	13:11:00	
20	88683L Na		0		2.0	10/21/98	13:15:00	
21	88683MS		0		2.0	10/21/98	13:19:00	
22	88683MSD		0		2.0	10/21/98	13:23:00	
23	88683A		0		2.0	10/21/98	13:27:00	
24	DW		0		1.0	10/21/98	13:32:00	
25	88683D-10 Ca,Mg		0		10.0	10/21/98	13:36:00	
26	88683-10		0		10.0	10/21/98	13:40:00	
27	88683L-10		0		10.0	10/21/98	13:44:00	
28	88683MS-10		0		10.0	10/21/98	13:48:00	
29	88683MSD-10		0		10.0	10/21/98	13:53:00	
30	CCV3		0		1.0	10/21/98	13:57:00	
31	CCB3		0		1.0	10/21/98	14:01:00	
32	88683A-10 Ca,Mg		0		10.0	10/21/98	14:05:00	
33	89310 Na		0		2.0	10/21/98	14:09:00	
34	88666		0		2.0	10/21/98	14:14:00	
35	88677		0		2.0	10/21/98	14:18:00	
36	ICSA2		0		1.0	10/21/98	14:22:00	
37	ICSAB2		0		1.0	10/21/98	14:26:00	
38	CCV4		0		1.0	10/21/98	14:30:00	
39	CCB4		0		1.0	10/21/98	14:34:00	

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Analysis Report Summary Wed 10-21-98 02:42:33 PM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	HSA	7057T2	SW846A	10/21/98	12:12		S	CONC
2	ICV/CCV1	7057T2	SW846A	10/21/98	12:16		S	CONC
3	ICB/CCB1	7057T2	SW846A	10/21/98	12:21		S	CONC
4	ICSA1	7057T2	SW846A	10/21/98	12:25		S	CONC
5	ICSAB1	7057T2	SW846A	10/21/98	12:29		S	CONC
6	INT-20	7057T2	SW846A	10/21/98	12:33		S	CONC
7	MCL	7057T2	SW846A	10/21/98	12:37		S	CONC
8	BSS101998	7057T2	SW846A	10/21/98	12:41		S	CONC
9	PBS101998	7057T2	SW846A	10/21/98	12:46		S	CONC
10	LCSS238A-2X	7057T2	SW846A	10/21/98	12:50		S	CONC
11	LCSS238AD-2X	7057T2	SW846A	10/21/98	12:54		S	CONC
12	88683D-2X	7057T2	SW846A	10/21/98	12:58		S	CONC
13	88683-2X	7057T2	SW846A	10/21/98	13:02		S	CONC
14	CCV2	7057T2	SW846A	10/21/98	13:07		S	CONC
15	CCB2	7057T2	SW846A	10/21/98	13:11		S	CONC
16	88683L-2X	7057T2	SW846A	10/21/98	13:15		S	CONC
17	88683MS-2X	7057T2	SW846A	10/21/98	13:19		S	CONC
18	88683MSD-2X	7057T2	SW846A	10/21/98	13:23		S	CONC
19	88683A-2X	7057T2	SW846A	10/21/98	13:27		S	CONC
20	DW	7057T2	SW846A	10/21/98	13:32		S	CONC
21	88683D-10X	7057T2	SW846A	10/21/98	13:36		S	CONC
22	88683-10X	7057T2	SW846A	10/21/98	13:40		S	CONC
23	88683L-10X	7057T2	SW846A	10/21/98	13:44		S	CONC
24	88683MS-10X	7057T2	SW846A	10/21/98	13:48		S	CONC
25	88683MSD-10X	7057T2	SW846A	10/21/98	13:53		S	CONC
26	CCV3	7057T2	SW846A	10/21/98	13:57		S	CONC
27	CCB3	7057T2	SW846A	10/21/98	14:01		S	CONC
28	88683A-10X	7057T2	SW846A	10/21/98	14:05		S	CONC
29	89310-2X	7057T2	SW846A	10/21/98	14:09		S	CONC
30	88666-2X	7057T2	SW846A	10/21/98	14:14		S	CONC
31	88677-2X	7057T2	SW846A	10/21/98	14:18		S	CONC
32	ICSA2	7057T2	SW846A	10/21/98	14:22		S	CONC
33	ICSAB2	7057T2	SW846A	10/21/98	14:26		S	CONC
34	CCV4	7057T2	SW846A	10/21/98	14:30		S	CONC
35	CCB4	7057T2	SW846A	10/21/98	14:34		S	CONC

GK
10/21/98

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#	Sample Name	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138
1	HSA	498200.	244000.	198300.	253400.	248900.	4853.
2	ICV/CCV1	250900.	125800.	97640.	126400.	123800.	2510.
3	ICB/CCB1	24.15	.9055	.2856	10.44	-694.6	-.1939
4	ICSA1	497800.	448700.	188500.	498700.	49.16	-.9708
5	ICSAB1	490100.	446500.	185200.	495400.	11710.	97.10
6	INT-20	644.2	76.28	1349.	-.0960	-4246.	104.2
7	MCL	223.9	5238.	202.5	5167.	11560.	52.75
8	BSS101998	1790.	17970.	928.8	17470.	19850.	444.9
9	PBS101998	15.48	127.9	3.868	31.51	217.2	2.788
10	LCSS238A-2X	20970.	8586.	46220.	7256.	4816.	346.1
11	LCSS238AD-2X	20720.	8634.	45740.	7235.	4967.	341.9
12	88683D-2X	17300.	H440900.	61630.	H271300.	547.3	152.1
13	88683-2X	15260.	H454400.	70590.	H284700.	673.1	188.6
14	CCV2	250100.	124700.	99700.	125600.	124200.	2471.
15	CCB2	-4.006	14.92	4.498	16.02	-420.0	-.0167
16	88683L-2X	3113.	98840.	14950.	56160.	-245.2	41.85
17	88683MS-2X	18740.	H418000.	68900.	H256200.	10500.	382.8
18	88683MSD-2X	19300.	H406200.	66750.	H252200.	10870.	421.3
19	88683A-2X	17220.	H471500.	73500.	H306000.	21820.	649.1
20	DW	.0434	38.79	5.695	32.27	-68.87	-.1220
21	88683D-10X	3497.	96100.	12880.	53750.	11.07	40.96
22	88683-10X	3099.	99610.	15300.	56710.	-170.0	47.92
23	88683L-10X	626.4	20790.	3136.	11530.	-369.6	13.31
24	88683MS-10X	3812.	90810.	14370.	50840.	2143.	89.18
25	88683MSD-10X	3891.	87020.	13760.	49350.	2383.	89.70
26	CCV3	255300.	126000.	101700.	126900.	126900.	2491.
27	CCB3	6.582	.9072	-8.213	6.923	-223.4	-.1999
28	88683A-10X	5106.	117000.	16070.	75330.	22210.	523.2
29	89310-2X	39880.	23340.	135200.	10820.	268.2	411.3
30	88666-2X	36980.	50050.	63530.	9628.	1136.	1258.
31	88677-2X	26980.	20540.	125300.	16720.	403.3	1571.
32	ICSA2	498400.	458200.	195500.	511800.	75.99	-1.484
33	ICSAB2	496100.	449500.	189600.	499600.	11730.	96.58
34	CCV4	254700.	126000.	99010.	126500.	126200.	2506.
35	CCB4	17.58	15.63	17.13	22.06	-71.50	-.2567

#	Sample Name	Ti3349
1	HSA	20010.
2	ICV/CCV1	9995.
3	ICB/CCB1	-.1313
4	ICSA1	.2053
5	ICSAB1	96.28
6	INT-20	19820.
7	MCL	43.20
8	BSS101998	445.3
9	PBS101998	-.6833
10	LCSS238A-2X	1387.
11	LCSS238AD-2X	1372.
12	88683D-2X	696.3
13	88683-2X	552.1
14	CCV2	9992.

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#	Sample Name	Ti3349
15	CCB2	-.2896
16	88683L-2X	112.6
17	88683MS-2X	921.9
18	88683MSD-2X	912.5
19	88683A-2X	991.5
20	DW	-.2348
21	88683D-10X	143.4
22	88683-10X	114.3
23	88683L-10X	21.68
24	88683MS-10X	190.3
25	88683MSD-10X	186.9
26	CCV3	10190.
27	CCB3	.0954
28	88683A-10X	568.6
29	89310-2X	1398.
30	88666-2X	1160.
31	88677-2X	2126.
32	ICSA2	-.1738
33	ICSAB2	98.93
34	CCV4	10110.
35	CCB4	.1312

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Method: SW846A Standard: STD1-Blank

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Avge	.3027	.1823	-.0108	.0163	.0119	.0578	-.2528
SDev	.0033	.0020	.0015	.0015	.0076	.0003	.0226
%RSD	1.097	1.092	13.97	9.258	64.15	.4933	8.934
#1	.3050	.1837	-.0119	.0173	.0173	.0580	-.2687
#2	.3003	.1808	-.0098	.0152	.0065	.0576	-.2368

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	922	--	--	--	--	--	--
SDev	1.573338	--	--	--	--	--	--
%RSD	.1706834	--	--	--	--	--	--
#1	923	--	--	--	--	--	--
#2	921	--	--	--	--	--	--

Method: SW846A Standard: ~~STD4~~ STDL Gu 10/21/98

Elem	Al3082	Ca3179	Fe2714	Mg2790	Zn2138	Ti3349
Avge	91.57	88.54	18.41	44.54	13.37	151.2
SDev	.22	.53	.09	.25	.09	.7
%RSD	.2438	.6035	.4823	.5679	.6662	.4795
#1	91.41	88.16	18.35	44.36	13.30	150.7
#2	91.72	88.92	18.47	44.72	13.43	151.7

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	930	--	--	--	--	--	--
SDev	2.757691	--	--	--	--	--	--
%RSD	.2964940	--	--	--	--	--	--
#1	932	--	--	--	--	--	--
#2	928	--	--	--	--	--	--

Method: SW846A Standard: STD3

Elem	Al3082	Ca3179	Fe2714	Mg2790	Zn2138	Ti3349
Avge	448.0	418.7	86.93	219.5	62.57	736.3
SDev	1.2	.9	.15	.5	.17	1.8
%RSD	.2635	.2194	.1730	.2402	.2708	.2377
#1	448.9	419.4	87.04	219.9	62.69	737.6
#2	447.2	418.1	86.82	219.1	62.45	735.1

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IntStd	1	2	3	4	5	6	7

Wavlen	371.030	--	--	--	--	--	--
Avge	911	--	--	--	--	--	--
SDev	3.235022	--	--	--	--	--	--
%RSD	.3551116	--	--	--	--	--	--
#1	909	--	--	--	--	--	--
#2	913	--	--	--	--	--	--

Method: SW846A Standard: ~~STD2~~ STD4 fx 10/21/98

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Avge	898.9	828.7	177.2	449.8	25.15	123.1	1500.
SDev	.1	.2	.2	.2	.04	.2	1.
%RSD	.0077	.0237	.1183	.0383	.1779	.2022	.0382
#1	899.0	828.8	177.0	449.9	25.18	123.2	1500.
#2	898.9	828.5	177.3	449.6	25.12	122.9	1499.

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	880	--	--	--	--	--	--
SDev	3.588576	--	--	--	--	--	--
%RSD	.4079839	--	--	--	--	--	--
#1	877	--	--	--	--	--	--
#2	882	--	--	--	--	--	--

Method: SW846A Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Al3082	308.215	Multiple	Standards	554.218	-172.542	10/21/98 12:08:28
Ca3179	317.933	Multiple	Standards	294.257	-62.1786	10/21/98 12:08:28
Fe2714	271.441	Multiple	Standards	1119.48	6.85484	10/21/98 12:08:28
Mg2790	279.078	Multiple	Standards	562.211	-9.12764	10/21/98 12:08:28
Na3302	330.232	STD2	STD1-Blank	.838049	.013005	10/21/98 12:08:28
Zn2138	213.856	Multiple	Standards	39.5542	-2.49133	10/21/98 12:08:28
Ti3349	334.941	Multiple	Standards	13.3758	3.18619	10/21/98 12:08:28

Method: SW846A

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al3082	308.215	STD1-Blank	.000000	-4.79662	4.79662
		STD4	50000.0	50575.6	-575.629
		STD3	250000.	248126.	1874.19
		STD2	500000.	498020.	1980.34

CorCoef: 1.00000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca3179	317.933	STD1-Blank	.000000	-8.54943	8.54943
		STD4	25000.0	25991.0	-990.986
		STD3	125000.	123153.	1847.30

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STD2	250000.	243785.	6215.30

CorCoef: 0.99997

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe2714	271.441	STD1-Blank	.000000	-5.28843	5.28843
		STD4	20000.0	20615.9	-615.943
		STD3	100000.	97323.8	2676.23
		STD2	200000.	198352.	1647.55

CorCoef: 0.99993

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg2790	279.078	STD1-Blank	.000000	.020356	-.020356
		STD4	25000.0	25033.1	-33.0957
		STD3	125000.	123409.	1591.02
		STD2	250000.	252851.	-2851.11

CorCoef: 0.99992

Element	Wavelength	Standard	Known Signal	Measured Signal	Residual Signal
Na3302	330.232	STD1-Blank	.023000	.011927	.011073
		STD2	21.0913	25.1517	-4.06032

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn2138	213.856	STD1-Blank	.000000	-.206361	.206361
		STD4	500.000	526.250	-26.2499
		STD3	2500.00	2472.56	27.4421
		STD2	5000.00	4865.58	134.416

CorCoef: 0.99995

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti3349	334.941	STD1-Blank	.000000	-.194542	.194542
		STD4	2000.00	2025.89	-25.8898
		STD3	10000.0	9852.05	147.953
		STD2	20000.0	20063.6	-63.6328

CorCoef: 0.99995

Method: SW846A Sample Name: HSA Operator:
Run Time: 10/21/98 12:12:41
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498200.	244000.	198300.	253400.	248900.	4853.	20010.
SDev	1.	556.	50.	687.	58.	8.	.
%RSD	.0002	.2277	.0251	.2712	.0234	.1717	.0022
#1	498200.	243600.	198300.	252900.	249000.	4847.	20010.
#2	498200.	244400.	198400.	253900.	248900.	4859.	20010.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	527200.	263600.	210800.	263600.	263600.	5272.	21080.
Low	472800.	236400.	189200.	236400.	236400.	4728.	18920.

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IntStd	1	2	3	4	5	6	7

Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	885	--	--	--	--	--	--
SDev	.7601484	--	--	--	--	--	--
%RSD	.0858573	--	--	--	--	--	--
#1	885	--	--	--	--	--	--
#2	886	--	--	--	--	--	--

Method: SW846A Sample Name: ICV/CCV1 Operator:
Run Time: 10/21/98 12:16:52
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	250900.	125800.	97640.	126400.	123800.	2510.	9995.
SDev	642.	220.	142.	132.	612.	2.	8.
%RSD	.2558	.1749	.1456	.1048	.4946	.0737	.0804
#1	251400.	125700.	97750.	126300.	124200.	2509.	10000.
#2	250500.	126000.	97540.	126500.	123400.	2511.	9990.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	276000.	138000.	110400.	138000.	138000.	2760.	11040.
Low	223900.	112000.	89600.	112000.	112000.	2239.	8960.

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	909	--	--	--	--	--	--
SDev	.6540651	--	--	--	--	--	--
%RSD	.0719474	--	--	--	--	--	--
#1	910	--	--	--	--	--	--
#2	909	--	--	--	--	--	--

Method: SW846A Sample Name: ICB/CCB1 Operator:
Run Time: 10/21/98 12:21:03
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	24.15	.9055	.2856	10.44	-694.6	-.1939	-.1313
SDev	1.81	.5948	2.478	1.47	387.9	.0077	.4078
%RSD	7.497	65.69	867.5	14.10	55.84	3.962	310.7
#1	25.43	1.326	-1.466	9.401	-420.3	-.1994	.1571
#2	22.87	.4849	2.038	11.48	-968.9	-.1885	-.4197
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	400.0	50.00	200.0	1000.	15.00	5.000

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Low	-199.0	-400.0	-50.00	-200.0	-1000.	-9.900	-5.000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	934	--	--	--	--	--	--
SDev	9.333818	--	--	--	--	--	--
%RSD	.9993114	--	--	--	--	--	--
#1	941	--	--	--	--	--	--
#2	927	--	--	--	--	--	--

Method: SW846A Sample Name: ICSA1 Operator:
Run Time: 10/21/98 12:25:14
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	497800.	448700.	188500.	498700.	49.16	-.9708	.2053
SDev	820.	449.	74.	1267.	408.8	.1513	.2254
%RSD	.1648	.1001	.0395	.2540	831.6	15.58	109.8
#1	497300.	448400.	188400.	497800.	338.2	-.8639	.3647
#2	498400.	449000.	188500.	499600.	-239.9	-1.078	.0459
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600000.	600000.	240000.	600000.	1000.	10.00	10.00
Low	400000.	400000.	160000.	400000.	-2000.	-10.00	-5.000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	889	--	--	--	--	--	--
SDev	.5480250	--	--	--	--	--	--
%RSD	.0616408	--	--	--	--	--	--
#1	889	--	--	--	--	--	--
#2	889	--	--	--	--	--	--

Method: SW846A Sample Name: ICSAB1 Operator:
Run Time: 10/21/98 12:29:25
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	490100.	446500.	185200.	495400.	11710.	97.10	96.28
SDev	1273.	1668.	347.	2077.	32.	.15	.72
%RSD	.2599	.3735	.1875	.4192	.2729	.1537	.7494
#1	489200.	445300.	185000.	494000.	11730.	97.00	96.79
#2	491000.	447700.	185500.	496900.	11680.	97.21	95.77

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Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600000.	600000.	240000.	600000.	12000.	120.0	120.0
Low	400000.	400000.	160000.	400000.	8000.	80.00	80.00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	888	--	--	--	--	--	--
SDev	.4773316	--	--	--	--	--	--
%RSD	.0537377	--	--	--	--	--	--
#1	889	--	--	--	--	--	--
#2	888	--	--	--	--	--	--

Method: SW846A Sample Name: INT-20 Operator:
Run Time: 10/21/98 12:33:36
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	644.2	76.28	1349.	-.0960	-4246.	104.2	19820.
SDev	3.4	6.48	.	6.8076	27.	.2	14.
%RSD	.5302	8.493	.0037	7093.	.6284	.2155	.0715
#1	646.7	80.86	1349.	4.718	-4227.	104.1	19830.
#2	641.8	71.70	1349.	-4.910	-4265.	104.4	19810.

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	933	--	--	--	--	--	--
SDev	.6540651	--	--	--	--	--	--
%RSD	.0700668	--	--	--	--	--	--
#1	934	--	--	--	--	--	--
#2	933	--	--	--	--	--	--

Method: SW846A Sample Name: MCL Operator:
Run Time: 10/21/98 12:37:46
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	223.9	5238.	202.5	5167.	11560.	52.75	43.20
SDev	3.8	9.	5.5	9.	149.	.05	.41
%RSD	1.705	.1741	2.705	.1746	1.284	.0868	.9376
#1	226.6	5244.	198.7	5173.	11460.	52.72	42.91
#2	221.2	5231.	206.4	5160.	11670.	52.78	43.48

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	950	--	--	--	--	--	--
SDev	1.732420	--	--	--	--	--	--
%RSD	.1824080	--	--	--	--	--	--
#1	949	--	--	--	--	--	--
#2	951	--	--	--	--	--	--

Method: SW846A Sample Name: BSS101998 Operator:
Run Time: 10/21/98 12:41:57
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1790.	17970.	928.8	17470.	19850.	444.9	445.3
SDev	6.	56.	20.0	17.	122.	.8	.6
%RSD	.3401	.3138	2.158	.0948	.6169	.1842	.1364
#1	1794.	17930.	943.0	17460.	19930.	444.3	445.7
#2	1786.	18010.	914.6	17480.	19760.	445.5	444.9
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2400.	24000.	1200.	24000.	24000.	600.0	600.0
Low	1600.	16000.	800.0	16000.	16000.	400.0	400.0

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	932	--	--	--	--	--	--
SDev	1.202047	--	--	--	--	--	--
%RSD	.1289300	--	--	--	--	--	--
#1	933	--	--	--	--	--	--
#2	931	--	--	--	--	--	--

Method: SW846A Sample Name: PBS101998 Operator:
Run Time: 10/21/98 12:46:08
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	15.48	127.9	3.868	31.51	217.2	2.788	-.6833
SDev	.81	1.5	9.394	.87	209.2	.045	.7337
%RSD	5.208	1.172	242.9	2.749	96.33	1.622	107.4
#1	14.91	128.9	10.51	32.12	365.1	2.820	-.1645
#2	16.05	126.8	-2.775	30.89	69.24	2.756	-1.202
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

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High	199.0	500.0	99.00	500.0	1000.	15.00	10.00
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-5.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	927	--	--	--	--	--	--
SDev	.1944716	--	--	--	--	--	--
%RSD	.0209783	--	--	--	--	--	--
#1	927	--	--	--	--	--	--
#2	927	--	--	--	--	--	--

Method: SW846A Samole Name: LCSS238A-2X Operator:
Run Time: 10/21/98 12:50:18
Comment: 5062_W
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	20970.	8586.	46220.	7256.	4816.	346.1	1387.
SDev	3.	16.	169.	15.	133.	.5	3.
%RSD	.0147	.1854	.3664	.2039	2.763	.1374	.2396
#1	20970.	8575.	46100.	7246.	4722.	345.8	1385.
#2	20970.	8597.	46340.	7266.	4910.	346.5	1390.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	39450.	16450.	63500.	12500.	7800.	575.0	2380.
Low	14250.	6050.	17350.	5800.	2700.	253.5	695.0

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	956	--	--	--	--	--	--
SDev	1.891502	--	--	--	--	--	--
%RSD	.1979413	--	--	--	--	--	--
#1	957	--	--	--	--	--	--
#2	954	--	--	--	--	--	--

Method: SW846A Samole Name: LCSS238AD-2X Operator:
Run Time: 10/21/98 12:54:30
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	20720.	8634.	45740.	7235.	4967.	341.9	1372.
SDev	2.	8.	52.	13.	28.	.0	2.
%RSD	.0103	.0878	.1147	.1754	.5547	.0141	.1680
#1	20730.	8628.	45710.	7226.	4986.	341.8	1371.

305298

#2	20720.	8639.	45780.	7244.	4947.	341.9	1374.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	39450.	16450.	63500.	12500.	7800.	575.0	2380.
Low	14250.	6050.	17350.	5800.	2700.	253.5	695.0
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	964	--	--	--	--	--	--
SDev	1.767767	--	--	--	--	--	--
%RSD	.1833260	--	--	--	--	--	--
#1	963	--	--	--	--	--	--
#2	966	--	--	--	--	--	--

Method: SW846A Sample Name: 88683D-2X Operator:
Run Time: 10/21/98 12:58:41
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	17300.	H440900.	61630.	H271300.	547.3	152.1	696.3
SDev	29.	130.	249.	139.	249.9	.1	1.7
%RSD	.1677	.0295	.4033	.0513	45.66	.0874	.2488
#1	17320.	H441000.	61810.	H271400.	370.6	152.2	697.5
#2	17280.	H440800.	61460.	H271200.	724.0	152.0	695.1
Errors	LC Pass	LC High	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	922	--	--	--	--	--	--
SDev	2.740039	--	--	--	--	--	--
%RSD	.2972044	--	--	--	--	--	--
#1	920	--	--	--	--	--	--
#2	924	--	--	--	--	--	--

Method: SW846A Sample Name: 88683-2X Operator:
Run Time: 10/21/98 13:02:52
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	15260.	H454400.	70590.	H284700.	673.1	188.6	552.1
SDev	42.	1398.	41.	433.	286.3	.1	.2

305299

%RSD	.2746	.3077	.0575	.1522	42.54	.0604	.0356
#1	15290.	H453400.	70620.	H284400.	875.6	188.5	552.0
#2	15230.	H455400.	70560.	H285000.	470.6	188.7	552.2
Errors	LC Pass	LC High	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	919	--	--	--	--	--	--
SDev	2.439527	--	--	--	--	--	--
%RSD	.2654256	--	--	--	--	--	--
#1	917	--	--	--	--	--	--
#2	921	--	--	--	--	--	--

Method: SW846A Sample Name: CCV2 Operator:
Run Time: 10/21/98 13:07:04
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	250100.	124700.	99700.	125600.	124200.	2471.	9992.
SDev	210.	65.	164.	7.	184.	3.	2.
%RSD	.0839	.0519	.1643	.0056	.1481	.1266	.0186
#1	250300.	124600.	99590.	125600.	124300.	2473.	9991.
#2	250000.	124700.	99820.	125600.	124100.	2469.	9993.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	276000.	138000.	110400.	138000.	138000.	2760.	11040.
Low	223900.	112000.	89600.	112000.	112000.	2239.	8960.
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	922	--	--	--	--	--	--
SDev	1.361172	--	--	--	--	--	--
%RSD	.1476185	--	--	--	--	--	--
#1	921	--	--	--	--	--	--
#2	923	--	--	--	--	--	--

Method: SW846A Sample Name: CCB2 Operator:
Run Time: 10/21/98 13:11:15
Comment: 5027T1
Mode: CONC Corr. Factor: 1

305300

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349

Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-4.006	14.92	4.498	16.02	-420.0	-.0167	-.2896
SDev	.849	1.15	10.11	.91	.5	.0102	.8782
%RSD	21.20	7.675	224.9	5.660	.1195	61.19	303.2
#1	-3.405	15.73	-2.654	15.38	-420.4	-.0095	-.9106
#2	-4.606	14.11	11.65	16.67	-419.6	-.0239	.3314
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	400.0	50.00	200.0	1000.	15.00	5.000
Low	-199.0	-400.0	-50.00	-200.0	-1000.	-9.900	-5.000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	939	--	--	--	--	--	--
SDev	2.245055	--	--	--	--	--	--
%RSD	.2391314	--	--	--	--	--	--
#1	940	--	--	--	--	--	--
#2	937	--	--	--	--	--	--

Method: SW846A Sample Name: 88683L-2X Operator:
Run Time: 10/21/98 13:15:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3113.	98840.	14950.	56160.	-245.2	41.85	112.6
SDev	10.	163.	27.	22.	.3	.06	.1
%RSD	.3292	.1654	.1832	.0398	.1142	.1397	.1166
#1	3121.	98720.	14930.	56140.	-245.4	41.89	112.7
#2	3106.	98950.	14970.	56170.	-245.0	41.81	112.5
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	915	--	--	--	--	--	--
SDev	.7247586	--	--	--	--	--	--
%RSD	.0791988	--	--	--	--	--	--
#1	916	--	--	--	--	--	--
#2	915	--	--	--	--	--	--

305301

Method: SW846A Sample Name: 88683MS-2X Operator:
Run Time: 10/21/98 13:19:36

Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	18740.	H418000.	68900.	H256200.	10500.	382.8	921.9
SDev	55.	391.	223.	13.	67.	.4	2.3
%RSD	.2946	.0935	.3233	.0049	.6370	.0994	.2548
#1	18700.	H418200.	68740.	H256200.	10450.	383.1	920.3
#2	18780.	H417700.	69050.	H256200.	10550.	382.5	923.6
Errors	LC Pass	LC High	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	917	--	--	--	--	--	--
SDev	2.386485	--	--	--	--	--	--
%RSD	.2601464	--	--	--	--	--	--
#1	916	--	--	--	--	--	--
#2	919	--	--	--	--	--	--

Method: SW846A Sample Name: 88683MSD-2X Operator:
Run Time: 10/21/98 13:23:47
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	19300.	H406200.	66750.	H252200.	10870.	421.3	912.5
SDev	50.	232.	144.	395.	36.	1.2	.6
%RSD	.2577	.0572	.2160	.1568	.3274	.2941	.0631
#1	19330.	H406400.	66650.	H252500.	10850.	422.2	912.1
#2	19260.	H406100.	66850.	H251900.	10900.	420.4	912.9
Errors	LC Pass	LC High	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	929	--	--	--	--	--	--
SDev	2.563262	--	--	--	--	--	--
%RSD	.2758680	--	--	--	--	--	--
#1	927	--	--	--	--	--	--
#2	931	--	--	--	--	--	--

305302

Method: SW846A Sample Name: 88683A-2X Operator:
Run Time: 10/21/98 13:27:58
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	17220.	H471500.	73500.	H306000.	21820.	649.1	991.5
SDev	8.	487.	62.	318.	331.	.5	1.3
%RSD	.0475	.1034	.0839	.1040	1.517	.0730	.1294
#1	17220.	H471100.	73540.	H305700.	21580.	648.8	992.4
#2	17210.	H471800.	73460.	H306200.	22050.	649.5	990.6
Errors	LC Pass	LC High	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	925	--	--	--	--	--	--
SDev	1.378867	--	--	--	--	--	--
%RSD	.1490707	--	--	--	--	--	--
#1	924	--	--	--	--	--	--
#2	926	--	--	--	--	--	--

Method: SW846A Sample Name: DW Operator:
Run Time: 10/21/98 13:32:09
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.0434	38.79	5.695	32.27	-68.87	-.1220	-.2348
SDev	4.417	5.72	8.512	5.65	357.77	.1099	1.2723
%RSD	10180.	14.75	149.5	17.52	519.5	90.07	541.9
#1	3.167	42.83	11.71	36.27	184.1	-.0443	.6649
#2	-3.080	34.74	-.3242	28.27	-321.8	-.1997	-1.134
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	930	--	--	--	--	--	--
SDev	2.245055	--	--	--	--	--	--
%RSD	.2412773	--	--	--	--	--	--

305303

Method: SW846A Sample Name: 88683D-10X Operator:
Run Time: 10/21/98 13:36:20
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3497.	96100.	12880.	53750.	11.07	40.96	143.4
SDev	2.	53.	7.	18.	89.00	.16	.1
%RSD	.0497	.0553	.0508	.0333	803.9	.3806	.0763
#1	3496.	96140.	12870.	53760.	-51.86	40.85	143.3
#2	3499.	96060.	12880.	53730.	74.00	41.07	143.5
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	925	--	--	--	--	--	--
SDev	1.750072	--	--	--	--	--	--
%RSD	.1891791	--	--	--	--	--	--
#1	924	--	--	--	--	--	--
#2	926	--	--	--	--	--	--

Method: SW846A Sample Name: 88683-10X Operator:
Run Time: 10/21/98 13:40:31
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3099.	99610.	15300.	56710.	-170.0	47.92	114.3
SDev	2.	113.	3.	31.	21.3	.01	.1
%RSD	.0565	.1135	.0173	.0539	12.55	.0237	.0943
#1	3098.	99530.	15300.	56680.	-185.1	47.91	114.4
#2	3100.	99690.	15300.	56730.	-154.9	47.92	114.2
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	930	--	--	--	--	--	--
SDev	3.270369	--	--	--	--	--	--

305304

%RSD	.3517424	--	--	--	--	--	--
#1	927	--	--	--	--	--	--
#2	932	--	--	--	--	--	--

Method: SW846A Sample Name: 88683L-10X Operator:
Run Time: 10/21/98 13:44:42
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	626.4	20790.	3136.	11530.	-369.6	13.31	21.68
SDev	3.0	10.	8.	18.	386.9	.19	.90
%RSD	.4834	.0493	.2396	.1525	104.7	1.456	4.142
#1	628.6	20790.	3131.	11540.	-96.03	13.18	21.04
#2	624.3	20800.	3142.	11510.	-643.2	13.45	22.31
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	936	--	--	--	--	--	--
SDev	2.563262	--	--	--	--	--	--
%RSD	.2738784	--	--	--	--	--	--
#1	934	--	--	--	--	--	--
#2	938	--	--	--	--	--	--

Method: SW846A Sample Name: 88683MS-10X Operator:
Run Time: 10/21/98 13:48:54
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3812.	90810.	14370.	50840.	2143.	89.18	190.3
SDev	3.	54.	1.	43.	67.	.03	.7
%RSD	.0810	.0597	.0079	.0851	3.142	.0350	.3597
#1	3810.	90850.	14370.	50870.	2190.	89.16	189.8
#2	3814.	90770.	14370.	50810.	2095.	89.20	190.7
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00

305305

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED

Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	931	--	--	--	--	--	--
SDev	1.785419	--	--	--	--	--	--
%RSD	.1916894	--	--	--	--	--	--
#1	930	--	--	--	--	--	--
#2	933	--	--	--	--	--	--

Method: SW846A Sample Name: 88683MSD-10X Operator:
Run Time: 10/21/98 13:53:05
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	3891.	87020.	13760.	49350.	2383.	89.70	186.9
SDev	9.	95.	21.	52.	110.	.14	.4
%RSD	.2200	.1093	.1538	.1055	4.619	.1575	.2386
#1	3897.	87090.	13750.	49380.	2305.	89.60	186.6
#2	3885.	86960.	13780.	49310.	2460.	89.80	187.3
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	927	--	--	--	--	--	--
SDev	1.856155	--	--	--	--	--	--
%RSD	.2001812	--	--	--	--	--	--
#1	926	--	--	--	--	--	--
#2	929	--	--	--	--	--	--

Method: SW846A Sample Name: CCV3 Operator:
Run Time: 10/21/98 13:57:16
Comment: 5067T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	255300.	126000.	101700.	126900.	126900.	2491.	10190.
SDev	498.	271.	98.	230.	180.	5.	1.
%RSD	.1951	.2149	.0961	.1815	.1421	.1815	.0119
#1	255600.	125900.	101800.	126800.	127100.	2488.	10190.
#2	254900.	126200.	101600.	127100.	126800.	2494.	10190.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	276000.	138000.	110400.	138000.	138000.	2760.	11040.
Low	223900.	112000.	89600.	112000.	112000.	2239.	8960.

305306

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	907	--	--	--	--	--	--
SDev	2.916815	--	--	--	--	--	--
%RSD	.3217534	--	--	--	--	--	--
#1	904	--	--	--	--	--	--
#2	909	--	--	--	--	--	--

Method: SW846A Sample Name: CC83 Operator:
Run Time: 10/21/98 14:01:28
Comment: 5067T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	6.582	.9072	-8.213	6.923	-223.4	-.1999	.0954
SDev	4.760	2.283	2.550	.439	45.5	.0742	.9048
%RSD	72.32	251.6	31.05	6.336	20.38	37.09	948.7
#1	9.947	2.521	-6.409	7.233	-255.6	-.2524	.7352
#2	3.216	-.7067	-10.02	6.613	-191.2	-.1475	-.5444
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	400.0	50.00	200.0	1000.	15.00	5.000
Low	-199.0	-400.0	-50.00	-200.0	-1000.	-9.900	-5.000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	928	--	--	--	--	--	--
SDev	.6010667	--	--	--	--	--	--
%RSD	.0647544	--	--	--	--	--	--
#1	928	--	--	--	--	--	--
#2	929	--	--	--	--	--	--

Method: SW846A Sample Name: 88683A-10X Operator:
Run Time: 10/21/98 14:05:39
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	5106.	117000.	16070.	75330.	22210.	523.2	568.6
SDev	29.	82.	4.	142.	202.	1.8	1.1
%RSD	.5763	.0702	.0219	.1891	.9079	.3528	.1897
#1	5127.	117000.	16060.	75430.	22350.	524.5	569.4
#2	5085.	116900.	16070.	75230.	22070.	521.9	567.9

305307

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	917	--	--	--	--	--	--
SDev	2.810732	--	--	--	--	--	--
%RSD	.3064095	--	--	--	--	--	--
#1	915	--	--	--	--	--	--
#2	919	--	--	--	--	--	--

Method: SW846A Sample Name: 89310-2X Operator:
Run Time: 10/21/98 14:09:50
Comment: 5067T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	39880.	23340.	135200.	10820.	268.2	411.3	1398.
SDev	8.	41.	138.	24.	84.2	.8	2.
%RSD	.0197	.1754	.1023	.2210	31.38	.2000	.1232
#1	39870.	23310.	135300.	10800.	208.7	410.7	1397.
#2	39880.	23370.	135100.	10840.	327.7	411.9	1400.

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1125	--	--	--	--	--	--
SDev	.3182499	--	--	--	--	--	--
%RSD	.0282958	--	--	--	--	--	--
#1	1125	--	--	--	--	--	--
#2	1124	--	--	--	--	--	--

Method: SW846A Sample Name: 88666-2X Operator:
Run Time: 10/21/98 14:14:02
Comment: 5027T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	36980.	50050.	63530.	9628.	1136.	1258.	1160.
SDev	360.	403.	734.	77.	145.	8.	11.
%RSD	.9738	.8050	1.156	.8040	12.79	.6293	.9589

305308

#1	37230.	50340.	64050.	9683.	1238.	1264.	1168.
#2	36720.	49770.	63010.	9573.	1033.	1252.	1152.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1250	--	--	--	--	--	--
SDev	11.77335	--	--	--	--	--	--
%RSD	.9417922	--	--	--	--	--	--
#1	1242	--	--	--	--	--	--
#2	1258	--	--	--	--	--	--

Method: SW846A Sample Name: 88677-2X Operator:
Run Time: 10/21/98 14:18:13
Comment: 5031T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	26980.	20540.	125300.	16720.	403.3	1571.	2126.
SDev	12.	15.	206.	18.	277.9	4.	.
%RSD	.0448	.0708	.1645	.1054	68.90	.2449	.0168
#1	26990.	20550.	125100.	16730.	599.8	1574.	2126.
#2	26970.	20530.	125400.	16710.	206.8	1569.	2125.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	500000.	250000.	200000.	250000.	250000.	5000.	100000.
Low	-199.0	-400.0	-99.00	-400.0	-1000.	-9.900	-10.00
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	1032	--	--	--	--	--	--
SDev	2.227404	--	--	--	--	--	--
%RSD	.2158912	--	--	--	--	--	--
#1	1030	--	--	--	--	--	--
#2	1033	--	--	--	--	--	--

Method: SW846A Sample Name: ICSA2 Operator:
Run Time: 10/21/98 14:22:24
Comment: 5010
Mode: CONC Corr. Factor: 1

305309

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	498400.	458200.	195500.	511800.	75.99	-1.484	-.1738

SDev	4799.	1606.	1146.	2811.	31.63	.011	.9537
%RSD	.9627	.3505	.5861	.5492	41.62	.7217	548.8
#1	495000.	457000.	194700.	509800.	53.63	-1.476	-.8481
#2	501800.	459300.	196300.	513800.	98.36	-1.491	.5006
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600000.	600000.	240000.	600000.	1000.	10.00	10.00
Low	400000.	400000.	160000.	400000.	-2000.	-10.00	-5.000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	913	--	--	--	--	--	--
SDev	5.303301	--	--	--	--	--	--
%RSD	.5808971	--	--	--	--	--	--
#1	917	--	--	--	--	--	--
#2	909	--	--	--	--	--	--

Method: SW846A Sample Name: ICSAB2 Operator:
Run Time: 10/21/98 14:26:35
Comment: 5010
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	496100.	449500.	189600.	499600.	11730.	96.58	98.93
SDev	21.	435.	174.	503.	218.	.27	.37
%RSD	.0042	.0969	.0919	.1006	1.856	.2777	.3716
#1	496100.	449200.	189800.	499300.	11570.	96.39	98.67
#2	496100.	449800.	189500.	500000.	11880.	96.77	99.19
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600000.	600000.	240000.	600000.	12000.	120.0	120.0
Low	400000.	400000.	160000.	400000.	8000.	80.00	80.00
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	895	--	--	--	--	--	--
SDev	1.396519	--	--	--	--	--	--
%RSD	.1560988	--	--	--	--	--	--
#1	894	--	--	--	--	--	--
#2	896	--	--	--	--	--	--

Method: SW846A Sample Name: CCV4 Operator:
Run Time: 10/21/98 14:30:46
Comment: 5067T1
Mode: CONC Corr. Factor: 1

305310

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	254700.	126000.	99010.	126500.	126200.	2506.	10110.
SDev	2.	187.	78.	217.	325.	1.	.
%RSD	.0009	.1484	.0787	.1718	.2578	.0492	.0023
#1	254700.	125900.	98960.	126400.	125900.	2506.	10110.
#2	254700.	126200.	99070.	126700.	126400.	2507.	10110.
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	276000.	138000.	110400.	138000.	138000.	2760.	11040.
Low	223900.	112000.	89600.	112000.	112000.	2239.	8960.
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	904	--	--	--	--	--	--
SDev	.4065950	--	--	--	--	--	--
%RSD	.0449730	--	--	--	--	--	--
#1	904	--	--	--	--	--	--
#2	904	--	--	--	--	--	--

Method: SW846A Sample Name: CCB4 Operator:
Run Time: 10/21/98 14:34:58
Comment: 5067T1
Mode: CONC Corr. Factor: 1

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na3302	Zn2138	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	17.58	15.63	17.13	22.06	-71.50	-.2567	.1312
SDev	4.62	2.23	4.27	3.85	169.10	.0610	.8560
%RSD	26.28	14.28	24.91	17.45	236.5	23.77	652.5
#1	20.85	17.21	20.14	24.78	-191.1	-.2999	.7364
#2	14.32	14.05	14.11	19.34	48.07	-.2136	-.4741
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	199.0	400.0	50.00	200.0	1000.	15.00	5.000
Low	-199.0	-400.0	-50.00	-200.0	-1000.	-9.900	-5.000
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	928	--	--	--	--	--	--
SDev	.1060401	--	--	--	--	--	--
%RSD	.0114215	--	--	--	--	--	--
#1	928	--	--	--	--	--	--
#2	928	--	--	--	--	--	--

305311

File : 7057HG1.WSL Rowdeth Saved under 7064Hg1.WSL

File Record	Laboratory Sample Name	Customer/EPA Sample Name	Type	Matrix	Instrument Dil.	Date	Time	Flags
1	STD1		3		1.0	10/20/98	09:31:43	
2	STD2		3		1.0	10/20/98	09:34:42	
3	STD3		3		1.0	10/20/98	09:37:41	
4	STD4		3		1.0	10/20/98	09:40:40	
5	STD5		3		1.0	10/20/98	09:43:39	
6	STD6		3		1.0	10/20/98	09:46:38	
7	AICV/ACCV1		0		1.0	10/20/98	09:49:35	
8	ICB/CCB1		0		1.0	10/20/98	09:52:31	
9	PBS101998/7064		0		1.0	10/20/98	09:55:25	
10	BSS101998/7064		0		1.0	10/20/98	09:58:18	
11	LCSS-238/7064		0		2.0	10/20/98	10:01:11	
12	LCSS-238-D/7064		0		2.0	10/20/98	10:04:04	
13	89908		0		1.0	10/20/98	10:06:57	
14	89908D		0		1.0	10/20/98	10:10:02	
15	89908MS		0		1.0	10/20/98	10:14:38	
16	89908MSD		0		1.0	10/20/98	10:18:15	
17	89907		0		1.0	10/20/98	10:21:14	
18	89909		0		1.0	10/20/98	10:24:12	
19	ACCV2		0		1.0	10/20/98	10:27:10	
20	CCB2		0		1.0	10/20/98	10:30:05	
21	89910		0		1.0	10/20/98	10:32:59	
22	89911		0		1.0	10/20/98	10:36:07	
23	89912		0		1.0	10/20/98	10:39:06	
24	89913		0		1.0	10/20/98	10:41:59	
25	89914		0		1.0	10/20/98	10:45:39	
26	90643		0		1.0	10/20/98	10:48:32	
27	90273		0		1.0	10/20/98	10:51:26	
28	90633		0		1.0	10/20/98	10:54:19	
29	90635		0		1.0	10/20/98	10:57:12	
30	90636		0		1.0	10/20/98	11:00:05	
31	ACCV3		0		1.0	10/20/98	11:03:00	
32	CCB3		0		1.0	10/20/98	11:05:56	
33	90637		0		1.0	10/20/98	11:08:50	
34	90638		0		1.0	10/20/98	11:11:43	
35	90639		0		1.0	10/20/98	11:14:37	
36	90640		0		1.0	10/20/98	11:17:30	
37	90641		0		1.0	10/20/98	11:20:24	
38	90642		0		1.0	10/20/98	11:23:18	
39	89908		0		20.0	10/20/98	11:28:16	
40	89908D		0		20.0	10/20/98	11:31:11	
41	89908MS		0		20.0	10/20/98	11:34:05	
42	89908MSD		0		20.0	10/20/98	11:36:59	
43	ACCV4		0		1.0	10/20/98	11:39:54	
44	CCB4		0		1.0	10/20/98	11:42:49	
45	89907		0		10.0	10/20/98	11:45:45	
46	89909		0		1.0	10/20/98	11:48:40	
47	89910		0		20.0	10/20/98	11:51:35	
48	89911		0		1.0	10/20/98	11:54:30	
49	89913		0		50.0	10/20/98	11:57:39	
50	89914		0		1.0	10/20/98	12:00:34	
51	ACCV5		0		1.0	10/20/98	12:03:30	
52	CCB5		0		1.0	10/20/98	12:06:25	
53	Z		0		1.0	10/20/98	12:09:21	
54	BSS101998/7060		0		1.0	10/20/98	12:12:18	
55	LCSS-238/7060		0		2.0	10/20/98	12:15:15	

305312

56	LCSS-238-D/7060	0	2.0	10/20/98	12:18:12
57	90535	0	1.0	10/20/98	12:21:09
58	90535D	0	1.0	10/20/98	12:24:06
59	90535MS	0	1.0	10/20/98	12:27:03
60	90535MSD	0	1.0	10/20/98	12:30:00
61	89148	0	1.0	10/20/98	12:32:58
62	89149	0	1.0	10/20/98	12:35:56
63	ACCV6	0	1.0	10/20/98	12:38:54
64	CCB6	0	1.0	10/20/98	12:41:49
65	89150	0	1.0	10/20/98	12:44:46
66	89151	0	1.0	10/20/98	12:47:45
67	89152	0	1.0	10/20/98	12:50:44
68	89225	0	1.0	10/20/98	12:53:43
69	89226	0	1.0	10/20/98	12:56:42
70	89227	0	1.0	10/20/98	12:59:41
71	89228	0	1.0	10/20/98	13:02:40
72	89229	0	1.0	10/20/98	13:05:39
73	90526	0	1.0	10/20/98	13:08:38
74	90527	0	1.0	10/20/98	13:11:37
75	ACCV7	0	1.0	10/20/98	13:14:35
76	CCB7	0	1.0	10/20/98	13:17:31
77	90528	0	1.0	10/20/98	13:20:25
78	90529	0	1.0	10/20/98	13:23:18
79	90530	0	1.0	10/20/98	13:26:11
80	90531	0	1.0	10/20/98	13:29:05
81	90532	0	1.0	10/20/98	13:31:59
82	90533	0	1.0	10/20/98	13:34:53
83	90534	0	1.0	10/20/98	13:37:47
84	PBS101998/7060	0	1.0	10/20/98	13:40:43
85	ACCV8	0	1.0	10/20/98	13:43:38
86	CCB8	0	1.0	10/20/98	13:46:33
87	PBS101998	0	1.0	10/20/98	13:49:27
88	BSS101998	0	1.0	10/20/98	13:52:20
89	LCSS-238	0	2.0	10/20/98	13:55:13
90	LCSS-238-D	0	2.0	10/20/98	13:58:06
91	88683	0	1.0	10/20/98	14:00:59
92	88683D	0	1.0	10/20/98	14:03:52
93	88683MS	0	1.0	10/20/98	14:06:45
94	88683MSD	0	1.0	10/20/98	14:09:39
95	90277	0	2.0	10/20/98	14:12:32
96	90278	0	1.0	10/20/98	14:15:26
97	ACCV9	0	1.0	10/20/98	14:18:21
98	CCB9	0	1.0	10/20/98	14:21:16
99	90279	0	200.0	10/20/98	14:24:09
100	90280	0	1.0	10/20/98	14:27:01
101	90281	0	1.0	10/20/98	14:30:19
102	90282	0	1.0	10/20/98	14:33:12
103	90283	0	1.0	10/20/98	14:36:05
104	90284	0	1.0	10/20/98	14:38:58
105	90285	0	1.0	10/20/98	14:41:51
106	90286	0	1.0	10/20/98	14:44:45
107	90289	0	1.0	10/20/98	14:47:38
108	90290	0	1.0	10/20/98	14:50:31
109	ACCV10	0	1.0	10/20/98	14:53:25
110	CCB10	0	1.0	10/20/98	14:56:20
111	89341	0	1.0	10/20/98	15:00:11
112	89343	0	1.0	10/20/98	15:03:04
113	89310	0	1.0	10/20/98	15:05:57
114	88666	0	1.0	10/20/98	15:08:50
115	88677	0	1.0	10/20/98	15:11:45

116	90277	0	1.0	10/20/98	15:14:39
117	90280	0	10.0	10/20/98	15:17:35
118	90281	0	1.0	10/20/98	15:20:29
119	90285	0	5.0	10/20/98	15:23:24
120	90286	0	2.0	10/20/98	15:26:18
121	ACCV11	0	1.0	10/20/98	15:29:13
122	CCB11	0	1.0	10/20/98	15:32:08
123	90289	0	1.0	10/20/98	15:35:03
124	88666	0	2.0	10/20/98	15:37:58
125	88677	0	1.0	10/20/98	15:40:53
126	ACCV12	0	1.0	10/20/98	15:43:48
127	CCB12	0	1.0	10/20/98	15:46:43

305314

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 5 09:31:43 20 Oct 1998 HG

Hg .000 ppb 556
Ave. Int. = 556 S. D. = 0

*** Standard: 2 Rep: 1 Seq: 6 09:34:42 20 Oct 1998 HG

Hg .100 ppb 4386
Ave. Int. = 4386 S. D. = 0

*** Standard: 3 Rep: 1 Seq: 7 09:37:41 20 Oct 1998 HG

Hg 1.00 ppb 53572
Ave. Int. = 53572 S. D. = 0

*** Standard: 4 Rep: 1 Seq: 8 09:40:40 20 Oct 1998 HG

Hg 2.00 ppb 106777
Ave. Int. = 106777 S. D. = 0

*** Standard: 5 Rep: 1 Seq: 9 09:43:39 20 Oct 1998 HG

Hg 5.00 ppb 263758
Ave. Int. = 263758 S. D. = 0

*** Standard: 6 Rep: 1 Seq: 10 09:46:38 20 Oct 1998 HG

Hg 10.0 ppb 526390
Ave. Int. = 526390 S. D. = 0

305315

Protocol: SW846

Rev: 3.001 Time: 09:46:44 20 Oct 1998

Folder: 7064HG1 Seq: 11 Print: On

User: Batch: Id: Std6Rep1 Cup: Gas: 0.30 LPM

State: Idle Macro SW846 35: F3 Print Xmit: Off Autosampler: On

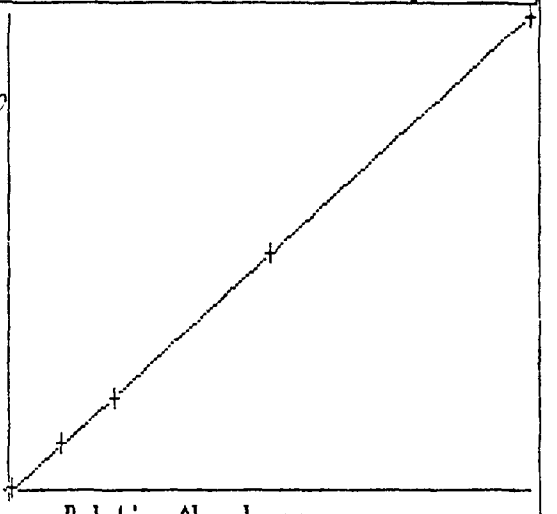
CALIBRATION: Line Calibration

Line: Hg

	Conc.	Calc.	Dev.	Accepted LiNear	Mf
S1	.000	.001	.001	Quadratic	
S2	.100	.074	-.026	WtdLinear	
S3	1.00	1.01	.009		C
S4	2.00	2.02	.020	Accept	o
S5	5.00	5.00	.003		n
S6	10.0	9.99	-.006	StdAdd	c

A .0000000 r .999992

B 1.90038e-5 C -9.48759e-3



Relative Absorbance

	Mean	%RSD	
S1	556	0	556
S2	4386	0	4386
S3	53572	0	53572
S4	106777	0	106777
S5	263758	0	263758
S6	526390	0	526390

New calibration coefficients stored

305316

09:49:35 20 Oct 1998 Protocol: SW846

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 3 Ck3ICV/CCV Seq: 11 09:49:35 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		99.0	4.95	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 12 09:52:31 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.031	.100	ppb	.000

*** Sample ID: PBS101998 Seq: 13 09:55:25 20 Oct 1998 HG

Hg -.019 ppb .000 -.019

*** Sample ID: BSS101998 Seq: 14 09:58:18 20 Oct 1998 HG

Hg 1.01 ppb .000 1.01

*** Sample ID: LCSS-238 Seq: 15 10:01:11 20 Oct 1998 HG

2X

Hg 3.58 ppb .000 3.58

*** Sample ID: LCSS-238-D Seq: 16 10:04:04 20 Oct 1998 HG

2X

Hg 3.24 ppb .000 3.24

*** Sample ID: 89908 See 2X dilution Seq: 17 10:06:57 20 Oct 1998 HG

Hg 86.6 ppb .000 86.6

*** Sample ID: 89908D Seq: 18 10:10:02 20 Oct 1998 HG

Hg 74.1 ppb .000 74.1

*** Sample ID: 89908MS Seq: 19 10:14:38 20 Oct 1998 HG

Hg 85.3 ppb .000 85.3

*** Sample ID: 89908MSD Seq: 20 10:18:15 20 Oct 1998 HG

Hg 75.8 ppb .000 75.8

*** Sample ID: 89907 See 10X dilution Seq: 21 10:21:14 20 Oct 1998 HG

Hg 32.8 ppb .000 32.8

*** Sample ID: 89909 See RR Seq: 22 10:24:12 20 Oct 1998 HG

Hg 1.55 ppb .000 1.55

305317

10:27:10 20 Oct 1998 Protocol: SW846

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 2 Ck2 ACCV Seq: 23 10:27:10 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		98.0	4.90	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 24 10:30:05 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.045	.100	ppb	.000

*** Sample ID: 89910 See 20x dilution Seq: 25 10:32:59 20 Oct 1998 HG

Hg 62.2 ppb .000 62.2

*** Sample ID: 89911 See RR Seq: 26 10:36:07 20 Oct 1998 HG

Hg 2.89 ppb .000 2.89

*** Sample ID: 89912 Seq: 27 10:39:06 20 Oct 1998 HG

Hg 3.38 ppb .000 3.38

*** Sample ID: 89913 See 50x dilution Seq: 28 10:41:59 20 Oct 1998 HG

Hg 116. ppb .000 116.

*** Sample ID: 89914 See RR Seq: 29 10:45:39 20 Oct 1998 HG

Hg -.118 ppb .000 -.118

*** Sample ID: 90643 Seq: 30 10:48:32 20 Oct 1998 HG

Hg -.025 ppb .000 -.025

*** Sample ID: 90273 Seq: 31 10:51:26 20 Oct 1998 HG

Hg -.004 ppb .000 -.004

*** Sample ID: 90633 Seq: 32 10:54:19 20 Oct 1998 HG

Hg -.023 ppb .000 -.023

*** Sample ID: 90635 Seq: 33 10:57:12 20 Oct 1998 HG

Hg .857 ppb .000 .857

*** Sample ID: 90636 Seq: 34 11:00:05 20 Oct 1998 HG

Hg 2.71 ppb .000 2.71

305318

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 2 Ck2 ACCV Seq: 35 11:03:00 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		96.9	4.85	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 36 11:05:56 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.042	.100	ppb	.000

*** Sample ID: 90637 Seq: 37 11:08:50 20 Oct 1998 HG

Hg .127 ppb .000 .127

*** Sample ID: 90638 Seq: 38 11:11:43 20 Oct 1998 HG

Hg .021 ppb .000 .021

*** Sample ID: 90639 Seq: 39 11:14:37 20 Oct 1998 HG

Hg .151 ppb .000 .151

*** Sample ID: 90640 Seq: 40 11:17:30 20 Oct 1998 HG

Hg .594 ppb .000 .594

*** Sample ID: 90641 Seq: 41 11:20:24 20 Oct 1998 HG

Hg .533 ppb .000 .533

*** Sample ID: 90642 Seq: 42 11:23:18 20 Oct 1998 HG

Hg .552 ppb .000 .552

*** Sample ID: 89908-20X Seq: 43 11:28:16 20 Oct 1998 HG

Hg 5.73 ppb .000 5.73

*** Sample ID: 89908D-20X Seq: 44 11:31:11 20 Oct 1998 HG

Hg 4.76 ppb .000 4.76

*** Sample ID: 89908MS Seq: 45 11:34:05 20 Oct 1998 HG

20X
Hg 5.77 ppb .000 5.77

*** Sample ID: 89908MSD Seq: 46 11:36:59 20 Oct 1998 HG

20X
Hg 5.15 ppb .000 5.15

305319

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 2 Ck2 ACCV Seq: 47 11:39:54 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		96.3	4.81	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 48 11:42:49 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.039	.100	ppb	.000

*** Sample ID: 89907-10X Seq: 49 11:45:45 20 Oct 1998 HG

Hg 3.55 ppb .000 3.55

*** Sample ID: 89909 Seq: 50 11:48:40 20 Oct 1998 HG

Hg 1.62 ppb .000 1.62

*** Sample ID: 89910-20X Seq: 51 11:51:35 20 Oct 1998 HG

Hg 3.52 ppb .000 3.52

*** Sample ID: 89911 Seq: 52 11:54:30 20 Oct 1998 HG

Hg .294 ppb .000 .294

*** Sample ID: 89913-50X Seq: 53 11:57:39 20 Oct 1998 HG

Hg 2.97 ppb .000 2.97

*** Sample ID: 89914 Seq: 54 12:00:34 20 Oct 1998 HG

Hg -.050 ppb .000 -.050

*** Check Standard: 2 Ck2 ACCV Seq: 55 12:03:30 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		96.7	4.83	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 56 12:06:25 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.050	.100	ppb	.000

*** Sample ID: PBS101998 /7060 Seq: 57 12:09:21 20 Oct 1998 HG
SCERR

Hg .145 ppb .000 .145

*** Sample ID: BSS101998 Seq: 58 12:12:18 20 Oct 1998 HG

Hg .955 ppb .000 .955

305320

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Line   Conc.  Units     SD/RSD      1       2       3       4       5
-----------------------------------------------------------------------------

*** Sample ID: LCSS-238                Seq:  59     12:15:15 20 Oct 1998 HG
                            2X
Hg    3.24    ppb       .000      3.24

*** Sample ID: LCSS-238-D              Seq:  60     12:18:12 20 Oct 1998 HG
                            2X
Hg    3.05    ppb       .000      3.05

*** Sample ID: 90535                   Seq:  61     12:21:09 20 Oct 1998 HG

Hg   -.015    ppb       .000     -.015

*** Sample ID: 90535D                  Seq:  62     12:24:06 20 Oct 1998 HG

Hg   -.016    ppb       .000     -.016

*** Sample ID: 90535MS                 Seq:  63     12:27:03 20 Oct 1998 HG

Hg    .954    ppb       .000      .954

*** Sample ID: 90535MSD                Seq:  64     12:30:00 20 Oct 1998 HG

Hg    .950    ppb       .000      .950

*** Sample ID: 89148                   Seq:  65     12:32:58 20 Oct 1998 HG

Hg    .002    ppb       .000      .002

*** Sample ID: 89149                   Seq:  66     12:35:56 20 Oct 1998 HG

Hg    .035    ppb       .000      .035

*** Check Standard: 2  Ck2 ACCV        Seq:  67     12:38:54 20 Oct 1998 HG
Line  Flag  %Rcv.   Found    True  Units      SD/RSD
Hg          96.3     4.81    5.00  ppb         .000

*** Check Standard: 1  Ck1 CCB         Seq:  68     12:41:49 20 Oct 1998 HG
Line  Flag  Found Range(+/-) Units      SD/RSD
Hg         -.036     .100    ppb        .000

*** Sample ID: 89150                   Seq:  69     12:44:46 20 Oct 1998 HG

Hg   -.002    ppb       .000     -.002

*** Sample ID: 89151                   Seq:  70     12:47:45 20 Oct 1998 HG

Hg    .057    ppb       .000      .057
```

305321

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 89152 Seq: 71 12:50:44 20 Oct 1998 HG

Hg	.059	ppb	.000	.059

*** Sample ID: 89225 Seq: 72 12:53:43 20 Oct 1998 HG

Hg	.116	ppb	.000	.116

*** Sample ID: 89226 Seq: 73 12:56:42 20 Oct 1998 HG

Hg	-.000	ppb	.000	-.000

*** Sample ID: 89227 Seq: 74 12:59:41 20 Oct 1998 HG

Hg	.050	ppb	.000	.050

*** Sample ID: 89228 Seq: 75 13:02:40 20 Oct 1998 HG

Hg	.082	ppb	.000	.082

*** Sample ID: 89229 Seq: 76 13:05:39 20 Oct 1998 HG

Hg	.001	ppb	.000	.001

*** Sample ID: 90526 Seq: 77 13:08:38 20 Oct 1998 HG

Hg	1.02	ppb	.000	1.02

*** Sample ID: 90527 Seq: 78 13:11:37 20 Oct 1998 HG

Hg	2.98	ppb	.000	2.98

*** Check Standard: 2 Ck2 ACCV Seq: 79 13:14:35 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		94.4	4.72	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 80 13:17:31 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.032	.100	ppb	.000

*** Sample ID: 90528 Seq: 81 13:20:25 20 Oct 1998 HG

Hg	.983	ppb	.000	.983

*** Sample ID: 90529 Seq: 82 13:23:18 20 Oct 1998 HG

Hg	2.82	ppb	.000	2.82

305322

13:26:11 20 Oct 1998 Protocol: SW846

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 90530 Seq: 83 13:26:11 20 Oct 1998 HG

Hg	1.34	ppb	.000	1.34

*** Sample ID: 90531 Seq: 84 13:29:05 20 Oct 1998 HG

Hg	1.30	ppb	.000	1.30

*** Sample ID: 90532 Seq: 85 13:31:59 20 Oct 1998 HG

Hg	1.02	ppb	.000	1.02

*** Sample ID: 90533 Seq: 86 13:34:53 20 Oct 1998 HG

Hg	1.58	ppb	.000	1.58

*** Sample ID: 90534 Seq: 87 13:37:47 20 Oct 1998 HG

Hg	1.29	ppb	.000	1.29

*** Sample ID: PBS101998 Seq: 88 13:40:43 20 Oct 1998 HG

Hg	-.019	ppb	.000	-.019

*** Check Standard: 2 Ck2 ACCV Seq: 89 13:43:38 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		93.6	4.68	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 90 13:46:33 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.026	.100	ppb	.000

*** Sample ID: PBS101998 / 7057 Seq: 91 13:49:27 20 Oct 1998 HG

Hg	-.027	ppb	.000	-.027

*** Sample ID: BSS101998 Seq: 92 13:52:20 20 Oct 1998 HG

Hg	.951	ppb	.000	.951

*** Sample ID: LCSS-238 Seq: 93 13:55:13 20 Oct 1998 HG

			2X	
Hg	2.93	ppb	.000	2.93

*** Sample ID: LCSS-238-D Seq: 94 13:58:06 20 Oct 1998 HG

			2X	
Hg	2.81	ppb	.000	2.81

305323

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 88683 Seq: 95 14:00:59 20 Oct 1998 HG

Hg .003 ppb .000 .003

*** Sample ID: 88683D Seq: 96 14:03:52 20 Oct 1998 HG

Hg .018 ppb .000 .018

*** Sample ID: 88683MS Seq: 97 14:06:45 20 Oct 1998 HG

Hg .811 ppb .000 .811

*** Sample ID: 88683MSD Seq: 98 14:09:39 20 Oct 1998 HG

Hg .880 ppb .000 .880

*** Sample ID: 90277-2X See RR straight Seq: 99 14:12:32 20 Oct 1998 HG

Hg 3.24 ppb .000 3.24

*** Sample ID: 90278 Seq: 100 14:15:26 20 Oct 1998 HG

Hg 8.29 ppb .000 8.29

*** Check Standard: 2 Ck2 ACCV Seq: 101 14:18:21 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		93.3	4.67	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 102 14:21:16 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.023	.100	ppb	.000

*** Sample ID: 90279-200X Seq: 103 14:24:09 20 Oct 1998 HG

Hg 1.38 ppb .000 1.38

*** Sample ID: 90280 See 10x dilution Seq: 104 14:27:01 20 Oct 1998 HG

Hg 48.4 ppb .000 48.4

*** Sample ID: 90281 See RR Seq: 105 14:30:19 20 Oct 1998 HG

Hg 1.12 ppb .000 1.12

*** Sample ID: 90282 Seq: 106 14:33:12 20 Oct 1998 HG

Hg .013 ppb .000 .013

305324

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 90283 Seq: 107 14:36:05 20 Oct 1998 HG

Hg .223 ppb .000 .223

*** Sample ID: 90284 Seq: 108 14:38:58 20 Oct 1998 HG

Hg 8.34 ppb .000 8.34

*** Sample ID: 90285 See 5X dilution Seq: 109 14:41:51 20 Oct 1998 HG

Hg 18.2 ppb .000 18.2

*** Sample ID: 90286 See 2X dilution Seq: 110 14:44:45 20 Oct 1998 HG

Hg 12.8 ppb .000 12.8

*** Sample ID: 90289 See RR Seq: 111 14:47:38 20 Oct 1998 HG

Hg .223 ppb .000 .223

*** Sample ID: 90290 Seq: 112 14:50:31 20 Oct 1998 HG

Hg 1.33 ppb .000 1.33

*** Check Standard: 2 Ck2 ACCV Seq: 113 14:53:25 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		91.9	4.60	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 114 14:56:20 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.029	.100	ppb	.000

*** Sample ID: 89341 Seq: 115 15:00:11 20 Oct 1998 HG

Hg .224 ppb .000 .224

*** Sample ID: 89343 Seq: 116 15:03:04 20 Oct 1998 HG

Hg .185 ppb .000 .185

*** Sample ID: 89310 Seq: 117 15:05:57 20 Oct 1998 HG

Hg .787 ppb .000 .787

*** Sample ID: 88666 See 2X dilution Seq: 118 15:08:50 20 Oct 1998 HG

Hg 10.6 ppb .000 10.6

305325

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 88677 Seq: 119 15:11:45 20 Oct 1998 HG

Hg .325 ppb .000 .325

*** Sample ID: 90277 Seq: 120 15:14:39 20 Oct 1998 HG

Hg 7.07 ppb .000 7.07

*** Sample ID: 90280-10X Seq: 121 15:17:35 20 Oct 1998 HG

Hg 5.15 ppb .000 5.15

*** Sample ID: 90281 Seq: 122 15:20:29 20 Oct 1998 HG

Hg 1.29 ppb .000 1.29

*** Sample ID: 90285-5X Seq: 123 15:23:24 20 Oct 1998 HG

Hg 3.70 ppb .000 3.70

*** Sample ID: 90286-2X Seq: 124 15:26:18 20 Oct 1998 HG

Hg 6.55 ppb .000 6.55

*** Check Standard: 2 Ck2 ACCV Seq: 125 15:29:13 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		93.0	4.65	5.00	ppb	.000

*** Check Standard: 1 Ck1 CCB Seq: 126 15:32:08 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.030	.100	ppb	.000

*** Sample ID: 90289 Seq: 127 15:35:03 20 Oct 1998 HG

Hg .257 ppb .000 .257

*** Sample ID: 88666-2X Seq: 128 15:37:58 20 Oct 1998 HG

Hg 5.11 ppb .000 5.11

*** Sample ID: 88677 Seq: 129 15:40:53 20 Oct 1998 HG

Hg .322 ppb .000 .322

*** Check Standard: 2 Ck2 ACCV Seq: 130 15:43:48 20 Oct 1998 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		92.6	4.63	5.00	ppb	.000

305326

15:46:43 20 Oct 1998 Protocol: SW846

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Check Standard: 1 Ck1 CCB Seq: 131 15:46:43 20 Oct 1998 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.024	.100	ppb	.000

305327

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 5 09:31:43 20 Oct 1998 HG

Hg .000 ppb 556
Ave. Int. = 556 S. D. = 0

*** Standard: 2 Rep: 1 Seq: 6 09:34:42 20 Oct 1998 HG

Hg .100 ppb 4386
Ave. Int. = 4386 S. D. = 0

*** Standard: 3 Rep: 1 Seq: 7 09:37:41 20 Oct 1998 HG

Hg 1.00 ppb 53572
Ave. Int. = 53572 S. D. = 0

*** Standard: 4 Rep: 1 Seq: 8 09:40:40 20 Oct 1998 HG

Hg 2.00 ppb 106777
Ave. Int. = 106777 S. D. = 0

*** Standard: 5 Rep: 1 Seq: 9 09:43:39 20 Oct 1998 HG

Hg 5.00 ppb 263758
Ave. Int. = 263758 S. D. = 0

*** Standard: 6 Rep: 1 Seq: 10 09:46:38 20 Oct 1998 HG

Hg 10.0 ppb 526390
Ave. Int. = 526390 S. D. = 0

*** Check Standard: 3 Ck3ICV/CCV Seq: 11 09:49:35 20 Oct 1998 HG
Line Flag Intensities
Hg 260974

*** Check Standard: 1 Ck1 CCB Seq: 12 09:52:31 20 Oct 1998 HG
Line Flag Intensities
Hg -1123

*** Sample ID: PBS101998 Seq: 13 09:55:25 20 Oct 1998 HG

Hg -.019 ppb -510

*** Sample ID: BSS101998 Seq: 14 09:58:18 20 Oct 1998 HG

Hg 1.01 ppb 53797

305328

15:47:27 20 Oct 1998 Protocol: SW846

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: LCSS-238 Seq: 15 10:01:11 20 Oct 1998 HG

			2X
Hg	3.58	ppb	188838

*** Sample ID: LCSS-238-D Seq: 16 10:04:04 20 Oct 1998 HG

			2X
Hg	3.24	ppb	170868

*** Sample ID: 89908 See 20x dilution Seq: 17 10:06:57 20 Oct 1998 HG

Hg	86.6	ppb	4557935

*** Sample ID: 89908D See 20x dilution Seq: 18 10:10:02 20 Oct 1998 HG

Hg	74.1	ppb	3898673

*** Sample ID: 89908MS See 20x dilution Seq: 19 10:14:38 20 Oct 1998 HG

Hg	85.3	ppb	4487670

*** Sample ID: 89908MSD See 20x dilution Seq: 20 10:18:15 20 Oct 1998 HG

Hg	75.8	ppb	3990331

*** Sample ID: 89907 See 10x dilution Seq: 21 10:21:14 20 Oct 1998 HG

Hg	32.8	ppb	1724738

*** Sample ID: 89909 See RR Seq: 22 10:24:12 20 Oct 1998 HG

Hg	1.55	ppb	81893

*** Check Standard: 2 Ck2 ACCV Seq: 23 10:27:10 20 Oct 1998 HG

Line	Flag	Intensities
Hg		258440

*** Check Standard: 1 Ck1 CCB Seq: 24 10:30:05 20 Oct 1998 HG

Line	Flag	Intensities
Hg		-1863

*** Sample ID: 89910 See 20x dilution Seq: 25 10:32:59 20 Oct 1998 HG

Hg	62.2	ppb	3273655

*** Sample ID: 89911 See RR Seq: 26 10:36:07 20 Oct 1998 HG

Hg	2.89	ppb	152517

305329

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 89912				Seq:	27	10:39:06 20 Oct 1998 HG		
Hg	3.38	ppb	178213					
*** Sample ID: 89913			See Sondilution	Seq:	28	10:41:59 20 Oct 1998 HG		
Hg	116.	ppb	6102485					
*** Sample ID: 89914			See RK	Seq:	29	10:45:39 20 Oct 1998 HG		
Hg	-.118	ppb	-5684					
*** Sample ID: 90643				Seq:	30	10:48:32 20 Oct 1998 HG		
Hg	-.025	ppb	-791					
*** Sample ID: 90273				Seq:	31	10:51:26 20 Oct 1998 HG		
Hg	-.004	ppb	297					
*** Sample ID: 90633				Seq:	32	10:54:19 20 Oct 1998 HG		
Hg	-.023	ppb	-699					
*** Sample ID: 90635				Seq:	33	10:57:12 20 Oct 1998 HG		
Hg	.857	ppb	45605					
*** Sample ID: 90636				Seq:	34	11:00:05 20 Oct 1998 HG		
Hg	2.71	ppb	142879					
*** Check Standard: 2			Ck2 ACCV	Seq:	35	11:03:00 20 Oct 1998 HG		
Line	Flag		Intensities					
Hg			255540					
*** Check Standard: 1			Ck1 CCB	Seq:	36	11:05:56 20 Oct 1998 HG		
Line	Flag		Intensities					
Hg			-1688					
*** Sample ID: 90637				Seq:	37	11:08:50 20 Oct 1998 HG		
Hg	.127	ppb	7202					
*** Sample ID: 90638				Seq:	38	11:11:43 20 Oct 1998 HG		
Hg	.021	ppb	1588					

305330

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 90639 Seq: 39 11:14:37 20 Oct 1998 HG

Hg .151 ppb 8438

*** Sample ID: 90640 Seq: 40 11:17:30 20 Oct 1998 HG

Hg .594 ppb 31774

*** Sample ID: 90641 Seq: 41 11:20:24 20 Oct 1998 HG

Hg .533 ppb 28561

*** Sample ID: 90642 Seq: 42 11:23:18 20 Oct 1998 HG

Hg .552 ppb 29546

*** Sample ID: 89908-20X Seq: 43 11:28:16 20 Oct 1998 HG

Hg 5.73 ppb 301774

*** Sample ID: 89908D-20X Seq: 44 11:31:11 20 Oct 1998 HG

Hg 4.76 ppb 251102

*** Sample ID: 89908MS Seq: 45 11:34:05 20 Oct 1998 HG
20X
Hg 5.77 ppb 304374

*** Sample ID: 89908MSD Seq: 46 11:36:59 20 Oct 1998 HG
20X
Hg 5.15 ppb 271723

*** Check Standard: 2 Ck2 ACCV Seq: 47 11:39:54 20 Oct 1998 HG
Line Flag Intensities
Hg 253741

*** Check Standard: 1 Ck1 CCB Seq: 48 11:42:49 20 Oct 1998 HG
Line Flag Intensities
Hg -1534

*** Sample ID: 89907-10X Seq: 49 11:45:45 20 Oct 1998 HG

Hg 3.55 ppb 187072

*** Sample ID: 89909 Seq: 50 11:48:40 20 Oct 1998 HG

Hg 1.62 ppb 85929

305331

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 89910-20X Seq: 51 11:51:35 20 Oct 1998 HG

Hg 3.52 ppb 185630

*** Sample ID: 89911 Seq: 52 11:54:30 20 Oct 1998 HG

Hg .294 ppb 15983

*** Sample ID: 89913-50X Seq: 53 11:57:39 20 Oct 1998 HG

Hg 2.97 ppb 156837

*** Sample ID: 89914 Seq: 54 12:00:34 20 Oct 1998 HG

Hg -.050 ppb -2112

*** Check Standard: 2 Ck2 ACCV Seq: 55 12:03:30 20 Oct 1998 HG
Line Flag Intensities
Hg 254842

*** Check Standard: 1 Ck1 CCB Seq: 56 12:06:25 20 Oct 1998 HG
Line Flag Intensities
Hg -2137

*** Sample ID: PBS101998/7060 Seq: 57 12:09:21 20 Oct 1998 HG
SECRR
Hg .145 ppb 8130

*** Sample ID: BSS101998 Seq: 58 12:12:18 20 Oct 1998 HG

Hg .955 ppb 50757

*** Sample ID: LCSS-238 Seq: 59 12:15:15 20 Oct 1998 HG
2X
Hg 3.24 ppb 170769

*** Sample ID: LCSS-238-D Seq: 60 12:18:12 20 Oct 1998 HG
2X
Hg 3.05 ppb 161182

*** Sample ID: 90535 Seq: 61 12:21:09 20 Oct 1998 HG

Hg -.015 ppb -310

*** Sample ID: 90535D Seq: 62 12:24:06 20 Oct 1998 HG

Hg -.016 ppb -336

305332

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 90535MS Seq: 63 12:27:03 20 Oct 1998 HG

Hg .954 ppb 50697

*** Sample ID: 90535MSD Seq: 64 12:30:00 20 Oct 1998 HG

Hg .950 ppb 50472

*** Sample ID: 89148 Seq: 65 12:32:58 20 Oct 1998 HG

Hg .002 ppb 630

*** Sample ID: 89149 Seq: 66 12:35:56 20 Oct 1998 HG

Hg .035 ppb 2325

*** Check Standard: 2 CK2 ACCV Seq: 67 12:38:54 20 Oct 1998 HG
Line Flag Intensities
Hg 253758

*** Check Standard: 1 CK1 CCB Seq: 68 12:41:49 20 Oct 1998 HG
Line Flag Intensities
Hg -1421

*** Sample ID: 89150 Seq: 69 12:44:46 20 Oct 1998 HG

Hg -.002 ppb 405

*** Sample ID: 89151 Seq: 70 12:47:45 20 Oct 1998 HG

Hg .057 ppb 3515

*** Sample ID: 89152 Seq: 71 12:50:44 20 Oct 1998 HG

Hg .059 ppb 3585

*** Sample ID: 89225 Seq: 72 12:53:43 20 Oct 1998 HG

Hg .116 ppb 6602

*** Sample ID: 89226 Seq: 73 12:56:42 20 Oct 1998 HG

Hg -.000 ppb 482

*** Sample ID: 89227 Seq: 74 12:59:41 20 Oct 1998 HG

Hg .050 ppb 3131

305333

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 89228 Seq: 75 13:02:40 20 Oct 1998 HG

Hg .082 ppb 4805

*** Sample ID: 89229 Seq: 76 13:05:39 20 Oct 1998 HG

Hg .001 ppb 572

*** Sample ID: 90526 Seq: 77 13:08:38 20 Oct 1998 HG

Hg 1.02 ppb 54079

*** Sample ID: 90527 Seq: 78 13:11:37 20 Oct 1998 HG

Hg 2.98 ppb 157277

*** Check Standard: 2 Ck2 ACCV Seq: 79 13:14:35 20 Oct 1998 HG
Line Flag Intensities
Hg 248746

*** Check Standard: 1 Ck1 CCB Seq: 80 13:17:31 20 Oct 1998 HG
Line Flag Intensities
Hg -1162

*** Sample ID: 90528 Seq: 81 13:20:25 20 Oct 1998 HG

Hg .983 ppb 52210

*** Sample ID: 90529 Seq: 82 13:23:18 20 Oct 1998 HG

Hg 2.82 ppb 149045

*** Sample ID: 90530 Seq: 83 13:26:11 20 Oct 1998 HG

Hg 1.34 ppb 71095

*** Sample ID: 90531 Seq: 84 13:29:05 20 Oct 1998 HG

Hg 1.30 ppb 68950

*** Sample ID: 90532 Seq: 85 13:31:59 20 Oct 1998 HG

Hg 1.02 ppb 54016

*** Sample ID: 90533 Seq: 86 13:34:53 20 Oct 1998 HG

Hg 1.58 ppb 83805

305334

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 90534 Seq: 87 13:37:47 20 Oct 1998 HG

Hg 1.29 ppb 68439

*** Sample ID: PBS101998 Seq: 88 13:40:43 20 Oct 1998 HG

Hg -.019 ppb -511

*** Check Standard: 2 Ck2 ACCV Seq: 89 13:43:38 20 Oct 1998 HG
Line Flag Intensities
Hg 246815

*** Check Standard: 1 Ck1 CCB Seq: 90 13:46:33 20 Oct 1998 HG
Line Flag Intensities
Hg -857

*** Sample ID: PBS101998 / 7057 Seq: 91 13:49:27 20 Oct 1998 HG

Hg -.027 ppb -900

*** Sample ID: BSS101998 Seq: 92 13:52:20 20 Oct 1998 HG

Hg .951 ppb 50540

*** Sample ID: LCSS-238 Seq: 93 13:55:13 20 Oct 1998 HG
2X
Hg 2.93 ppb 154468

*** Sample ID: LCSS-238-D Seq: 94 13:58:06 20 Oct 1998 HG
2X
Hg 2.81 ppb 148312

*** Sample ID: 88683 Seq: 95 14:00:59 20 Oct 1998 HG

Hg .003 ppb 658

*** Sample ID: 88683D Seq: 96 14:03:52 20 Oct 1998 HG

Hg .018 ppb 1448

*** Sample ID: 88683MS Seq: 97 14:06:45 20 Oct 1998 HG

Hg .811 ppb 43160

*** Sample ID: 88683MSD Seq: 98 14:09:39 20 Oct 1998 HG

Hg .880 ppb 46790

305335

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 90277-2X			See RR Straight	Seq: 99	14:12:32 20 Oct 1998 HG			
Hg	3.24	ppb	170865					
*** Sample ID: 90278				Seq: 100	14:15:26 20 Oct 1998 HG			
Hg	8.29	ppb	436685					
*** Check Standard: 2			Ck2 ACCV	Seq: 101	14:18:21 20 Oct 1998 HG			
Line	Flag		Intensities					
Hg			246007					
*** Check Standard: 1			Ck1 CCB	Seq: 102	14:21:16 20 Oct 1998 HG			
Line	Flag		Intensities					
Hg			-717					
*** Sample ID: 90279-200X				Seq: 103	14:24:09 20 Oct 1998 HG			
Hg	1.38	ppb	73336					
*** Sample ID: 90280			See 10x dilution	Seq: 104	14:27:01 20 Oct 1998 HG			
Hg	48.4	ppb	2549827					
*** Sample ID: 90281			See RR	Seq: 105	14:30:19 20 Oct 1998 HG			
Hg	1.12	ppb	59466					
*** Sample ID: 90282				Seq: 106	14:33:12 20 Oct 1998 HG			
Hg	.013	ppb	1193					
*** Sample ID: 90283				Seq: 107	14:36:05 20 Oct 1998 HG			
Hg	.223	ppb	12236					
*** Sample ID: 90284				Seq: 108	14:38:58 20 Oct 1998 HG			
Hg	8.34	ppb	439406					
*** Sample ID: 90285			See 5x dilution	Seq: 109	14:41:51 20 Oct 1998 HG			
Hg	18.2	ppb	956903					
*** Sample ID: 90286			See 2x dilution	Seq: 110	14:44:45 20 Oct 1998 HG			
Hg	12.8	ppb	676461					

305336

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 90289 SECKR				Seq: 111	14:47:38 20 Oct 1998 HG			
Hg	.223	ppb	12215					
*** Sample ID: 90290				Seq: 112	14:50:31 20 Oct 1998 HG			
Hg	1.33	ppb	70520					
*** Check Standard: 2			Ck2 ACCV	Seq: 113	14:53:25 20 Oct 1998 HG			
Line	Flag		Intensities					
Hg			242387					
*** Check Standard: 1			Ck1 CCB	Seq: 114	14:56:20 20 Oct 1998 HG			
Line	Flag		Intensities					
Hg			-1010					
*** Sample ID: 89341				Seq: 115	15:00:11 20 Oct 1998 HG			
Hg	.224	ppb	12295					
*** Sample ID: 89343				Seq: 116	15:03:04 20 Oct 1998 HG			
Hg	.185	ppb	10217					
*** Sample ID: 89310				Seq: 117	15:05:57 20 Oct 1998 HG			
Hg	.787	ppb	41937					
*** Sample ID: 88666 SEE 2x dilution				Seq: 118	15:08:50 20 Oct 1998 HG			
Hg	10.6	ppb	560096					
*** Sample ID: 88677				Seq: 119	15:11:45 20 Oct 1998 HG			
Hg	.325	ppb	17585					
*** Sample ID: 90277				Seq: 120	15:14:39 20 Oct 1998 HG			
Hg	7.07	ppb	372331					
*** Sample ID: 90280-10X				Seq: 121	15:17:35 20 Oct 1998 HG			
Hg	5.15	ppb	271364					
*** Sample ID: 90281				Seq: 122	15:20:29 20 Oct 1998 HG			
Hg	1.29	ppb	68209					

305337

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 90285-5X Seq: 123 15:23:24 20 Oct 1998 HG

Hg 3.70 ppb 195368

*** Sample ID: 90286-2X Seq: 124 15:26:18 20 Oct 1998 HG

Hg 6.55 ppb 345196

*** Check Standard: 2 Ck2 ACCV Seq: 125 15:29:13 20 Oct 1998 HG
Line Flag Intensities
Hg 245215

*** Check Standard: 1 Ck1 CCB Seq: 126 15:32:08 20 Oct 1998 HG
Line Flag Intensities
Hg -1060

*** Sample ID: 90289 Seq: 127 15:35:03 20 Oct 1998 HG

Hg .257 ppb 14017

*** Sample ID: 88666-2X Seq: 128 15:37:58 20 Oct 1998 HG

Hg 5.11 ppb 269404

*** Sample ID: 88677 Seq: 129 15:40:53 20 Oct 1998 HG

Hg .322 ppb 17448

*** Check Standard: 2 Ck2 ACCV Seq: 130 15:43:48 20 Oct 1998 HG
Line Flag Intensities
Hg 244154

*** Check Standard: 1 Ck1 CCB Seq: 131 15:46:43 20 Oct 1998 HG
Line Flag Intensities
Hg -745

305338

Notebook No. 0153

PROJECT TJA TRACE 1 Run Log

Continued From Page

ELEMENT: Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Sb, Se, Tl, V, Zn, Mo, P, Sn, Sr, Ti

BATCH: 7057T1

DATE: 10/20/98

File : 7057T1.WSL

File Record	Laboratory Sample Name	Customer/EPA Sample Name	Type	Matrix	Instrument Dil.	Date	Time	Fl
1	STD1-BLANK		3		1.0	10/20/98	14:38:00	
2	STD2		3		1.0	10/20/98	14:44:00	
3	STD3		3		1.0	10/20/98	14:49:00	
4	STD4		3		1.0	10/20/98	14:54:00	
5	HSA		0		1.0	10/20/98	15:01:00	
6	ICV/CCV1		0		1.0	10/20/98	15:07:00	
7	ICB/CCB1		0		1.0	10/20/98	15:12:00	
8	ICSA1		0		1.0	10/20/98	15:17:00	
9	ICSAB1		0		1.0	10/20/98	15:23:00	
10	INT-20		0		1.0	10/20/98	15:28:00	
11	MCL		0		1.0	10/20/98	15:33:00	
12	BSS101998		0		1.0	10/20/98	15:39:00	
13	PBS101998		0		1.0	10/20/98	15:44:00	
14	LCSS238A		0		2.0	10/20/98	15:49:00	
15	LCSS238AD		0		2.0	10/20/98	15:55:00	
16	88683D		0		2.0	10/20/98	16:00:00	
17	88683		0		2.0	10/20/98	16:05:00	
18	CCV2		0		1.0	10/20/98	16:11:00	
19	CCB2		0		1.0	10/20/98	16:16:00	
20	88683L		0		2.0	10/20/98	16:22:00	
21	88683MS		0		2.0	10/20/98	16:27:00	
22	88683MSD		0		2.0	10/20/98	16:32:00	
23	88683A		0		2.0	10/20/98	16:38:00	
24	90277		0		2.0	10/20/98	16:43:00	
25	90278		0		2.0	10/20/98	16:48:00	
26	90279		0		2.0	10/20/98	16:54:00	
27	90280		0		2.0	10/20/98	16:59:00	
28	90281		0		2.0	10/20/98	17:04:00	
29	90282		0		2.0	10/20/98	17:10:00	
30	CCV3		0		1.0	10/20/98	17:15:00	
31	CCB3		0		1.0	10/20/98	17:20:00	
32	90283		0		2.0	10/20/98	17:26:00	
33	90284		0		2.0	10/20/98	17:31:00	
34	90285		0		2.0	10/20/98	17:36:00	
35	90286		0		2.0	10/20/98	17:42:00	
36	90289		0		2.0	10/20/98	17:47:00	
37	90290		0		2.0	10/20/98	17:52:00	
38	89341		0		2.0	10/20/98	17:58:00	
39	89343		0		2.0	10/20/98	18:03:00	
40	89310		0		2.0	10/20/98	18:08:00	
41	88666		0		2.0	10/20/98	18:14:00	
42	CCV4		0		1.0	10/20/98	18:19:00	
43	CCB4		0		1.0	10/20/98	18:24:00	
44	88677		0		2.0	10/20/98	18:30:00	
45	88684		0		2.0	10/20/98	18:35:00	
46	88685		0		2.0	10/20/98	18:40:00	
47	ICSA2		0		1.0	10/20/98	18:46:00	
48	ICSAB2		0		1.0	10/20/98	18:51:00	
49	CCV5		0		1.0	10/20/98	18:56:00	
50	CCB5		0		1.0	10/20/98	19:02:00	

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Read and Understood By 305339

Signed [signature] Date 10/23/98 [signature] 10/23/98

PROJECT: IWA TRACE 1 Run Log

Notebook No. 01153

Continued From Page

ELEMENT: Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Sb, Se, Tl, V, Zn, Mo, P, Sn, Sr, Ti, Al

BATCH: 7057T2

DATE: 10/21/98

File : 7057T2.WSL

File Record	Laboratory Sample Name	Customer/EPA Sample Name	Type	Matrix	Instrument Dil.	Date	Time	Fl
1	STD1-BLANK		3		1.0	10/21/98	11:56:00	
2	STD2		3		1.0	10/21/98	12:00:00	
3	STD3		3		1.0	10/21/98	12:04:00	
4	STD4		3		1.0	10/21/98	12:08:00	
5	HSA		0		1.0	10/21/98	12:12:00	
6	ICV/CCV1		0		1.0	10/21/98	12:16:00	
7	ICB/CCB1		0		1.0	10/21/98	12:21:00	
8	ICSA1		0		1.0	10/21/98	12:25:00	
9	ICSAB1		0		1.0	10/21/98	12:29:00	
10	INT-20		0		1.0	10/21/98	12:33:00	
11	MCL		0		1.0	10/21/98	12:37:00	
12	BSS101998		0		1.0	10/21/98	12:41:00	
13	PBS101998		0		1.0	10/21/98	12:46:00	
14	LCSS238A		0		2.0	10/21/98	12:50:00	
15	LCSS238AD		0		2.0	10/21/98	12:54:00	
16	88683D		0		2.0	10/21/98	12:58:00	
17	88683		0		2.0	10/21/98	13:02:00	
18	CCV2		0		1.0	10/21/98	13:07:00	
19	CCB2		0		1.0	10/21/98	13:11:00	
20	88683L		0		2.0	10/21/98	13:15:00	
21	88683MS		0		2.0	10/21/98	13:19:00	
22	88683MSD		0		2.0	10/21/98	13:23:00	
23	88683A		0		2.0	10/21/98	13:27:00	
24	DW		0		1.0	10/21/98	13:32:00	
25	88683D-10		0		10.0	10/21/98	13:36:00	
26	88683-10		0		10.0	10/21/98	13:40:00	
27	88683L-10		0		10.0	10/21/98	13:44:00	
28	88683MS-10		0		10.0	10/21/98	13:48:00	
29	88683MSD-10		0		10.0	10/21/98	13:53:00	
30	CCV3		0		1.0	10/21/98	13:57:00	
31	CCB3		0		1.0	10/21/98	14:01:00	
32	88683A-10		0		10.0	10/21/98	14:05:00	
33	89310		0		2.0	10/21/98	14:09:00	
34	88666		0		2.0	10/21/98	14:14:00	
35	88677		0		2.0	10/21/98	14:18:00	
36	ICSA2		0		1.0	10/21/98	14:22:00	
37	ICSAB2		0		1.0	10/21/98	14:26:00	
38	CCV4		0		1.0	10/21/98	14:30:00	
39	CCB4		0		1.0	10/21/98	14:34:00	

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Read and Understood By

305340

Signed [signature] Date 10/23/98

Signed [signature] Date 10/23/98

PROJECT Hg Run Log

Continued From Page

Batch # 7057 Hg1 / 7064 Hg1 / 7060 Hg1
Date: 10/20/98

File : 7057HG1.WSL / 7064HG1.WSL / 7060HG1.WSL 305341

File Record	Laboratory Sample Name	Customer/EPA Sample Name	Type	Matrix	Instrument Dil.	Date	Time	Flags
1	STD1		3		1.0	10/20/98	09:31:43	
2	STD2		3		1.0	10/20/98	09:34:42	
3	STD3		3		1.0	10/20/98	09:37:41	
4	STD4		3		1.0	10/20/98	09:40:40	
5	STD5		3		1.0	10/20/98	09:43:39	
6	STD6		3		1.0	10/20/98	09:46:38	
7	AICV/ACCV1		0		1.0	10/20/98	09:49:35	
8	ICB/CCB1		0		1.0	10/20/98	09:52:31	
9	PBS101998/7064		0		1.0	10/20/98	09:55:25	
10	BSS101998/7064		0		1.0	10/20/98	09:58:18	
11	LCSS-238/7064		0		2.0	10/20/98	10:01:11	
12	LCSS-238-D/7064		0		2.0	10/20/98	10:04:04	
13	89908		0		1.0	10/20/98	10:06:57	
14	89908D		0		1.0	10/20/98	10:10:02	
15	89908MS		0		1.0	10/20/98	10:14:38	
16	89908MSD		0		1.0	10/20/98	10:18:15	
17	89907		0		1.0	10/20/98	10:21:14	
18	89909		0		1.0	10/20/98	10:24:12	
19	ACCV2		0		1.0	10/20/98	10:27:10	
20	CCB2		0		1.0	10/20/98	10:30:05	
21	89910		0		1.0	10/20/98	10:32:59	
22	89911		0		1.0	10/20/98	10:36:07	
23	89912		0		1.0	10/20/98	10:39:06	
24	89913		0		1.0	10/20/98	10:41:59	
25	89914		0		1.0	10/20/98	10:45:39	
26	90643		0		1.0	10/20/98	10:48:32	
27	90273		0		1.0	10/20/98	10:51:26	
28	90633		0		1.0	10/20/98	10:54:19	
29	90635		0		1.0	10/20/98	10:57:12	
30	90636		0		1.0	10/20/98	11:00:05	
31	ACCV3		0		1.0	10/20/98	11:03:00	
32	CCB3		0		1.0	10/20/98	11:05:56	
33	90637		0		1.0	10/20/98	11:08:50	
34	90638		0		1.0	10/20/98	11:11:43	
35	90639		0		1.0	10/20/98	11:14:37	
36	90640		0		1.0	10/20/98	11:17:30	
37	90641		0		1.0	10/20/98	11:20:24	
38	90642		0		1.0	10/20/98	11:23:18	
39	89908		0		20.0	10/20/98	11:28:16	
40	89908D		0		20.0	10/20/98	11:31:11	
41	89908MS		0		20.0	10/20/98	11:34:05	
42	89908MSD		0		20.0	10/20/98	11:36:59	
43	ACCV4		0		1.0	10/20/98	11:39:54	
44	CCB4		0		1.0	10/20/98	11:42:49	
45	89907		0		10.0	10/20/98	11:45:45	
46	89909		0		1.0	10/20/98	11:48:40	
47	89910		0		20.0	10/20/98	11:51:35	
48	89911		0		1.0	10/20/98	11:54:30	
49	89913		0		50.0	10/20/98	11:57:39	
50	89914		0		1.0	10/20/98	12:00:34	
51	ACCV5		0		1.0	10/20/98	12:03:30	
52	CCB5		0		1.0	10/20/98	12:06:25	
53	Z		0		1.0	10/20/98	12:09:21	
54	BSS101998/7060		0		1.0	10/20/98	12:12:18	
55	LCSS-238/7060		0		2.0	10/20/98	12:15:15	

Read and Understood By

Michael [illegible] — Signed
10/22/98 — Date
[illegible] — Signed
10/22/98

80
PROJECT Hg Run Log

Notebook No. 01124
Continued From Page 79

Batch # 7057Hw1/7064Hw1/7060Hw1
Date: 10/20/98

56	LCSS-238-D/7060	0	2.0	10/20/98	12:18:12
57	90535	0	1.0	10/20/98	12:21:09
58	90535D	0	1.0	10/20/98	12:24:06
59	90535MS	0	1.0	10/20/98	12:27:03
60	90535MSD	0	1.0	10/20/98	12:30:00
61	89148	0	1.0	10/20/98	12:32:58
62	89149	0	1.0	10/20/98	12:35:56
63	ACCV6	0	1.0	10/20/98	12:38:54
64	CCB6	0	1.0	10/20/98	12:41:49
65	89150	0	1.0	10/20/98	12:44:46
66	89151	0	1.0	10/20/98	12:47:45
67	89152	0	1.0	10/20/98	12:50:44
68	89225	0	1.0	10/20/98	12:53:43
69	89226	0	1.0	10/20/98	12:56:42
70	89227	0	1.0	10/20/98	12:59:41
71	89228	0	1.0	10/20/98	13:02:40
72	89229	0	1.0	10/20/98	13:05:39
73	90526	0	1.0	10/20/98	13:08:38
74	90527	0	1.0	10/20/98	13:11:37
75	ACCV7	0	1.0	10/20/98	13:14:35
76	CCB7	0	1.0	10/20/98	13:17:31
77	90528	0	1.0	10/20/98	13:20:25
78	90529	0	1.0	10/20/98	13:23:18
79	90530	0	1.0	10/20/98	13:26:11
80	90531	0	1.0	10/20/98	13:29:05
81	90532	0	1.0	10/20/98	13:31:59
82	90533	0	1.0	10/20/98	13:34:53
83	90534	0	1.0	10/20/98	13:37:47
84	PBS101998/7060	0	1.0	10/20/98	13:40:43
85	ACCV8	0	1.0	10/20/98	13:43:38
86	CCB8	0	1.0	10/20/98	13:46:33
87	PBS101998	0	1.0	10/20/98	13:49:27
88	BSS101998	0	1.0	10/20/98	13:52:20
89	LCSS-238	0	2.0	10/20/98	13:55:13
90	LCSS-238-D	0	2.0	10/20/98	13:58:06
91	88683	0	1.0	10/20/98	14:00:59
92	88683D	0	1.0	10/20/98	14:03:52
93	88683MS	0	1.0	10/20/98	14:06:45
94	88683MSD	0	1.0	10/20/98	14:09:39
95	90277	0	2.0	10/20/98	14:12:32
96	90278	0	1.0	10/20/98	14:15:26
97	ACCV9	0	1.0	10/20/98	14:18:21
98	CCB9	0	1.0	10/20/98	14:21:16
99	90279	0	200.0	10/20/98	14:24:09
100	90280	0	1.0	10/20/98	14:27:01
101	90281	0	1.0	10/20/98	14:30:19
102	90282	0	1.0	10/20/98	14:33:12
103	90283	0	1.0	10/20/98	14:36:05
104	90284	0	1.0	10/20/98	14:38:58
105	90285	0	1.0	10/20/98	14:41:51
106	90286	0	1.0	10/20/98	14:44:45
107	90289	0	1.0	10/20/98	14:47:38
108	90290	0	1.0	10/20/98	14:50:31
109	ACCV10	0	1.0	10/20/98	14:53:25
110	CCB10	0	1.0	10/20/98	14:56:20
111	89341	0	1.0	10/20/98	15:00:11
112	89343	0	1.0	10/20/98	15:03:04
113	89310	0	1.0	10/20/98	15:05:57
114	88666	0	1.0	10/20/98	15:08:50
115	88677	0	1.0	10/20/98	15:11:45

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Read and Understood By 305342

Michael Polidori 10/22/98 [signature] 10/22/98

Signed Date

PROJECT Hg Run Log

Notebook No. 01124

Continued From Page 80

Batch # 7057HG1/7064HG1/7060HG1
Date: 10/20/98

116	90277	0	1.0	10/20/98	15:14:39
117	90280	0	10.0	10/20/98	15:17:35
118	90281	0	1.0	10/20/98	15:20:29
119	90285	0	5.0	10/20/98	15:23:24
120	90286	0	2.0	10/20/98	15:26:18
121	ACCV11	0	1.0	10/20/98	15:29:13
122	CCB11	0	1.0	10/20/98	15:32:08
123	90289	0	1.0	10/20/98	15:35:03
124	88666	0	2.0	10/20/98	15:37:58
125	88677	0	1.0	10/20/98	15:40:53
126	ACCV12	0	1.0	10/20/98	15:43:48
127	CCB12	0	1.0	10/20/98	15:46:43

Continued on Page

Read and Understood By 305343

Michael Polidori — Signed

10/22/98 — Date

[signature] — Signed

10/22/98

Metals Preparation Logbook

305344

Batch: 7057
Prep Date: 10/19/98
Matrix: soil

Spike Sources/Lot #
MS/BS: Each w/1 ml ICPPSpk 8/31/98
LCS: #238

Reagent Sources/Lot #
HNO_3: 6623 KXGD
HCl: 5587 KXCH
H_2O_2: V340 KXKM

Comments: Hot Block

Method (circle one): ICP / 200 / 3010 / 3050 / CLP- / 200DW / Other:
Furnace / 200 / 3020 / 3050 / CLP / 200DW / Other:

	Job	Sample	Init Wgt/ Vol	Final Vol	Comments
1	I206	90277	0.51	~~100~~ LG 50ml	
2		90278	0.48		
3		90279	0.48		
4		90280	0.49		
5		90281	0.49		
6		90282	0.51		
7		90283	0.57		
8		90284	0.49		
9		90285	0.50		
10		90286	0.52		
11		90289	0.49		
12		90290	0.52		
13	I058	89341	0.57		
14		89343	0.50		
15	I053	89310	0.50 L.G		
16	H950	88666	0.49		
17		88677	0.50		
18		88683	0.51 L.G.		
19		88684	0.50		
20		88685	0.49		
MS	H950	88683	0.51	50ml	
MSD			0.49		
D			0.50		
BS	7057	7057	0.50		
PBLK			0.50		
LCS S			0.49		
LCSSD			0.48		

Analyst(s): Lyudmila Gelles
Reviewed by: [signature]

Form ID:METPRL001

Mercury Preparation Logbook

Batch: 7057 Prep Date: 10/19/98

Spike Sources/Lot # MS/BS: HGW010199C LCS: 238

Reagent Sources/Lot #: H_2SO_4: 5557 ~~KXDV~~ KXPV MP HNO_3: 6623 KXVD

$KMnO_4$: 06219KR K_2SO_4: MP/~~4519K~~ NA

Bath Temp NA Start Time: NA End Time: NA

Matrix (circle one): / Water / Soil / TCLP / Other: _____

Method (circle one): / 245.1 / 7470 / 7471 / CLP / 200DW Other _____

	Job	Sample	Init Wgt/ Vol	Final Vol	Comments
1	H950	88683	0.20g to 0.20g to 0.20g	100ml	
2	I206	90277			
3		90278			
4		90279			
5		90280			
6		90281			
7		90282			
8		90283			
9		90284			
10		90285			
11		90286			
12		90289			
13		90290			
14	I058	89341			
15		89342			
16	I053	~~89343~~ 89310			
17		88666			
18		88677			
19					
20					
MS	H950	88683	0.20g to 0.20g to 0.20g	100ml	
MSD					
D					
BSS					
PBLK					
LCSS					
LCSD					

Analyst(s): Michael Polichi Reviewed by: [signature]

Form ID:HGPRLOG1

305345

Site: Klockner & Klockner

Lab Job No: H950

Date Sampled: 10/7/98
Date Received: 10/7/98
Matrix: SOIL

Date Analyzed: 10/14/98
QA Batch: 1402

TOTAL ORGANIC CARBON

Envirotech Sample #	Client ID	% Moisture	Dilution Factor	Analytical Result mg/kg (Dry Wt.)
88670	SSGC-2_1-3	17.4	4.0	14900
88673	SSGC-3_1-4	18.5	4.0	6660
88680	SSGC-4_4-7	3.7	2.0	390

Quantitation Limit for Total Organic Carbon is 100 mg/kg for an undiluted sample.

305346

TOTAL ORGANIC CARBON

Matrix: SOLID

Lab Sample No.: 88329

QA Batch No: 1402

Lab Job No.: H911

Laboratory Blank	
Blank Conc. (mg/kg)	Quant Limit (mg/kg)
ND	100

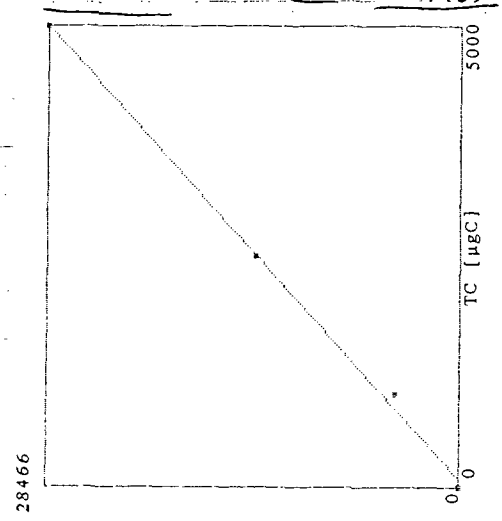
Sample Replicates				
#1 (mg/kg)	#2 (mg/kg)	#3 (mg/kg)	#4 (mg/kg)	AVG (mg/kg)
61300	67400	75500	74100	69575

Standard Deviation	%RSD	Control Limits
6552.04	9.42	26.3

LCS				
Vendor Name	Lot #	Mean Value (mg/kg)	Range (mg/kg)	Measured Value (mg/kg)
ERA	6103	22500	18000-27000	19200

305347

Batch	Job	Sample	#	D.F.	Sample amt(s)	Readout	% solid	Results	Spk	% Rec



CAL CURVE F# 2
TC 4-POINT
PROTECTED
LEAST SQUARES r=0.999

[CONDITIONS]
RANGE : X5
CELL LENGTH : W-SHORT
DATE : 10(OCT)-14-1998

[DATA]

STD CONC	AMNT	µgC	AREA	#
5000ppm	1000mg	5000	28466	1
2500ppm	1000mg	2500	14156	1
1000ppm	1000mg	1000	4414	1
0.0ppm	1000mg	0.0	0	1

Batch	Job	Sample	#	D.F.	Sample amt(s)	Readout	% solid	Results	Spk	% Rec
		ICV	1			1433		1430	1500	95.3%
		ICB	2			99.43		ND		
		PB	3			99.43		ND		
1402	H941	88549	4	2x	0.5046	7992	91.7	8720		
	H950	88670	5	4x	0.2519	12311	82.6	14900		
		88675	6	4x	0.2600	5430	81.5	6660		
		88680	7		low range	390.8	96.3			
	I052	89302	8	4x	0.2621	13987	86.3	16200		
	I099	89621	9	10x	0.1025	36922	51.1	72200		
		89622	10	10x	0.0928	40983	50.7	80800		
		89623	11	20x	0.0505	66157	44.7	148000		
		89624	12	20x	0.0547	44904	54.9	81800		
		CCV	13			1600		1600	1500	107%
		CCB	14			99.43		ND		
		89625	15	2x	0.4960	3339	80.6	4140		
		89626	16		0.9840	2771	87.0	3180		
		CCV	17			1503		1500	1500	100%
		CCB	18			99.43		ND		

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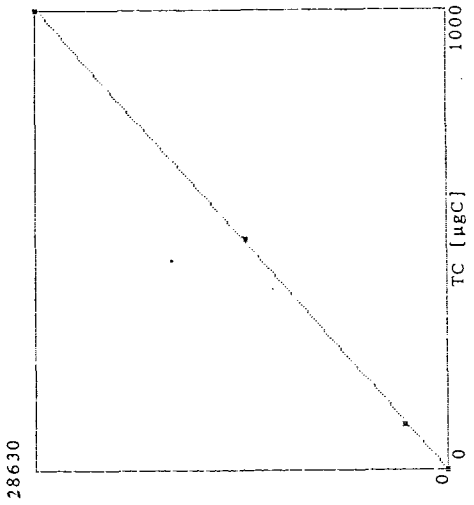
Read and Understood By 305348

[signature] 10/14/98

Signed Date Signed Date

PROJECT TOC Notebook No. 01125 23
Continued From Page



CAL CURVE F# 4
TC 4-POINT
PROTECTED
LEAST SQUARES r=1.000

[CONDITIONS]
RANGE : x1
CELL LENGTH : W-SHORT
DATE : 10(OCT)-19-1998

[DATA]

STD CONC	AMNT	µgC	AREA	#
1000ppm	1000mg	1000	28630	1
500.0ppm	1000mg	500.0	14082	1
100.0ppm	1000mg	100.0	3048	1
0.0ppm	1000mg	0.0	0	1

Batch	Job	Sample	#	Dil	Sample amt(g)	Readout	% solid	Results	Spk	% Rec
		ICV	1			493.3		493	500	98.6%
		ICB	2			-1.30		ND		
		PB	3			-1.30		ND		
		LCS 01125	4	10x	0.0954	6514		6510		
1402	II950	88680	5	2x	0.5563	376.0	96.3	390		
1406	I235	90535	6		0.9260	199.2	86.1	231		
1405	I134	89833	7	2x	0.4975	686.2	85.8	800		
		89839	8		0.9680	90.41	89.5	101		
		89840	9	2x	0.5661	396.2	87.1	455		
		89841	10	2x	0.5957	310.2	85.5	363		
		89823	11		0.9514	457.1	85.6	534		
		89824	12	20x	0.0502	high range	80.7			
		CCV	13			503.2		503	500	101%
		CCB	14			-1.30		ND		
		89826	15	20x	0.0596	7900	82.8	9540		
		89827	16		0.9309	293.6	83.9	350		
		89828	17	10x	0.1014	3286	86.3	3810		
		89829	18	2x	0.5325	1601	84.7	1890		
		89830	19		0.9866	89.63	100	ND		
		89831	20	20x	0.0584	11259	84.8	13300		
		89836	21		0.9926	678.3	88.2	769		
		89836	22		0.9479	547.4		621		
		89836	23		0.9269	718.0		814		

Continued on Page 24

Read and Understood By 305349

Signed [signature] Date 10/19/98 Signed Date

Site: Klockner & Klockner

Lab Job No: H950

Date Sampled: 10/7/98
Date Received: 10/7/98
Matrix: SOIL

Date Extracted: 10/12/98
Date Analyzed: 10/12/98
QA Batch: 4638

TOTAL PETROLEUM HYDROCARBONS (418.1)

Envirotech Sample #	Client ID	% Moisture	Dilution Factor	Analytical Result mg/kg (Dry Wt.)
88666	SSSP-1_4-4.5	10.0	1.0	89.0
88677	SSFS-2_0-0.5	4.5	5.0	1490

Quantitation Limit for Total Petroleum Hydrocarbons (418.1) is 25.0 mg/kg for an undiluted sample.

305350

PETROLEUM HYDROCARBONS

Matrix: SOLID

Lab Sample No.: 88423

QA Batch No.: 4638

Lab Job No.: H922

Laboratory Blank	
Blank Conc Units: mg/kg	Quant Limit Units: mg/kg
ND	25.0

Matrix Spike				
Spike Added Units: mg/kg	Sample Conc Units: mg/kg	MS Conc Units: mg/kg	MS % Rec	QC Limits Rec
564.0	ND	570.0	101.0	72.1-117

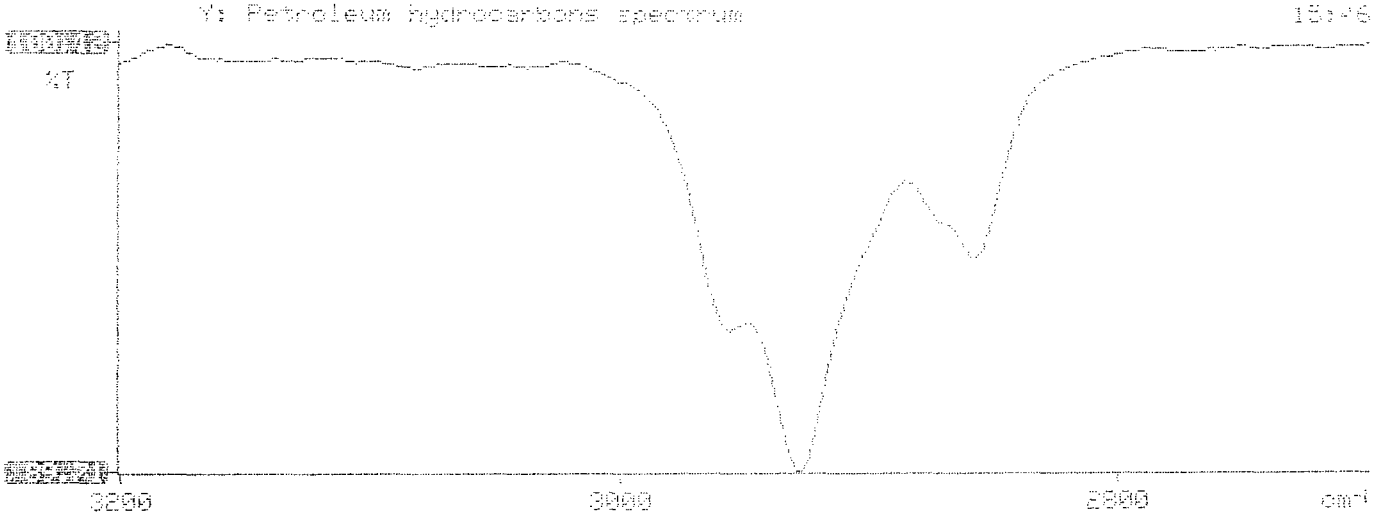
Matrix Spike Duplicate					
Spike Added Units: mg/kg	MSD Conc Units: mg/kg	MSD % Rec	% RPD	QC LIMITS RPD	REC
564.0	564.0	100.0	1.1	17.2	72.1-117

SPIKE ADDED CONCENTRATION is adjusted for % Solids

Blank Spike			
Spike Conc Units: mg/kg	BS Conc Units: mg/kg	% Rec	QC Limits Rec
535.0	520.0	97.2	84.1-112

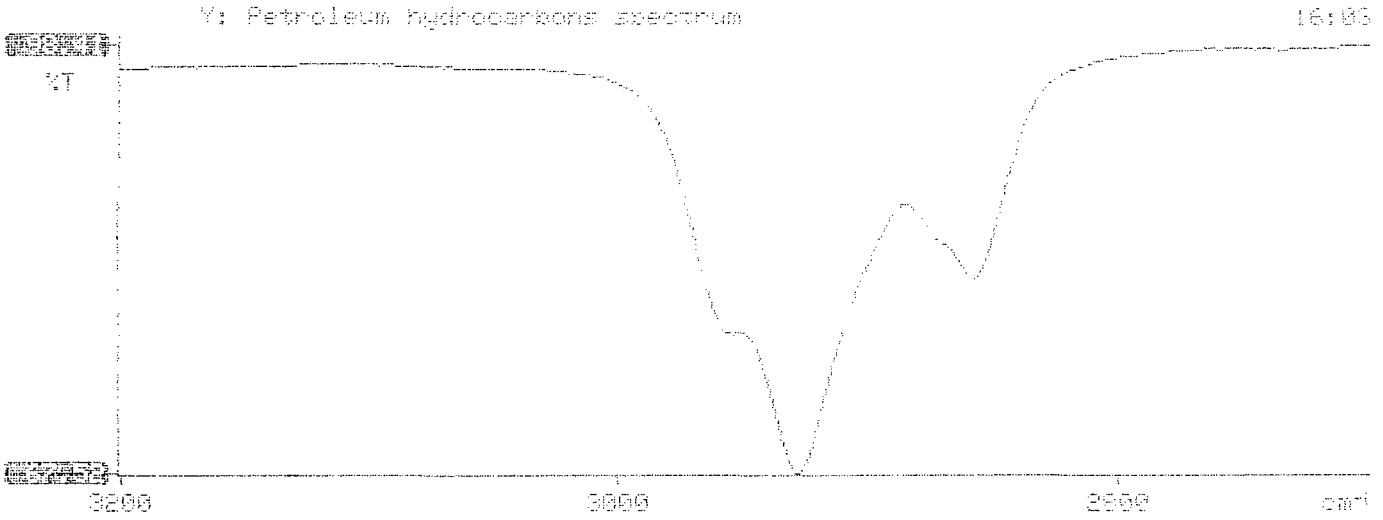
305351

```
*****************************************************
*              Envirotech Research, Inc.            *
*                                                   *
*                   Test Method for                 *
*     Oil and Grease and Petroleum Hydrocarbons     *
*                  in Water and Soil                *
*                                                   *
*            Perkin-Elmer Model 1600 FT-IR          *
*                   Analysis Report                 *
*****************************************************
*
 98/10/12  15:46
*
*  Sample identification
 88666
*
*  Initial mass of sample, g
 30.000
*
*  Volume of sample after extraction, ml
 100.000
*
* dilution factor, 1 = no dilution
 1.000
*
* percent solids, 100% = dry soil or water sample
 90.000
*
*  Petroleum hydrocarbons, ppm
 88.954
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.047
*
*
*
```



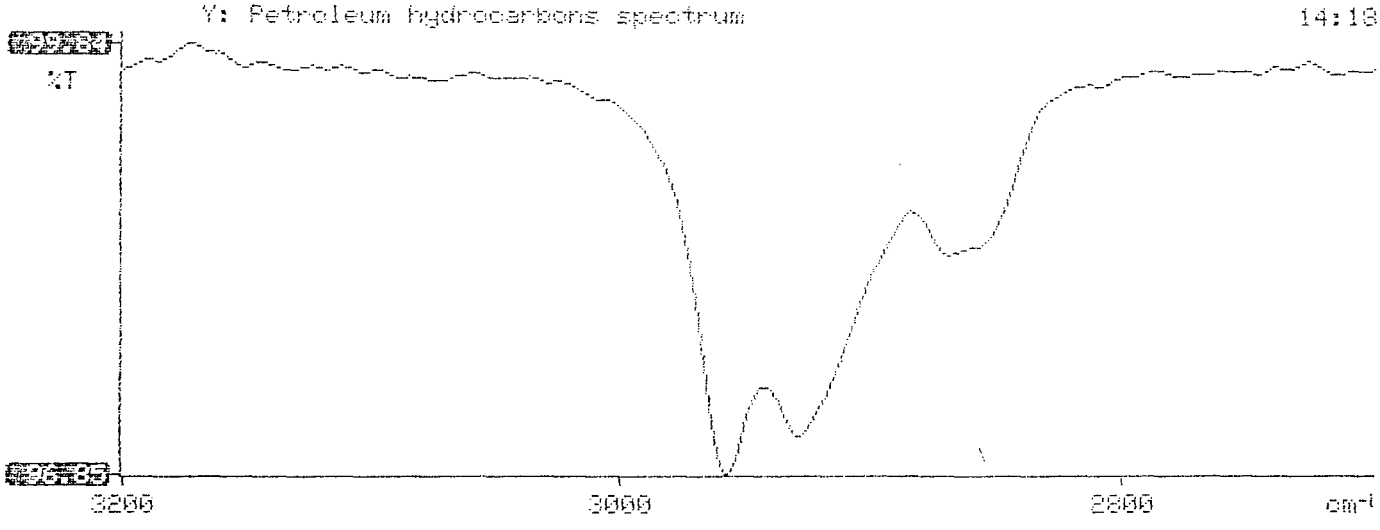
305352

```
*****************************************************
*              Envirotech Research, Inc.            *
*                                                   *
*                   Test Method for                 *
*     Oil and Grease and Petroleum Hydrocarbons     *
*                  in Water and Soil                *
*                                                   *
*            Perkin-Elmer Model 1600 FT-IR          *
*                   Analysis Report                 *
*****************************************************
*
 98/10/12  16:03
*
*  Sample identification
 88677
*
*  Initial mass of sample, g
 30.000
*
*  Volume of sample after extraction, ml
 100.000
*
* dilution factor, 1 = no dilution
 5.000
*
* percent solids, 100% = dry soil or water sample
 95.500
*
*  Petroleum hydrocarbons, ppm
 1487.663
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.160
*
*
*
```



305353

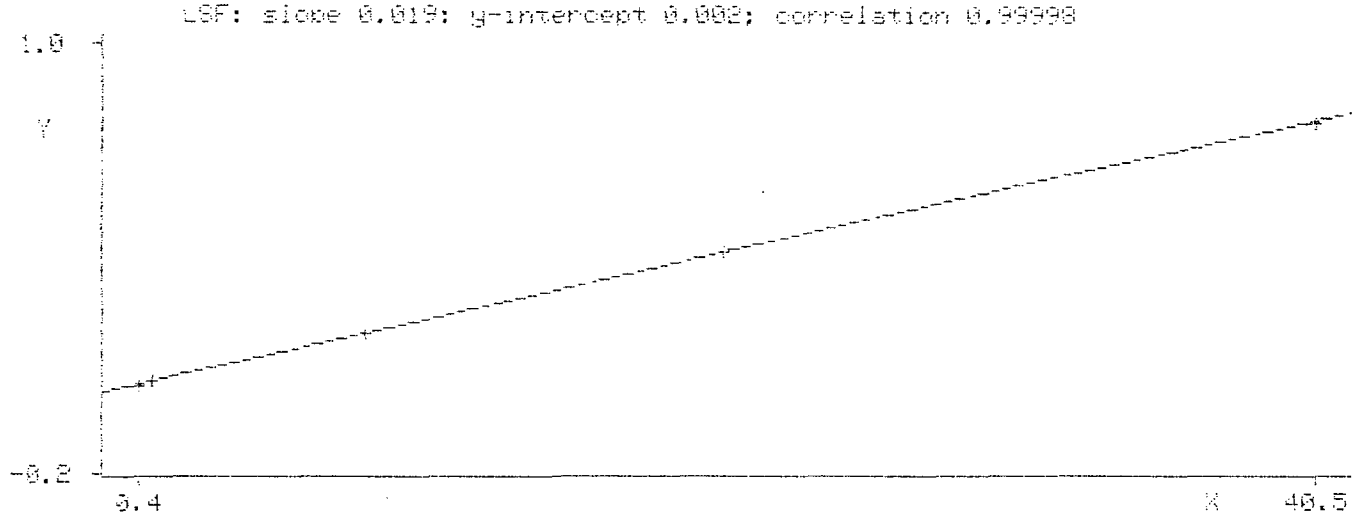
```
*****************************************************
*              Envirotech Research, Inc.            *
*                                                   *
*                   Test Method for                 *
*     Oil and Grease and Petroleum Hydrocarbons     *
*                  in Water and Soil                *
*                                                   *
*           Perkin-Elmer Model 1600 FT-IR           *
*                   Analysis Report                 *
*****************************************************
*
 98/10/12  14:18
*
*  Sample identification
 10/12/98 PBS
*
*  Initial mass of sample, g
 30.000
*
*  Volume of sample after extraction, ml
 100.000
*
* dilution factor, 1 = no dilution
 1.000
*
* percent solids, 100% = dry soil or water sample
 100.000
*
*  Petroleum hydrocarbons, ppm
 16.481
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.011
*
*
*
```



305354

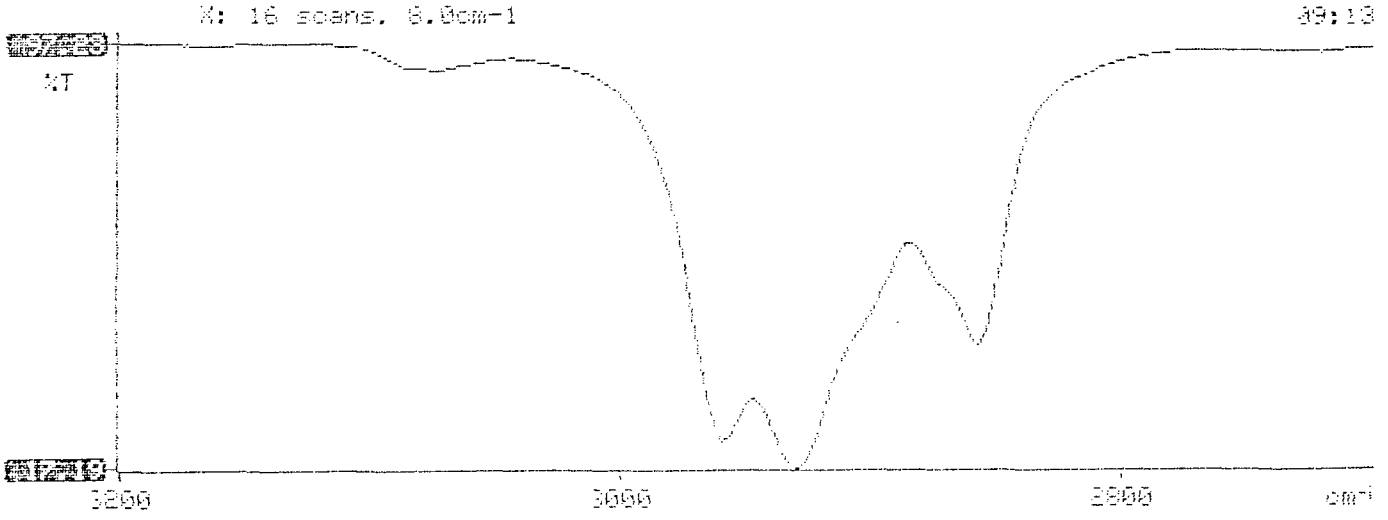
```
*****************************************************
*              Envirotech Research, Inc.            *
*                                                   *
*                   Test Method for                 *
*     Oil and Grease and Petroleum Hydrocarbons     *
*                  in Water and Soil                *
*                                                   *
*            Perkin-Elmer Model 1600 FT-IR          *
*                  Calibration Report               *
*****************************************************
*
 98/10/12  09:12
*
*
*  Concentrations of standards, mg/100 ml
 40.500
 20.250
 8.100
 0.810
 0.405
*
*
*  Net absorbance of standards
 0.751
 0.380
 0.153
 0.016
 0.008
*
*
*
```

LSF: slope 0.019; y-intercept 0.002; correlation 0.99998



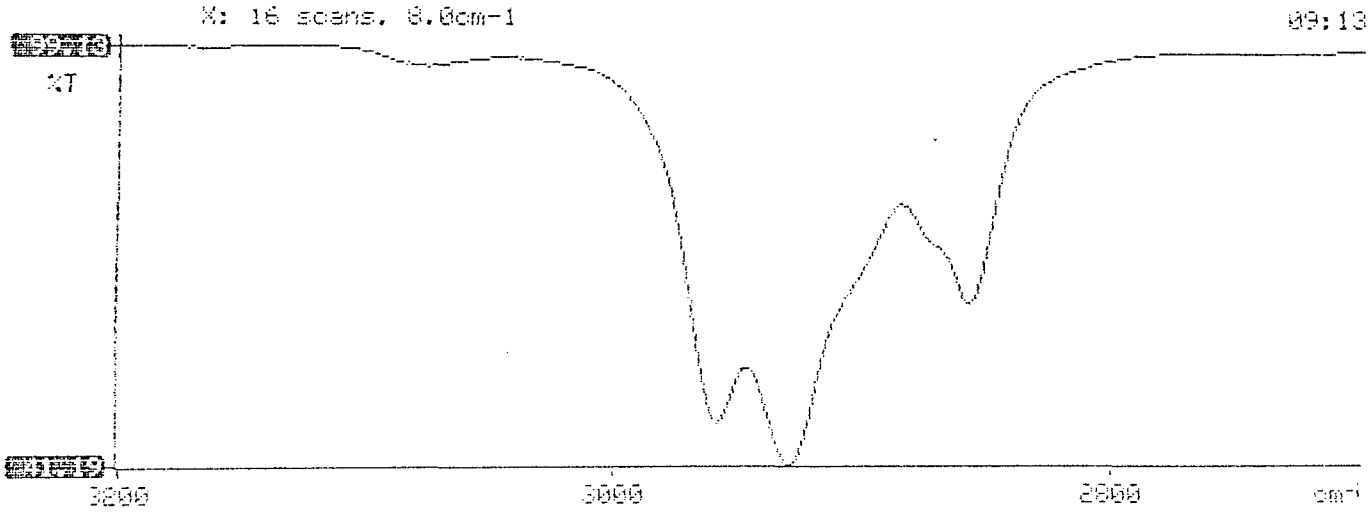
305355

```
*****************************************************
*              Envirotech Research, Inc.            *
*                                                   *
*                   Test Method for                 *
*     Oil and Grease and Petroleum Hydrocarbons     *
*                 in Water and Soil                 *
*                                                   *
*           Perkin-Elmer Model 1600 FT-IR           *
*           Calibration Standards Spectra           *
*****************************************************
*
 98/10/12  09:13
*
*
*
*
*  Concentration of standard, mg/100 ml
 40.500
*
*
*
*
*  Net absorbance of standard
 0.751
*
*
*
*
*
```



305356

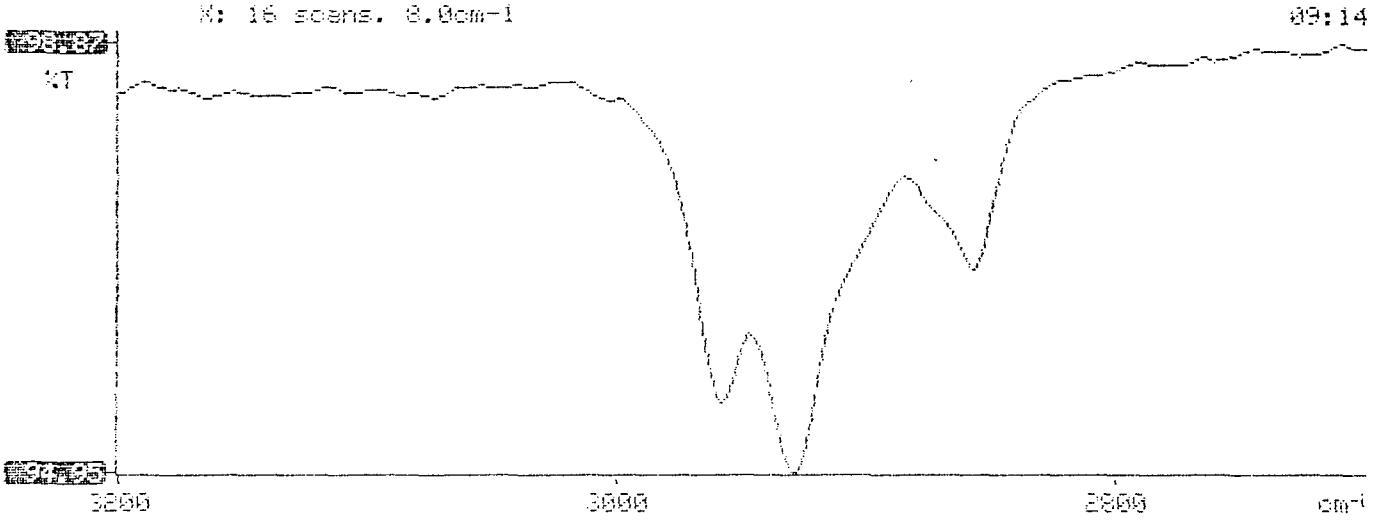
*
*
* Concentration of standard, mg/100 ml
20.250
*
*
* Net absorbance of standard
0.380
*
*
*



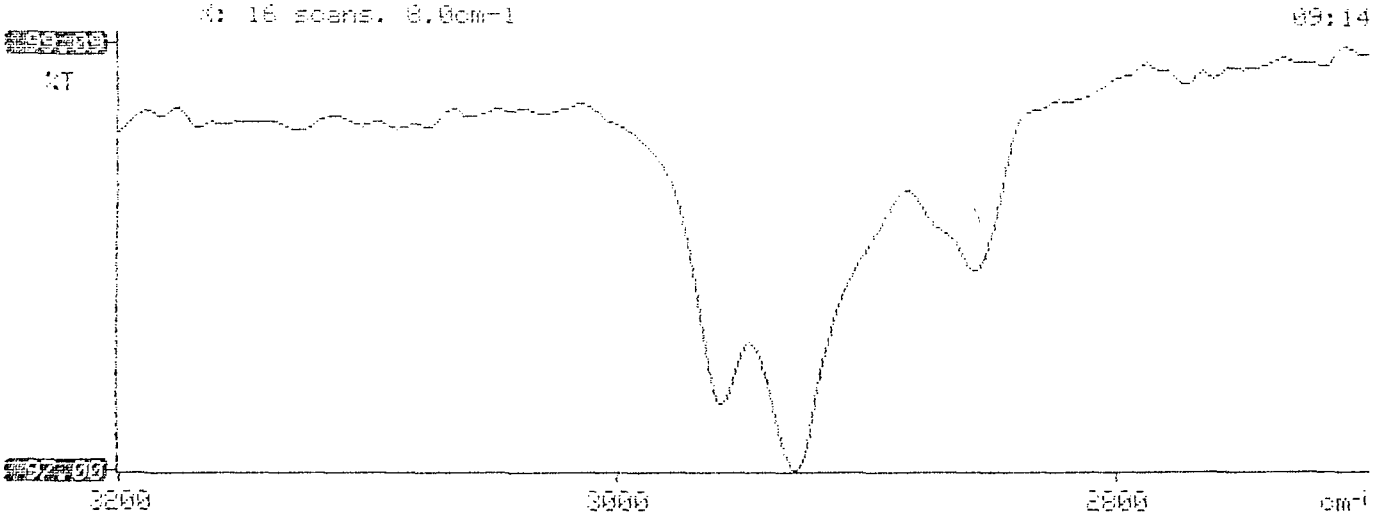
*
*
* Concentration of standard, mg/100 ml
8.100
*
*
* Net absorbance of standard
0.153
*
*
*

305357

*
* Concentration of standard, mg/100 ml
0.810
*
*
* Net absorbance of standard
0.016
*
*
*



*
*
* Concentration of standard, mg/100 ml
0.405
*
*
* Net absorbance of standard
0.008
*
*
*



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