THE
WHITMAN
COMPANIES, INC.

*Setting the Standard in*
*Environmental Engineering & Management*

SDMS Document
98446

# FINAL REMEDIAL INVESTIGATION REPORT

FOR

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

VOLUME 3A
LABORATORY QA/QC DATA PACKAGE
10/6/98 - JOB #H941

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

303531

MAY 2004

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
Fax: (732) 549-3679
www.enviro-lab.com

RECEIVED
NOV 1 1998
The Whitman Companies, Inc.

November 3, 1998

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

Attention: Dr. Ira Whitman

Re: Job No. H941 - 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 |
|---|---|---|
| 88548 | FB-1 | TCL BN+10, TAL Metals, PHC |
| 88549 | SSGC-1_1-4 | TOC |
| 88550 | TB-1 | TCL VOA+10 |
| 88551 | SSAW-8_5.5-6 | Purgeable Halocarbons |
| 88552 | SSAW-3_1-1.5 | Purgeable Halocarbons |
| 88553 | SSAW-3_11.5-12 | Purgeable Halocarbons |
| 88554 | SSWT-1_7-7.5 | Purgeable Halocarbons |
| 88555 | SSAW-1_2.5-3 | Purgeable Halocarbons |
| 88556 | SSAW-1_13-13.5 | Purgeable Halocarbons |
| 88557 | SSNDS-2_1.5-2 | TCL VOA+10 |
| 88558 | SSAN-8_11-11.5 | Purgeable Halocarbons |
| 88559 | SSNDS-1A_1-1.5 | TCL VOA+10 |
| 88560 | SSFS-1_.5-1 | TCL VOA+10 |
| 88561 | SSWT-2_7-7.5 | Purgeable Halocarbons |
| 88562 | SSNDS-1A_0-0.5 | TCL BN+10, TAL Metals, PHC |
| 88563 | SSNDS-2A_0-0.5 | TCL BN+10, TAL Metals, PHC |
| 88564 | SSDSA-1_0-0.5 | TAL Metals |

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| Lab No. | Client ID | Analysis Required |
|---|---|---|
| 88565 | SSFS-1_0-0.5 | TCL BN+10, TAL Metals, PHC |
| 88566 | SSCB-1_2-2.5 | TCL BN+10, TAL Metals |
| 88567 | SSWT-1_7-7.5 | TAL Metals |
| 88568 | SSDSA-1_1.5-2 | Purgeable Halocarbons |
| 88569 | SSAW-6_2-2.5 | Purgeable Halocarbons |
| 88570 | SSAW-6_9-9.5 | Purgeable Halocarbons |

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: **FB-1**
Site: Klockner & Klockner

Lab Sample No: **88548**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/09/98
Date Analyzed: 10/15/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7549.d

Matrix: WATER
Level: LOW
Sample Volume: 930 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

| Parameter | Analytical Result Units: ug/l | Quantitation Limit Units: ug/l |
|---|---|---|
| bis(2-Chloroethyl)ether | ND | 1.1 |
| 1,3-Dichlorobenzene | ND | 11 |
| 1,4-Dichlorobenzene | ND | 11 |
| 1,2-Dichlorobenzene | ND | 11 |
| bis(2-chloroisopropyl)ether | ND | 11 |
| N-Nitroso-di-n-propylamine | ND | 1.1 |
| Hexachloroethane | ND | 1.1 |
| Nitrobenzene | ND | 1.1 |
| Isophorone | ND | 11 |
| bis(2-Chloroethoxy)methane | ND | 11 |
| 1,2,4-Trichlorobenzene | ND | 1.1 |
| Naphthalene | ND | 11 |
| 4-Chloroaniline | ND | 11 |
| Hexachlorobutadiene | ND | 2.2 |
| 2-Methylnaphthalene | ND | 11 |
| Hexachlorocyclopentadiene | ND | 11 |
| 2-Chloronaphthalene | ND | 11 |
| 2-Nitroaniline | ND | 22 |
| Dimethylphthalate | ND | 11 |
| Acenaphthylene | ND | 11 |
| 2,6-Dinitrotoluene | ND | 2.2 |
| 3-Nitroaniline | ND | 22 |
| Acenaphthene | ND | 11 |
| Dibenzofuran | ND | 11 |
| 2,4-Dinitrotoluene | ND | 2.2 |
| Diethylphthalate | ND | 11 |
| 4-Chlorophenyl-phenylether | ND | 11 |
| Fluorene | ND | 11 |
| 4-Nitroaniline | ND | 22 |
| N-Nitrosodiphenylamine | ND | 11 |
| 4-Bromophenyl-phenylether | ND | 11 |
| Hexachlorobenzene | ND | 1.1 |
| Phenanthrene | ND | 11 |
| Anthracene | ND | 11 |

## ENVIROTECH RESEARCH, INC.

Client ID: FB-1
Site: Klockner & Klockner

Lab Sample No: 88548
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/09/98
Date Analyzed: 10/15/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7549.d

Matrix: WATER
Level: LOW
Sample Volume: 930 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

### SEMI-VOLATILE ORGANICS - GC/MS
### METHOD 8270C

| Parameter | Analytical Result Units: ug/l | Quantitation Limit Units: ug/l |
|---|---|---|
| Carbazole | ND | 11 |
| Di-n-butylphthalate | ND | 11 |
| Fluoranthene | ND | 11 |
| Pyrene | ND | 11 |
| Butylbenzylphthalate | ND | 11 |
| 3,3'-Dichlorobenzidine | ND | 22 |
| Benzo(a)anthracene | ND | 1.1 |
| Chrysene | ND | 11 |
| bis(2-Ethylhexyl)phthalate | ND | 11 |
| Di-n-octylphthalate | ND | 11 |
| Benzo(b)fluoranthene | ND | 1.1 |
| Benzo(k)fluoranthene | ND | 1.1 |
| Benzo(a)pyrene | ND | 1.1 |
| Indeno(1,2,3-cd)pyrene | ND | 1.1 |
| Dibenz(a,h)anthracene | ND | 1.1 |
| Benzo(g,h,i)perylene | ND | 11 |

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**ENVIROTECH RESEARCH, INC.**

Client ID: **FB-1**
Site: Klockner & Klockner

Lab Sample No: **88548**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/09/98
Date Analyzed: 10/15/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7549.d

Matrix: WATER
Level: LOW
Sample Volume: 930 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

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

| COMPOUND NAME | RT | EST. CONC. ug/l | Q |
|---|---|---|---|
| 1. NO SEMI-VOLATILE ORGANIC COMPOUNDS FOUND | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
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| 27. | | | |
| 28. | | | |
| 29. | | | |
| 30. | | | |

| TOTAL ESTIMATED CONCENTRATION | 0.0 |
|---|---|

**ENVIROTECH RESEARCH, INC.**

Client ID: **FB-1**
Site: **Klockner & Klockner**

Lab Sample No: 88548
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98

Matrix: WATER
Level: LOW

## METALS ANALYSIS

| Analyte | Analytical Result Units: ug/l | Instrument Detection Limit | Qual | M |
|---|---|---|---|---|
| Aluminum | ND | 58.2 | | P |
| Antimony | ND | 4.6 | N | P |
| Arsenic | ND | 3.8 | | P |
| Barium | ND | 1.4 | | P |
| Beryllium | ND | 0.20 | | P |
| Cadmium | ND | 0.40 | | P |
| Calcium | 281 | 42.2 | B | P |
| Chromium | 1.8 | 1.0 | BN | P |
| Cobalt | ND | 1.2 | | P |
| Copper | ND | 3.5 | | P |
| Iron | ND | 41.5 | | P |
| Lead | ND | 2.5 | * | P |
| Magnesium | ND | 40.3 | | P |
| Manganese | 3.0 | 1.1 | BN | P |
| Mercury | ND | 0.10 | | CV |
| Nickel | ND | 2.1 | | P |
| Potassium | 328 | 300 | B | P |
| Selenium | ND | 4.8 | | P |
| Silver | ND | 1.4 | | P |
| Sodium | ND | 426 | | P |
| Thallium | ND | 4.8 | | P |
| Vanadium | ND | 1.9 | | P |
| Zinc | 17.4 | 4.5 | B | P |

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

**ENVIROTECH RESEARCH, INC.**

Site: Klockner & Klockner

Lab Job No: H941

Date Sampled: 10/6/98
Date Received: 10/7/98
Matrix: WATER

Date Extracted: 10/12/98
Date Analyzed: 10/12/98
QA Batch: 4639

TOTAL PETROLEUM HYDROCARBONS (418.1)

| Envirotech Sample # | Client ID | Dilution Factor | Analytical Result Units: mg/l |
|---|---|---|---|
| 88548 | FB-1 | 1.0 | ND |

Quantitation Limit for Total Petroleum Hydrocarbons (418.1) is 1.0 mg/l for an undiluted sample.

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**ENVIROTECH RESEARCH, INC.**

Site: Klockner & Klockner

Lab Job No: H941

Date Sampled: 10/6/98
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.) |
|---|---|---|---|---|
| 88549 | SSGC-1_1-4 | 8.3 | 2.0 | 8720 |

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

## ENVIROTECH RESEARCH, INC.

Client ID: **TB-1**
Site: Klockner & Klockner

Lab Sample No: **88550**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/18/98
GC Column: DB624
Instrument ID: VOAMS2.i
Lab File ID: b8532.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 |

**ENVIROTECH RESEARCH, INC.**

Client ID: TB-1
Site: Klockner & Klockner

Lab Sample No: 88550
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/18/98
GC Column: DB624
Instrument ID: VOAMS2.i
Lab File ID: b8532.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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| 29. | | | |
| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 0.0

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## ENVIROTECH RESEARCH, INC.

Client ID: SSAW-8_5.5-6
Site: Klockner & Klockner

Lab Sample No: 88551
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9515.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 10.1

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 139 |
| Chloromethane | ND | 139 |
| Vinyl Chloride | ND | 139 |
| Bromomethane | ND | 139 |
| Chloroethane | ND | 139 |
| Trichlorofluoromethane | ND | 139 |
| 1,1-Dichloroethene | ND | 139 |
| Methylene Chloride | ND | 139 |
| trans-1,2-Dichloroethene | ND | 139 |
| 1,1-Dichloroethane | ND | 139 |
| cis-1,2-Dichloroethene | ND | 139 |
| Chloroform | ND | 139 |
| 1,1,1-Trichloroethane | ND | 139 |
| Carbon Tetrachloride | ND | 139 |
| 1,2-Dichloroethane | ND | 139 |
| Trichloroethene | ND | 139 |
| 1,2-Dichloropropane | ND | 139 |
| Bromodichloromethane | ND | 139 |
| 2-Chloroethyl Vinyl Ether | ND | 139 |
| cis-1,3-Dichloropropene | ND | 139 |
| trans-1,3-Dichloropropene | ND | 139 |
| 1,1,2-Trichloroethane | ND | 139 |
| Tetrachloroethene | ND | 139 |
| Dibromochloromethane | ND | 139 |
| Chlorobenzene | ND | 139 |
| Bromoform | ND | 139 |
| 1,1,2,2-Tetrachloroethane | ND | 139 |
| 1,3-Dichlorobenzene | ND | 139 |
| 1,4-Dichlorobenzene | ND | 139 |
| 1,2-Dichlorobenzene | ND | 139 |

## ENVIROTECH RESEARCH, INC.

Client ID: **SSAW-3_1-1.5**
Site: Klockner & Klockner

Lab Sample No: **88552**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9516.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 1000.0
% Moisture: 16.6

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 2940 |
| Chloromethane | ND | 2940 |
| Vinyl Chloride | ND | 2940 |
| Bromomethane | ND | 2940 |
| Chloroethane | ND | 2940 |
| Trichlorofluoromethane | ND | 2940 |
| 1,1-Dichloroethene | ND | 2940 |
| Methylene Chloride | ND | 2940 |
| trans-1,2-Dichloroethene | ND | 2940 |
| 1,1-Dichloroethane | ND | 2940 |
| cis-1,2-Dichloroethene | 10800 | 2940 |
| Chloroform | ND | 2940 |
| 1,1,1-Trichloroethane | ND | 2940 |
| Carbon Tetrachloride | ND | 2940 |
| 1,2-Dichloroethane | ND | 2940 |
| Trichloroethene | 32300 | 2940 |
| 1,2-Dichloropropane | ND | 2940 |
| Bromodichloromethane | ND | 2940 |
| 2-Chloroethyl Vinyl Ether | ND | 2940 |
| cis-1,3-Dichloropropene | ND | 2940 |
| trans-1,3-Dichloropropene | ND | 2940 |
| 1,1,2-Trichloroethane | ND | 2940 |
| Tetrachloroethene | ND | 2940 |
| Dibromochloromethane | ND | 2940 |
| Chlorobenzene | ND | 2940 |
| Bromoform | ND | 2940 |
| 1,1,2,2-Tetrachloroethane | ND | 2940 |
| 1,3-Dichlorobenzene | ND | 2940 |
| 1,4-Dichlorobenzene | ND | 2940 |
| 1,2-Dichlorobenzene | ND | 2940 |

## ENVIROTECH RESEARCH, INC.

Client ID: **SSAW-3_11.5-12**
Site: Klockner & Klockner

Lab Sample No: **88553**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9517.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 3.0

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 131 |
| Chloromethane | ND | 131 |
| Vinyl Chloride | ND | 131 |
| Bromomethane | ND | 131 |
| Chloroethane | ND | 131 |
| Trichlorofluoromethane | ND | 131 |
| 1,1-Dichloroethene | ND | 131 |
| Methylene Chloride | ND | 131 |
| trans-1,2-Dichloroethene | ND | 131 |
| 1,1-Dichloroethane | ND | 131 |
| cis-1,2-Dichloroethene | ND | 131 |
| Chloroform | ND | 131 |
| 1,1,1-Trichloroethane | ND | 131 |
| Carbon Tetrachloride | ND | 131 |
| 1,2-Dichloroethane | ND | 131 |
| Trichloroethene | ND | 131 |
| 1,2-Dichloropropane | ND | 131 |
| Bromodichloromethane | ND | 131 |
| 2-Chloroethyl Vinyl Ether | ND | 131 |
| cis-1,3-Dichloropropene | ND | 131 |
| trans-1,3-Dichloropropene | ND | 131 |
| 1,1,2-Trichloroethane | ND | 131 |
| Tetrachloroethene | ND | 131 |
| Dibromochloromethane | ND | 131 |
| Chlorobenzene | ND | 131 |
| Bromoform | ND | 131 |
| 1,1,2,2-Tetrachloroethane | ND | 131 |
| 1,3-Dichlorobenzene | ND | 131 |
| 1,4-Dichlorobenzene | ND | 131 |
| 1,2-Dichlorobenzene | ND | 131 |

## ENVIROTECH RESEARCH, INC.

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

Lab Sample No: 88554
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/17/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9518.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 10.1

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 134 |
| Chloromethane | ND | 134 |
| Vinyl Chloride | ND | 134 |
| Bromomethane | ND | 134 |
| Chloroethane | ND | 134 |
| Trichlorofluoromethane | ND | 134 |
| 1,1-Dichloroethene | ND | 134 |
| Methylene Chloride | ND | 134 |
| trans-1,2-Dichloroethene | ND | 134 |
| 1,1-Dichloroethane | ND | 134 |
| cis-1,2-Dichloroethene | ND | 134 |
| Chloroform | ND | 134 |
| 1,1,1-Trichloroethane | ND | 134 |
| Carbon Tetrachloride | ND | 134 |
| 1,2-Dichloroethane | ND | 134 |
| Trichloroethene | 237 | 134 |
| 1,2-Dichloropropane | ND | 134 |
| Bromodichloromethane | ND | 134 |
| 2-Chloroethyl Vinyl Ether | ND | 134 |
| cis-1,3-Dichloropropene | ND | 134 |
| trans-1,3-Dichloropropene | ND | 134 |
| 1,1,2-Trichloroethane | ND | 134 |
| Tetrachloroethene | ND | 134 |
| Dibromochloromethane | ND | 134 |
| Chlorobenzene | ND | 134 |
| Bromoform | ND | 134 |
| 1,1,2,2-Tetrachloroethane | ND | 134 |
| 1,3-Dichlorobenzene | ND | 134 |
| 1,4-Dichlorobenzene | ND | 134 |
| 1,2-Dichlorobenzene | ND | 134 |

## ENVIROTECH RESEARCH, INC.

Client ID: SSAW-1_2.5-3
Site: Klockner & Klockner

Lab Sample No: 88555
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/17/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9519.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 4.0

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 130 |
| Chloromethane | ND | 130 |
| Vinyl Chloride | ND | 130 |
| Bromomethane | ND | 130 |
| Chloroethane | ND | 130 |
| Trichlorofluoromethane | ND | 130 |
| 1,1-Dichloroethene | ND | 130 |
| Methylene Chloride | ND | 130 |
| trans-1,2-Dichloroethene | ND | 130 |
| 1,1-Dichloroethane | ND | 130 |
| cis-1,2-Dichloroethene | 351 | 130 |
| Chloroform | ND | 130 |
| 1,1,1-Trichloroethane | ND | 130 |
| Carbon Tetrachloride | ND | 130 |
| 1,2-Dichloroethane | ND | 130 |
| Trichloroethene | 2470 | 130 |
| 1,2-Dichloropropane | ND | 130 |
| Bromodichloromethane | ND | 130 |
| 2-Chloroethyl Vinyl Ether | ND | 130 |
| cis-1,3-Dichloropropene | ND | 130 |
| trans-1,3-Dichloropropene | ND | 130 |
| 1,1,2-Trichloroethane | ND | 130 |
| Tetrachloroethene | ND | 130 |
| Dibromochloromethane | ND | 130 |
| Chlorobenzene | ND | 130 |
| Bromoform | ND | 130 |
| 1,1,2,2-Tetrachloroethane | ND | 130 |
| 1,3-Dichlorobenzene | ND | 130 |
| 1,4-Dichlorobenzene | ND | 130 |
| 1,2-Dichlorobenzene | ND | 130 |

## ENVIROTECH RESEARCH, INC.

Client ID: **SSAW-1_13-13.5**
Site: Klockner & Klockner

Lab Sample No: **88556**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/17/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9520.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 6.5

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 130 |
| Chloromethane | ND | 130 |
| Vinyl Chloride | ND | 130 |
| Bromomethane | ND | 130 |
| Chloroethane | ND | 130 |
| Trichlorofluoromethane | ND | 130 |
| 1,1-Dichloroethene | ND | 130 |
| Methylene Chloride | ND | 130 |
| trans-1,2-Dichloroethene | ND | 130 |
| 1,1-Dichloroethane | ND | 130 |
| cis-1,2-Dichloroethene | 143 | 130 |
| Chloroform | ND | 130 |
| 1,1,1-Trichloroethane | ND | 130 |
| Carbon Tetrachloride | ND | 130 |
| 1,2-Dichloroethane | ND | 130 |
| Trichloroethene | 1330 | 130 |
| 1,2-Dichloropropane | ND | 130 |
| Bromodichloromethane | ND | 130 |
| 2-Chloroethyl Vinyl Ether | ND | 130 |
| cis-1,3-Dichloropropene | ND | 130 |
| trans-1,3-Dichloropropene | ND | 130 |
| 1,1,2-Trichloroethane | ND | 130 |
| Tetrachloroethene | ND | 130 |
| Dibromochloromethane | ND | 130 |
| Chlorobenzene | ND | 130 |
| Bromoform | ND | 130 |
| 1,1,2,2-Tetrachloroethane | ND | 130 |
| 1,3-Dichlorobenzene | ND | 130 |
| 1,4-Dichlorobenzene | ND | 130 |
| 1,2-Dichlorobenzene | ND | 130 |

## ENVIROTECH RESEARCH, INC.

Client ID: SSNDS-2_1.5-2
Site: Klockner & Klockner

Lab Sample No: 88557
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4656.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11.0 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 | 620 |
| Bromomethane | ND | 620 |
| Vinyl Chloride | ND | 620 |
| Chloroethane | ND | 620 |
| Methylene Chloride | ND | 370 |
| 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 | 93 J | 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 | 6200 | 120 |
| Dibromochloromethane | ND | 620 |
| 1,1,2-Trichloroethane | ND | 370 |
| Benzene | ND | 120 |
| trans-1,3-Dichloropropene | ND | 620 |
| Bromoform | ND | 490 |
| 4-Methyl-2-Pentanone | ND | 620 |
| 2-Hexanone | ND | 620 |
| Tetrachloroethene | 130 | 120 |
| 1,1,2,2-Tetrachloroethane | ND | 120 |
| Toluene | ND | 620 |
| Chlorobenzene | ND | 620 |
| Ethylbenzene | ND | 490 |
| Styrene | ND | 620 |
| Xylene (Total) | ND | 620 |

**ENVIROTECH RESEARCH, INC.**

Client ID: SSNDS-2_1.5-2
Site: Klockner & Klockner

Lab Sample No: 88557
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4656.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 7.7

**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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| 27. | | | |
| 28. | | | |
| 29. | | | |
| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 0.0

## ENVIROTECH RESEARCH, INC.

Client ID: SSAN-8_11-11.5
Site: Klockner & Klockner

Lab Sample No: 88558
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/17/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9521.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 13.8

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 136 |
| Chloromethane | ND | 136 |
| Vinyl Chloride | ND | 136 |
| Bromomethane | ND | 136 |
| Chloroethane | ND | 136 |
| Trichlorofluoromethane | ND | 136 |
| 1,1-Dichloroethene | ND | 136 |
| Methylene Chloride | ND | 136 |
| trans-1,2-Dichloroethene | ND | 136 |
| 1,1-Dichloroethane | ND | 136 |
| cis-1,2-Dichloroethene | ND | 136 |
| Chloroform | ND | 136 |
| 1,1,1-Trichloroethane | ND | 136 |
| Carbon Tetrachloride | ND | 136 |
| 1,2-Dichloroethane | ND | 136 |
| Trichloroethene | ND | 136 |
| 1,2-Dichloropropane | ND | 136 |
| Bromodichloromethane | ND | 136 |
| 2-Chloroethyl Vinyl Ether | ND | 136 |
| cis-1,3-Dichloropropene | ND | 136 |
| trans-1,3-Dichloropropene | ND | 136 |
| 1,1,2-Trichloroethane | ND | 136 |
| Tetrachloroethene | ND | 136 |
| Dibromochloromethane | ND | 136 |
| Chlorobenzene | ND | 136 |
| Bromoform | ND | 136 |
| 1,1,2,2-Tetrachloroethane | ND | 136 |
| 1,3-Dichlorobenzene | ND | 136 |
| 1,4-Dichlorobenzene | ND | 136 |
| 1,2-Dichlorobenzene | ND | 136 |

## ENVIROTECH RESEARCH, INC.

Client ID: SSNDS-1A_1-1.5
Site: Klockner & Klockner

Lab Sample No: 88559
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6473.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11.2 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 500.0
% Moisture: 15

**VOLATILE ORGANICS - GC/MS**
**METHOD 8260B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Chloromethane | ND | 6500 |
| Bromomethane | ND J | 6500 |
| Vinyl Chloride | ND | 6500 |
| Chloroethane | ND | 6500 |
| Methylene Chloride | ND U | 3900 |
| Acetone | ND U | 6500 |
| Carbon Disulfide | ND | 6500 |
| 1,1-Dichloroethene | ND | 2600 |
| 1,1-Dichloroethane | ND | 6500 |
| trans-1,2-Dichloroethene | ND | 6500 |
| cis-1,2-Dichloroethene | 1300 J | 6500 |
| Chloroform | ND | 6500 |
| 1,2-Dichloroethane | ND | 2600 |
| 2-Butanone | ND | 6500 |
| 1,1,1-Trichloroethane | ND | 6500 |
| Carbon Tetrachloride | ND | 2600 |
| Bromodichloromethane | ND | 1300 |
| 1,2-Dichloropropane | ND | 1300 |
| cis-1,3-Dichloropropene | ND | 6500 |
| Trichloroethene | 90000 | 1300 |
| Dibromochloromethane | ND | 6500 |
| 1,1,2-Trichloroethane | ND | 3900 |
| Benzene | ND | 1300 |
| trans-1,3-Dichloropropene | ND | 6500 |
| Bromoform | ND | 5200 |
| 4-Methyl-2-Pentanone | ND | 6500 |
| 2-Hexanone | ND | 6500 |
| Tetrachloroethene | ND | 1300 |
| 1,1,2,2-Tetrachloroethane | ND | 1300 |
| Toluene | ND | 6500 |
| Chlorobenzene | ND | 6500 |
| Ethylbenzene | ND | 5200 |
| Styrene | ND | 6500 |
| Xylene (Total) | ND | 6500 |

**ENVIROTECH RESEARCH, INC.**

Client ID: **SSNDS-1A_1-1.5**
Site: Klockner & Klockner

Lab Sample No: **88559**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6473.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11.2 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 500.0
% Moisture: 14.6

**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. | | | |
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| 26. | | | |
| 27. | | | |
| 28. | | | |
| 29. | | | |
| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 0.0

## ENVIROTECH RESEARCH, INC.

Client ID: SSFS-1_.5-1
Site: Klockner & Klockner

Lab Sample No: 88560
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4675.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.7 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 100.0
% Moisture: 8

### VOLATILE ORGANICS - GC/MS
### METHOD 8260B

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Chloromethane | ND | 1300 |
| Bromomethane | ND | 1300 |
| Vinyl Chloride | ND | 1300 |
| Chloroethane | ND | 1300 |
| Methylene Chloride | ND | 760 |
| Acetone | ND | 1300 |
| Carbon Disulfide | ND | 1300 |
| 1,1-Dichloroethene | ND | 510 |
| 1,1-Dichloroethane | ND | 1300 |
| trans-1,2-Dichloroethene | ND | 1300 |
| cis-1,2-Dichloroethene | 1200 J | 1300 |
| Chloroform | ND | 1300 |
| 1,2-Dichloroethane | ND | 510 |
| 2-Butanone | ND | 1300 |
| 1,1,1-Trichloroethane | ND | 1300 |
| Carbon Tetrachloride | ND | 510 |
| Bromodichloromethane | ND | 250 |
| 1,2-Dichloropropane | ND | 250 |
| cis-1,3-Dichloropropene | ND | 1300 |
| Trichloroethene | 23000 | 250 |
| Dibromochloromethane | ND | 1300 |
| 1,1,2-Trichloroethane | ND | 760 |
| Benzene | ND | 250 |
| trans-1,3-Dichloropropene | ND | 1300 |
| Bromoform | ND | 1000 |
| 4-Methyl-2-Pentanone | ND | 1300 |
| 2-Hexanone | ND | 1300 |
| Tetrachloroethene | ND | 250 |
| 1,1,2,2-Tetrachloroethane | ND | 250 |
| Toluene | ND | 1300 |
| Chlorobenzene | ND | 1300 |
| Ethylbenzene | ND | 1000 |
| Styrene | ND | 1300 |
| Xylene (Total) | ND | 1300 |

**ENVIROTECH RESEARCH, INC.**

Client ID: SSFS-1_.5-1
Site: Klockner & Klockner

Lab Sample No: 88560
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4675.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.7 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 100.0
% Moisture: 8.1

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. Unknown Siloxane | 15.87 | 2400 | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
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| 26. | | | |
| 27. | | | |
| 28. | | | |
| 29. | | | |
| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 2400

## ENVIROTECH RESEARCH, INC.

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

Lab Sample No: 88561
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/17/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9522.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 5.0

VOLATILE ORGANICS - GC/ELCD
METHOD 8021B

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 132 |
| Chloromethane | ND | 132 |
| Vinyl Chloride | ND | 132 |
| Bromomethane | ND | 132 |
| Chloroethane | ND | 132 |
| Trichlorofluoromethane | ND | 132 |
| 1,1-Dichloroethene | ND | 132 |
| Methylene Chloride | ND | 132 |
| trans-1,2-Dichloroethene | ND | 132 |
| 1,1-Dichloroethane | ND | 132 |
| cis-1,2-Dichloroethene | ND | 132 |
| Chloroform | ND | 132 |
| 1,1,1-Trichloroethane | ND | 132 |
| Carbon Tetrachloride | ND | 132 |
| 1,2-Dichloroethane | ND | 132 |
| Trichloroethene | ND | 132 |
| 1,2-Dichloropropane | ND | 132 |
| Bromodichloromethane | ND | 132 |
| 2-Chloroethyl Vinyl Ether | ND | 132 |
| cis-1,3-Dichloropropene | ND | 132 |
| trans-1,3-Dichloropropene | ND | 132 |
| 1,1,2-Trichloroethane | ND | 132 |
| Tetrachloroethene | ND | 132 |
| Dibromochloromethane | ND | 132 |
| Chlorobenzene | ND | 132 |
| Bromoform | ND | 132 |
| 1,1,2,2-Tetrachloroethane | ND | 132 |
| 1,3-Dichlorobenzene | ND | 132 |
| 1,4-Dichlorobenzene | ND | 132 |
| 1,2-Dichlorobenzene | ND | 132 |

## ENVIROTECH RESEARCH, INC.

Client ID: SSNDS-1A_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88562
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8301.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

### 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 | 37 |
| 1,3-Dichlorobenzene | ND | 370 |
| 1,4-Dichlorobenzene | ND | 370 |
| 1,2-Dichlorobenzene | ND | 370 |
| bis(2-chloroisopropyl)ether | ND | 370 |
| N-Nitroso-di-n-propylamine | ND | 37 |
| Hexachloroethane | ND | 37 |
| Nitrobenzene | ND | 37 |
| Isophorone | ND | 370 |
| bis(2-Chloroethoxy)methane | ND | 370 |
| 1,2,4-Trichlorobenzene | ND | 37 |
| Naphthalene | ND | 370 |
| 4-Chloroaniline | ND | 370 |
| Hexachlorobutadiene | ND | 75 |
| 2-Methylnaphthalene | ND | 370 |
| Hexachlorocyclopentadiene | ND | 370 |
| 2-Chloronaphthalene | ND | 370 |
| 2-Nitroaniline | ND | 750 |
| Dimethylphthalate | ND | 370 |
| Acenaphthylene | 23 J | 370 |
| 2,6-Dinitrotoluene | ND | 75 |
| 3-Nitroaniline | ND | 750 |
| Acenaphthene | ND | 370 |
| Dibenzofuran | ND | 370 |
| 2,4-Dinitrotoluene | ND | 75 |
| Diethylphthalate | ND | 370 |
| 4-Chlorophenyl-phenylether | ND | 370 |
| Fluorene | ND | 370 |
| 4-Nitroaniline | ND | 750 |
| N-Nitrosodiphenylamine | ND | 370 |
| 4-Bromophenyl-phenylether | ND | 370 |
| Hexachlorobenzene | ND | 37 |
| Phenanthrene | 130 J | 370 |
| Anthracene | 18 J | 370 |

## ENVIROTECH RESEARCH, INC.

Client ID: SSNDS-1A_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88562
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8301.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Carbazole | 11 J | 370 |
| Di-n-butylphthalate | ND | 370 |
| Fluoranthene | 220 J | 370 |
| Pyrene | 240 J | 370 |
| Butylbenzylphthalate | ND | 370 |
| 3,3'-Dichlorobenzidine | ND | 750 |
| Benzo(a)anthracene | 97 | 37 |
| Chrysene | 150 J | 370 |
| bis(2-Ethylhexyl)phthalate | ND | 370 |
| Di-n-octylphthalate | ND | 370 |
| Benzo(b)fluoranthene | 180 | 37 |
| Benzo(k)fluoranthene | 92 | 37 |
| Benzo(a)pyrene | 110 | 37 |
| Indeno(1,2,3-cd)pyrene | 46 | 37 |
| Dibenz(a,h)anthracene | 14 J | 37 |
| Benzo(g,h,i)perylene | 36 J | 370 |

**ENVIROTECH RESEARCH, INC.**

Client ID: SSNDS-1A_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88562
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8301.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11.1

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. NO SEMI-VOLATILE ORGANIC COMPOUNDS FOUND | | | |
| 2. | | | |
| 3. | | | |
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| 29. | | | |
| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 0.0

## ENVIROTECH RESEARCH, INC.

Client ID: **SSNDS-1A 0-0.5**
Site: **Klockner & Klockner**

Lab Sample No: 88562
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 11.1

### METALS ANALYSIS

| Analyte | Analytical Result Units: mg/kg (Dry Weight) | Instrument Detection Limit | Qual | M |
|---|---|---|---|---|
| Aluminum | 11200 | 13.1 | | P |
| Antimony | ND | 1.0 | N | P |
| Arsenic | 7.2 | 0.85 | | P |
| Barium | 152 | 0.31 | | P |
| Beryllium | 0.63 | 0.045 | | P |
| Cadmium | ND | 0.090 | | P |
| Calcium | 5250 | 9.5 | | P |
| Chromium | 22.9 | 0.22 | N | P |
| Cobalt | 7.5 | 0.27 | B | P |
| Copper | 69.9 J | 0.79 | | P |
| Iron | 31300 | 9.3 | | P |
| Lead | 343 | 0.56 | * | P |
| Magnesium | 1950 | 9.1 | | P |
| Manganese | 397 | 0.25 | N | P |
| Mercury | 0.65 | 0.019 | | CV |
| Nickel | 15.3 | 0.47 | | P |
| Potassium | 719 J | 67.6 | B | P |
| Selenium | ND | 1.1 | | P |
| Silver | ND | 0.31 | | P |
| Sodium | ND | 95.8 | | P |
| Thallium | ND | 1.1 | | P |
| Vanadium | 35.2 | 0.43 | | P |
| Zinc | 273 | 1.0 | | P |

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

**ENVIROTECH RESEARCH, INC.**

Client ID: SSNDS-2A_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88563
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8302.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

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 | 38 |
| 1,3-Dichlorobenzene | ND | 380 |
| 1,4-Dichlorobenzene | ND | 380 |
| 1,2-Dichlorobenzene | ND | 380 |
| bis(2-chloroisopropyl)ether | ND | 380 |
| N-Nitroso-di-n-propylamine | ND | 38 |
| Hexachloroethane | ND | 38 |
| Nitrobenzene | ND | 38 |
| Isophorone | ND | 380 |
| bis(2-Chloroethoxy)methane | ND | 380 |
| 1,2,4-Trichlorobenzene | ND | 38 |
| Naphthalene | ND | 380 |
| 4-Chloroaniline | ND | 380 |
| Hexachlorobutadiene | ND | 75 |
| 2-Methylnaphthalene | ND | 380 |
| Hexachlorocyclopentadiene | ND | 380 |
| 2-Chloronaphthalene | ND | 380 |
| 2-Nitroaniline | ND | 750 |
| Dimethylphthalate | ND | 380 |
| Acenaphthylene | 18 J | 380 |
| 2,6-Dinitrotoluene | ND | 75 |
| 3-Nitroaniline | ND | 750 |
| Acenaphthene | ND | 380 |
| Dibenzofuran | ND | 380 |
| 2,4-Dinitrotoluene | ND | 75 |
| Diethylphthalate | ND | 380 |
| 4-Chlorophenyl-phenylether | ND | 380 |
| Fluorene | ND | 380 |
| 4-Nitroaniline | ND | 750 |
| N-Nitrosodiphenylamine | ND | 380 |
| 4-Bromophenyl-phenylether | ND | 380 |
| Hexachlorobenzene | ND | 38 |
| Phenanthrene | 43 J | 380 |
| Anthracene | 16 J | 380 |

## ENVIROTECH RESEARCH, INC.

Client ID: SSNDS-2A_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88563
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8302.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Carbazole | ND | 380 |
| Di-n-butylphthalate | ND | 380 |
| Fluoranthene | 140 J | 380 |
| Pyrene | 170 J | 380 |
| Butylbenzylphthalate | ND | 380 |
| 3,3'-Dichlorobenzidine | ND | 750 |
| Benzo(a)anthracene | 100 | 38 |
| Chrysene | 110 J | 380 |
| bis(2-Ethylhexyl)phthalate | 23 J | 380 |
| Di-n-octylphthalate | ND | 380 |
| Benzo(b)fluoranthene | 160 | 38 |
| Benzo(k)fluoranthene | 66 | 38 |
| Benzo(a)pyrene | 94 | 38 |
| Indeno(1,2,3-cd)pyrene | 34 J | 38 |
| Dibenz(a,h)anthracene | 11 J | 38 |
| Benzo(g,h,i)perylene | 27 J | 380 |

**ENVIROTECH RESEARCH, INC.**

Client ID: **SSNDS-2A_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88563**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8302.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11.2

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. Unknown | 9.64 | 6800 | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
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| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 6800

**ENVIROTECH RESEARCH, INC.**

Client ID: **SSNDS-2A 0-0.5**
Site: **Klockner & Klockner**

Lab Sample No: 88563
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 11.2

## METALS ANALYSIS

| Analyte | Analytical Result Units: mg/kg (Dry Weight) | Instrument Detection Limit | Qual | M |
|---|---|---|---|---|
| Aluminum | 8370 | 13.1 | | P |
| Antimony | 1.0 | 1.0 | BN | P |
| Arsenic | 3.4 | 0.86 | | P |
| Barium | 80.6 | 0.32 | | P |
| Beryllium | 0.43 | 0.045 | B | P |
| Cadmium | 0.15 | 0.090 | B | P |
| Calcium | 1180 | 9.5 | | P |
| Chromium | 14.0 | 0.23 | N | P |
| Cobalt | 7.1 | 0.27 | B | P |
| Copper | 25.5 J | 0.79 | | P |
| Iron | 18200 | 9.3 | | P |
| Lead | 75.7 | 0.56 | * | P |
| Magnesium | 1700 | 9.1 | | P |
| Manganese | 216 | 0.25 | N | P |
| Mercury | 0.10 | 0.019 | | CV |
| Nickel | 11.1 | 0.47 | | P |
| Potassium | 399 | 67.6 | B | P |
| Selenium | ND | 1.1 | | P |
| Silver | ND | 0.32 | | P |
| Sodium | ND | 95.9 | | P |
| Thallium | ND | 1.1 | | P |
| Vanadium | 24.3 | 0.43 | | P |
| Zinc | 195 | 1.0 | | P |

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

**ENVIROTECH RESEARCH, INC.**

Client ID: **SSDSA-1 0-0.5**
Site: **Klockner & Klockner**

Lab Sample No: 88564
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 7.6

## METALS ANALYSIS

| Analyte | Analytical Result Units: mg/kg (Dry Weight) | Instrument Detection Limit | Qual | M |
|---|---|---|---|---|
| Aluminum | 10600 | 12.6 | | P |
| Antimony | 1.4 | 1.00 | BN | P |
| Arsenic | 5.0 | 0.82 | | P |
| Barium | 222 | 0.30 | | P |
| Beryllium | 0.56 | 0.043 | | P |
| Cadmium | 0.76 | 0.087 | B | P |
| Calcium | 3580 | 9.1 | | P |
| Chromium | 45.6 | 0.22 | N | P |
| Cobalt | 9.8 | 0.26 | B | P |
| Copper | 105 | 0.76 | | P |
| Iron | 21600 | 9.0 | | P |
| Lead | 344 | 0.54 | * | P |
| Magnesium | 2440 | 8.7 | | P |
| Manganese | 419 | 0.24 | N | P |
| Mercury | 0.39 | 0.018 | | CV |
| Nickel | 34.8 | 0.45 | | P |
| Potassium | 1070 | 65.0 | B | P |
| Selenium | ND | 1.0 | | P |
| Silver | 0.40 | 0.30 | B | P |
| Sodium | ND | 92.2 | | P |
| Thallium | ND | 1.0 | | P |
| Vanadium | 35.2 | 0.41 | | P |
| Zinc | 408 | 0.97 | | P |

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

## ENVIROTECH RESEARCH, INC.

Client ID: SSFS-1_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88565
Lab Job No: H941

Date Sampled: 10/06/98
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: s8315.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

### 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 | 37 |
| 1,3-Dichlorobenzene | ND | 370 |
| 1,4-Dichlorobenzene | ND | 370 |
| 1,2-Dichlorobenzene | ND | 370 |
| bis(2-chloroisopropyl)ether | ND | 370 |
| N-Nitroso-di-n-propylamine | ND | 37 |
| Hexachloroethane | ND | 37 |
| Nitrobenzene | ND | 37 |
| Isophorone | ND | 370 |
| bis(2-Chloroethoxy)methane | ND | 370 |
| 1,2,4-Trichlorobenzene | ND | 37 |
| Naphthalene | ND | 370 |
| 4-Chloroaniline | ND | 370 |
| Hexachlorobutadiene | ND | 75 |
| 2-Methylnaphthalene | ND | 370 |
| Hexachlorocyclopentadiene | ND | 370 |
| 2-Chloronaphthalene | ND | 370 |
| 2-Nitroaniline | ND | 750 |
| Dimethylphthalate | ND | 370 |
| Acenaphthylene | 48 J | 370 |
| 2,6-Dinitrotoluene | ND | 75 |
| 3-Nitroaniline | ND | 750 |
| Acenaphthene | 8.1J | 370 |
| Dibenzofuran | ND | 370 |
| 2,4-Dinitrotoluene | ND | 75 |
| Diethylphthalate | ND | 370 |
| 4-Chlorophenyl-phenylether | ND | 370 |
| Fluorene | 14 J | 370 |
| 4-Nitroaniline | ND | 750 |
| N-Nitrosodiphenylamine | ND | 370 |
| 4-Bromophenyl-phenylether | ND | 370 |
| Hexachlorobenzene | ND | 37 |
| Phenanthrene | 130 J | 370 |
| Anthracene | 47 J | 370 |

**ENVIROTECH RESEARCH, INC.**

Client ID: SSFS-1_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88565
Lab Job No: H941

Date Sampled: 10/06/98
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: s8315.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

SEMI-VOLATILE ORGANICS - GC/MS
METHOD 8270C

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Carbazole | 12 J | 370 |
| Di-n-butylphthalate | ND | 370 |
| Fluoranthene | 290 J | 370 |
| Pyrene | 360 J | 370 |
| Butylbenzylphthalate | 1000 | 370 |
| 3,3'-Dichlorobenzidine | ND | 750 |
| Benzo(a)anthracene | 170 | 37 |
| Chrysene | 220 J | 370 |
| bis(2-Ethylhexyl)phthalate | 260 J | 370 |
| Di-n-octylphthalate | ND | 370 |
| Benzo(b)fluoranthene | 270 | 37 |
| Benzo(k)fluoranthene | 120 | 37 |
| Benzo(a)pyrene | 180 | 37 |
| Indeno(1,2,3-cd)pyrene | 74 | 37 |
| Dibenz(a,h)anthracene | 25 J | 37 |
| Benzo(g,h,i)perylene | 59 J | 370 |

**ENVIROTECH RESEARCH, INC.**

Client ID: SSFS-1_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88565
Lab Job No: H941

Date Sampled: 10/06/98
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: s8315.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 10.8

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. Tricresylphosphate isomer | 25.32 | 320 | |
| 2. Tricresylphosphate isomer | 25.53 | 620 | |
| 3. Unknown | 25.58 | 300 | |
| 4. Unknown | 25.80 | 540 | |
| 5. C20H12 PAH/Unknown | 27.46 | 630 | |
| 6. Unknown | 27.67 | 560 | |
| 7. Unknown | 28.12 | 1100 | |
| 8. Unknown | 29.04 | 520 | |
| 9. Unknown | 29.55 | 2300 | |
| 10. Unknown | 30.68 | 1800 | |
| 11. | | | |
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| 28. | | | |
| 29. | | | |
| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 8690

**ENVIROTECH RESEARCH, INC.**

Client ID: **SSFS-1 0-0.5**
Site: **Klockner & Klockner**

Lab Sample No: 88565
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 10.8

## METALS ANALYSIS

| Analyte | Analytical Result Units: mg/kg (Dry Weight) | Instrument Detection Limit | Qual | M |
|---|---|---|---|---|
| Aluminum | 7590 | 13.0 | | P |
| Antimony | ND | 1.0 | N | P |
| Arsenic | 3.7 | 0.85 | | P |
| Barium | 252 | 0.31 | | P |
| Beryllium | 0.43 | 0.045 | B | P |
| Cadmium | 0.78 | 0.090 | B | P |
| Calcium | 9660 | 9.5 | | P |
| Chromium | 32.1 | 0.22 | N | P |
| Cobalt | 8.2 | 0.27 | B | P |
| Copper | 215 J | 0.78 | | P |
| Iron | 19500 | 9.3 | | P |
| Lead | 471 | 0.56 | * | P |
| Magnesium | 2610 | 9.0 | | P |
| Manganese | 298 | 0.25 | N | P |
| Mercury | 0.35 | 0.019 | | CV |
| Nickel | 18.8 | 0.47 | | P |
| Potassium | 979 J | 67.3 | B | P |
| Selenium | ND | 1.1 | | P |
| Silver | 0.72 | 0.31 | B | P |
| Sodium | ND | 95.5 | | P |
| Thallium | ND | 1.1 | | P |
| Vanadium | 32.4 | 0.43 | | P |
| Zinc | 371 | 1.0 | | P |

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

**ENVIROTECH RESEARCH, INC.**

Site: Klockner & Klockner

Lab Job No: H941

Date Sampled: 10/6/98
Date Received: 10/7/98
Matrix: SOIL

Date Extracted: 10/12/98
Date Analyzed: 10/12/98
QA Batch: 4645

TOTAL PETROLEUM HYDROCARBONS (418.1)

| Envirotech Sample # | Client ID | % Moisture | Dilution Factor | Analytical Result mg/kg (Dry Wt.) |
|---|---|---|---|---|
| 88562 | SSNDS-1A_0-0.5 | 11.1 | 1.0 | 374 |
| 88563 | SSNDS-2A_0-0.5 | 11.2 | 1.0 | 225 |
| 88565 | SSFS-1_0-0.5 | 10.8 | 1.0 | 823 |

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

**ENVIROTECH RESEARCH, INC.**

Client ID: SSCB-1_2-2.5
Site: Klockner & Klockner

Lab Sample No: 88566
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/14/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8316.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 12

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 | 38 |
| 1,3-Dichlorobenzene | ND | 380 |
| 1,4-Dichlorobenzene | ND | 380 |
| 1,2-Dichlorobenzene | ND | 380 |
| bis(2-chloroisopropyl)ether | ND | 380 |
| N-Nitroso-di-n-propylamine | ND | 38 |
| Hexachloroethane | ND | 38 |
| Nitrobenzene | ND | 38 |
| Isophorone | ND | 380 |
| bis(2-Chloroethoxy)methane | ND | 380 |
| 1,2,4-Trichlorobenzene | ND | 38 |
| Naphthalene | 9.3J | 380 |
| 4-Chloroaniline | ND | 380 |
| Hexachlorobutadiene | ND | 76 |
| 2-Methylnaphthalene | 12 J | 380 |
| Hexachlorocyclopentadiene | ND | 380 |
| 2-Chloronaphthalene | ND | 380 |
| 2-Nitroaniline | ND | 760 |
| Dimethylphthalate | ND | 380 |
| Acenaphthylene | 24 J | 380 |
| 2,6-Dinitrotoluene | ND | 76 |
| 3-Nitroaniline | ND | 760 |
| Acenaphthene | ND | 380 |
| Dibenzofuran | 9.6J | 380 |
| 2,4-Dinitrotoluene | ND | 76 |
| Diethylphthalate | ND | 380 |
| 4-Chlorophenyl-phenylether | ND | 380 |
| Fluorene | ND | 380 |
| 4-Nitroaniline | ND | 760 |
| N-Nitrosodiphenylamine | ND | 380 |
| 4-Bromophenyl-phenylether | ND | 380 |
| Hexachlorobenzene | ND | 38 |
| Phenanthrene | 86 J | 380 |
| Anthracene | 15 J | 380 |

## ENVIROTECH RESEARCH, INC.

Client ID: SSCB-1_2-2.5
Site: Klockner & Klockner

Lab Sample No: 88566
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/14/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8316.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 12

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Carbazole | 9.0J | 380 |
| Di-n-butylphthalate | ND | 380 |
| Fluoranthene | 130 J | 380 |
| Pyrene | 140 J | 380 |
| Butylbenzylphthalate | 80 J | 380 |
| 3,3'-Dichlorobenzidine | ND | 760 |
| Benzo(a)anthracene | 55 | 38 |
| Chrysene | 83 J | 380 |
| bis(2-Ethylhexyl)phthalate | 85 J | 380 |
| Di-n-octylphthalate | ND | 380 |
| Benzo(b)fluoranthene | 110 | 38 |
| Benzo(k)fluoranthene | 50 | 38 |
| Benzo(a)pyrene | 71 | 38 |
| Indeno(1,2,3-cd)pyrene | 40 | 38 |
| Dibenz(a,h)anthracene | ND | 38 |
| Benzo(g,h,i)perylene | 39 J | 380 |

303573

**ENVIROTECH RESEARCH, INC.**

Client ID: SSCB-1_2-2.5
Site: Klockner & Klockner

Lab Sample No: 88566
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/14/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8316.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 12.1

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. Unknown | 30.63 | 310 | |
| 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 310

303574

**ENVIROTECH RESEARCH, INC.**

Client ID: **SSCB-1 2-2.5**
Site: **Klockner & Klockner**

Lab Sample No: 88566
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 12.1

## METALS ANALYSIS

| Analyte | Analytical Result Units: mg/kg (Dry Weight) | Instrument Detection Limit | Qual | M |
|---|---|---|---|---|
| Aluminum | 8660 | 13.2 | | P |
| Antimony | ND | 1.0 | N | P |
| Arsenic | 2.6 | 0.86 | | P |
| Barium | 73.9 | 0.32 | | P |
| Beryllium | 0.63 | 0.046 | | P |
| Cadmium | 0.33 | 0.091 | B | P |
| Calcium | 3320 | 9.6 | | P |
| Chromium | 26.4 | 0.23 | N | P |
| Cobalt | 8.3 | 0.27 | B | P |
| Copper | 36.9 | 0.80 | | P |
| Iron | 19200 | 9.4 | | P |
| Lead | 104 | 0.57 | * | P |
| Magnesium | 3150 | 9.2 | | P |
| Manganese | 259 | 0.25 | N | P |
| Mercury | 0.05 | 0.019 | | CV |
| Nickel | 14.9 | 0.48 | | P |
| Potassium | 1110 | 68.3 | B | P |
| Selenium | ND | 1.1 | | P |
| Silver | ND | 0.32 | | P |
| Sodium | 147 | 96.9 | B | P |
| Thallium | ND | 1.1 | | P |
| Vanadium | 53.8 | 0.43 | | P |
| Zinc | 131 | 1.0 | | P |

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

303575

**ENVIROTECH RESEARCH, INC.**

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

Lab Sample No: 88567
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98

Matrix: SOLID
Level: LOW
% Moisture: 3.9

## METALS ANALYSIS

| Analyte | Analytical Result Units: mg/kg (Dry Weight) | Instrument Detection Limit | Qual | M |
|---|---|---|---|---|
| Aluminum | 4910 | 12.1 | | P |
| Antimony | ND | 0.96 | N | P |
| Arsenic | 3.2 | 0.79 | | P |
| Barium | 20.0 | 0.29 | B | P |
| Beryllium | 0.46 | 0.042 | | P |
| Cadmium | ND | 0.083 | | P |
| Calcium | 622 | 8.8 | B | P |
| Chromium | 8.7 | 0.21 | N | P |
| Cobalt | 4.1 | 0.25 | B | P |
| Copper | 13.8 | 0.73 | | P |
| Iron | 16500 | 8.6 | | P |
| Lead | 10.1 | 0.52 | * | P |
| Magnesium | 1620 | 8.4 | | P |
| Manganese | 84.5 | 0.23 | N | P |
| Mercury | 0.08 | 0.017 | | CV |
| Nickel | 8.6 | 0.44 | | P |
| Potassium | 326 | 62.5 | B | P |
| Selenium | ND | 1.00 | | P |
| Silver | ND | 0.29 | | P |
| Sodium | ND | 88.7 | | P |
| Thallium | ND | 1.00 | | P |
| Vanadium | 14.7 | 0.40 | | P |
| Zinc | 63.6 | 0.94 | | P |

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

303576

## ENVIROTECH RESEARCH, INC.

Client ID: **SSDSA-1_1.5-2**
Site: Klockner & Klockner

Lab Sample No: **88568**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/17/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9523.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 6.9

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 132 |
| Chloromethane | ND | 132 |
| Vinyl Chloride | ND | 132 |
| Bromomethane | ND | 132 |
| Chloroethane | ND | 132 |
| Trichlorofluoromethane | ND | 132 |
| 1,1-Dichloroethene | ND | 132 |
| Methylene Chloride | ND | 132 |
| trans-1,2-Dichloroethene | ND | 132 |
| 1,1-Dichloroethane | ND | 132 |
| cis-1,2-Dichloroethene | ND | 132 |
| Chloroform | ND | 132 |
| 1,1,1-Trichloroethane | ND | 132 |
| Carbon Tetrachloride | ND | 132 |
| 1,2-Dichloroethane | ND | 132 |
| Trichloroethene | 4560 | 132 |
| 1,2-Dichloropropane | ND | 132 |
| Bromodichloromethane | ND | 132 |
| 2-Chloroethyl Vinyl Ether | ND | 132 |
| cis-1,3-Dichloropropene | ND | 132 |
| trans-1,3-Dichloropropene | ND | 132 |
| 1,1,2-Trichloroethane | ND | 132 |
| Tetrachloroethene | ND | 132 |
| Dibromochloromethane | ND | 132 |
| Chlorobenzene | ND | 132 |
| Bromoform | ND | 132 |
| 1,1,2,2-Tetrachloroethane | ND | 132 |
| 1,3-Dichlorobenzene | ND | 132 |
| 1,4-Dichlorobenzene | ND | 132 |
| 1,2-Dichlorobenzene | ND | 132 |

## ENVIROTECH RESEARCH, INC.

Client ID: **SSAW-6_2-2.5**
Site: Klockner & Klockner

Lab Sample No: **88569**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/17/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9524.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 2500.0
% Moisture: 17.3

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 7340 |
| Chloromethane | ND | 7340 |
| Vinyl Chloride | ND | 7340 |
| Bromomethane | ND | 7340 |
| Chloroethane | ND | 7340 |
| Trichlorofluoromethane | ND | 7340 |
| 1,1-Dichloroethene | ND | 7340 |
| Methylene Chloride | ND | 7340 |
| trans-1,2-Dichloroethene | ND | 7340 |
| 1,1-Dichloroethane | ND | 7340 |
| cis-1,2-Dichloroethene | 16400 | 7340 |
| Chloroform | ND | 7340 |
| 1,1,1-Trichloroethane | ND | 7340 |
| Carbon Tetrachloride | ND | 7340 |
| 1,2-Dichloroethane | ND | 7340 |
| Trichloroethene | 65900 | 7340 |
| 1,2-Dichloropropane | ND | 7340 |
| Bromodichloromethane | ND | 7340 |
| 2-Chloroethyl Vinyl Ether | ND | 7340 |
| cis-1,3-Dichloropropene | ND | 7340 |
| trans-1,3-Dichloropropene | ND | 7340 |
| 1,1,2-Trichloroethane | ND | 7340 |
| Tetrachloroethene | 23700 | 7340 |
| Dibromochloromethane | ND | 7340 |
| Chlorobenzene | ND | 7340 |
| Bromoform | ND | 7340 |
| 1,1,2,2-Tetrachloroethane | ND | 7340 |
| 1,3-Dichlorobenzene | ND | 7340 |
| 1,4-Dichlorobenzene | ND | 7340 |
| 1,2-Dichlorobenzene | ND | 7340 |

## ENVIROTECH RESEARCH, INC.

Client ID: **SSAW-6_9-9.5**
Site: Klockner & Klockner

Lab Sample No: **88570**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/19/98
GC Column: DB624
Instrument ID: VOAGC1.i
Lab File ID: geld9561.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 17.4

**VOLATILE ORGANICS - GC/ELCD**
**METHOD 8021B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Dichlorodifluoromethane | ND | 147 |
| Chloromethane | ND | 147 |
| Vinyl Chloride | ND | 147 |
| Bromomethane | ND | 147 |
| Chloroethane | ND | 147 |
| Trichlorofluoromethane | ND | 147 |
| 1,1-Dichloroethene | ND | 147 |
| Methylene Chloride | ND | 147 |
| trans-1,2-Dichloroethene | ND | 147 |
| 1,1-Dichloroethane | ND | 147 |
| cis-1,2-Dichloroethene | ND | 147 |
| Chloroform | ND | 147 |
| 1,1,1-Trichloroethane | ND | 147 |
| Carbon Tetrachloride | ND | 147 |
| 1,2-Dichloroethane | ND | 147 |
| Trichloroethene | ND | 147 |
| 1,2-Dichloropropane | ND | 147 |
| Bromodichloromethane | ND | 147 |
| 2-Chloroethyl Vinyl Ether | ND | 147 |
| cis-1,3-Dichloropropene | ND | 147 |
| trans-1,3-Dichloropropene | ND | 147 |
| 1,1,2-Trichloroethane | ND | 147 |
| Tetrachloroethene | ND | 147 |
| Dibromochloromethane | ND | 147 |
| Chlorobenzene | ND | 147 |
| Bromoform | ND | 147 |
| 1,1,2,2-Tetrachloroethane | ND | 147 |
| 1,3-Dichlorobenzene | ND | 147 |
| 1,4-Dichlorobenzene | ND | 147 |
| 1,2-Dichlorobenzene | ND | 147 |

# 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: 10/6/98
SAMPLER(S): Cheryl L. Coffee / L. WESTCOTT



| SAMPLE TIME | SAMPLE LOCATION | SAMPLE ID# | SAMPLE DEPTH | SAMPLE MATRIX | ANALYSIS REQUESTED | PRESER-VATIVE | NO. OF CONT. | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|---|---|
| 4:00 | FIELD BLANK | FB-1 | N/A | $H_2O$ | BN, TAL METALS, PHC, CN | ICE/$H_2SO_4$ $HNO_3$, NaOH | 4 | 88548 |
| 4:00 | ALLEYWAY (SS AW-3) | SSGC-1 | 1-4' | SOIL | GRAIN SIZE, TOC | ICE | 2 | 88549 |
| — | TRIP BLANK | TB-1 | N/A | ~~MEOH~~ Water | VOC 8260 (TCL) | HCL ICE | 2 | 88550 |
| 11:20 | ALLEYWAY | SSAW-8 | 5.5-6' | SOIL | PHAL 8021 | MEOH/ICE | 2 | 88551 |
| 3:30 | ALLEYWAY | SSAW-3 | 1-1.5' | SOIL | PHAL 8021 | MEOH/ICE | 2 | 88552 |
| 3:30 | ALLEYWAY | SSAW-3 | 11.5-12' | SOIL | PHAL 8021 | MEOH/ICE | 2 | 88553 |
| 2:40 | WASTE OIL TANK | SSWT-1 | 7-7.5' | SOIL | PHAL 8021 | MEOH/ICE | 2 | 88554 |
| 1:30 | ALLEYWAY | SSAW-1 | 2.5-3 | SOIL | PHAL 8021 | MEOH/ICE | 2 | 88555 |
| 2:00 | ALLEYWAY | SSAW-1 | 13-13.5 | SOIL | PHAL 8021 | MEOH/ICE | 2 | 88556 |
| 10:30 | NORTH DRUM STORAGE | SSNDS-2 | 1.5-2' | SOIL | VOC'S 8260 (TCL) | MEOH/ICE | 2 | 88557 |
| 11:30 | ALLEYWAY | SSAW-8 | 11-11.5 | SOIL | PHAL 8021 | MEOH/ICE | 2 | 88558 |
| 1010 | NORTH DRUM STORAGE | SSNDS-1A | 1-1.5 | SOIL | VOC'S 8260 (TCL) | MEOH/ICE | 2 | 88559 |

RELINQUISHED BY: Cheryl L. Coffee DATE: 10/7/98 TIME: 0830 RECEIVED BY: [signature] DATE: 10.7.98 TIME 0830

RELINQUISHED BY: [signature] DATE: 10/7/98 TIME: 0830 RECEIVED BY: [signature] DATE: 10/7/98 TIME 0930

Full CLP Deliverables

TOTAL NO. CONTAINERS 26

**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

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

303580

# 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: 10/6/98
SAMPLER(S): Cheryl L. Coffee / L. WESTCOTT



| SAMPLE TIME | SAMPLE LOCATION | SAMPLE ID# | SAMPLE DEPTH | SAMPLE MATRIX | ANALYSIS REQUESTED | PRESER-VATIVE | NO. OF CONT. | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|---|---|
| 12:15 | DRUM STORAGE SHED | SSFS-1 | .5-1' | SOIL | VOC'S 8260 (TCL) | ICE/MEOH | 2 | 88560 |
| 2:20 | WASTE OIL TANK | SSWT-2 | 7-7.5 | SOIL | PHAL 8021 | ICE/MEOH | 2 | 88561 |
| 10:10 | NORTH DRUM STORAGE | SSNDS-1A | 0-.5 | SOIL | PHC, *BN, TAL METALS | ICE/MEOH | 1 ~~2~~ | LW 88562 |
| 10:30 | NORTH DRUM STORAGE | SSNDS-2A | 0-.5 | SOIL | PHC, *BN, TAL METALS | ICE/MEOH | 1 ~~2~~ | LW 88563 |
| 11:50 | DRUM STORAGE ALLEYWAY | SSDSA-1 | 0-.5 | SOIL | CN, TAL METALS | ICE/MEOH | 1 ~~2~~ | LW 88564 |
| 12:15 | DRUM STORAGE SHED | SSFS-1 | 0-.5 | SOIL | *BN+15, TAL METALS, PHC | ICE/MEOH | 1 ~~2~~ | LW 88565 |
| 11:40 | CATCH BASIN | SSCB-1 | 2-2.5 | SOIL | BN+15, TAL METALS | ICE/MEOH | 1 ~~2~~ | LW 88566 |
| 2:40 (12) | WASTE OIL TANK | SSWT-1 (12) | 7-7.5 | SOIL | TAL METALS | ICE | 1 | 88567 |
| ~~—~~ | ~~TRIPBLANK~~ | ~~TB-1~~ | ~~—~~ | ~~MEOH~~ | ~~VOC 8021~~ | ~~ICE/MEOH~~ | ~~1~~ | ~~LW~~ |
| 12:00 | DRUM STORAGE ALLEYWAY | SSDSA-1 | 1.5-2 | SOIL | PHAL 8021 | ICE/MEOH | 2 | 88568 |
| 5:05 PM | Alleyway | SSAW-6 | 2-2.5 | SOIL | PHAL 8021 | ICE/MEOH | 2 | 88569 |
| 5:10 | Alleyway | SSAW-6 | 9-9.5 | SOIL | PHAL 8021 | ICE/MEOH | 2 | 88670 |

RELINQUISHED BY: Cheryl L Co[illegible] DATE: 10/7/98 TIME 830 RECEIVED BY: Wayne [illegible] DATE: 10/7/98 TIME 08 30

RELINQUISHED BY: Wayne [illegible] DATE: 10/7/98 TIME: 0930 RECEIVED BY: [illegible] DATE: 10/7/98 TIME 0930

TOTAL NO. CONTAINERS 17

## 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

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

303581

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **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 |
|---|---|---|---|---|---|---|---|
| 88550 | 10/6/1998 | 10/7/1998 | | | 10.18.98 | JW | 8361 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

### SOLID - 8260B

| Lab Sample ID | Date Sampled | Date Received | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|---|---|
| 88557 | 10/6/1998 | 10/7/1998 | | | 10.15.98 | TL | 8020 |
| 88559 | 10/6/1998 | 10/7/1998 | | | 10.20.98 | JW | 8040 |
| 88560 | 10/6/1998 | 10/7/1998 | | | 10.16.98 | TL | 8020 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

303582

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **Site:** Klockner & Klockner

**Client:** The Whitman Companies, Inc.

**BNAMS**

WATER - 8270C

| Lab Sample ID | Date Sampled | Date Received | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|---|---|
| 88548 | 10/6/1998 | 10/7/1998 | 10-9-98 | OF | 10/15/98 | [illegible] | 4179 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

SOLID - 8270C

| Lab Sample ID | Date Sampled | Date Received | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|---|---|
| 88562 | 10/6/1998 | 10/7/1998 | 10-15-98 | SO | 10/20/98 | LZ | 4734 |
| 88563 | 10/6/1998 | 10/7/1998 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 88565 | 10/6/1998 | 10/7/1998 | ↓ | ↓ | 10/21/98 | LZ | ↓ |
| 88566 | 10/6/1998 | 10/7/1998 | 10/14/98 | SO | ↓ | L | 4694 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

303583

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **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** | | | | | | | |
| 88551 | 10/6/1998 | 10/07/1998 | | | 10.16.98 | KB | 3699 |
| 88552 | 10/6/1998 | 10/07/1998 | | | | | |
| 88553 | 10/6/1998 | 10/07/1998 | | | | | |
| 88554 | 10/6/1998 | 10/07/1998 | | | 10.17.98 | | |
| 88555 | 10/6/1998 | 10/07/1998 | | | | | |
| 88556 | 10/6/1998 | 10/07/1998 | | | | | |
| 88558 | 10/6/1998 | 10/07/1998 | | | | | |
| 88561 | 10/6/1998 | 10/07/1998 | | | | | |
| 88568 | 10/6/1998 | 10/07/1998 | | | | | |
| 88569 | 10/6/1998 | 10/07/1998 | | | | | |
| 88570 | 10/6/1998 | 10/07/1998 | | | 10.19.98 | | |

303584

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **Site:** Klockner & Klockner

**Client:** The Whitman Companies, Inc. **Date Sampled:** 10/6/1998

**Sample No.:** 88548 **Date Received:** 10/7/1998

**Matrix:** WATER

**METALS**

| Analytic Parameter | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|
| 7470A - MERCURY | 10/13/98 | mp | 10/13/98 | mp | 7026 |
| 6010B - ARSENIC | 10/12/98 | i-G. | 10/17/98 | PR | 7026 |
| 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 | | | | | |
| 6010B - VANADIUM | | | | | |
| 6010B - ZINC | | | | | |

303585

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **Site:** Klockner & Klockner

**Client:** The Whitman Companies, Inc. **Date Sampled:** 10/6/1998

**Sample No.:** 88562 **Date Received:** 10/7/1998

**Matrix:** SOLID

**METALS**

| Analytic Parameter | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|
| 7471A - MERCURY | 10/13/98 | mp | 10/13/98 | mp | 7026 |
| 6010B - ARSENIC | 10/12/98 | L.G. | | PR | 7026 |
| 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 | | | | | |
| 6010B - VANADIUM | | | | | |
| 6010B - ZINC | | | | | |

303586

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **Site:** Klockner & Klockner

**Client:** The Whitman Companies, Inc. **Date Sampled:** 10/6/1998

**Sample No.:** 88563 **Date Received:** 10/7/1998

**Matrix:** SOLID

## METALS

| Analytic Parameter | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|
| 7471A - MERCURY | 10/13/98 | mp | 10/13/98 | mp | 7026 |
| 6010B - ARSENIC | 10/12/98 | L.G. | | PR | 7026 |
| 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 | | | | | |
| 6010B - VANADIUM | | | | | |
| 6010B - ZINC | | | | | |

303587

# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **Site:** Klockner & Klockner

**Client:** The Whitman Companies, Inc. **Date Sampled:** 10/6/1998

**Sample No.:** 88564 **Date Received:** 10/7/1998

**Matrix:** SOLID

**METALS**

| Analytic Parameter | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|
| 7471A - MERCURY | 10/13/98 | mp | 10/13/98 | mp | 7026 |
| 6010B - ARSENIC | 10/12/98 | L.G. | | PR | 7026 |
| 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 | | | | | |
| 6010B - VANADIUM | | | | | |
| 6010B - ZINC | | | | | |

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# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **Site:** Klockner & Klockner

**Client:** The Whitman Companies, Inc. **Date Sampled:** 10/6/1998

**Sample No.:** 88565 **Date Received:** 10/7/1998

**Matrix:** SOLID

**METALS**

| Analytic Parameter | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|
| 7471A - MERCURY | 10/13/98 | mp | 10/13/98 | mp | 7026 |
| 6010B - ARSENIC | 10/12/98 | L. G. | | PR | 7026 |
| 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 | | | | | |
| 6010B - VANADIUM | | | | | |
| 6010B - ZINC | | | | | |

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# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **Site:** Klockner & Klockner

**Client:** The Whitman Companies, Inc. **Date Sampled:** 10/6/1998

**Sample No.:** 88566 **Date Received:** 10/7/1998

**Matrix:** SOLID

**METALS**

| Analytic Parameter | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|
| 7471A - MERCURY | 10/13/98 | MP | 10/13/98 | MP | 7026 |
| 6010B - ARSENIC | 10/12/98 | L.G. | | PR | 7026 |
| 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 | | | | | |
| 6010B - VANADIUM | | | | | |
| 6010B - ZINC | | | | | |

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# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **Site:** Klockner & Klockner

**Client:** The Whitman Companies, Inc. **Date Sampled:** 10/6/1998

**Sample No.:** 88567 **Date Received:** 10/7/1998

**Matrix:** SOLID

**METALS**

| Analytic Parameter | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|
| 7471A - MERCURY | 10/13/98 | mp | 10/13/98 | mp | 7026 |
| 6010B - ARSENIC | 10/12/98 | L.G. | | PR | 7026 |
| 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 | | | | | |
| 6010B - VANADIUM | | | | | |
| 6010B - ZINC | | | | | |

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# INTERNAL CUSTODY RECORD
# AND
# LABORATORY CHRONICLE
# ENVIROTECH RESEARCH, INC.

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

**Job No:** H941 **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 |
|---|---|---|---|---|---|---|---|
| **WATER** | | | | | | | |
| 88548 | 10/6/1998 | 10/07/1998 | 10-12-98 | AC | 10-12-9 | N | 4139 |
| **SOLID** | | | | | | | |
| 88562 | 10/6/1998 | 10/07/1998 | 10-12-98 | AC | 10-12-98 | N | 4645 |
| 88563 | 10/6/1998 | 10/07/1998 | | | | | |
| 88565 | 10/6/1998 | 10/07/1998 | | | | | |

**TOC**

| Lab Sample ID | Date Sampled | Date Received | Preparation Date | Technician's Name | Analysis Date | Analyst's Name | QA Batch |
|---|---|---|---|---|---|---|---|
| **SOLID** | | | | | | | |
| 88549 | 10/6/1998 | 10/07/1998 | | | 10/14/98 | BA | 0402 |

303592

## 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

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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.

303594

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<br>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.

303595

## 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.

303596

NON-CONFORMANCE SUMMARY

Envirotech Research, Inc. Job Number: 1494

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:

9A30044: MS/MSD % recovery vinyl chloride = 140/140% (70-130% advisory QC limits)
" " MSD % recovery Chloromethane = 146%
" " " " " Chloroethane = 137%

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:

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 ( )



303597

Non-conformance Summary, Page 2 of 2
Envirotech Research, Inc. Job Number: H941

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: 11/3/98

303598

Client ID: **FB-1**
Site: Klockner & Klockner

Lab Sample No: **88548**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/09/98
Date Analyzed: 10/15/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7549.d

Matrix: WATER
Level: LOW
Sample Volume: 930 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Result Units: ug/l | Quantitation Limit Units: ug/l |
|---|---|---|
| bis(2-Chloroethyl)ether | ND | 1.1 |
| 1,3-Dichlorobenzene | ND | 11 |
| 1,4-Dichlorobenzene | ND | 11 |
| 1,2-Dichlorobenzene | ND | 11 |
| bis(2-chloroisopropyl)ether | ND | 11 |
| N-Nitroso-di-n-propylamine | ND | 1.1 |
| Hexachloroethane | ND | 1.1 |
| Nitrobenzene | ND | 1.1 |
| Isophorone | ND | 11 |
| bis(2-Chloroethoxy)methane | ND | 11 |
| 1,2,4-Trichlorobenzene | ND | 1.1 |
| Naphthalene | ND | 11 |
| 4-Chloroaniline | ND | 11 |
| Hexachlorobutadiene | ND | 2.2 |
| 2-Methylnaphthalene | ND | 11 |
| Hexachlorocyclopentadiene | ND | 11 |
| 2-Chloronaphthalene | ND | 11 |
| 2-Nitroaniline | ND | 22 |
| Dimethylphthalate | ND | 11 |
| Acenaphthylene | ND | 11 |
| 2,6-Dinitrotoluene | ND | 2.2 |
| 3-Nitroaniline | ND | 22 |
| Acenaphthene | ND | 11 |
| Dibenzofuran | ND | 11 |
| 2,4-Dinitrotoluene | ND | 2.2 |
| Diethylphthalate | ND | 11 |
| 4-Chlorophenyl-phenylether | ND | 11 |
| Fluorene | ND | 11 |
| 4-Nitroaniline | ND | 22 |
| N-Nitrosodiphenylamine | ND | 11 |
| 4-Bromophenyl-phenylether | ND | 11 |
| Hexachlorobenzene | ND | 1.1 |
| Phenanthrene | ND | 11 |
| Anthracene | ND | 11 |

303599

Client ID: **FB-1**
Site: Klockner & Klockner

Lab Sample No: **88548**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/09/98
Date Analyzed: 10/15/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7549.d

Matrix: WATER
Level: LOW
Sample Volume: 930 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Result Units: ug/l | Quantitation Limit Units: ug/l |
|---|---|---|
| Carbazole | ND | 11 |
| Di-n-butylphthalate | ND | 11 |
| Fluoranthene | ND | 11 |
| Pyrene | ND | 11 |
| Butylbenzylphthalate | ND | 11 |
| 3,3'-Dichlorobenzidine | ND | 22 |
| Benzo(a)anthracene | ND | 1.1 |
| Chrysene | ND | 11 |
| bis(2-Ethylhexyl)phthalate | ND | 11 |
| Di-n-octylphthalate | ND | 11 |
| Benzo(b)fluoranthene | ND | 1.1 |
| Benzo(k)fluoranthene | ND | 1.1 |
| Benzo(a)pyrene | ND | 1.1 |
| Indeno(1,2,3-cd)pyrene | ND | 1.1 |
| Dibenz(a,h)anthracene | ND | 1.1 |
| Benzo(g,h,i)perylene | ND | 11 |

303600

Client ID: **FB-1**
Site: Klockner & Klockner

Lab Sample No: **88548**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/09/98
Date Analyzed: 10/15/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7549.d

Matrix: WATER
Level: LOW
Sample Volume: 930 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

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

| COMPOUND NAME | RT | EST. CONC. ug/l | Q |
|---|---|---|---|
| 1. NO SEMI-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

303601

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7549.d
Report Date: 15-Oct-98 17:59:17

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7549.d
Lab Smp Id: 88548 Client Smp ID: FB-1
Inj Date : 15-OCT-98 14:54:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 88548;930;2;1;;
Misc Info : H941;TCLBN+10;4179;A91
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/15oct98.b/8270C-REV..m
Meth Date : 15-Oct-98 09:22:02 Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HSLBNb.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: 1000*Vt/Vo

| Name | Value | Description |
|---|---|---|
| Vt | 2.000 | Volume of final extract (uL) |
| Vo | 930.000 | Volume of sample extracted (mL) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| * 79 1,4-Dichlorobenzene-d4 | 152 | 12.253 | 12.255 | (1.000) | 308523 | 40 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.239 | 13.249 | (0.916) | 505852 | 44 | 95 |
| * 80 Naphthalene-d8 | 136 | 14.449 | 14.458 | (1.000) | 1338198 | 40 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.271 | 16.273 | (0.936) | 1173119 | 44 | 96 |
| * 82 Acenaphthene-d10 | 164 | 17.387 | 17.389 | (1.000) | 812057 | 40 | |
| * 83 Phenanthrene-d10 | 188 | 19.850 | 19.859 | (1.000) | 1315497 | 40 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 22.493 | 22.495 | (0.928) | 1514141 | 53 | 110 |
| * 81 Chrysene-d12 | 240 | 24.236 | 24.252 | (1.000) | 1096344 | 40 | |
| * 84 Perylene-d12 | 264 | 27.167 | 27.183 | (1.000) | 1087953 | 40 | |

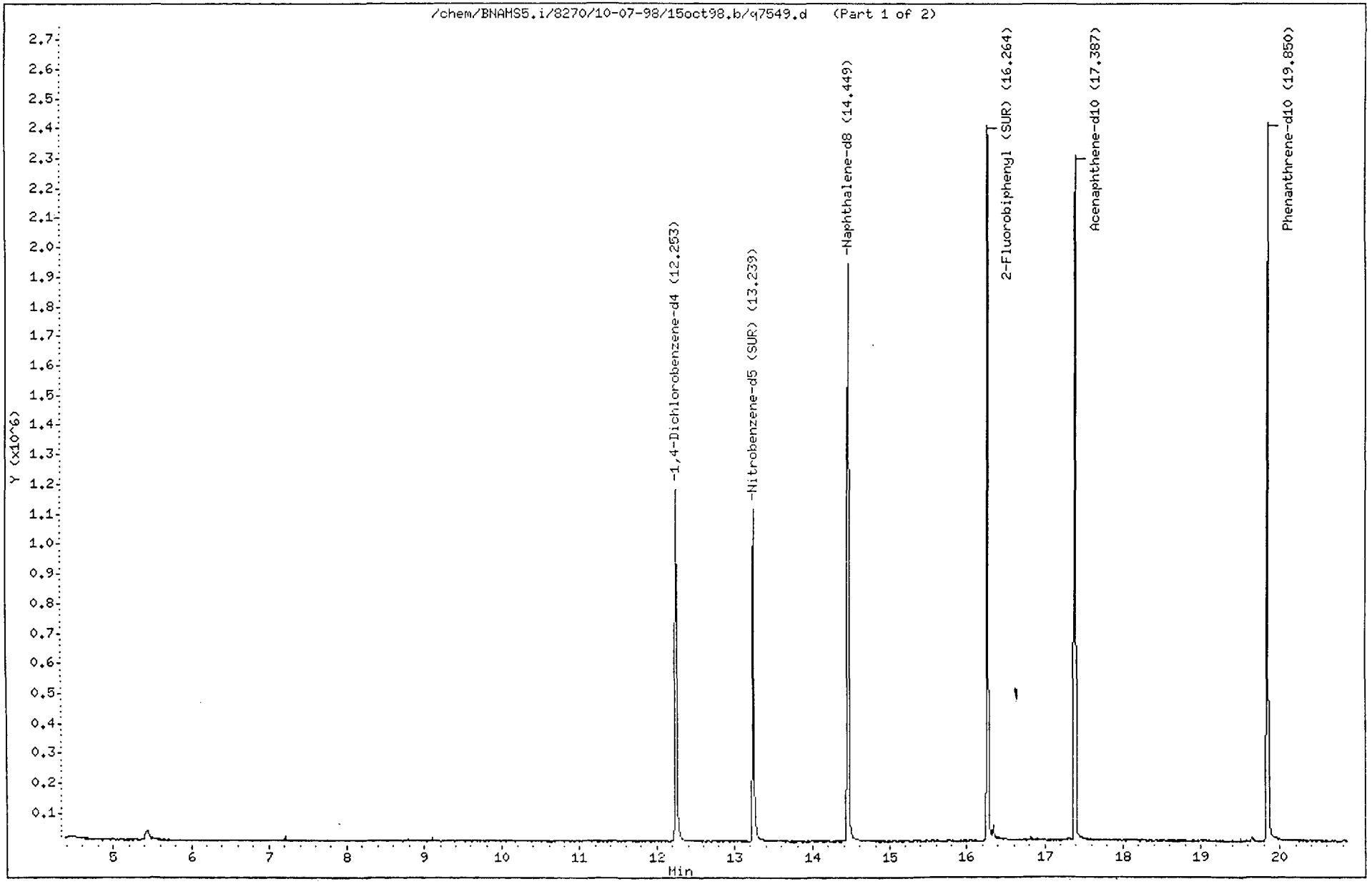
303602

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7549.d
Date : 15-OCT-98 14:54:00
Client ID: FB-1
Sample Info: 88548;930;2;1;;
Purge Volume: 930.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

303603



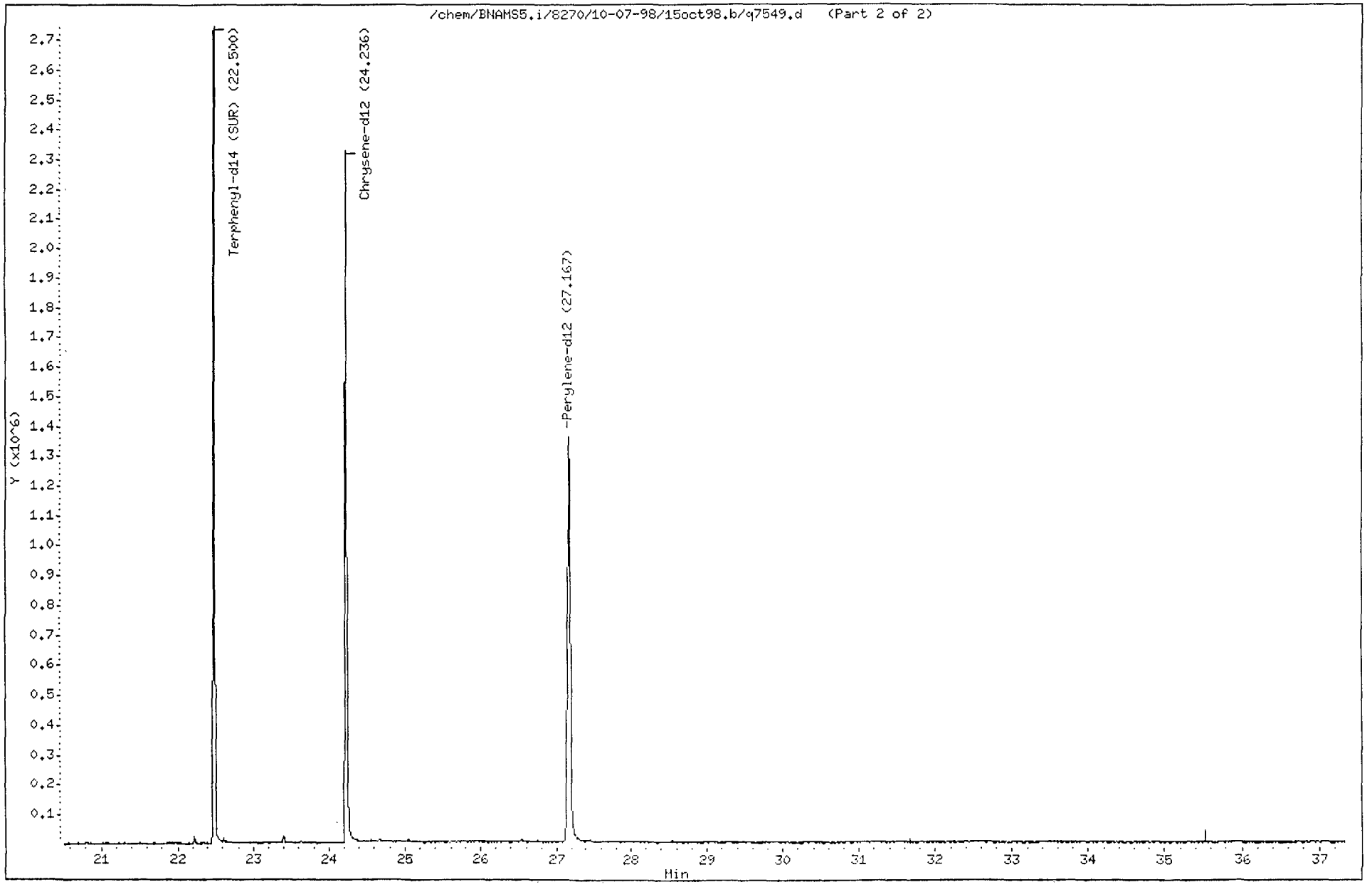


Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7549.d
Date : 15-OCT-98 14:54:00
Client ID: FB-1
Sample Info: 88548;930;2;1;;
Purge Volume: 930.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

303604





Client ID: **TB-1**
Site: Klockner & Klockner

Lab Sample No: **88550**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/18/98
GC Column: DB624
Instrument ID: VOAMS2.i
Lab File ID: b8532.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 |

303605

Client ID: **TB-1**
Site: Klockner & Klockner

Lab Sample No: **88550**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/18/98
GC Column: DB624
Instrument ID: VOAMS2.i
Lab File ID: b8532.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

303606

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8532.d
Report Date: 21-Oct-98 18:14:01

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8532.d
Lab Smp Id: 88550 Client Smp ID: TB-1
Inj Date : 18-OCT-98 18:06:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : 88550
Misc Info : H941;8361;JWW
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 12:31:29 Quant Type: ISTD
Cal Date : 29-SEP-98 21:16:00 Cal File: b8238.d
Als bottle: 11
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 | 10.608 | 10.685 | (0.961) | 1653776 | 52 | 52 |
| $ 37 Toluene-d8 (SUR) | 98 | 12.932 | 12.993 | (0.885) | 4322494 | 53 | 53 |
| * 32 Chlorobenzene-d5 | 117 | 14.604 | 14.665 | (1.000) | 3179697 | 50 | |
| $ 41 Bromofluorobenzene (SUR) | 174 | 15.876 | 15.923 | (0.925) | 1461758 | 51 | 51 |
| * 19 Fluorobenzene | 96 | 11.037 | 11.099 | (1.000) | 4806355 | 50 | |
| * 91 1,4-Dichlorobenzene-d4 | 152 | 17.164 | 17.210 | (1.000) | 1428692 | 50 | |

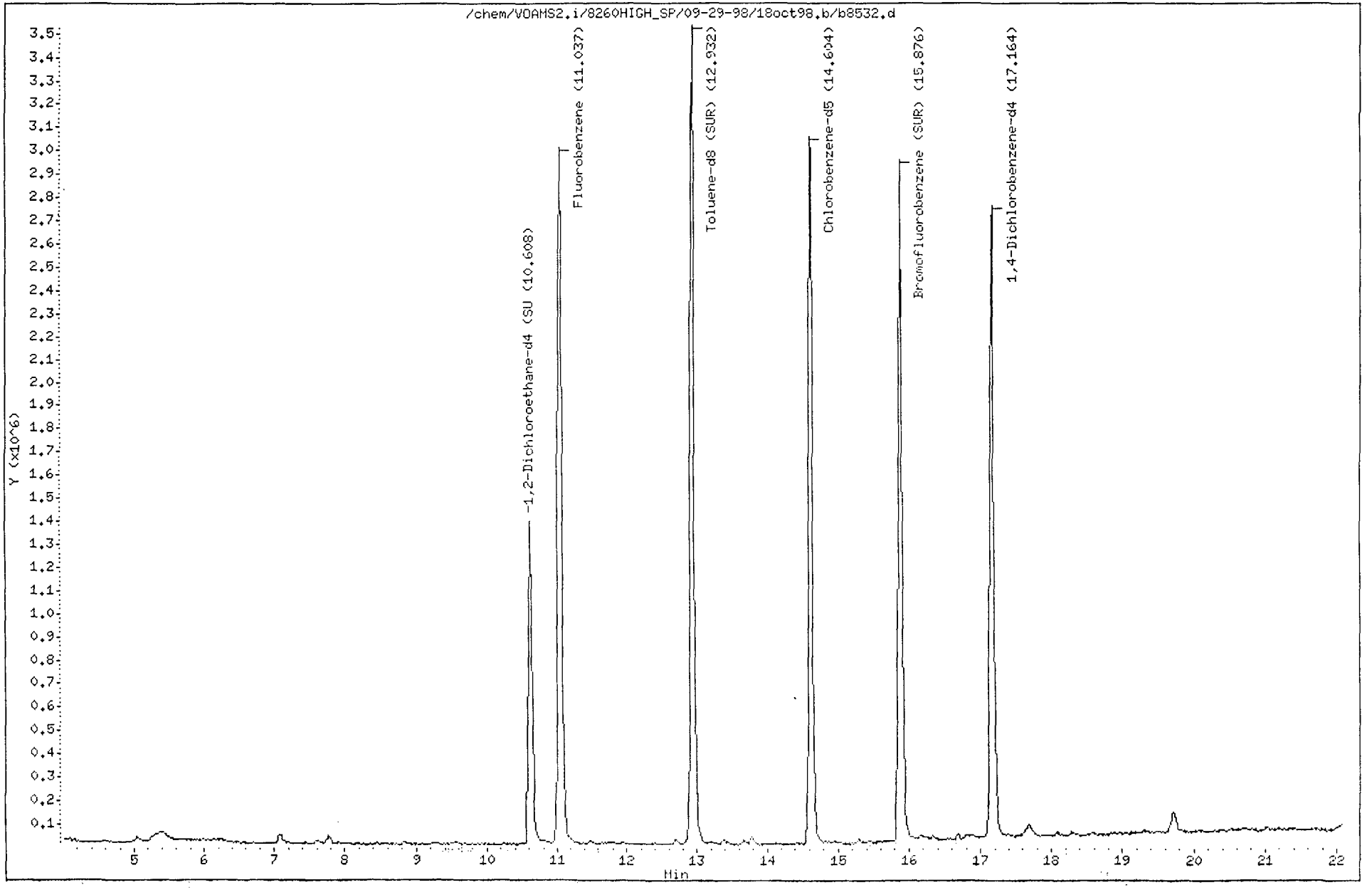
303607

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8532.d
Date : 18-OCT-98 18:06:00
Client ID: TB-1
Sample Info: 88550
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS2.i
Operator: VOAMS 3
Column diameter: 0.53

303608





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

Lab Sample No: 88557
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4656.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11.0 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 | 620 |
| Bromomethane | ND | 620 |
| Vinyl Chloride | ND | 620 |
| Chloroethane | ND | 620 |
| Methylene Chloride | ND | 370 |
| 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 | 93 J | 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 | 6200 | 120 |
| Dibromochloromethane | ND | 620 |
| 1,1,2-Trichloroethane | ND | 370 |
| Benzene | ND | 120 |
| trans-1,3-Dichloropropene | ND | 620 |
| Bromoform | ND | 490 |
| 4-Methyl-2-Pentanone | ND | 620 |
| 2-Hexanone | ND | 620 |
| Tetrachloroethene | 130 | 120 |
| 1,1,2,2-Tetrachloroethane | ND | 120 |
| Toluene | ND | 620 |
| Chlorobenzene | ND | 620 |
| Ethylbenzene | ND | 490 |
| Styrene | ND | 620 |
| Xylene (Total) | ND | 620 |

303609

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

Lab Sample No: **88557**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/15/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4656.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11.0 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 50.0
% Moisture: 7.7

**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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| 10. | | | |
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| 13. | | | |
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| 23. | | | |
| 24. | | | |
| 25. | | | |
| 26. | | | |
| 27. | | | |
| 28. | | | |
| 29. | | | |
| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 0.0

303610

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4656.d
Report Date: 16-Oct-98 17:34:00

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4656.d
Lab Smp Id: 88557 Client Smp ID: SSNDS-2_1.5-2
Inj Date : 15-OCT-98 16:52:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 88557;50;7.7;11;25
Misc Info : H941;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: 14
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 | 11.000 | Weight of sample extracted (g) |
| M | 7.700 | % 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 | | | | 13220 | 0.78 | 97(a) |
| 13 cis-1,2-Dichloroethene | 96 | 7.531 | 7.571 | (0.827) | 13220 | 0.75 | 93(a) |
| $ 16 1,2-Dichloroethane-d4 (SUR) | 65 | 8.652 | 8.680 | (0.950) | 826726 | 46 | 5700 |
| 25 Trichloroethene | 95 | 9.603 | 9.632 | (1.055) | 949143 | 50 | 6200 |
| $ 37 Toluene-d8 (SUR) | 98 | 11.083 | 11.117 | (0.868) | 2170765 | 46 | 5600 |
| 35 Tetrachloroethene | 166 | 11.847 | 11.882 | (0.928) | 15790 | 1.0 | 130 |
| * 32 Chlorobenzene-d5 | 117 | 12.766 | 12.804 | (1.000) | 2226146 | 50 | |
| $ 41 Bromofluorobenzene (SUR) | 174 | 14.044 | 14.071 | (0.921) | 763846 | 54 | 6600 |
| * 19 Fluorobenzene | 96 | 9.104 | 9.149 | (1.000) | 2869977 | 50 | |
| * 91 1,4-Dichlorobenzene-d4 | 152 | 15.244 | 15.276 | (1.000) | 689026 | 50 | |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

303611

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4656.d
Date : 15-OCT-98 16:52:00
Client ID: SSNDS-2_1.5-2
Sample Info: 88557;50;7.7;11;25

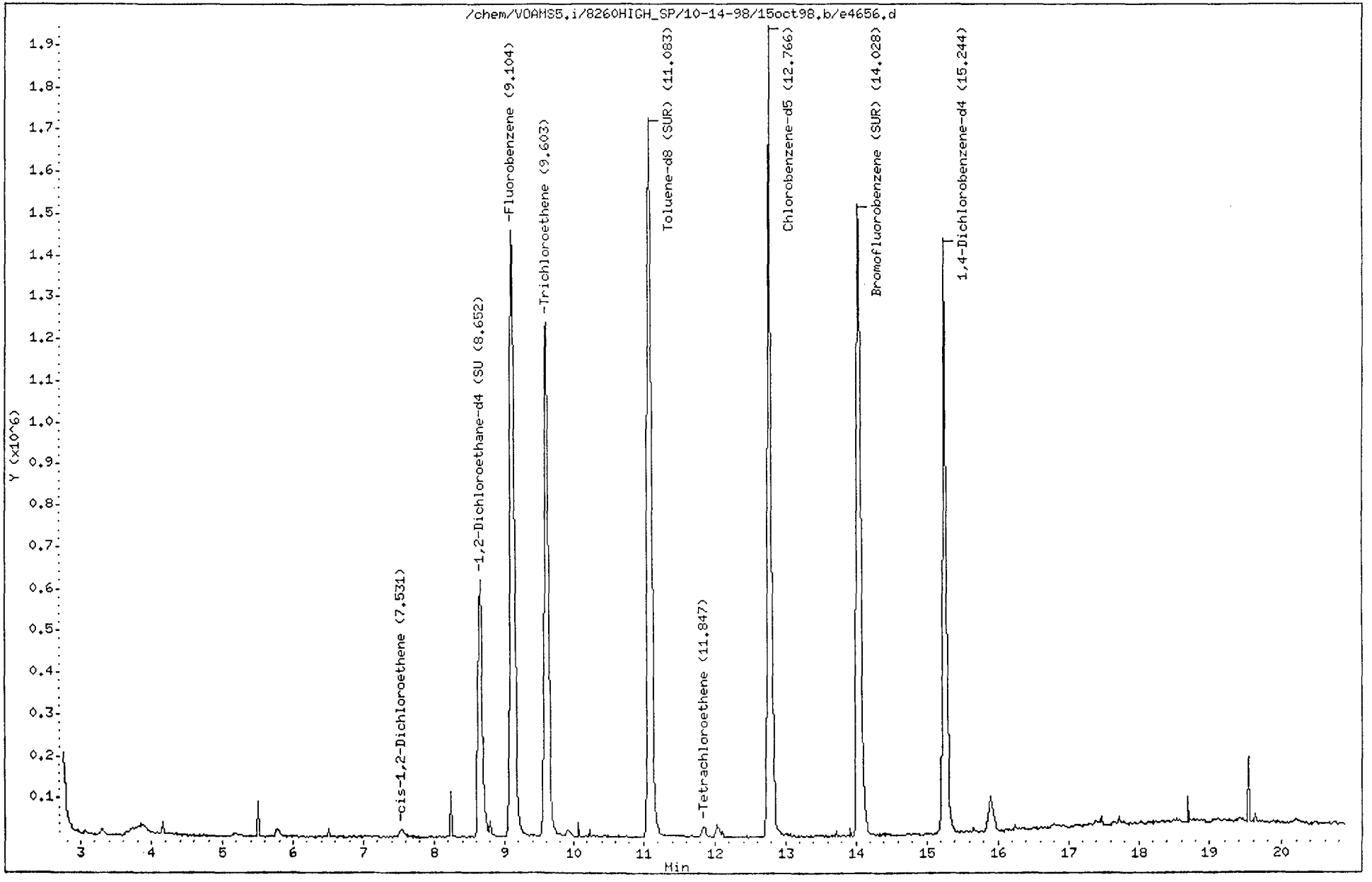
Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

303612

77



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4656.d

Date : 15-OCT-98 16:52:00

Client ID: SSNDS-2_1.5-2

Instrument: VOAMS5.i

Sample Info: 88557;50;7.7;11;25

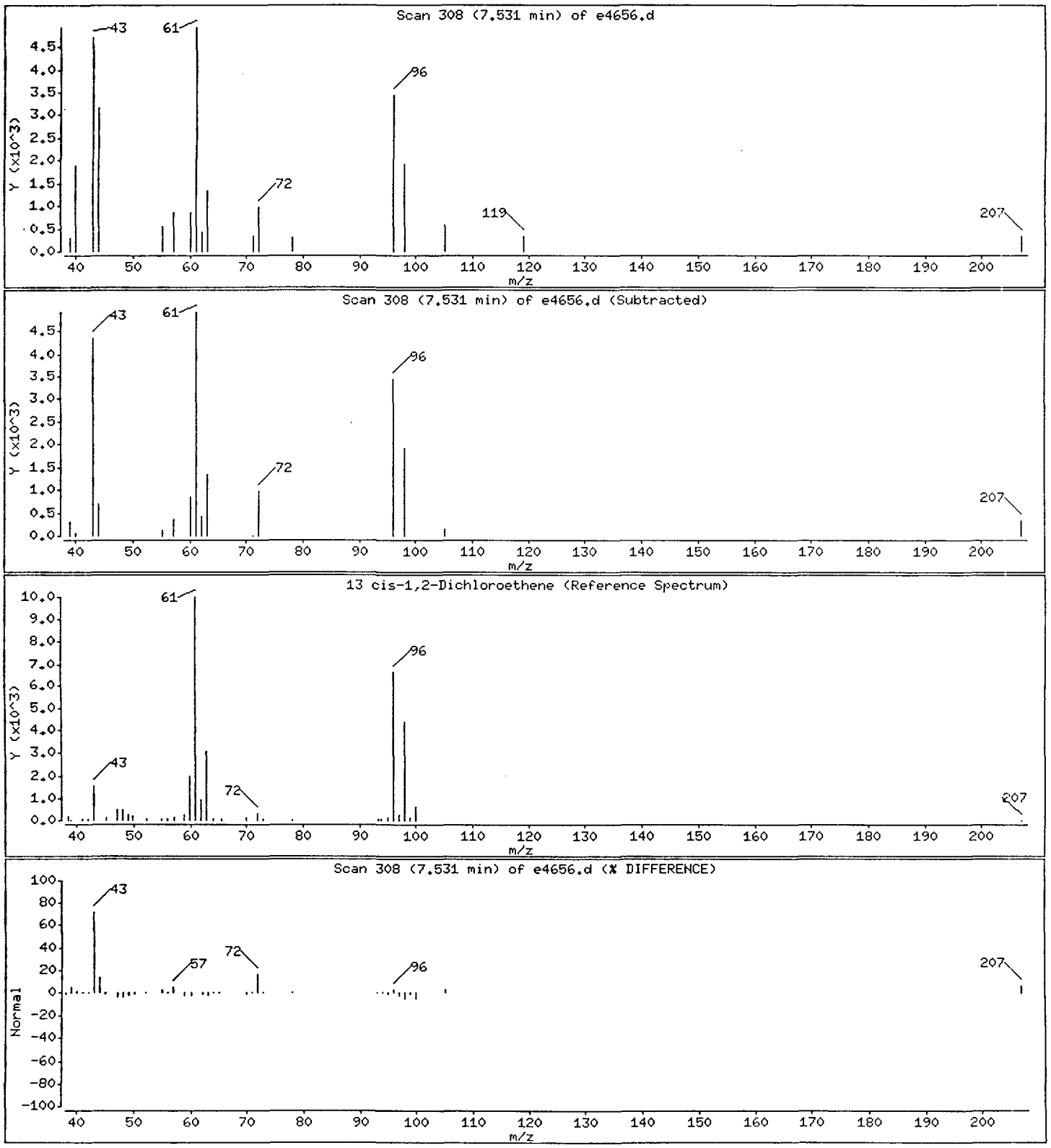
303613

Operator: VOAMS 5

Column phase: DB624

Column diameter: 0.53

13 cis-1,2-Dichloroethene



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4656.d

Date : 15-OCT-98 16:52:00

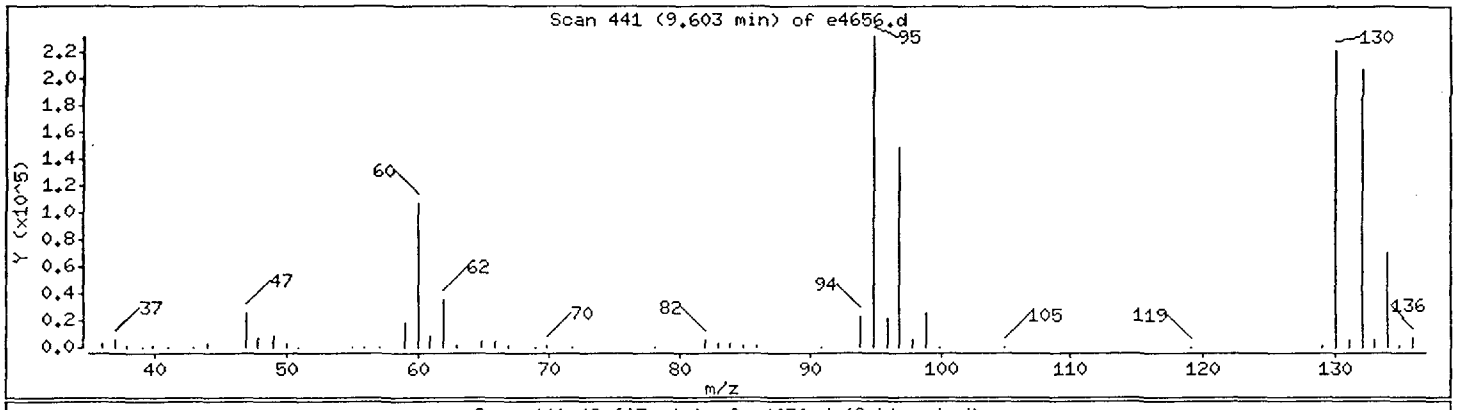
Client ID: SSNDS-2_1.5-2 Instrument: VOAMS5.i

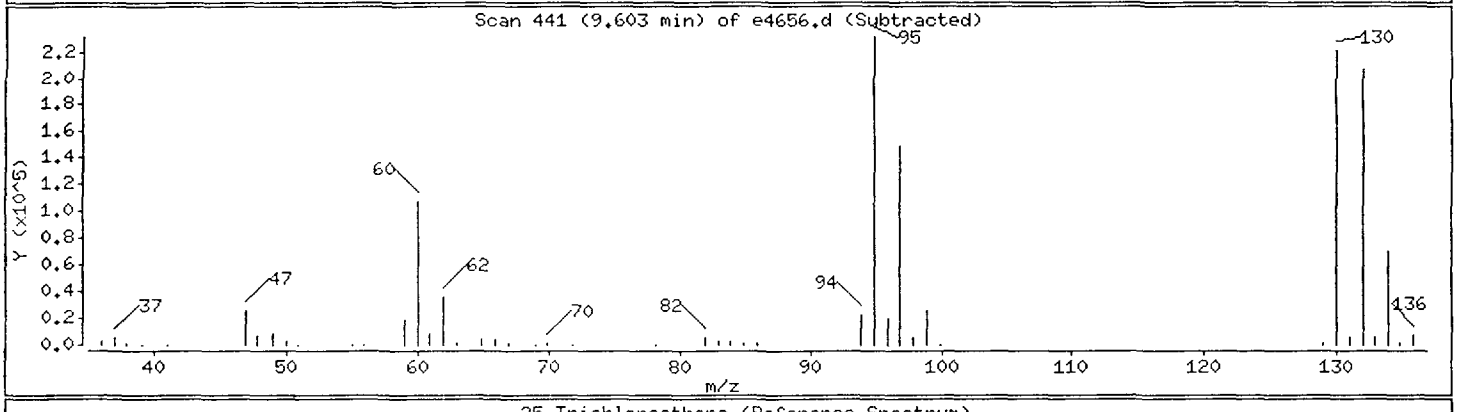
Sample Info: 88557;50;7.7;11;25 303614

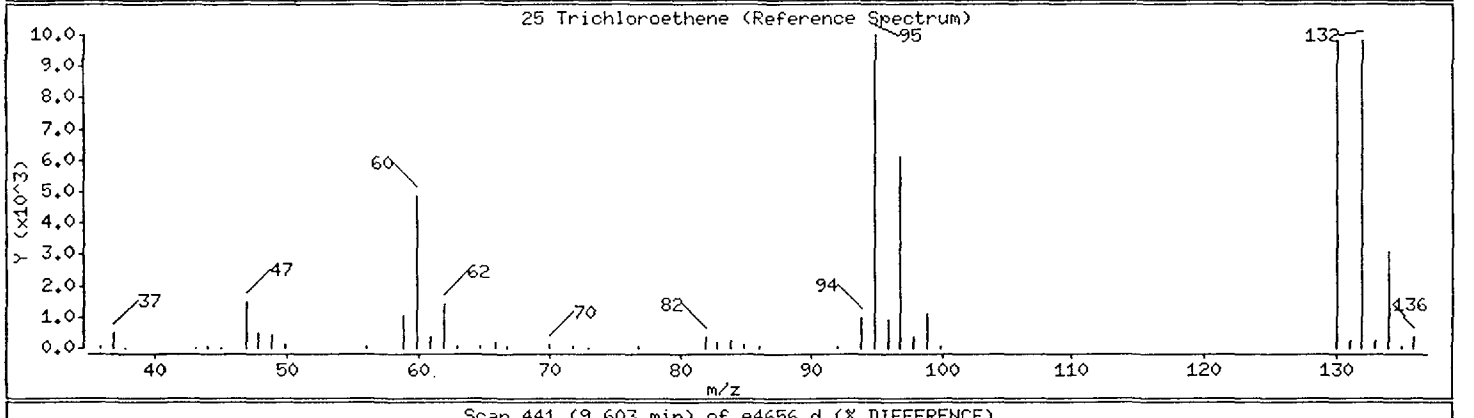
Operator: VOAMS 5

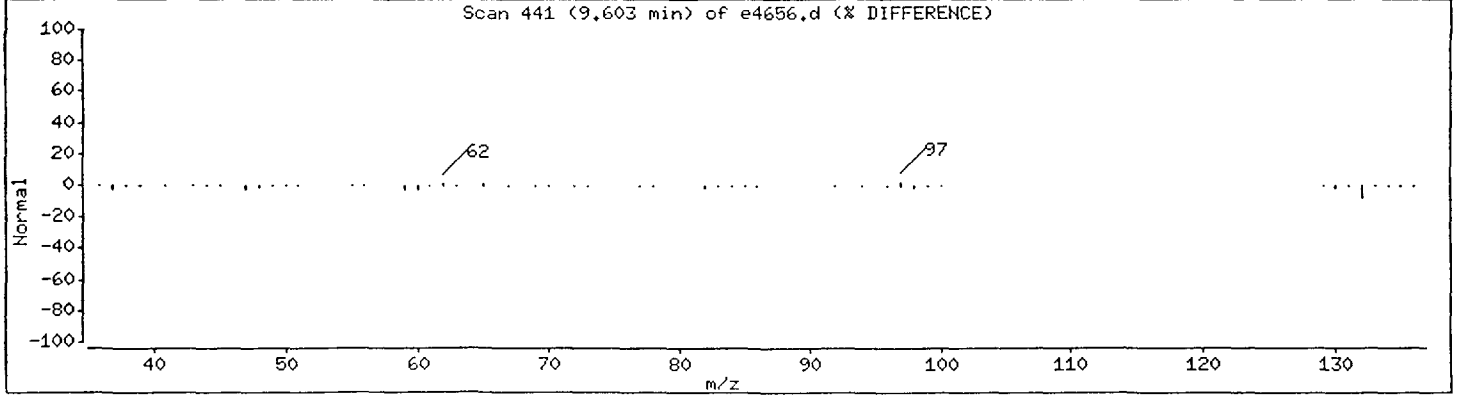
Column phase: DB624 Column diameter: 0.53

25 Trichloroethene



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4656.d

Date : 15-OCT-98 16:52:00

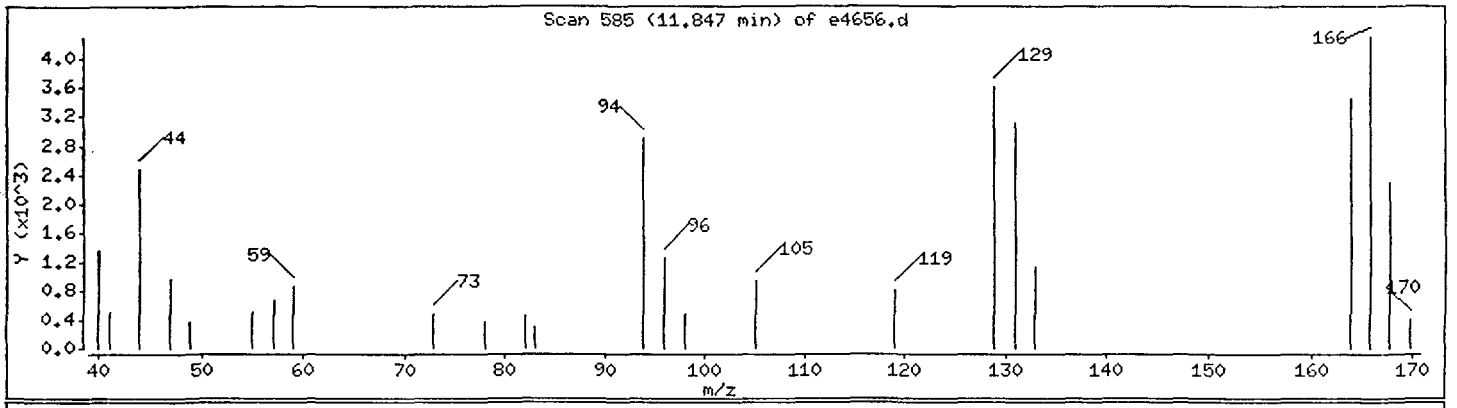
Client ID: SSNDS-2_1.5-2 Instrument: VOAMS5.i

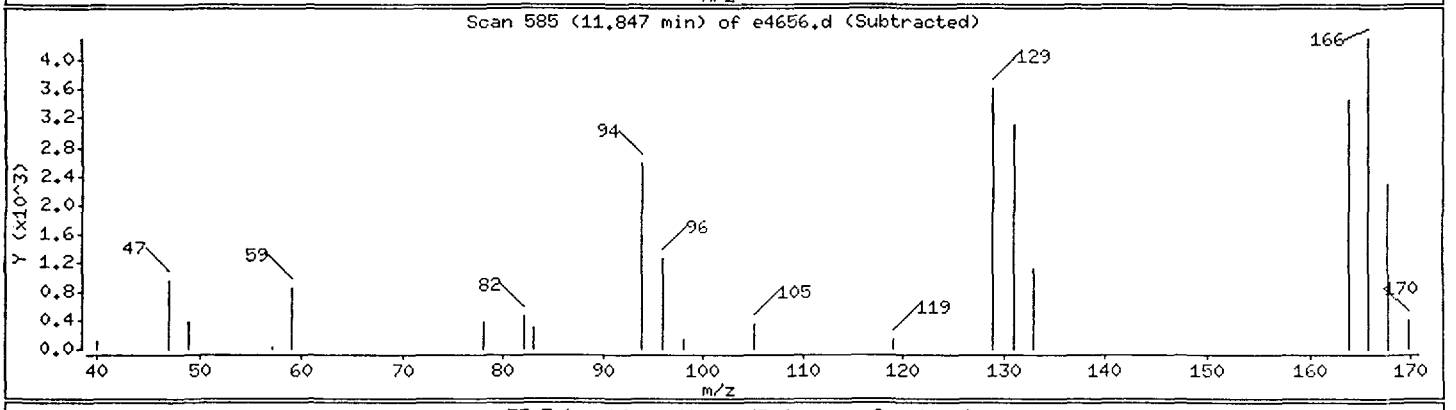
Sample Info: 88557;50;7.7;11;25 303615

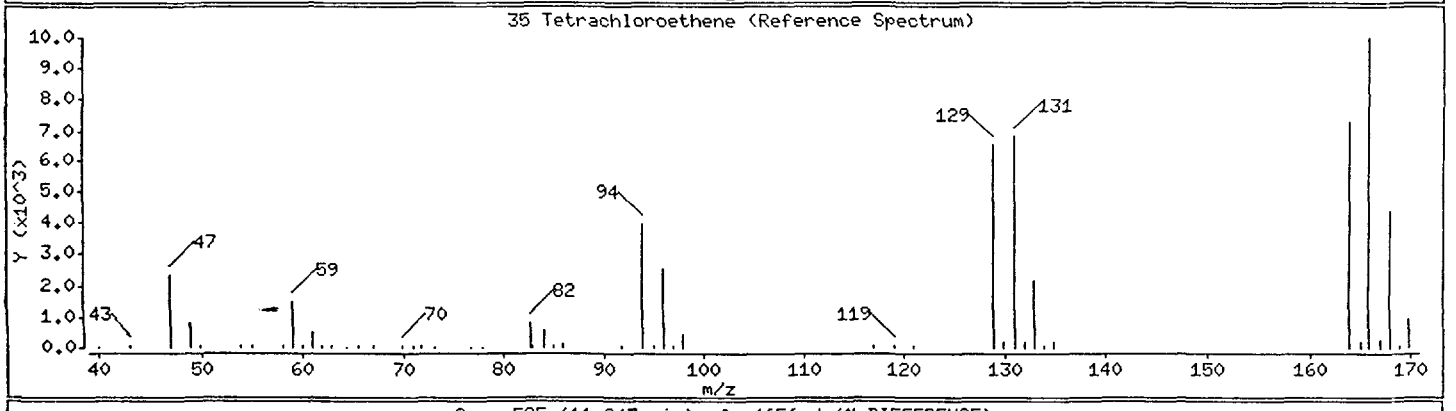
Operator: VOAMS 5

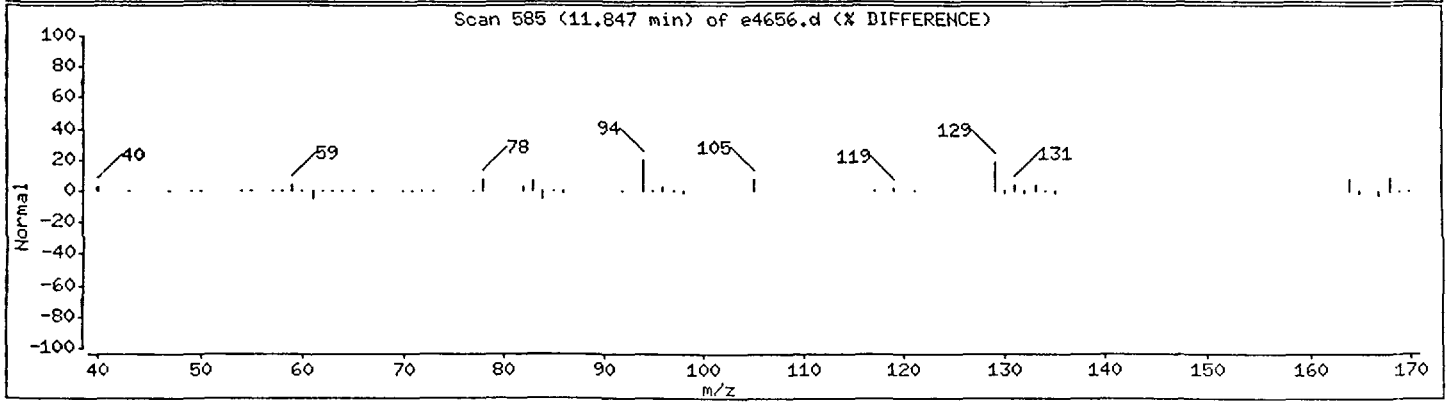
Column phase: DB624 Column diameter: 0.53

35 Tetrachloroethene



Client ID: **SSNDS-1A_1-1.5**
Site: Klockner & Klockner

Lab Sample No: **88559**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6473.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11.2 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 500.0
% Moisture: 15

**VOLATILE ORGANICS - GC/MS**
**METHOD 8260B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Chloromethane | ND | 6500 |
| Bromomethane | ND | 6500 |
| Vinyl Chloride | ND | 6500 |
| Chloroethane | ND | 6500 |
| Methylene Chloride | ND | 3900 |
| Acetone | ND | 6500 |
| Carbon Disulfide | ND | 6500 |
| 1,1-Dichloroethene | ND | 2600 |
| 1,1-Dichloroethane | ND | 6500 |
| trans-1,2-Dichloroethene | ND | 6500 |
| cis-1,2-Dichloroethene | 1300 J | 6500 |
| Chloroform | ND | 6500 |
| 1,2-Dichloroethane | ND | 2600 |
| 2-Butanone | ND | 6500 |
| 1,1,1-Trichloroethane | ND | 6500 |
| Carbon Tetrachloride | ND | 2600 |
| Bromodichloromethane | ND | 1300 |
| 1,2-Dichloropropane | ND | 1300 |
| cis-1,3-Dichloropropene | ND | 6500 |
| Trichloroethene | 90000 | 1300 |
| Dibromochloromethane | ND | 6500 |
| 1,1,2-Trichloroethane | ND | 3900 |
| Benzene | ND | 1300 |
| trans-1,3-Dichloropropene | ND | 6500 |
| Bromoform | ND | 5200 |
| 4-Methyl-2-Pentanone | ND | 6500 |
| 2-Hexanone | ND | 6500 |
| Tetrachloroethene | ND | 1300 |
| 1,1,2,2-Tetrachloroethane | ND | 1300 |
| Toluene | ND | 6500 |
| Chlorobenzene | ND | 6500 |
| Ethylbenzene | ND | 5200 |
| Styrene | ND | 6500 |
| Xylene (Total) | ND | 6500 |

303616

Client ID: **SSNDS-1A_1-1.5**
Site: Klockner & Klockner

Lab Sample No: **88559**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/20/98
GC Column: DB624
Instrument ID: VOAMS1.i
Lab File ID: a6473.d

Matrix: SOIL
Level: HIGH
Sample Weight: 11.2 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 500.0
% Moisture: 14.6

**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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TOTAL ESTIMATED CONCENTRATION 0.0

303617

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6473.d
Report Date: 21-Oct-98 11:53:55

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6473.d
Lab Smp Id: 88559 Client Smp ID: SSNDS-1A_1-1.5
Inj Date : 20-OCT-98 13:55:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : 88559;500;14.6;11.2;25
Misc Info : H941;8040;JW
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: 5
Dil Factor: 500.00000
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 | 11.200 | Weight of sample extracted (g) |
| M | 14.600 | % 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 | | | | 25348 | 1.00 | 1300(a) |
| 13 cis-1,2-Dichloroethene | 96 | 9.006 | 9.023 | (0.857) | 25348 | 0.97 | 1300(a) |
| $ 16 1,2-Dichloroethane-d4 (SUR) | 65 | 10.070 | 10.087 | (0.958) | 129739 | 4.8 | 6200 |
| 25 Trichloroethene | 95 | 10.986 | 10.988 | (1.045) | 2244811 | 69 | 90000(H) |
| $ 37 Toluene-d8 (SUR) | 98 | 12.449 | 12.436 | (0.880) | 286694 | 4.2 | 5400 |
| * 32 Chlorobenzene-d5 | 117 | 14.148 | 14.135 | (1.000) | 3129121 | 50 | |
| $ 41 Bromofluorobenzene (SUR) | 174 | 15.433 | 15.405 | (0.924) | 185709 | 4.8 | 6200 |
| * 19 Fluorobenzene | 96 | 10.513 | 10.530 | (1.000) | 3534771 | 50 | |
| * 91 1,4-Dichlorobenzene-d4 | 152 | 16.703 | 16.676 | (1.000) | 1772841 | 50 | |

QC Flag Legend

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

303618

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6473.d
Date : 20-OCT-98 13:55:00
Client ID: SSNDS-1A_1-1.5
Sample Info: 88559;500;14.6;11.2;25

Column phase: DB624

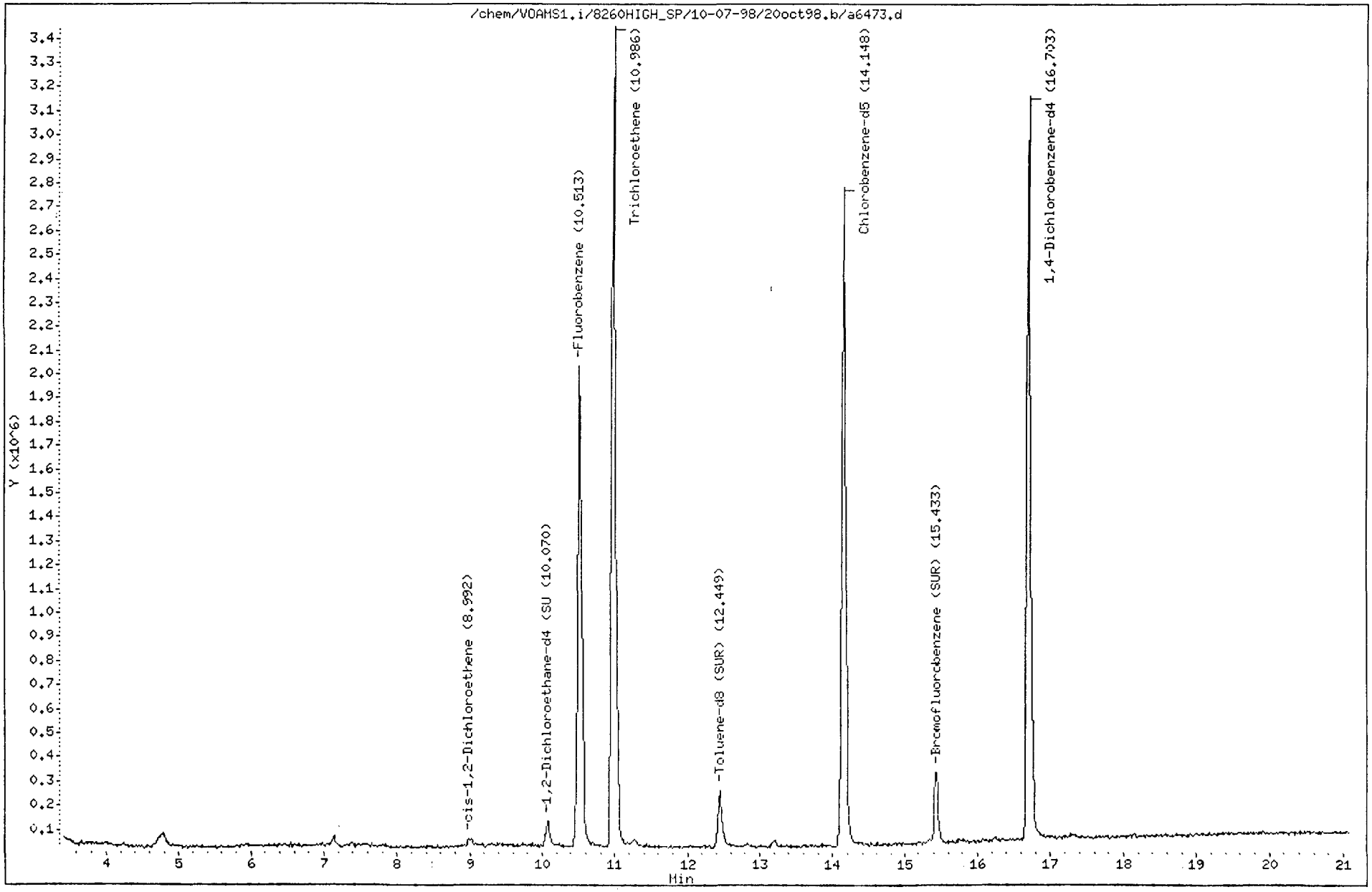
Instrument: VOAMS1.i

Operator: VOAMS 3

Column diameter: 0.53

303619

84



Data File: /chem/VOAMS1.i/826CHIGH_SP/10-07-98/20oct98.b/a6473.d

Date : 20-OCT-98 13:55:00

Client ID: SSNDS-1A_1-1.5 Instrument: VOAMS1.i

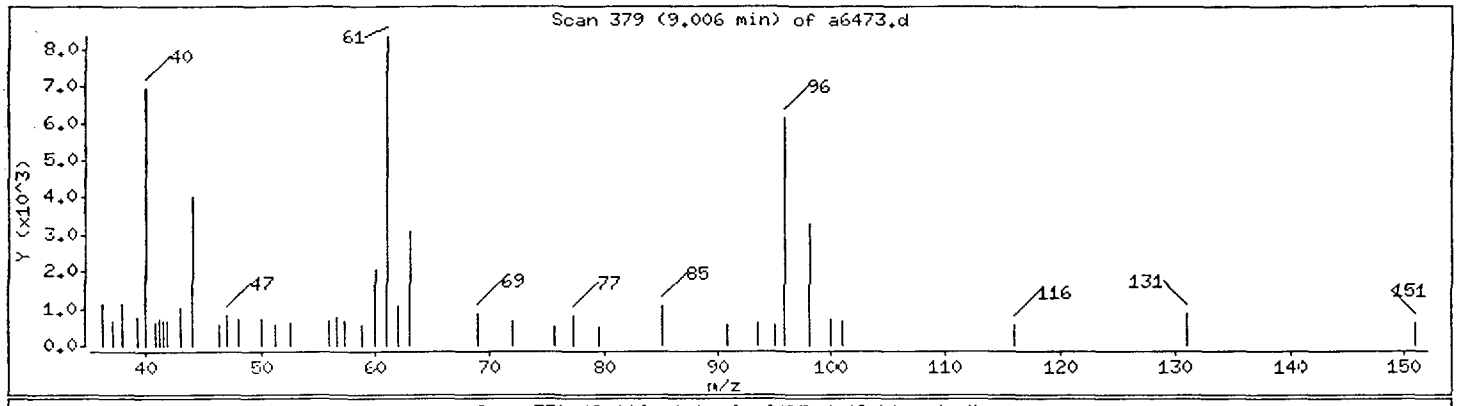
Sample Info: 88559;500;14.6;11.2;25

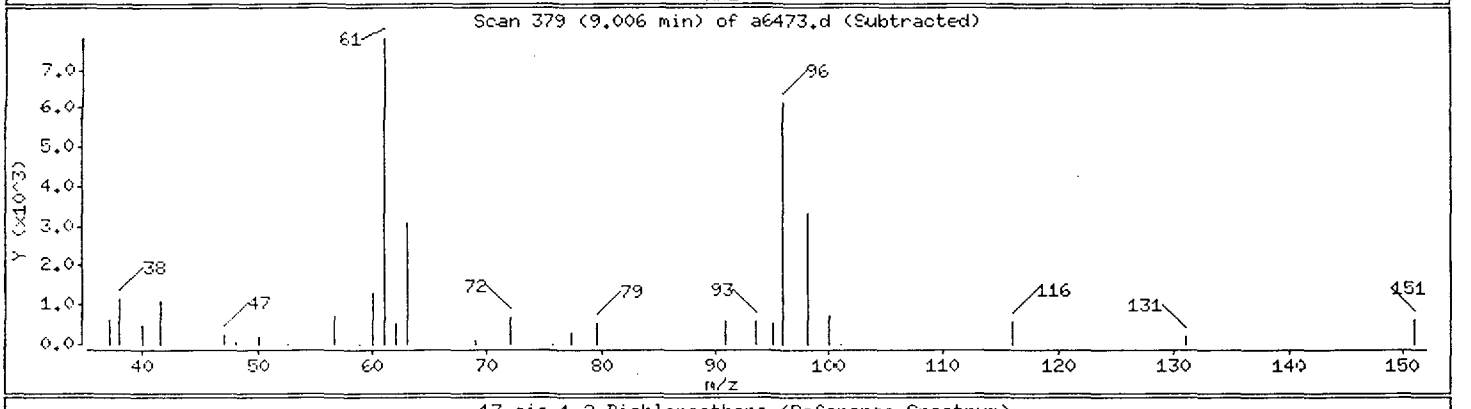
Operator: VOAMS 3

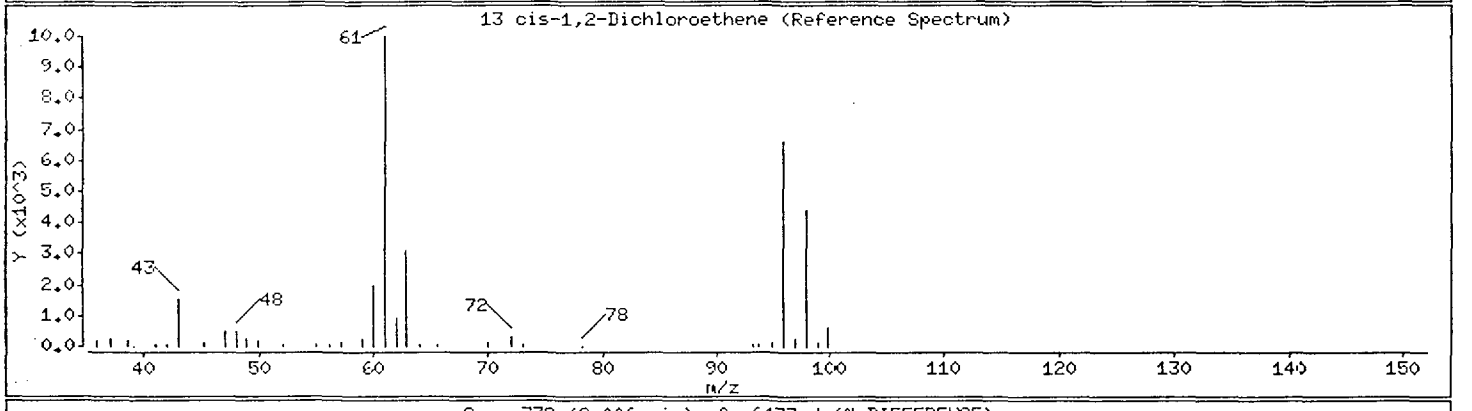
Column phase: DB624 Column diameter: 0.53

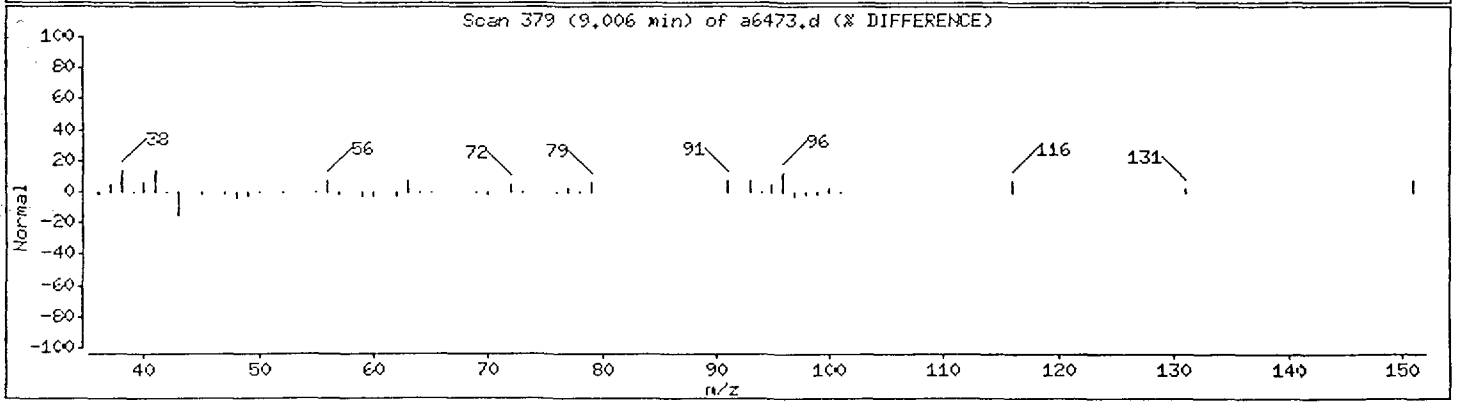
303620

13 cis-1,2-Dichloroethene



Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6473.d

Date : 20-OCT-98 13:55:00

Client ID: SSWDS-1A_1-1.5 Instrument: VOAMS1.i

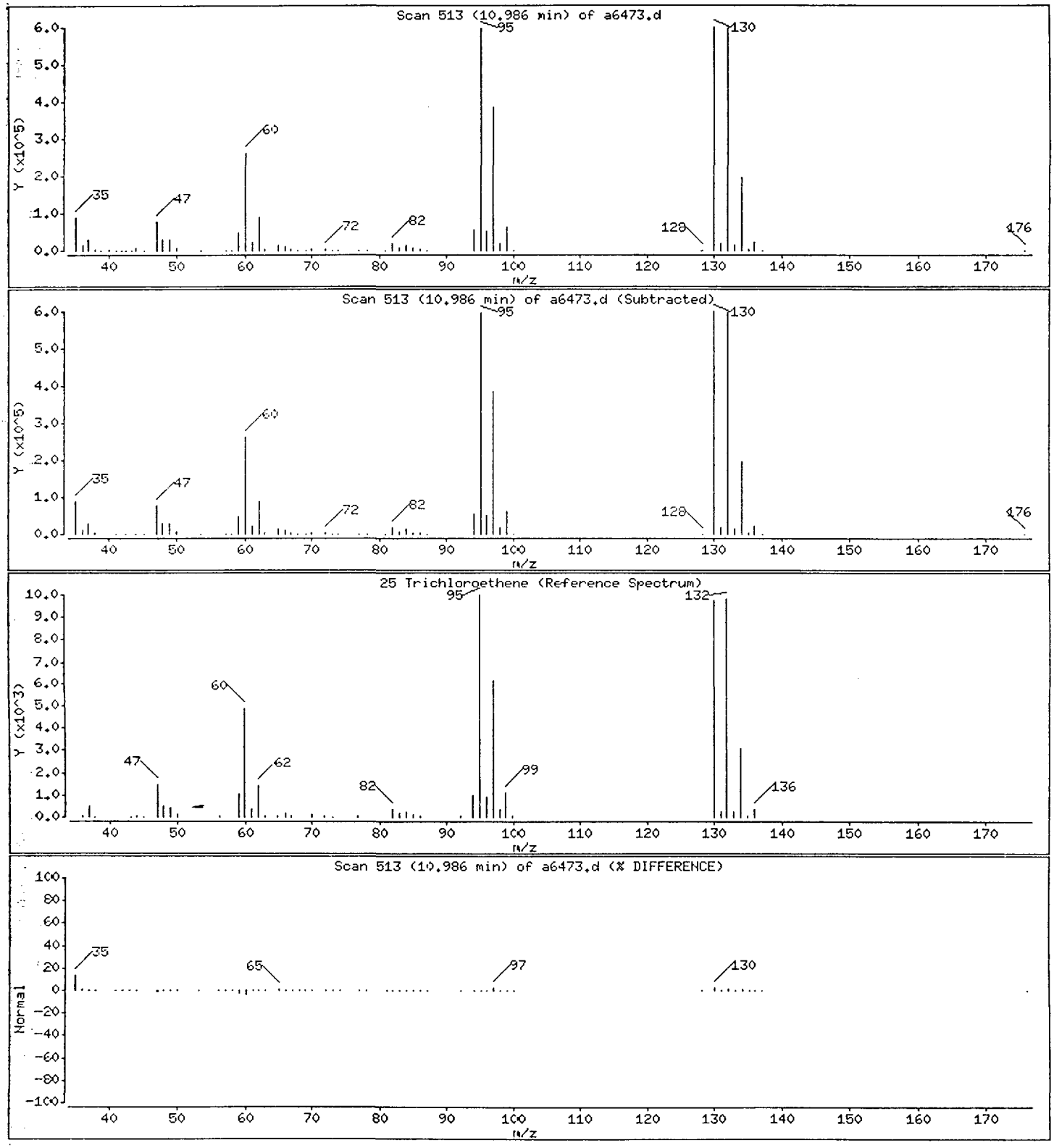
Sample Info: E8559;500;14.6;11.2;25

Operator: VOAMS 3

Column phase: DB624 Column diameter: 0.53

303621

25 Trichloroethene



Client ID: **SSFS-1_.5-1**
Site: Klockner & Klockner

Lab Sample No: **88560**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4675.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.7 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 100.0
% Moisture: 8

**VOLATILE ORGANICS - GC/MS**
**METHOD 8260B**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Chloromethane | ND | 1300 |
| Bromomethane | ND | 1300 |
| Vinyl Chloride | ND | 1300 |
| Chloroethane | ND | 1300 |
| Methylene Chloride | ND | 760 |
| Acetone | ND | 1300 |
| Carbon Disulfide | ND | 1300 |
| 1,1-Dichloroethene | ND | 510 |
| 1,1-Dichloroethane | ND | 1300 |
| trans-1,2-Dichloroethene | ND | 1300 |
| cis-1,2-Dichloroethene | 1200 J | 1300 |
| Chloroform | ND | 1300 |
| 1,2-Dichloroethane | ND | 510 |
| 2-Butanone | ND | 1300 |
| 1,1,1-Trichloroethane | ND | 1300 |
| Carbon Tetrachloride | ND | 510 |
| Bromodichloromethane | ND | 250 |
| 1,2-Dichloropropane | ND | 250 |
| cis-1,3-Dichloropropene | ND | 1300 |
| Trichloroethene | 23000 | 250 |
| Dibromochloromethane | ND | 1300 |
| 1,1,2-Trichloroethane | ND | 760 |
| Benzene | ND | 250 |
| trans-1,3-Dichloropropene | ND | 1300 |
| Bromoform | ND | 1000 |
| 4-Methyl-2-Pentanone | ND | 1300 |
| 2-Hexanone | ND | 1300 |
| Tetrachloroethene | ND | 250 |
| 1,1,2,2-Tetrachloroethane | ND | 250 |
| Toluene | ND | 1300 |
| Chlorobenzene | ND | 1300 |
| Ethylbenzene | ND | 1000 |
| Styrene | ND | 1300 |
| Xylene (Total) | ND | 1300 |

303622

Client ID: SSFS-1_.5-1
Site: Klockner & Klockner

Lab Sample No: 88560
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4675.d

Matrix: SOIL
Level: HIGH
Sample Weight: 10.7 g
Methanol Ext. Volume: 25.0 ml
Ext. Dilution Factor: 100.0
% Moisture: 8.1

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. Unknown Siloxane | 15.87 | 2400 | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
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TOTAL ESTIMATED CONCENTRATION 2400

303623

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4675.d
Report Date: 18-Oct-98 18:17:45

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4675.d
Lab Smp Id: 88560 Client Smp ID: SSFS-1_.5-1
Inj Date : 16-OCT-98 13:50:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 88560;100;8.1;10.7;25
Misc Info : H941;8020;TL
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/8260newHIGH.m
Meth Date : 16-Oct-98 10:58:35 Quant Type: ISTD
Cal Date : 14-OCT-98 12:21:00 Cal File: e4614.d
Als bottle: 8
Dil Factor: 100.00000
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 | 8.100 | % 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 | | | | 86136 | 4.9 | 1200(a) |
| 13 cis-1,2-Dichloroethene | 96 | 7.516 | 7.571 | (0.827) | 86136 | 4.7 | 1200(a) |
| $ 16 1,2-Dichloroethane-d4 (SUR) | 65 | 8.638 | 8.680 | (0.950) | 419201 | 23 | 5800 |
| 25 Trichloroethene | 95 | 9.573 | 9.632 | (1.053) | 1742743 | 89 | 23000 |
| $ 37 Toluene-d8 (SUR) | 98 | 11.069 | 11.117 | (0.868) | 1096842 | 22 | 5600 |
| * 32 Chlorobenzene-d5 | 117 | 12.752 | 12.804 | (1.000) | 2328494 | 50 | |
| $ 41 Bromofluorobenzene (SUR) | 174 | 14.030 | 14.071 | (0.921) | 373895 | 25 | 6400 |
| * 19 Fluorobenzene | 96 | 9.090 | 9.149 | (1.000) | 2981801 | 50 | |
| * 91 1,4-Dichlorobenzene-d4 | 152 | 15.231 | 15.276 | (1.000) | 719294 | 50 | |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

303624

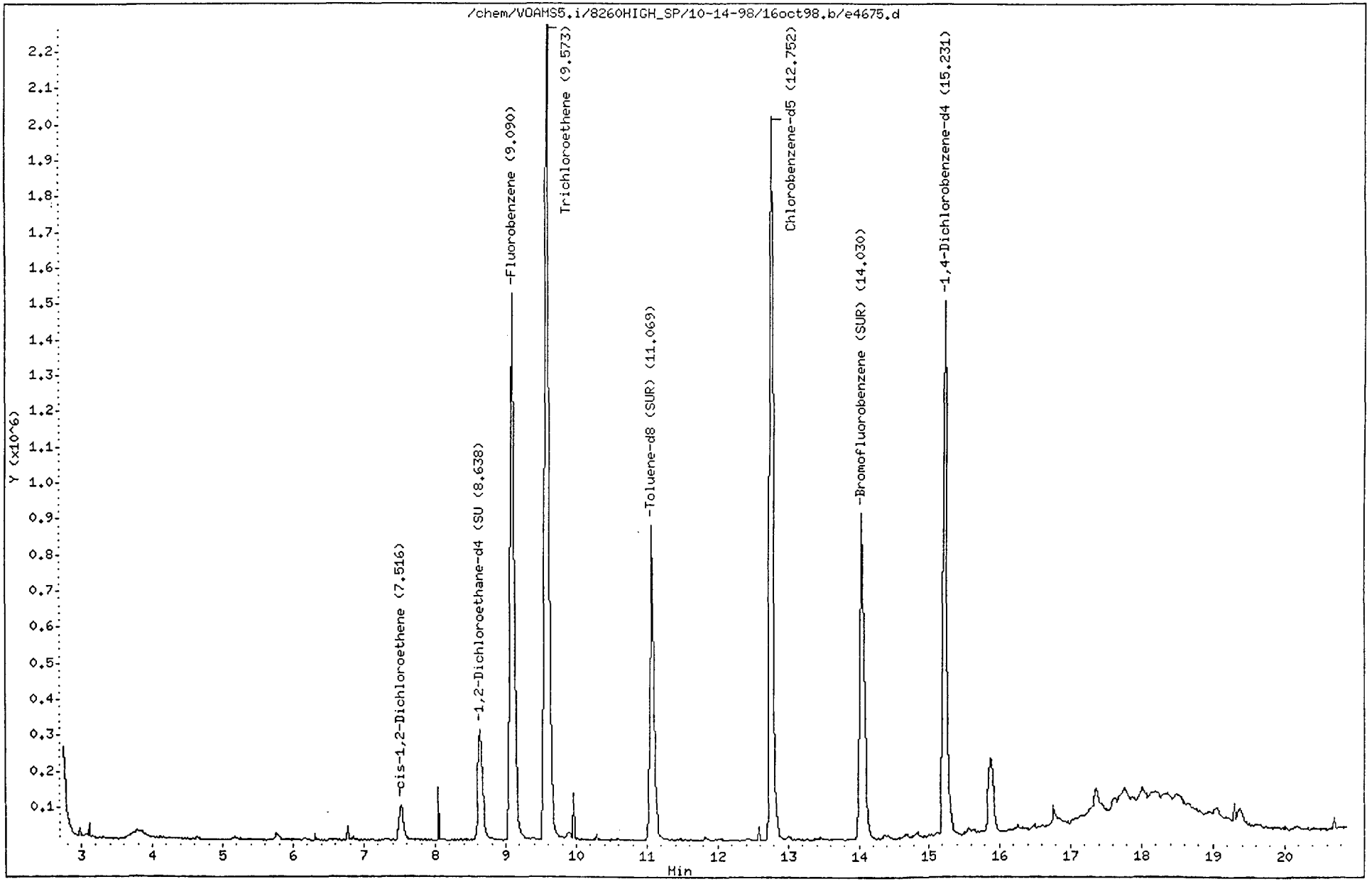
Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4675.d
Date : 16-OCT-98 13:50:00
Client ID: SSFS-1_.5-1
Sample Info: 88560;100;8.1;10.7;25

Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

303625




90

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4675.d

Date : 16-OCT-98 13:50:00

Client ID: SSFS-1_.5-1 Instrument: VOAMS5.i

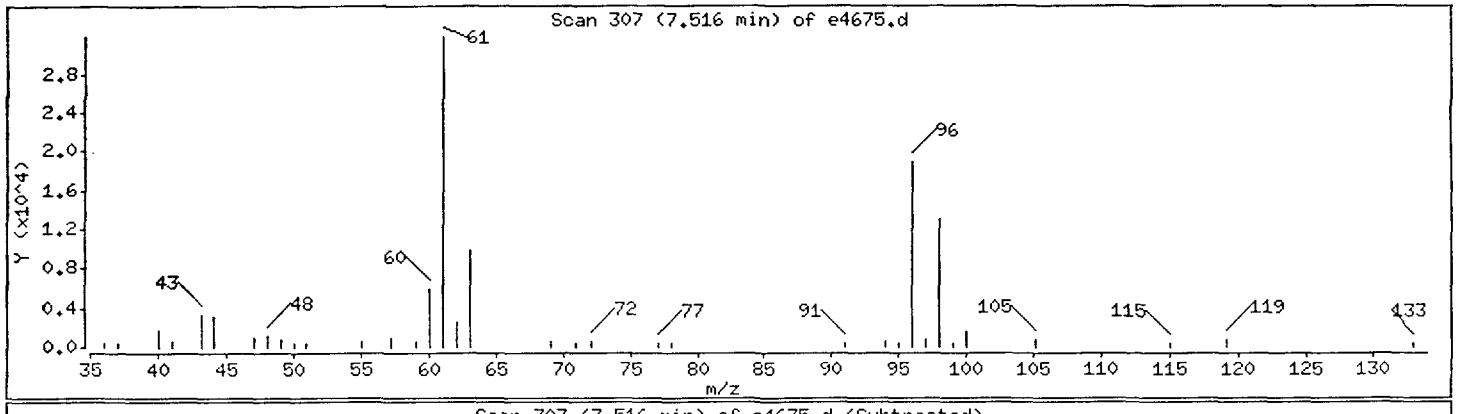
Sample Info: 88560;100;8.1;10.7;25

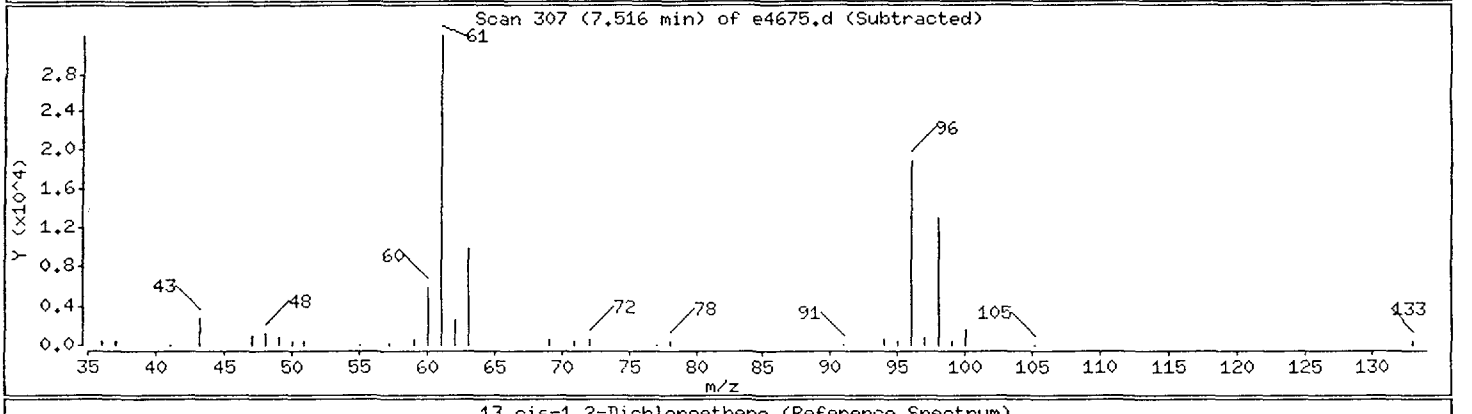
Operator: VOAMS 5

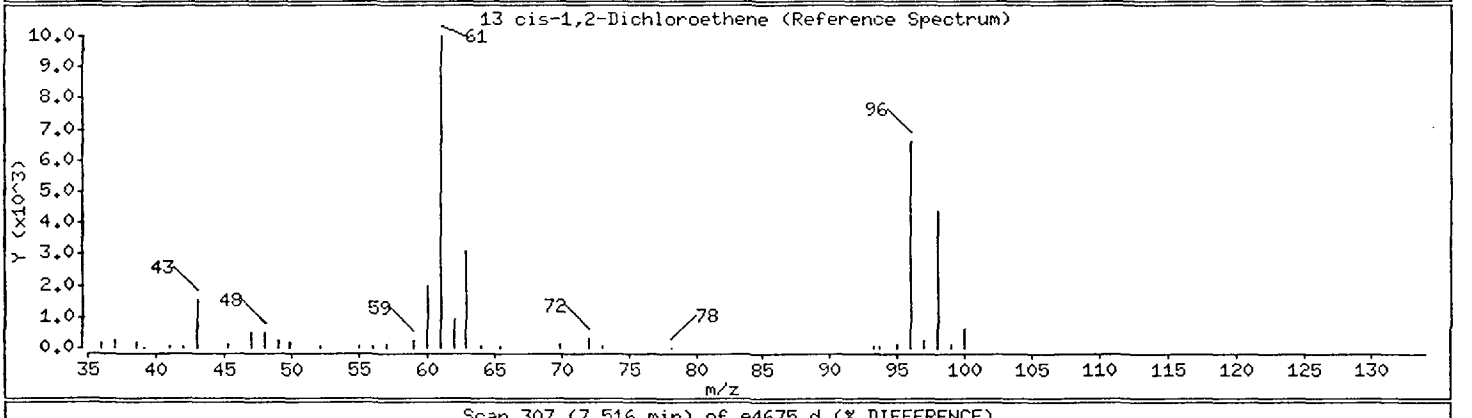
Column phase: DB624 Column diameter: 0.53

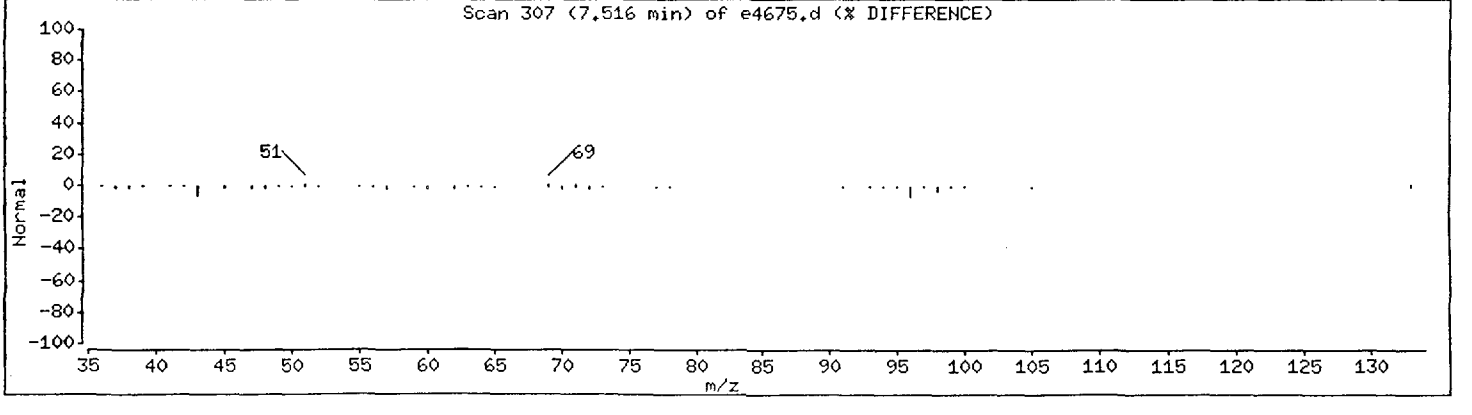
303626

13 cis-1,2-Dichloroethene



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4675.d

Date : 16-OCT-98 13:50:00

Client ID: SSFS-1_.5-1 Instrument: VOAMS5.i

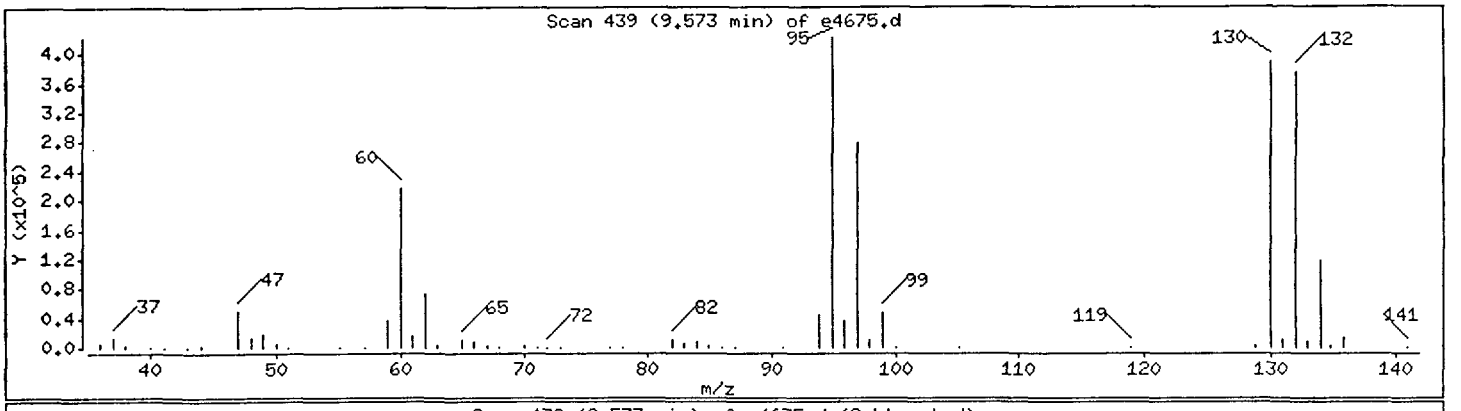
Sample Info: 88560;100;8.1;10.7;25

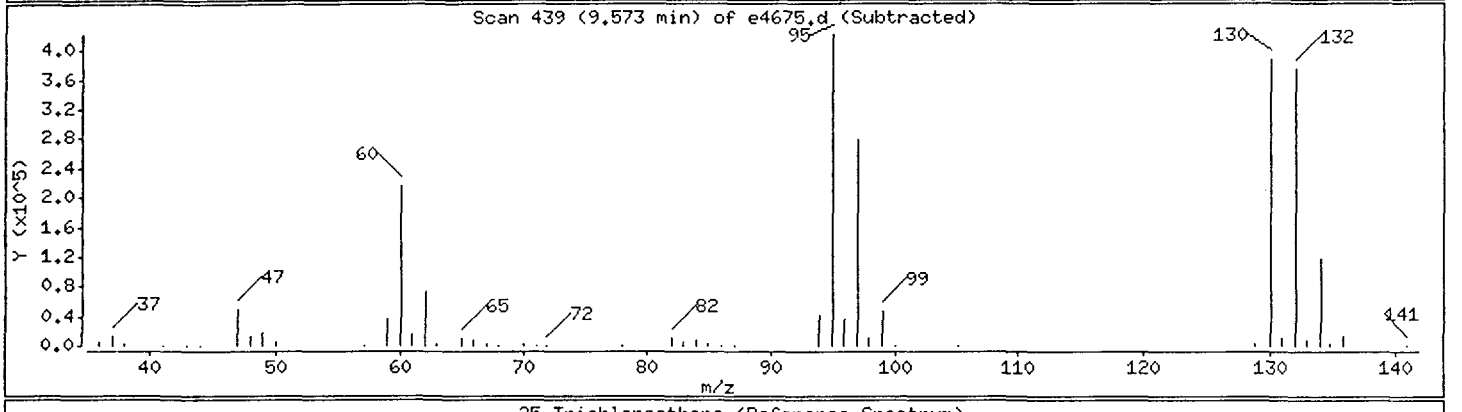
Operator: VOAMS 5

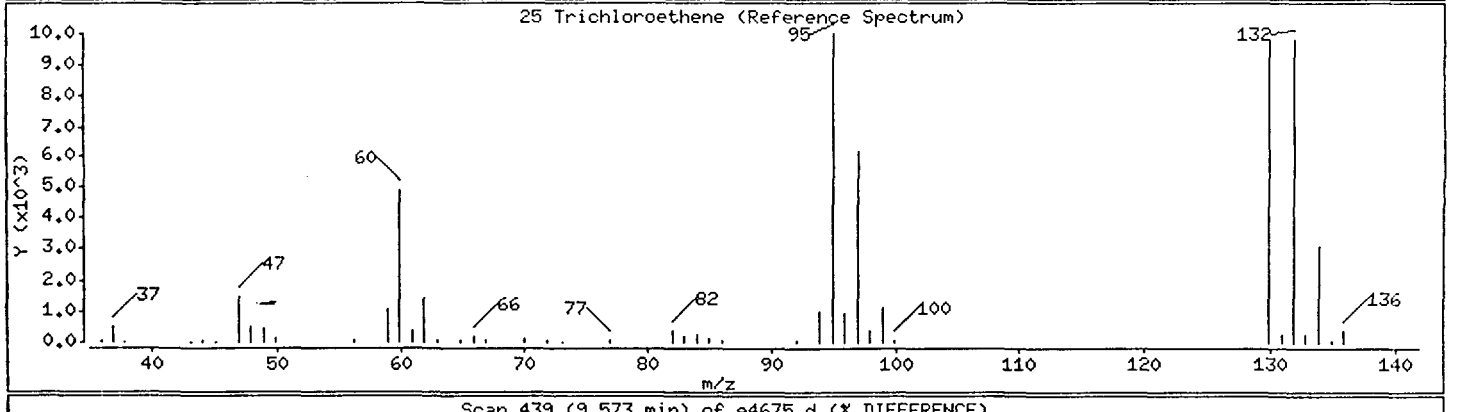
Column phase: DB624 Column diameter: 0.53

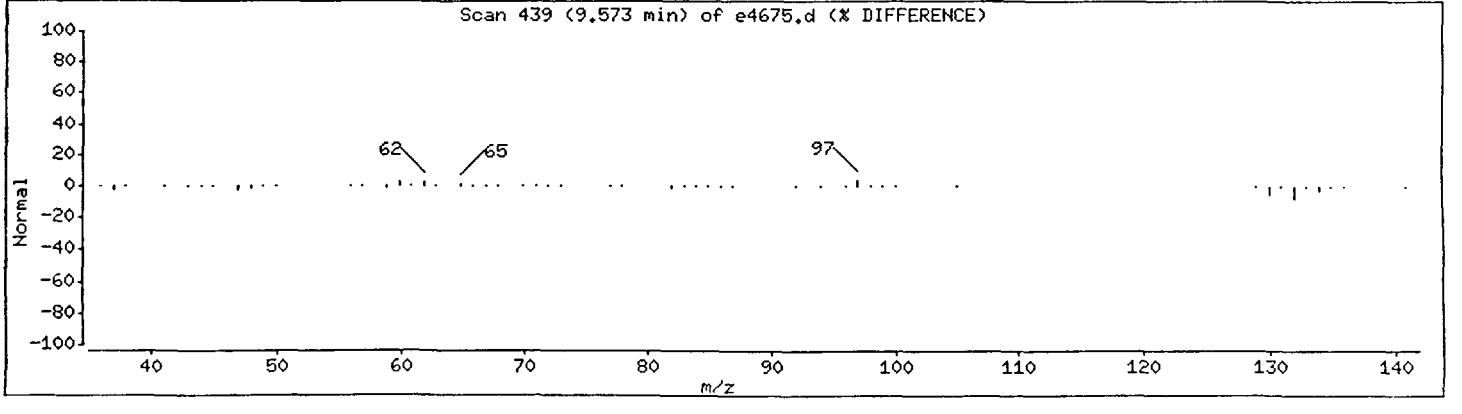
303627

25 Trichloroethene



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4675.d

Date : 16-OCT-98 13:50:00

Client ID: SSFS-1_.5-1

Instrument: VOAMS5.i

Sample Info: 88560;100;8.1;10.7;25

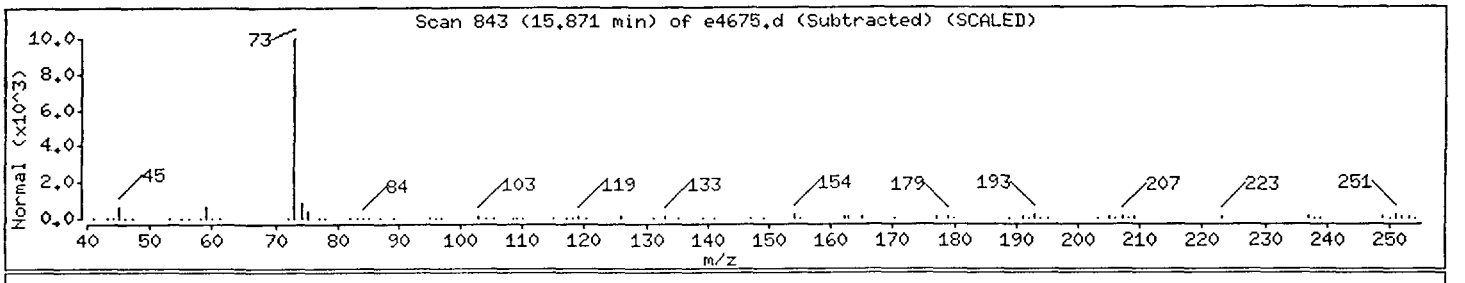
303628

Operator: VOAMS 5

Column phase: DB624

Column diameter: 0.53

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown Siloxane | | | | | | |
| Unknown | | | 0 | 0 | | 0 |



Client ID: **SSNDS-1A_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88562**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8301.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

**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 | 37 |
| 1,3-Dichlorobenzene | ND | 370 |
| 1,4-Dichlorobenzene | ND | 370 |
| 1,2-Dichlorobenzene | ND | 370 |
| bis(2-chloroisopropyl)ether | ND | 370 |
| N-Nitroso-di-n-propylamine | ND | 37 |
| Hexachloroethane | ND | 37 |
| Nitrobenzene | ND | 37 |
| Isophorone | ND | 370 |
| bis(2-Chloroethoxy)methane | ND | 370 |
| 1,2,4-Trichlorobenzene | ND | 37 |
| Naphthalene | ND | 370 |
| 4-Chloroaniline | ND | 370 |
| Hexachlorobutadiene | ND | 75 |
| 2-Methylnaphthalene | ND | 370 |
| Hexachlorocyclopentadiene | ND | 370 |
| 2-Chloronaphthalene | ND | 370 |
| 2-Nitroaniline | ND | 750 |
| Dimethylphthalate | ND | 370 |
| Acenaphthylene | 23 J | 370 |
| 2,6-Dinitrotoluene | ND | 75 |
| 3-Nitroaniline | ND | 750 |
| Acenaphthene | ND | 370 |
| Dibenzofuran | ND | 370 |
| 2,4-Dinitrotoluene | ND | 75 |
| Diethylphthalate | ND | 370 |
| 4-Chlorophenyl-phenylether | ND | 370 |
| Fluorene | ND | 370 |
| 4-Nitroaniline | ND | 750 |
| N-Nitrosodiphenylamine | ND | 370 |
| 4-Bromophenyl-phenylether | ND | 370 |
| Hexachlorobenzene | ND | 37 |
| Phenanthrene | 130 J | 370 |
| Anthracene | 18 J | 370 |

303629

Client ID: **SSNDS-1A_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88562**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8301.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Carbazole | 11 J | 370 |
| Di-n-butylphthalate | ND | 370 |
| Fluoranthene | 220 J | 370 |
| Pyrene | 240 J | 370 |
| Butylbenzylphthalate | ND | 370 |
| 3,3'-Dichlorobenzidine | ND | 750 |
| Benzo(a)anthracene | 97 | 37 |
| Chrysene | 150 J | 370 |
| bis(2-Ethylhexyl)phthalate | ND | 370 |
| Di-n-octylphthalate | ND | 370 |
| Benzo(b)fluoranthene | 180 | 37 |
| Benzo(k)fluoranthene | 92 | 37 |
| Benzo(a)pyrene | 110 | 37 |
| Indeno(1,2,3-cd)pyrene | 46 | 37 |
| Dibenz(a,h)anthracene | 14 J | 37 |
| Benzo(g,h,i)perylene | 36 J | 370 |

303630

Client ID: **SSNDS-1A_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88562**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8301.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11.1

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. NO SEMI-VOLATILE ORGANIC COMPOUNDS FOUND | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
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| 29. | | | |
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TOTAL ESTIMATED CONCENTRATION 0.0

303631

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d
Report Date: 20-Oct-98 19:07:56

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d
Lab Smp Id: 88562 Client Smp ID: SSNDS-1A_0-0.5
Inj Date : 20-OCT-98 18:41:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : 88562;30;2;1;11.1;
Misc Info : H941;TCLBN+10;4734;122
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/20oct98.b/8270C-REV..m
Meth Date : 20-Oct-98 10:36:06 Quant Type: ISTD
Cal Date : 17-OCT-98 00:00:00 Cal File: s8230.d
Als bottle: 12
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 | 2.000 | Volume of final extract (ml) |
| Ws | 30.000 | Weight of sample extracted (g) |
| M | 11.100 | % 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 | 12.681 | 12.669 | (1.000) | 531503 | 40 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.645 | 13.644 | (0.918) | 824393 | 42 | 3200 |
| * 80 Naphthalene-d8 | 136 | 14.859 | 14.856 | (1.000) | 1847987 | 40 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.656 | 16.649 | (0.937) | 1628253 | 44 | 3300 |
| 39 Acenaphthylene | 152 | 17.543 | 17.547 | (0.987) | 16989 | 0.30 | 23(a) |
| * 82 Acenaphthene-d10 | 164 | 17.779 | 17.778 | (1.000) | 1184030 | 40 | |
| * 83 Phenanthrene-d10 | 188 | 20.235 | 20.232 | (1.000) | 1728460 | 40 | |
| 52 Phenanthrene | 178 | 20.268 | 20.279 | (1.002) | 90713 | 1.7 | 130(a) |
| 53 Anthracene | 178 | 20.347 | 20.366 | (1.006) | 12904 | 0.24 | 18(a) |
| 54 Carbazole | 167 | 20.610 | 20.623 | (1.019) | 8420 | 0.15 | 11(a) |
| 56 Fluoranthene | 202 | 22.225 | 22.232 | (1.098) | 138159 | 3.0 | 220(a) |
| 57 Pyrene | 202 | 22.602 | 22.616 | (0.919) | 137160 | 3.2 | 240(a) |
| $ 78 Terphenyl-d14 (SUR) | 244 | 22.854 | 22.848 | (0.929) | 1456459 | 50 | 3700 |
| 61 Benzo(a)anthracene | 228 | 24.566 | 24.578 | (0.999) | 42095 | 1.3 | 97 |
| * 81 Chrysene-d12 | 240 | 24.593 | 24.605 | (1.000) | 1054757 | 40 | |

303632

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d
Report Date: 20-Oct-98 19:07:56

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 62 Chrysene | 228 | 24.633 | 24.652 | (1.002) | 65852 | 2.0 | 150(a) |
| 65 Benzo(b)fluoranthene | 252 | 26.742 | 26.765 | (0.963) | 62476 | 2.3 | 180 |
| 66 Benzo(k)fluoranthene | 252 | 26.795 | 26.845 | (0.965) | 30841 | 1.2 | 92(M) |
| 67 Benzo(a)pyrene | 252 | 27.590 | 27.623 | (0.994) | 35829 | 1.4 | 110 |
| * 84 Perylene-d12 | 264 | 27.764 | 27.776 | (1.000) | 740195 | 40 | |
| 69 Dibenz(a,h)anthracene | 278 | 31.492 | 31.604 | (1.134) | 4228 | 0.18 | 14(aM) |
| 68 Indeno(1,2,3-cd)pyrene | 276 | 31.419 | 31.484 | (1.132) | 15550 | 0.62 | 46 |
| 70 Benzo(g,h,i)perylene | 276 | 32.558 | 32.673 | (1.173) | 11966 | 0.48 | 36(a) |

QC Flag Legend

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

303633

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d
Date : 20-OCT-98 18:41:00
Client ID: SSNDS-1A_0-0.5
Sample Info: 88562;30;2;1;11.1;

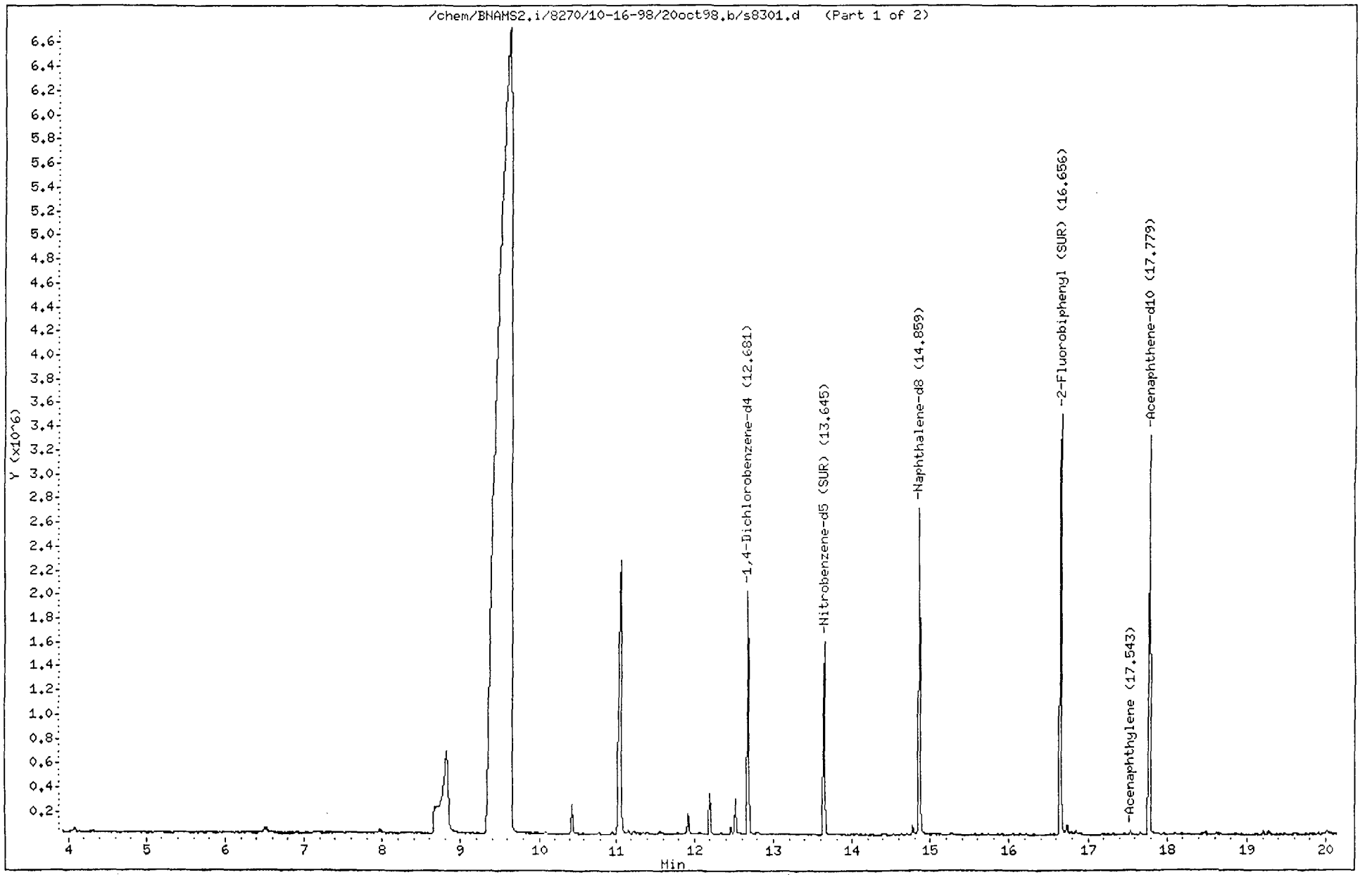
Instrument: BNAMS2.i

Operator: BNAMS 2

303634

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d
Date : 20-OCT-98 18:41:00
Client ID: SSNDS-1A_0-0.5
Sample Info: 88562;30;2;1;11.1;

Instrument: BNAMS2.i

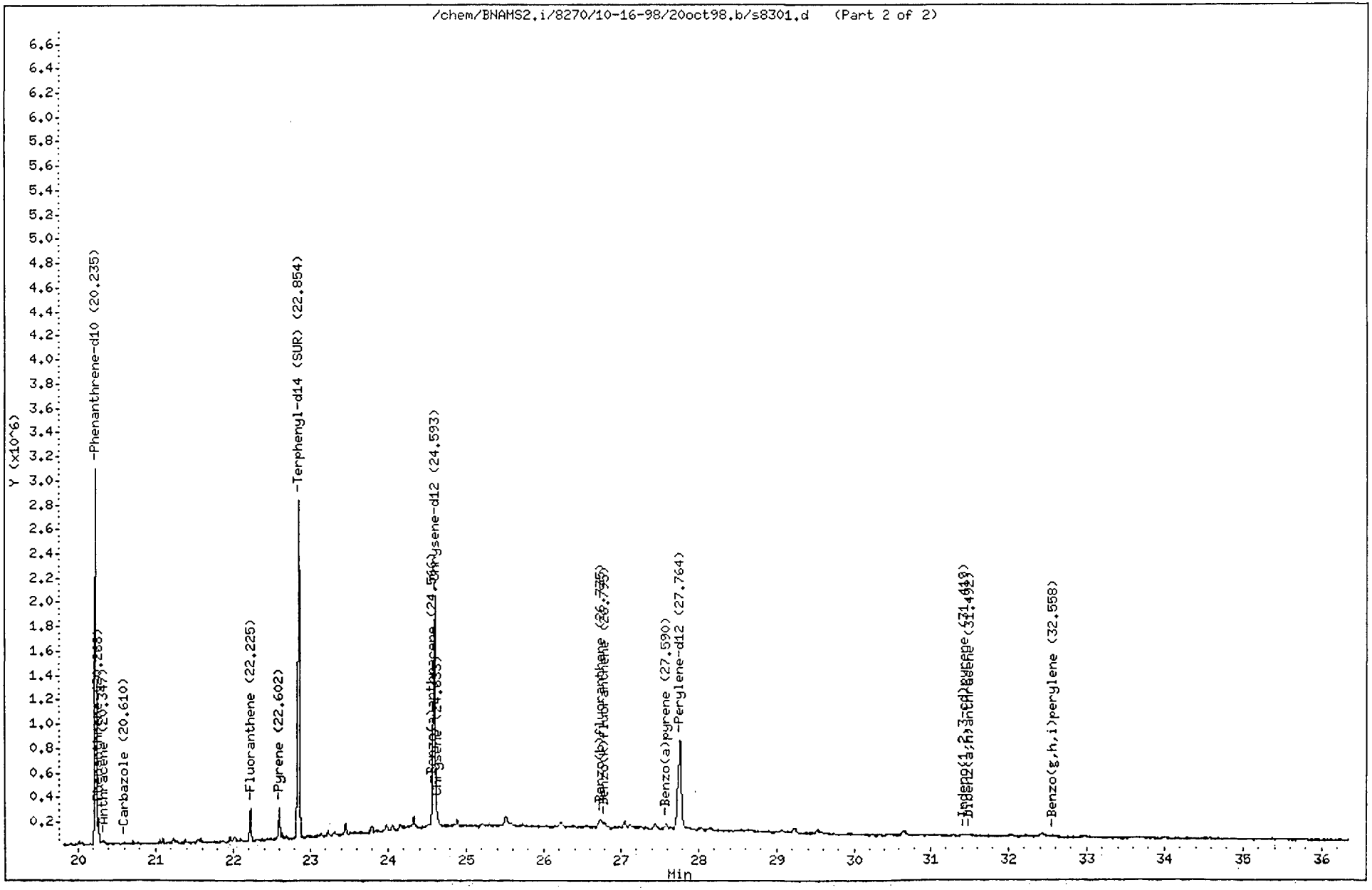
Operator: BNAMS 2

303635

Column phase: DB-5

Column diameter: 0.25





Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

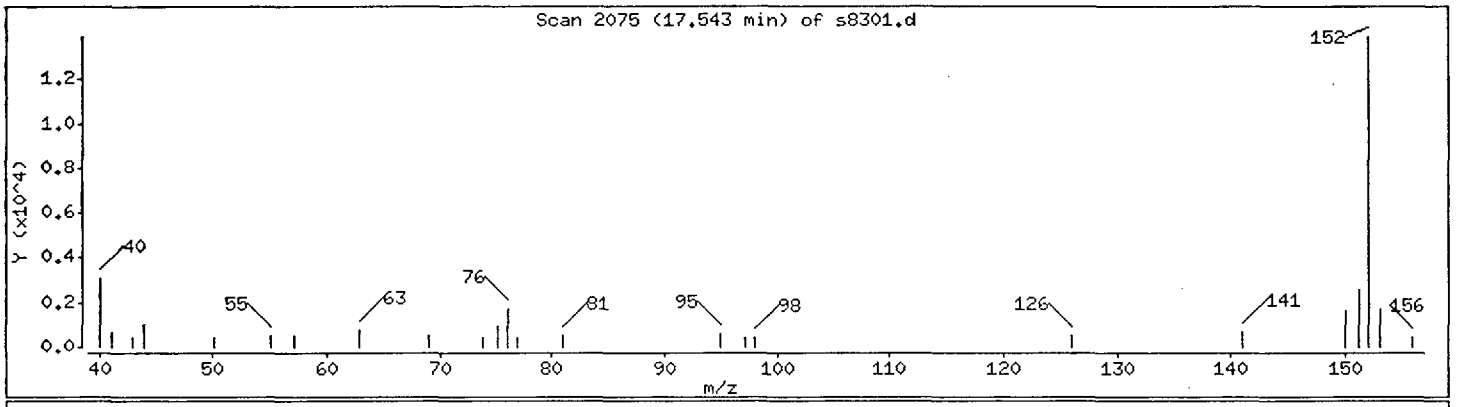
Sample Info: 88562;30;2;1;11.1;

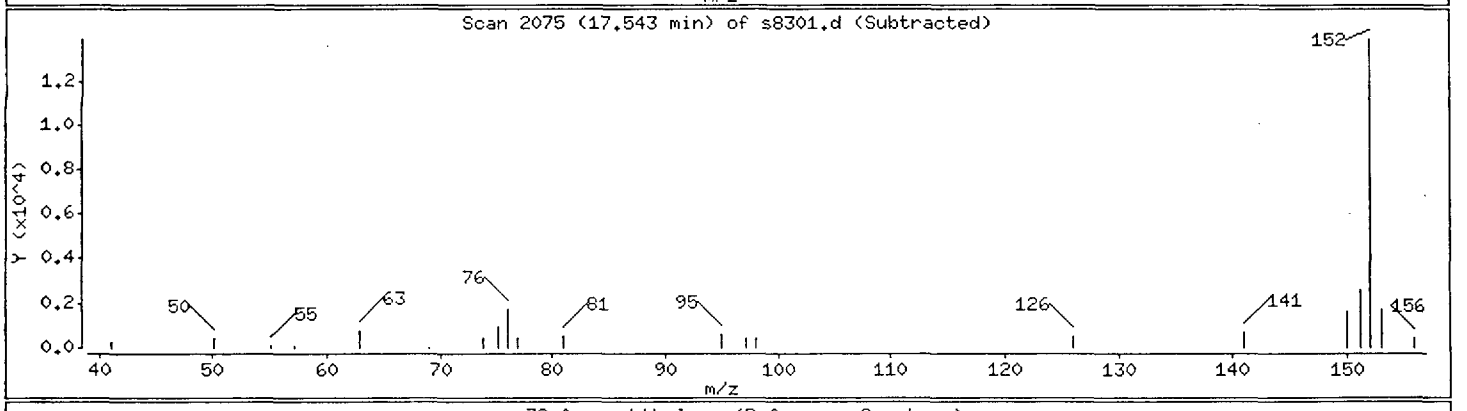
Operator: BNAMS 2

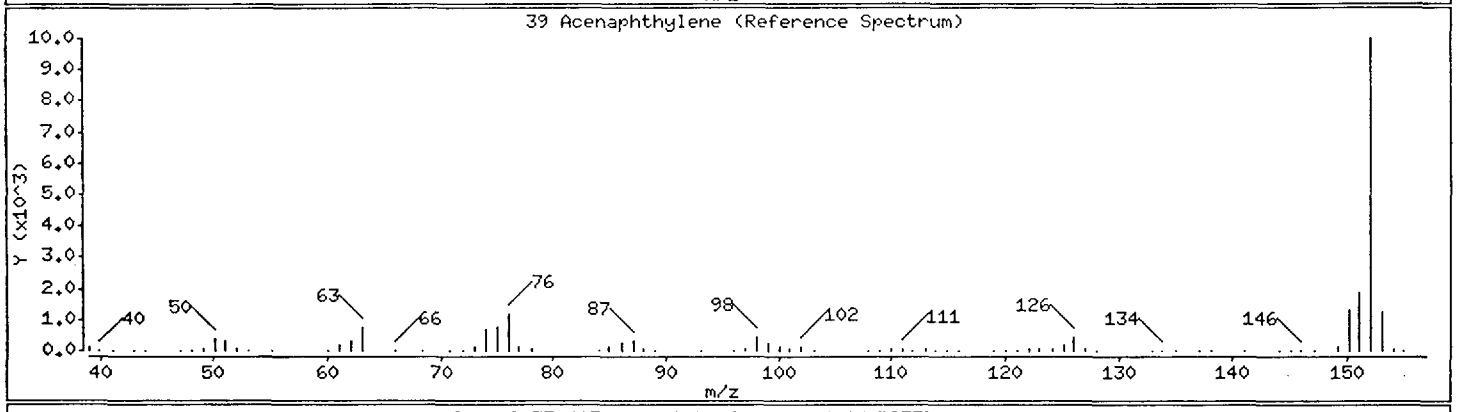
Column phase: DB-5 Column diameter: 0.25

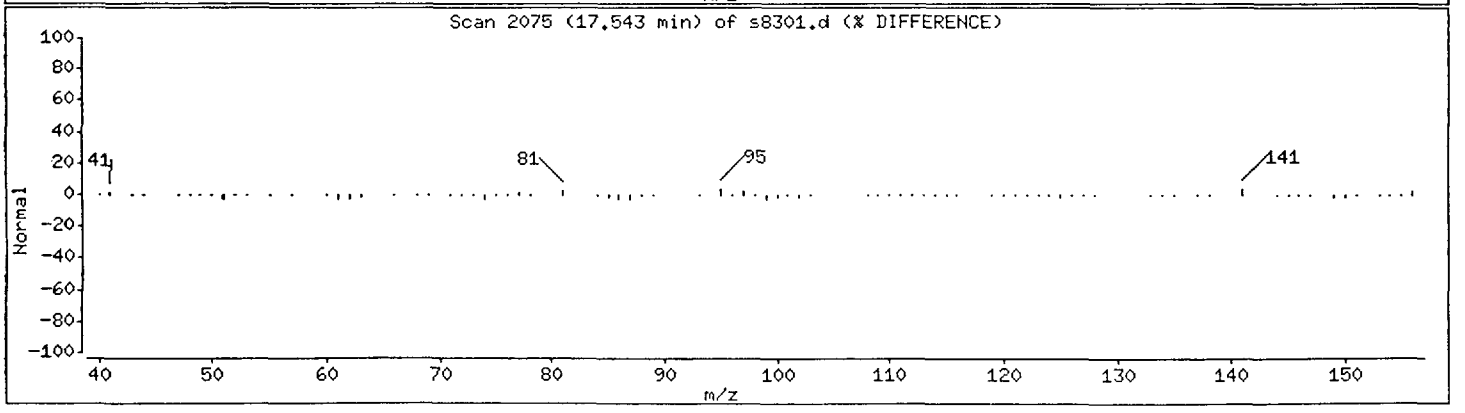
303636

39 Acenaphthylene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

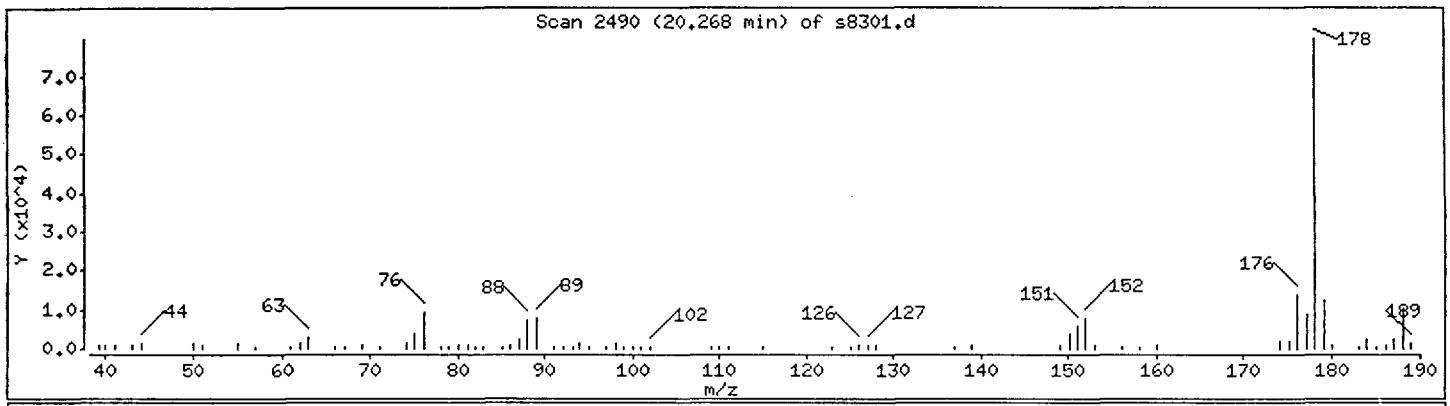
Sample Info: 88562;30;2;1;11.1;

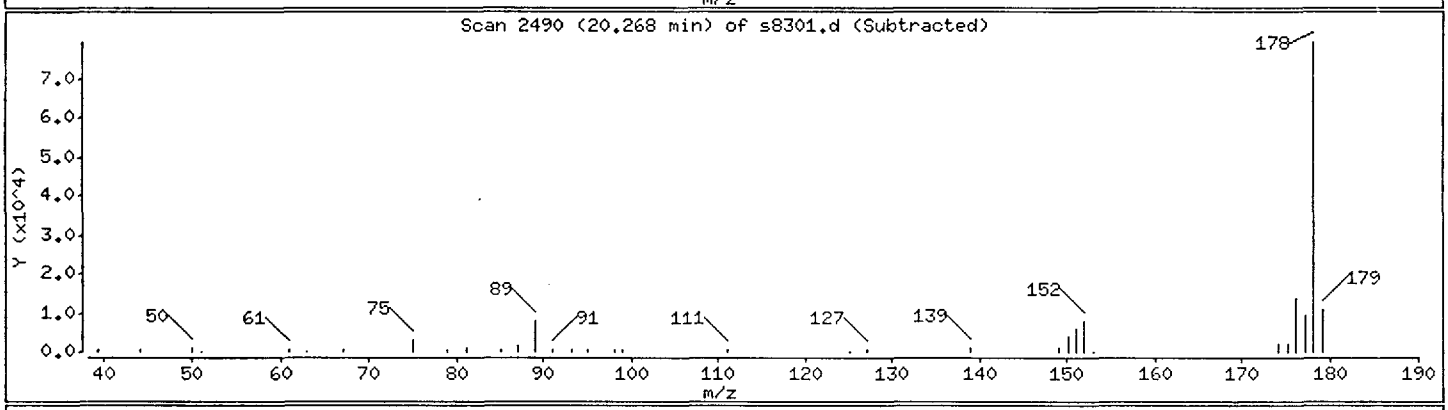
Operator: BNAMS 2

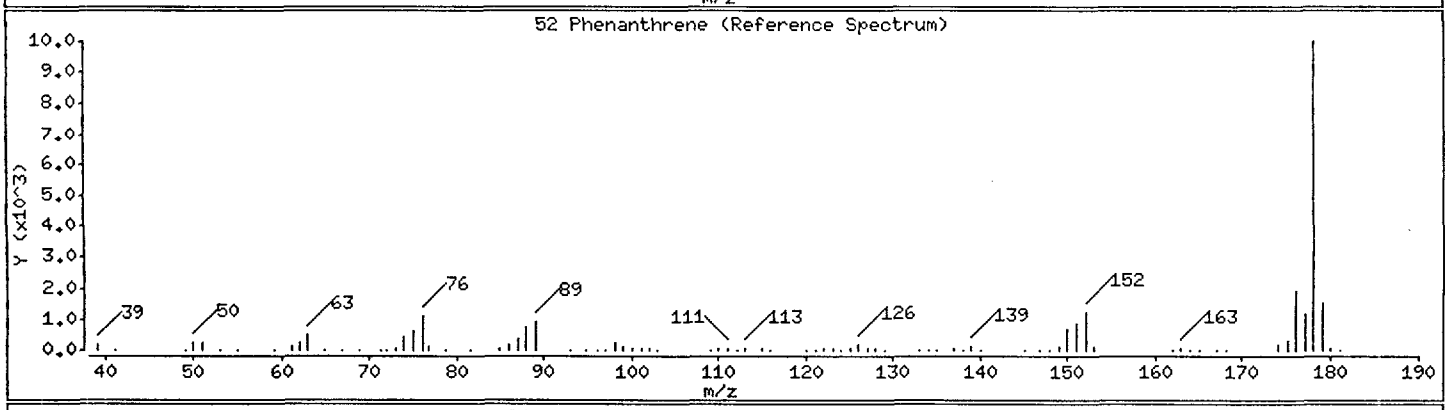
Column phase: DB-5 Column diameter: 0.25

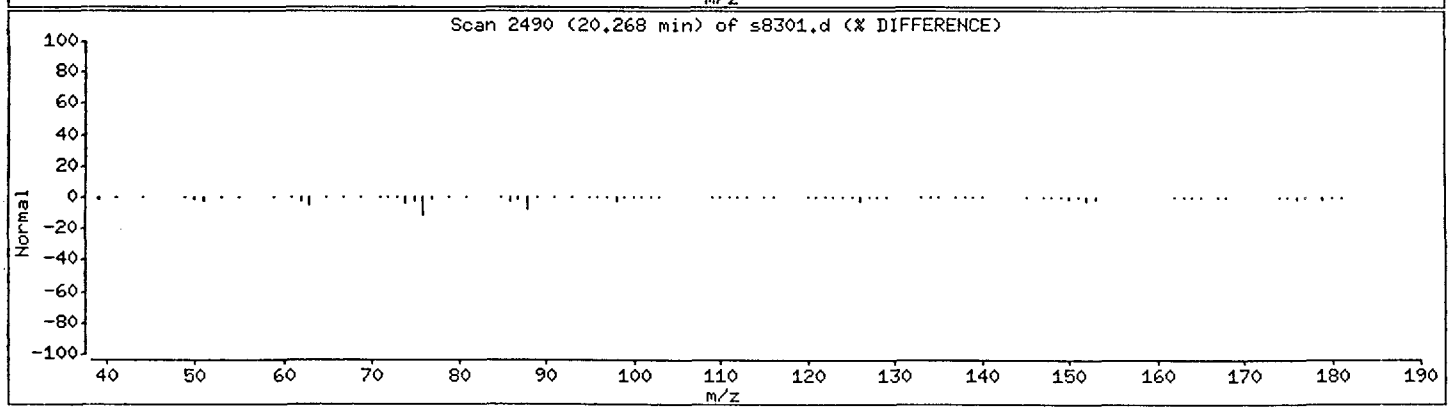
303637

52 Phenanthrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5

Instrument: BNAMS2.i

Sample Info: 88562;30;2;1;11.1;

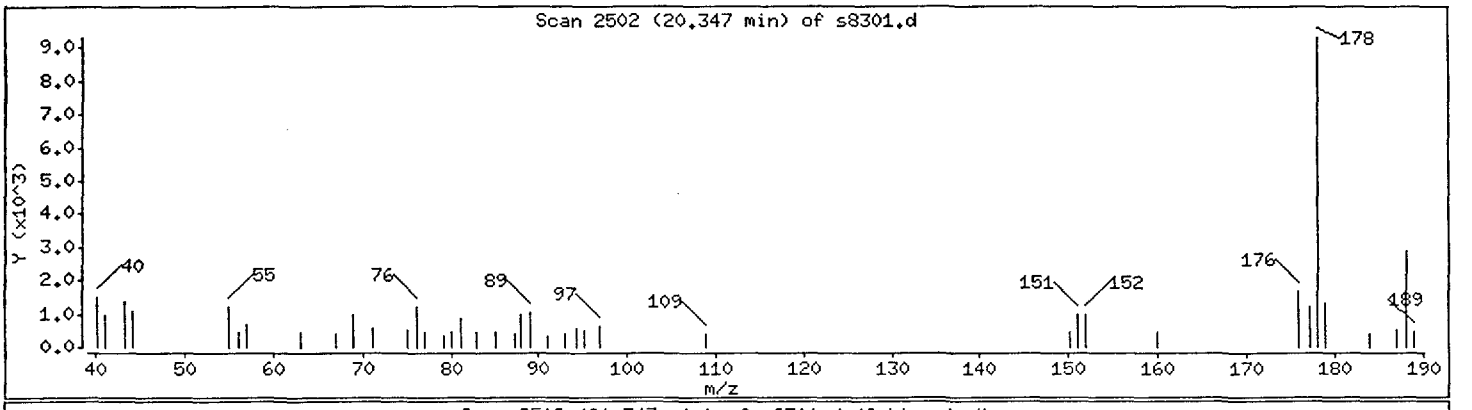
Operator: BNAMS 2

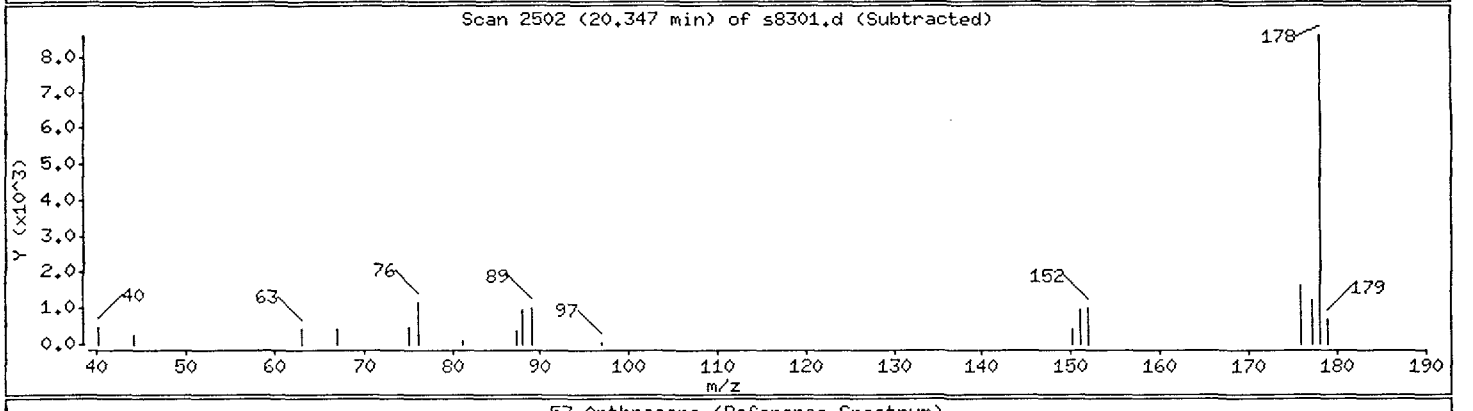
Column phase: DB-5

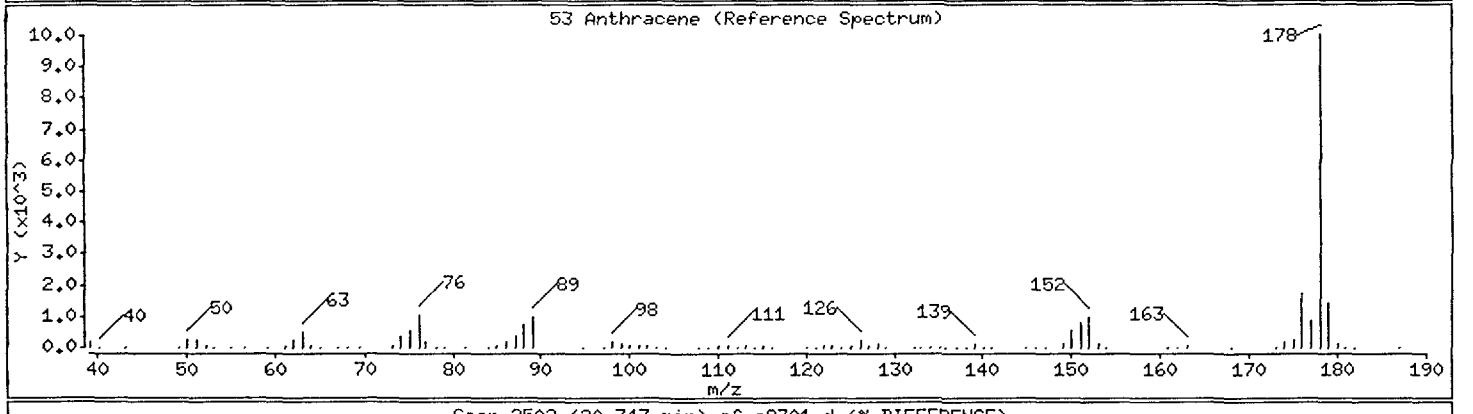
Column diameter: 0.25

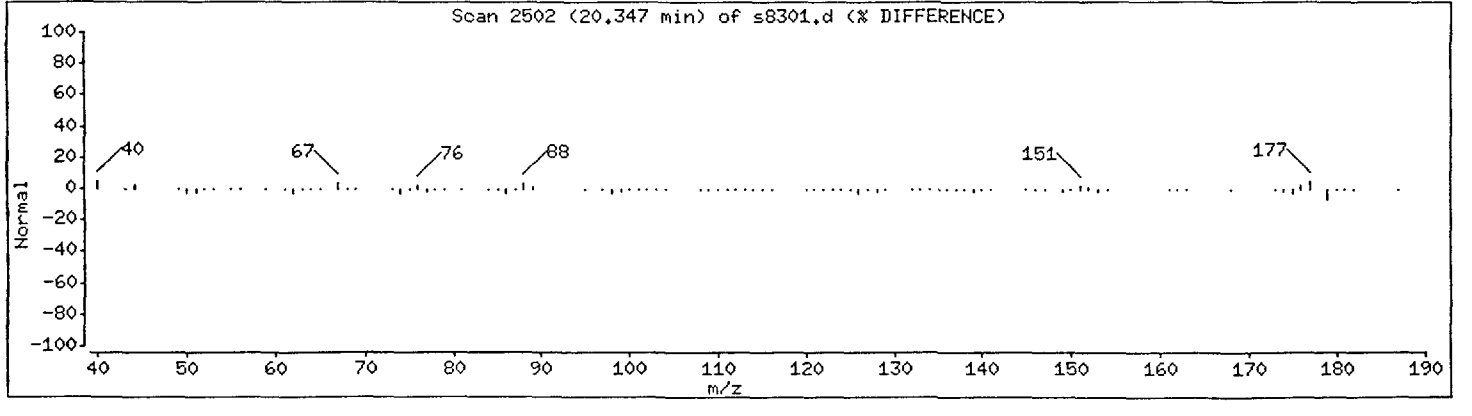
303638

53 Anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

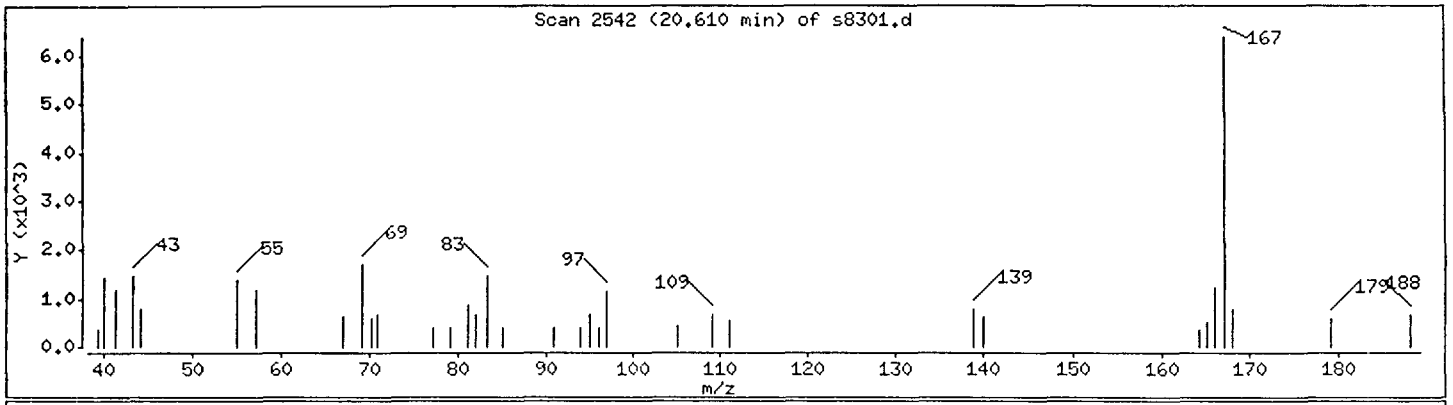
Sample Info: 88562;30;2;1;11.1;

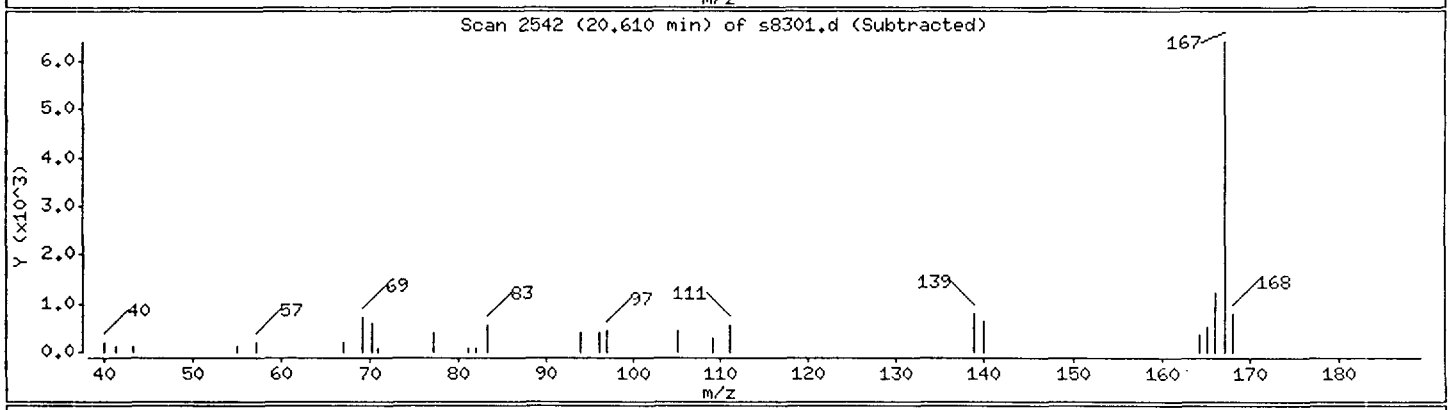
Operator: BNAMS 2

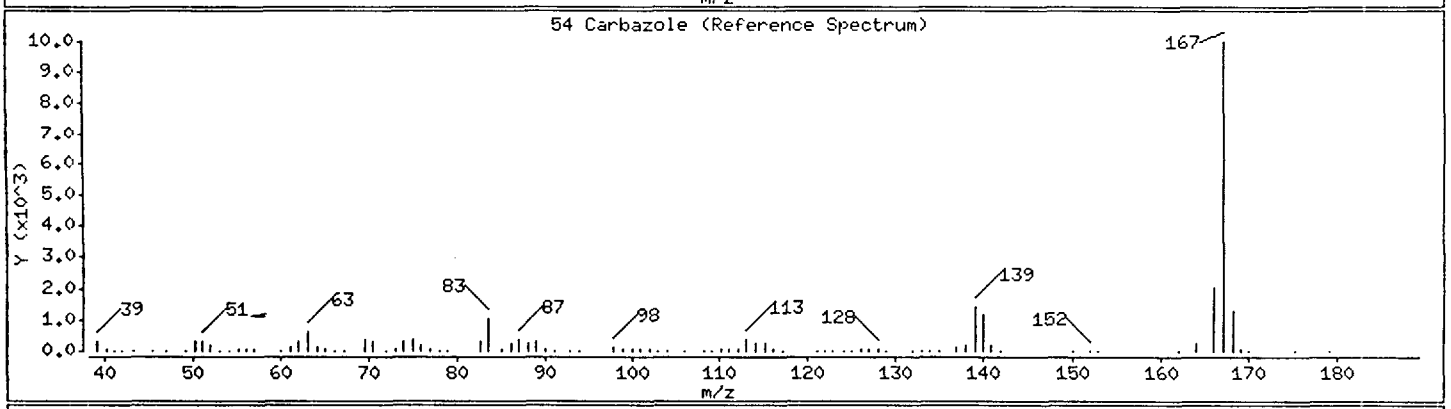
Column phase: DB-5 Column diameter: 0.25

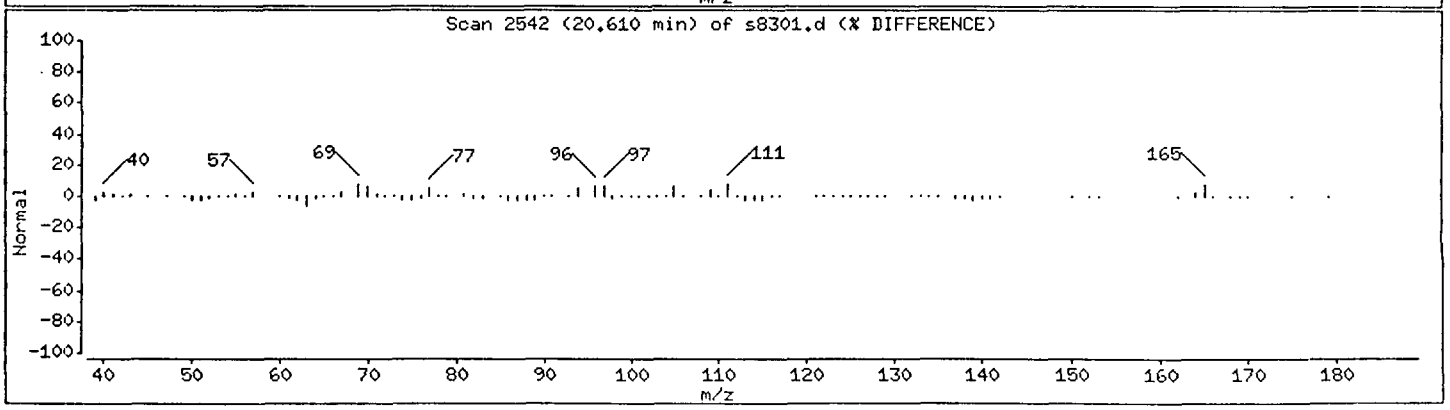
303639

54 Carbazole



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Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

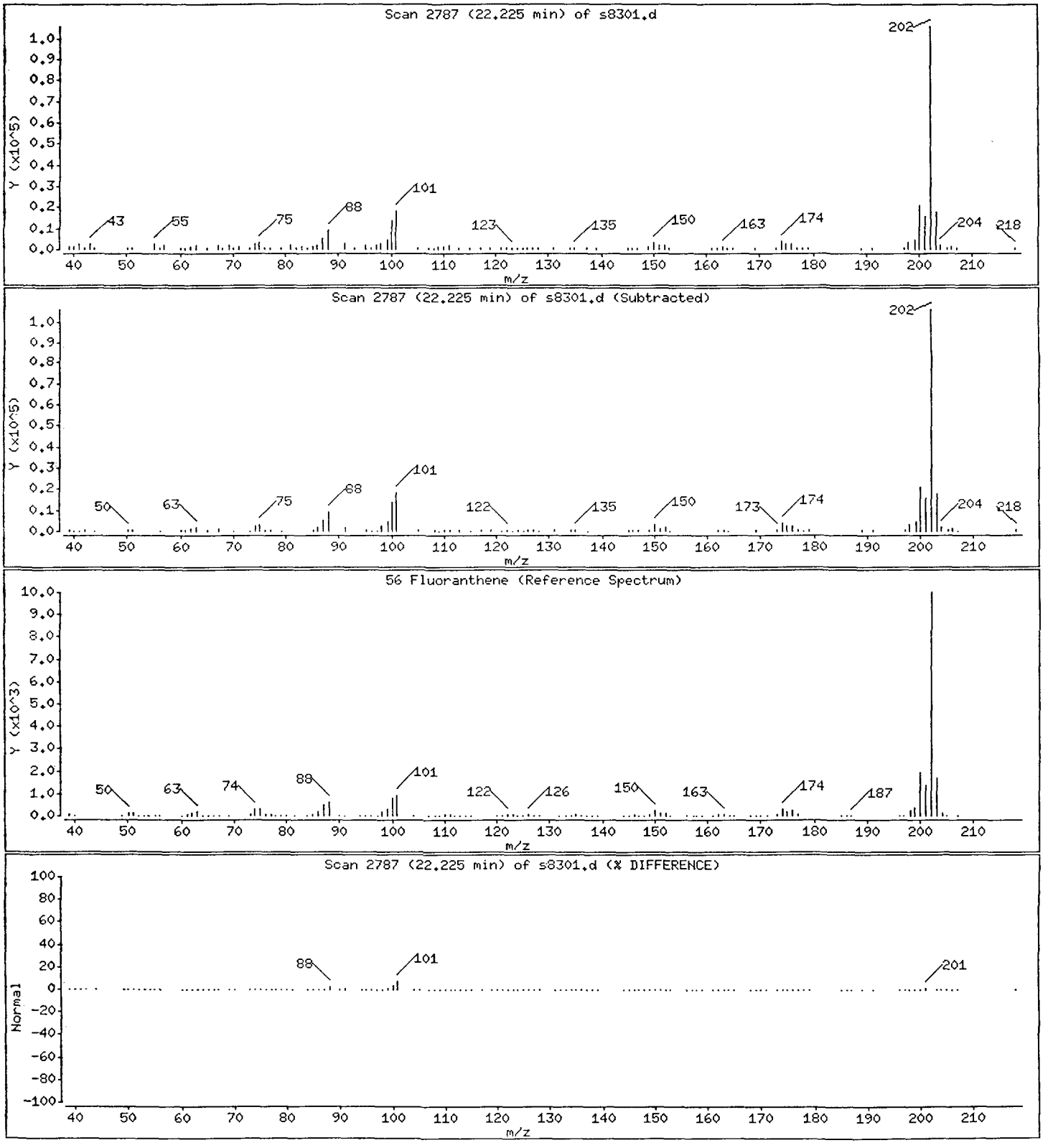
Sample Info: 88562;30;2;1;11.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303640

56 Fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

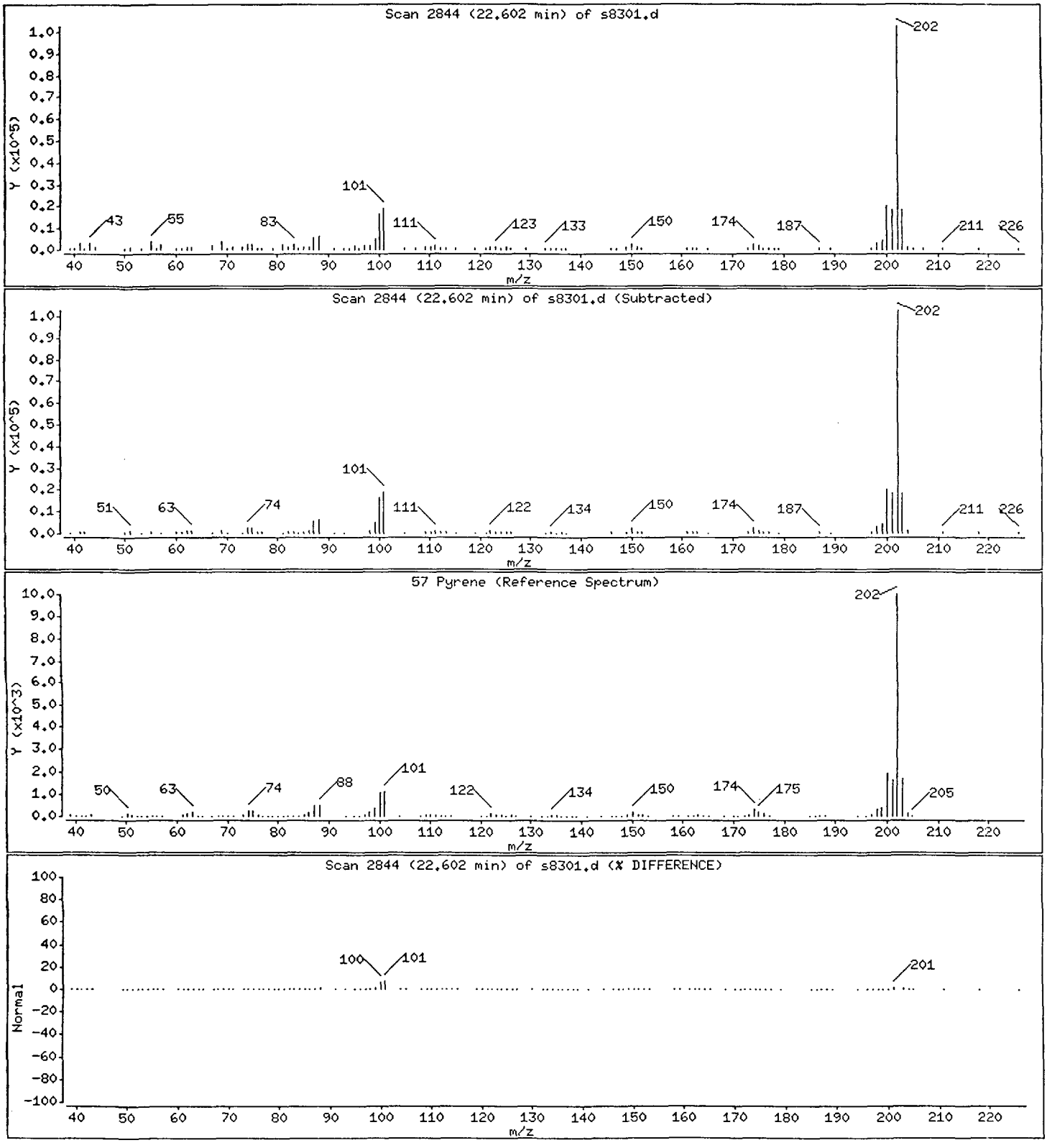
Sample Info: 88562;30;2;1;11.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303641

57 Pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

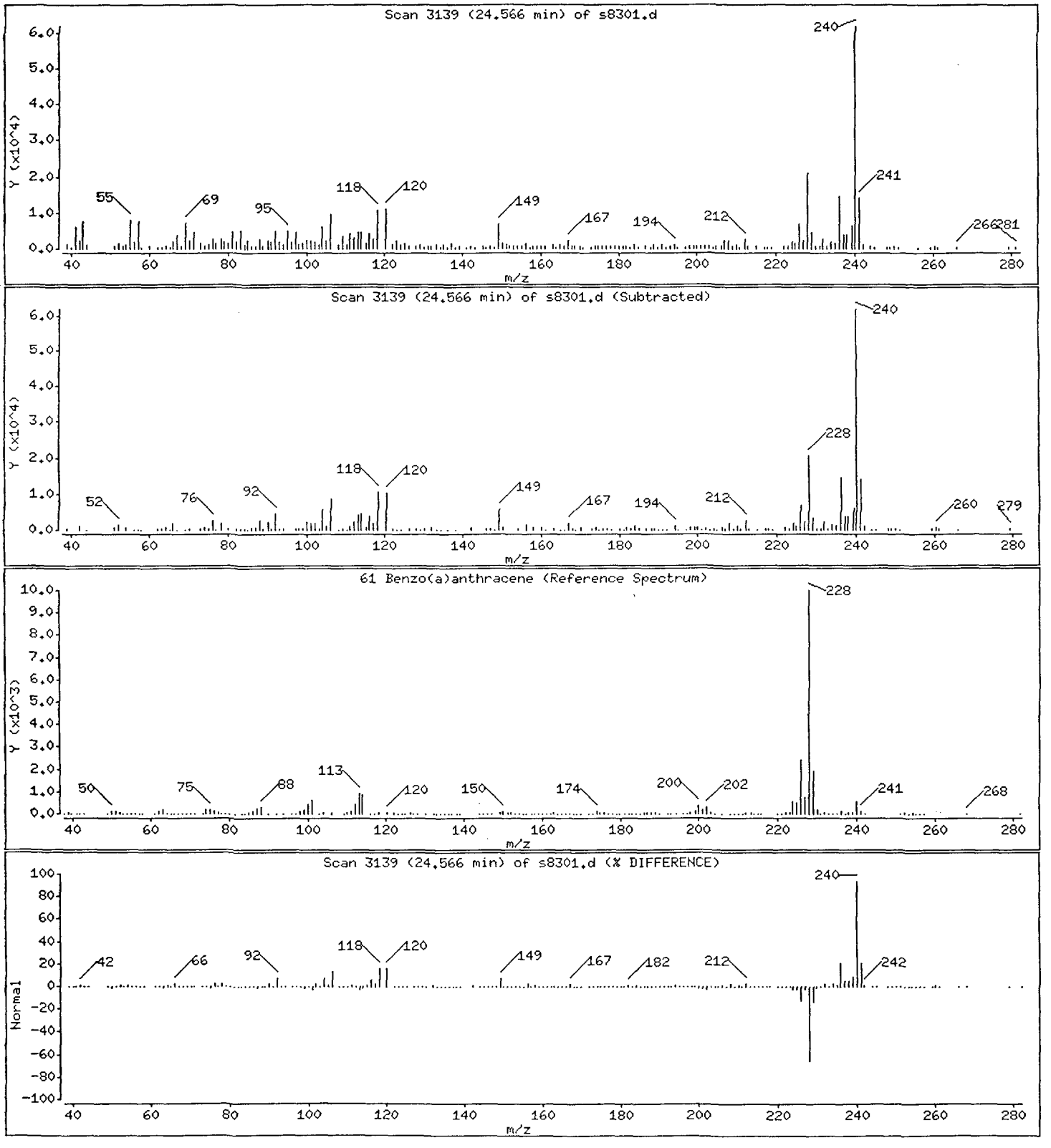
Sample Info: 88562;30;2;1;11.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303642

61 Benzo(a)anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

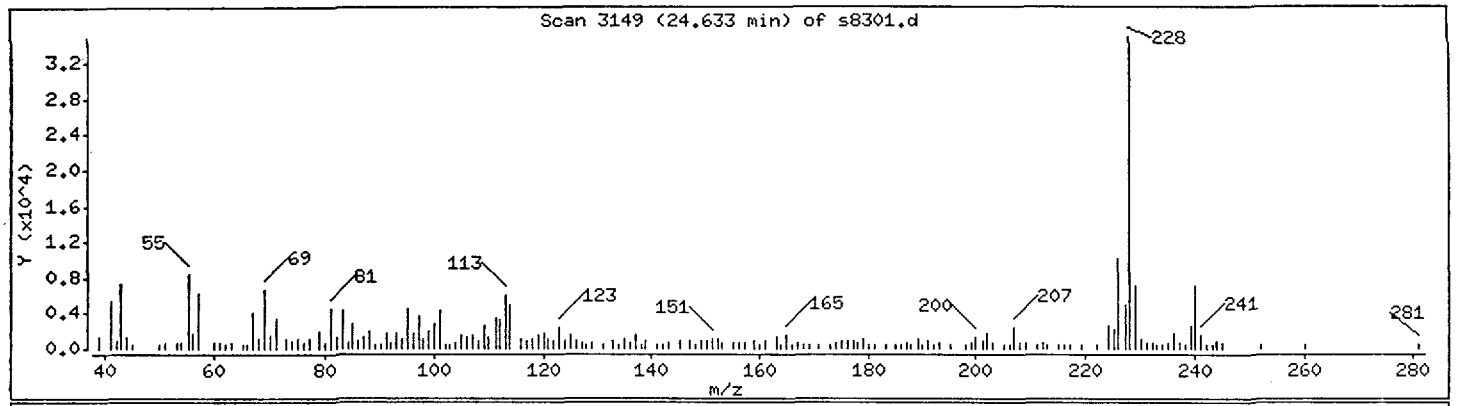
Sample Info: 88562;30;2;1;11.1;

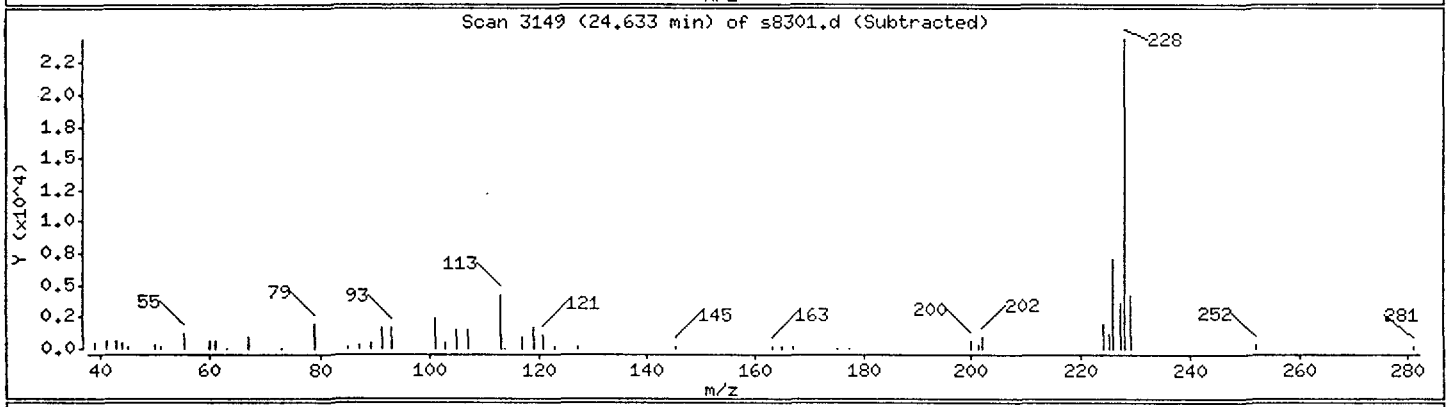
Operator: BNAMS 2

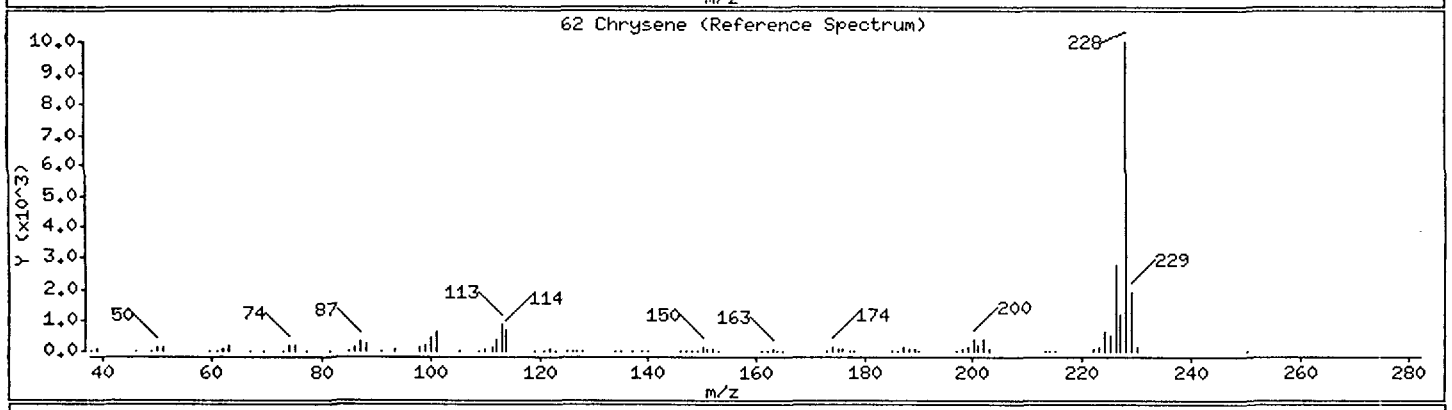
Column phase: DB-5 Column diameter: 0.25

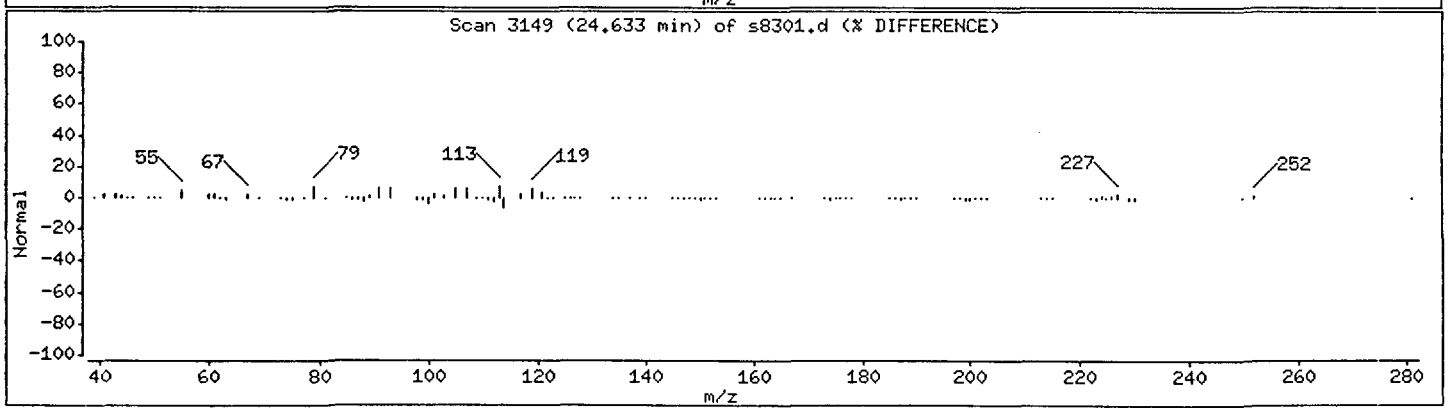
303643

62 Chrysene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

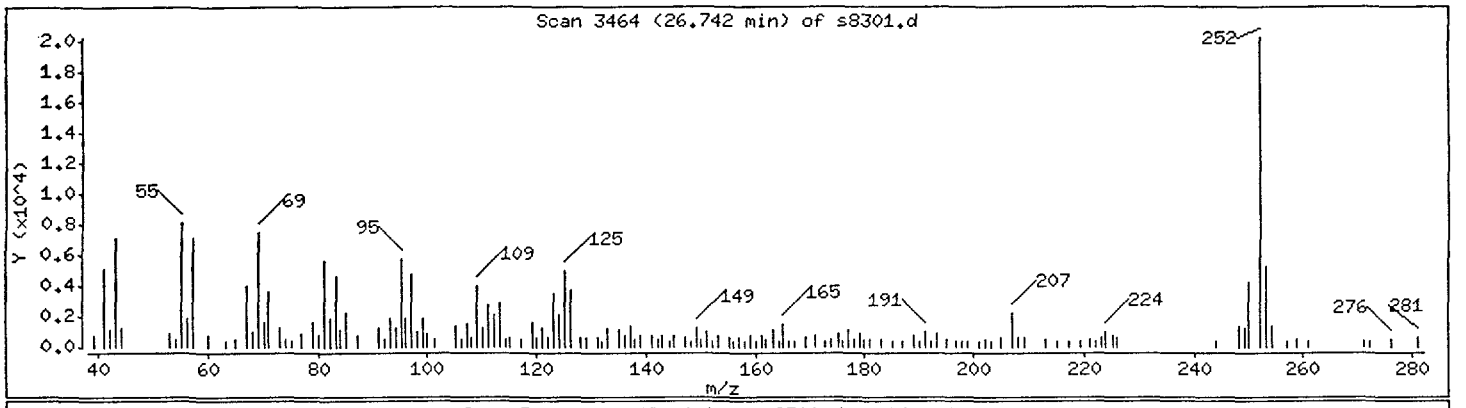
Sample Info: 88562;30;2;1;11.1;

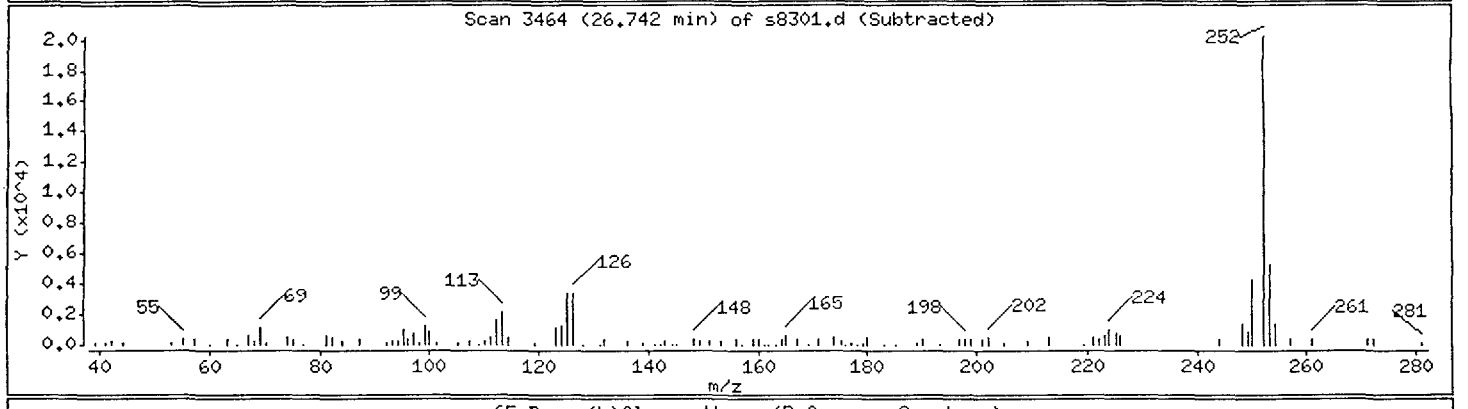
Operator: BNAMS 2

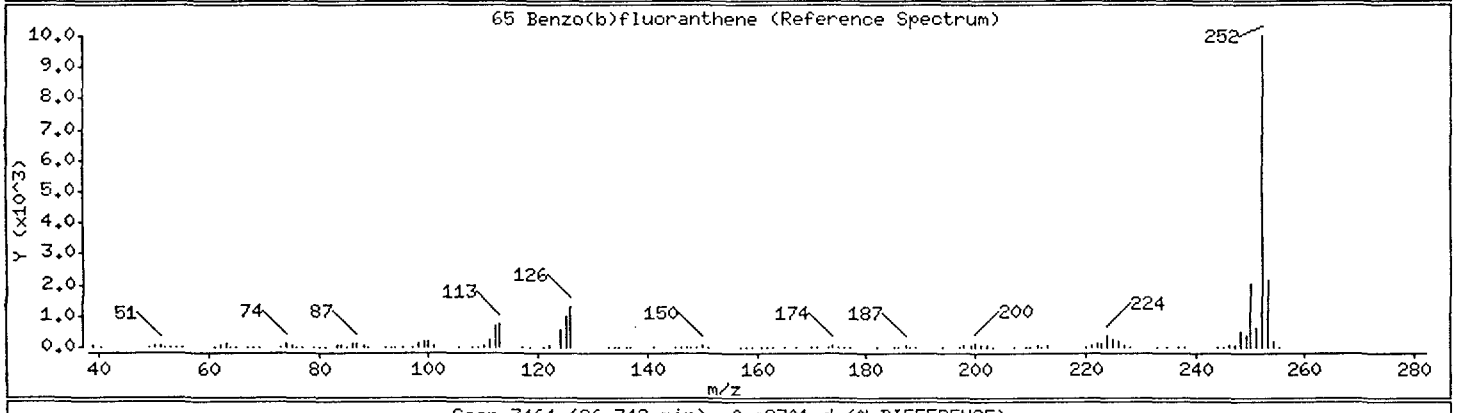
Column phase: DB-5 Column diameter: 0.25

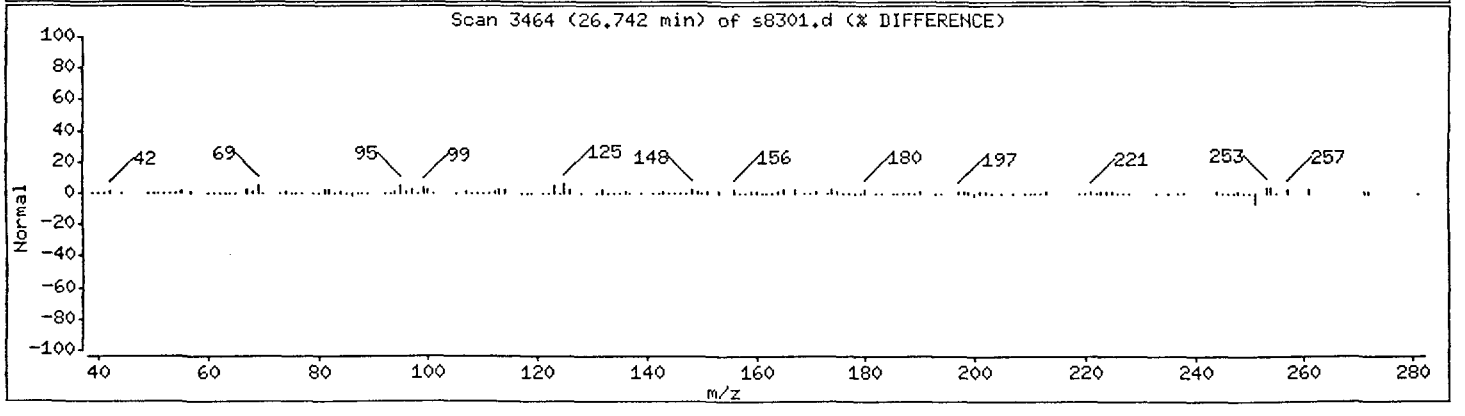
303644

65 Benzo(b)fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

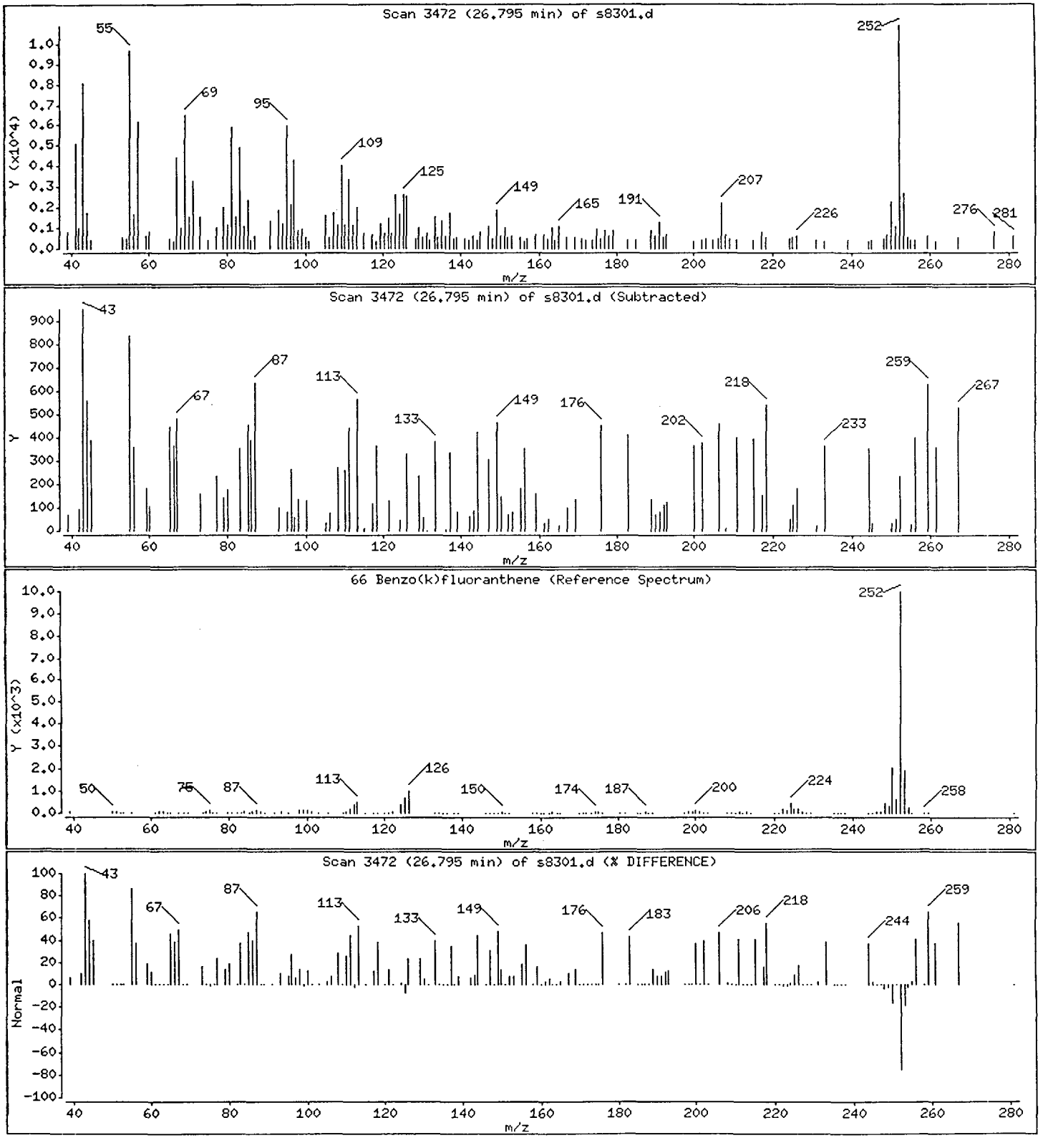
Sample Info: 88562;30;2;1;11.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303645

66 Benzo(k)fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

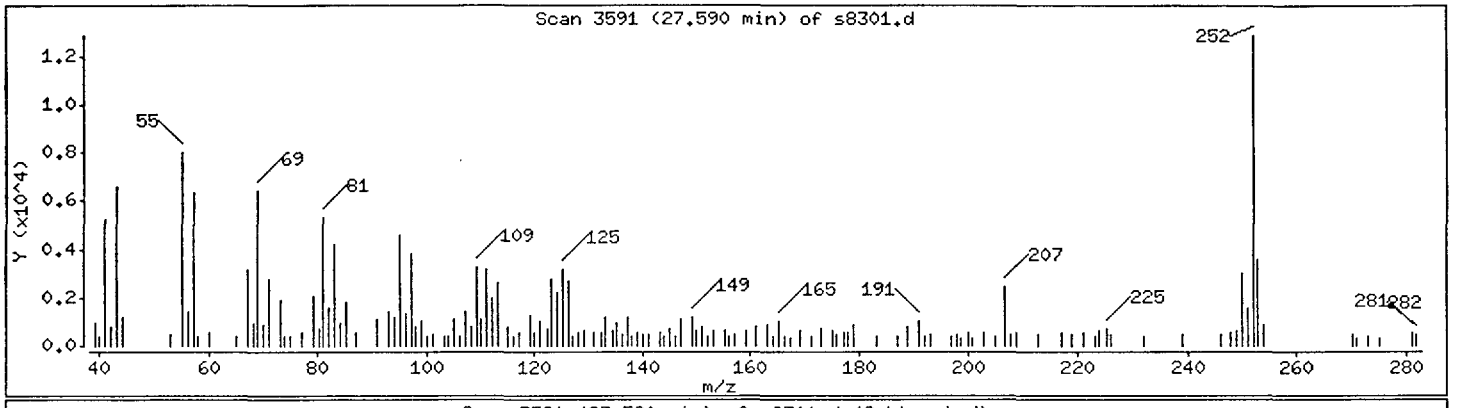
Sample Info: 88562;30;2;1;11.1;

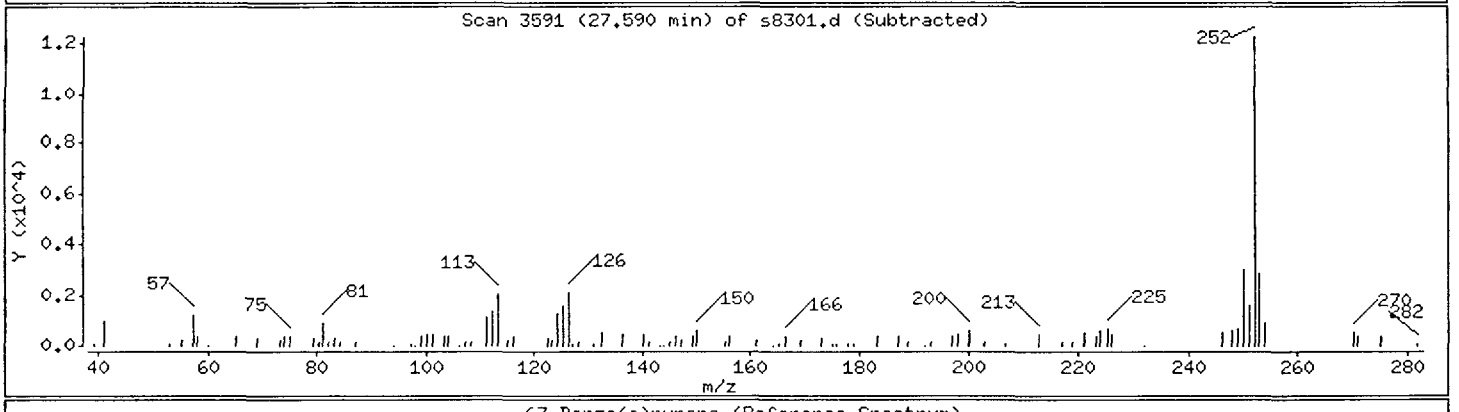
Operator: BNAMS 2

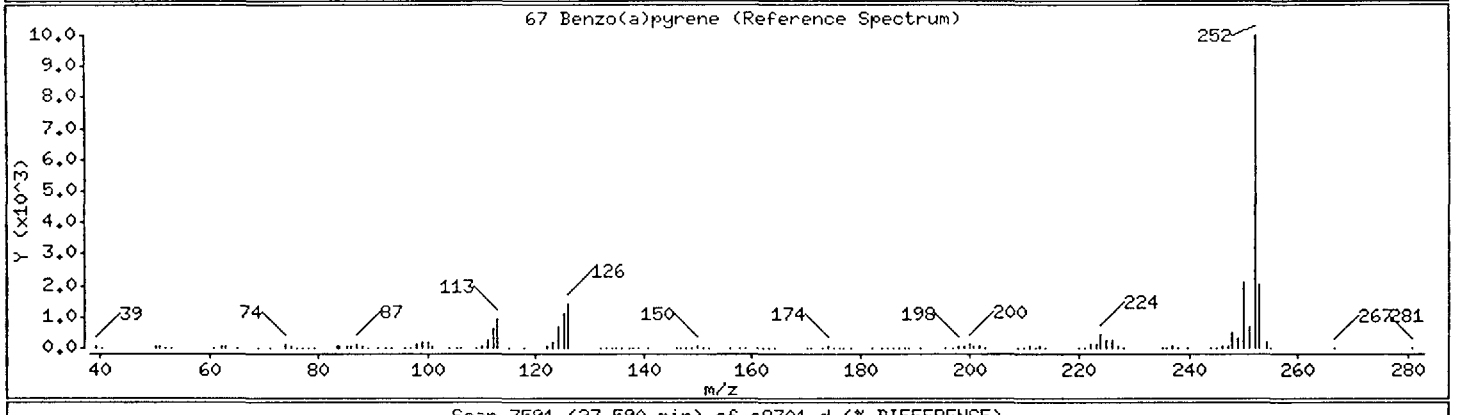
Column phase: DB-5 Column diameter: 0.25

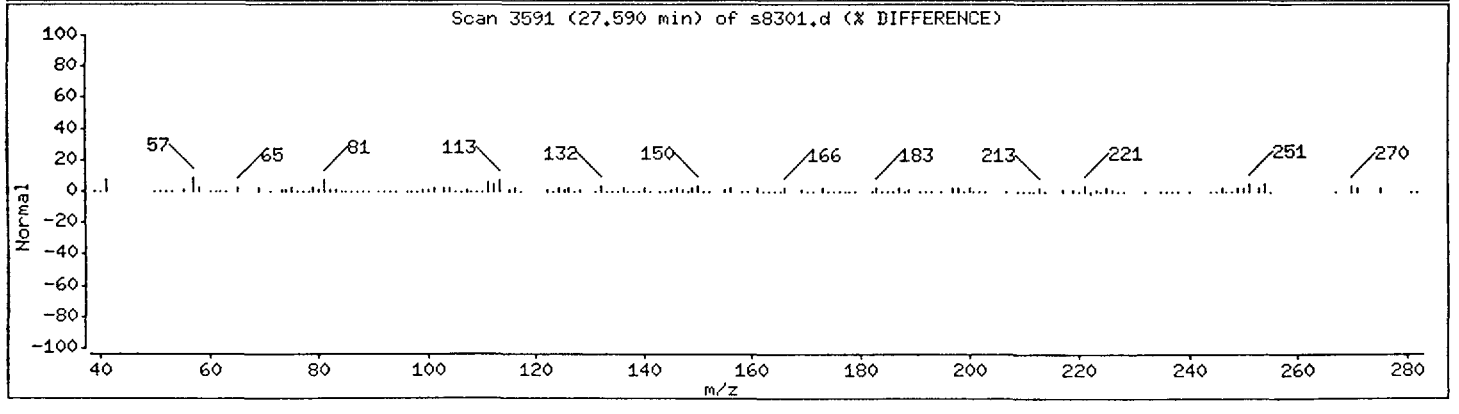
303646

67 Benzo(a)pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

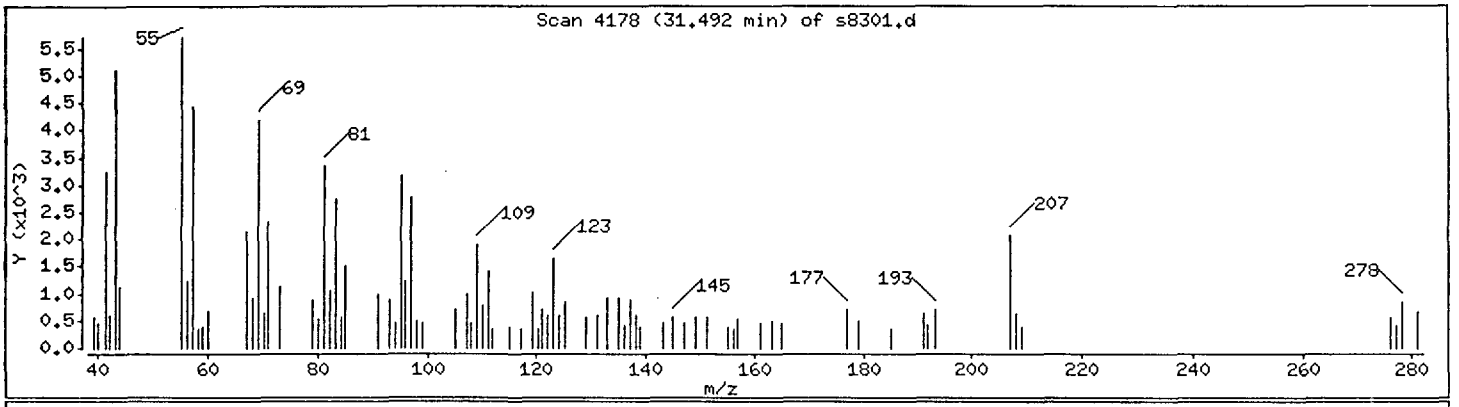
Sample Info: 88562;30;2;1;11.1;

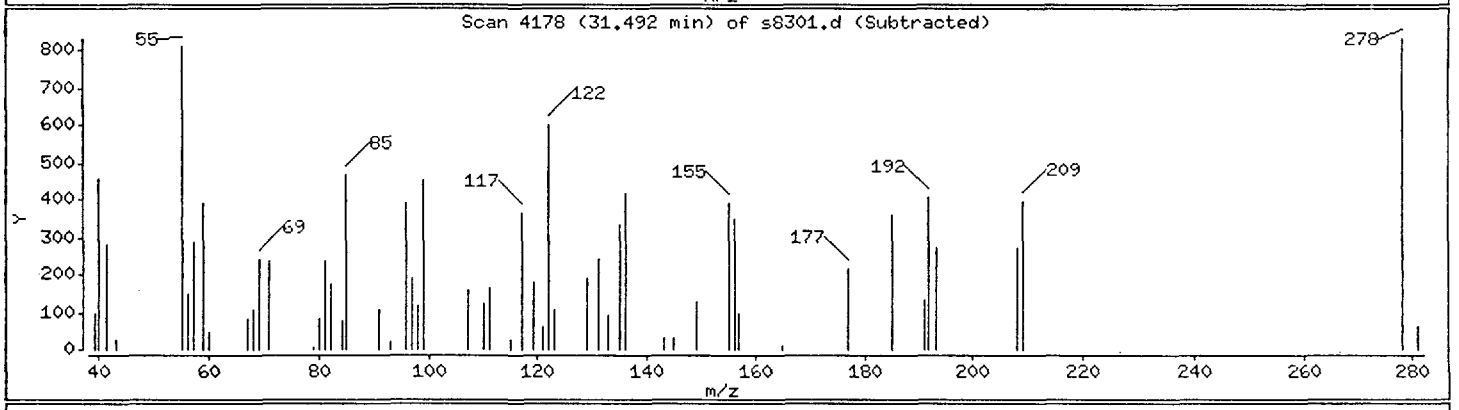
Operator: BNAMS 2

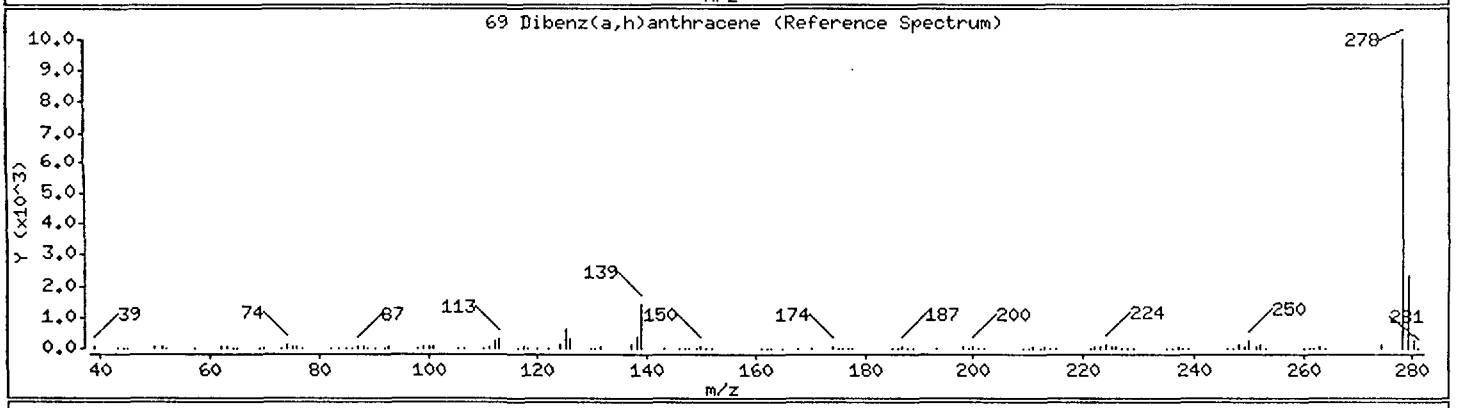
Column phase: DB-5 Column diameter: 0.25

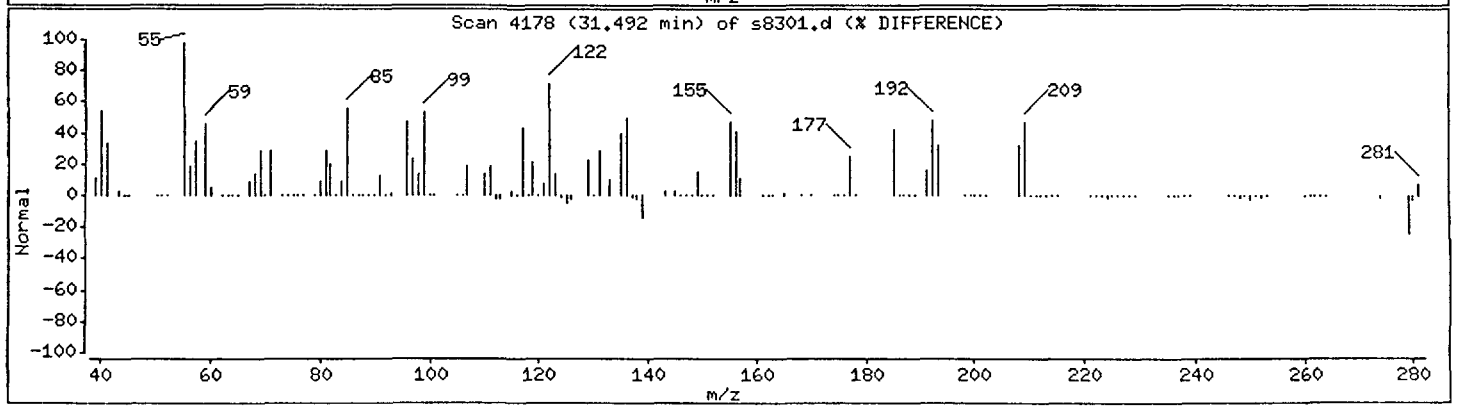
303647

69 Dibenz(a,h)anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

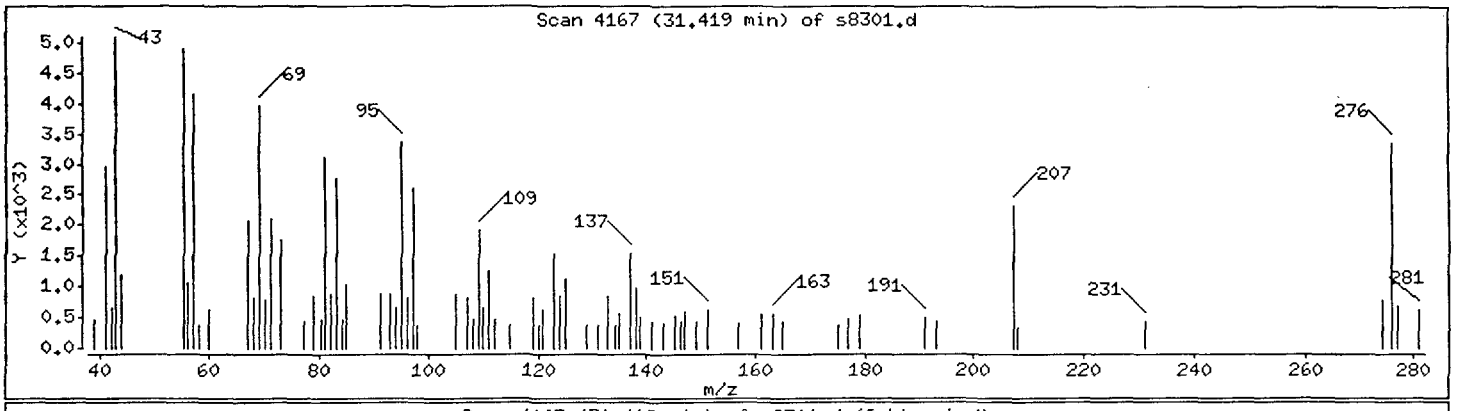
Sample Info: 88562;30;2;1;11.1;

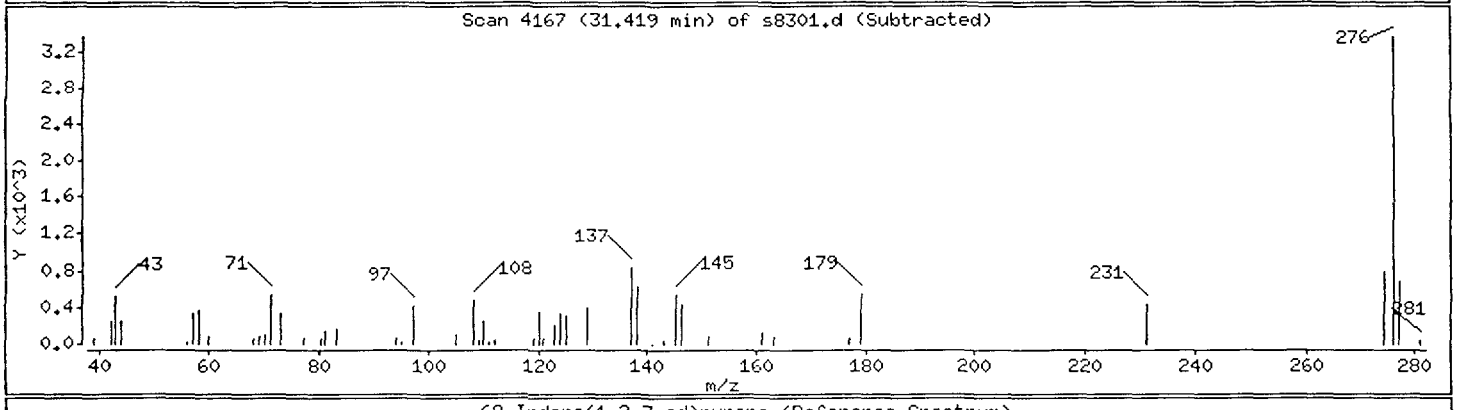
Operator: BNAMS 2

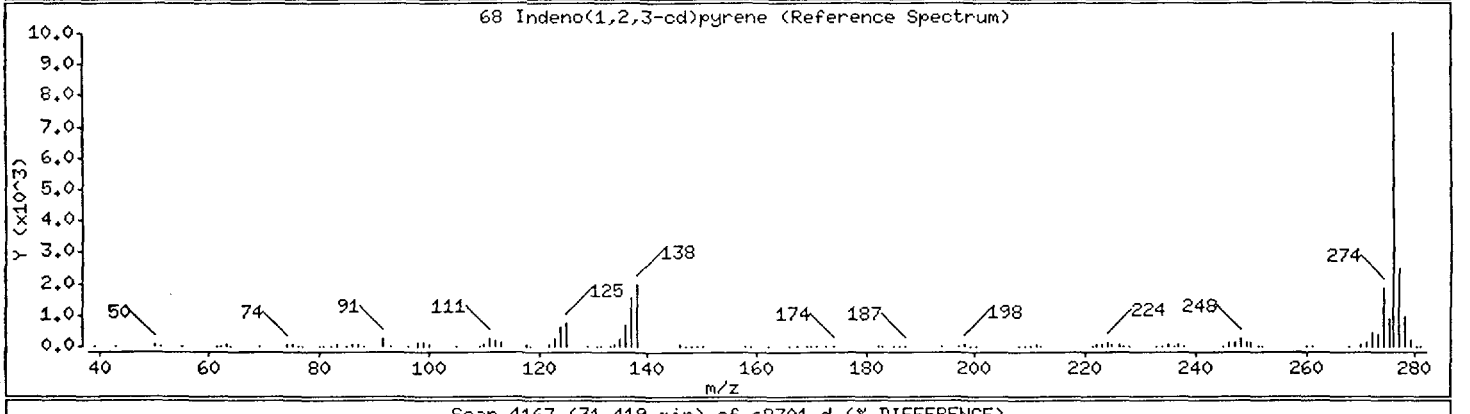
Column phase: DB-5 Column diameter: 0.25

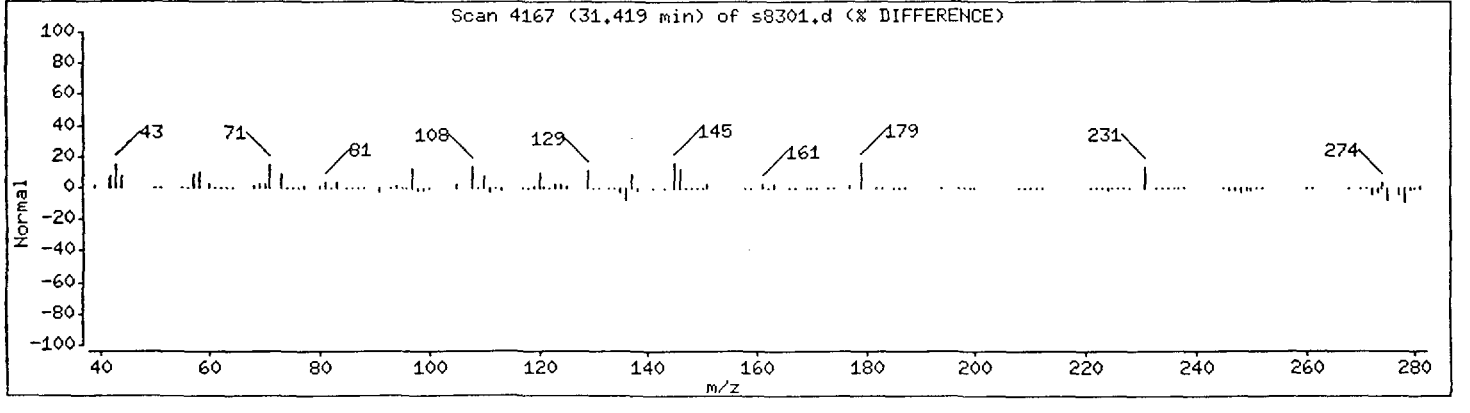
303648

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



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8301.d

Date : 20-OCT-98 18:41:00

Client ID: SSNDS-1A_0-0.5 Instrument: BNAMS2.i

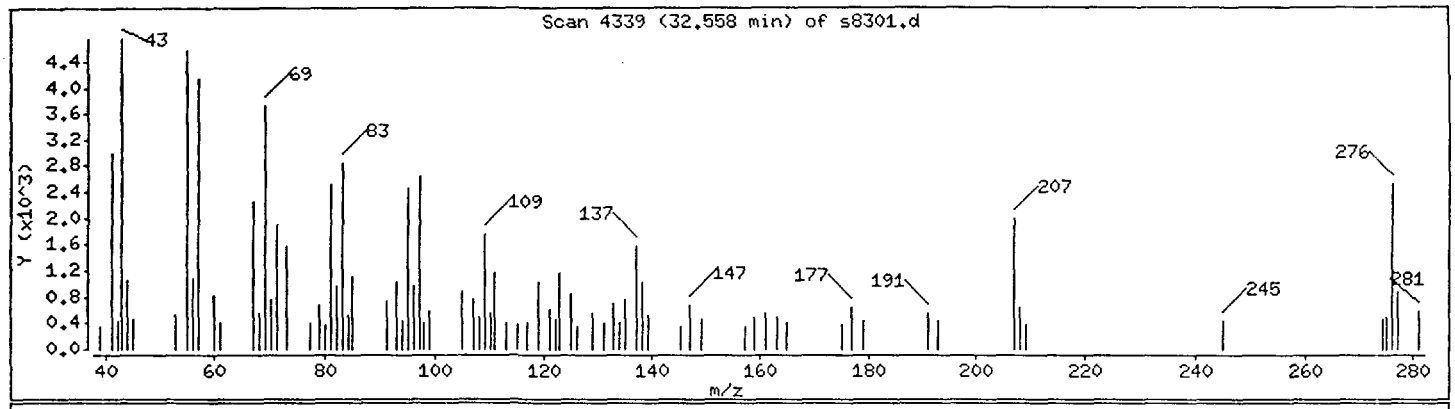
Sample Info: 88562;30;2;1;11.1;

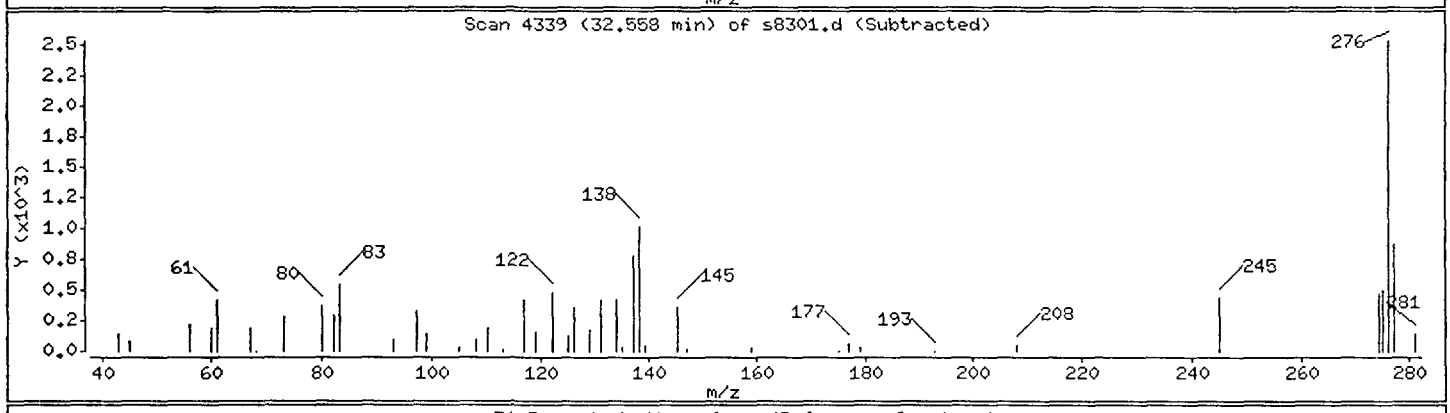
Operator: BNAMS 2

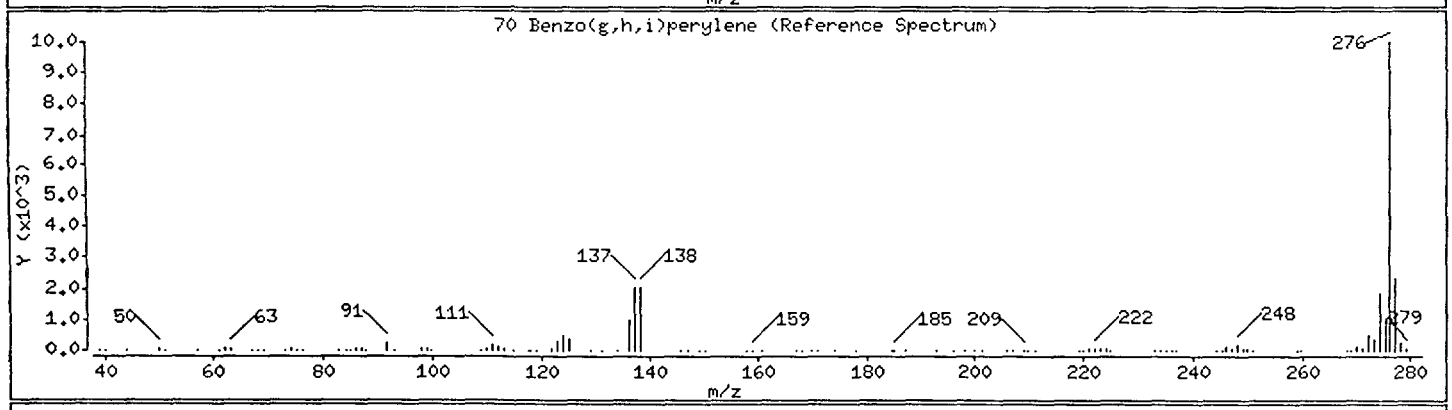
Column phase: DB-5 Column diameter: 0.25

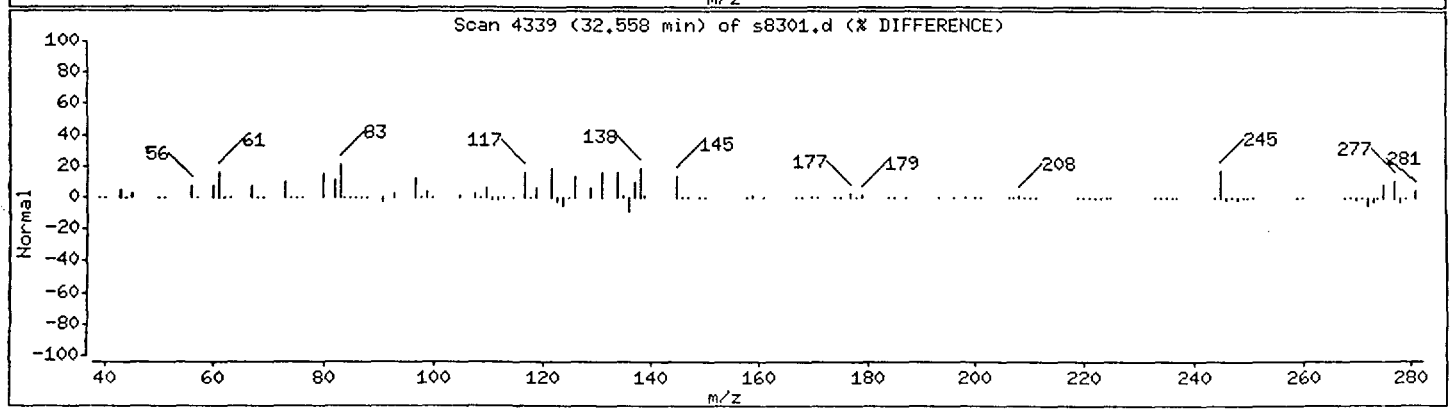
303649

70 Benzo(g,h,i)perylene



Client ID: SSNDS-2A_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88563
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8302.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

## 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 | 38 |
| 1,3-Dichlorobenzene | ND | 380 |
| 1,4-Dichlorobenzene | ND | 380 |
| 1,2-Dichlorobenzene | ND | 380 |
| bis(2-chloroisopropyl)ether | ND | 380 |
| N-Nitroso-di-n-propylamine | ND | 38 |
| Hexachloroethane | ND | 38 |
| Nitrobenzene | ND | 38 |
| Isophorone | ND | 380 |
| bis(2-Chloroethoxy)methane | ND | 380 |
| 1,2,4-Trichlorobenzene | ND | 38 |
| Naphthalene | ND | 380 |
| 4-Chloroaniline | ND | 380 |
| Hexachlorobutadiene | ND | 75 |
| 2-Methylnaphthalene | ND | 380 |
| Hexachlorocyclopentadiene | ND | 380 |
| 2-Chloronaphthalene | ND | 380 |
| 2-Nitroaniline | ND | 750 |
| Dimethylphthalate | ND | 380 |
| Acenaphthylene | 18 J | 380 |
| 2,6-Dinitrotoluene | ND | 75 |
| 3-Nitroaniline | ND | 750 |
| Acenaphthene | ND | 380 |
| Dibenzofuran | ND | 380 |
| 2,4-Dinitrotoluene | ND | 75 |
| Diethylphthalate | ND | 380 |
| 4-Chlorophenyl-phenylether | ND | 380 |
| Fluorene | ND | 380 |
| 4-Nitroaniline | ND | 750 |
| N-Nitrosodiphenylamine | ND | 380 |
| 4-Bromophenyl-phenylether | ND | 380 |
| Hexachlorobenzene | ND | 38 |
| Phenanthrene | 43 J | 380 |
| Anthracene | 16 J | 380 |

303650

Client ID: **SSNDS-2A_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88563**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8302.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Carbazole | ND | 380 |
| Di-n-butylphthalate | ND | 380 |
| Fluoranthene | 140 J | 380 |
| Pyrene | 170 J | 380 |
| Butylbenzylphthalate | ND | 380 |
| 3,3'-Dichlorobenzidine | ND | 750 |
| Benzo(a)anthracene | 100 | 38 |
| Chrysene | 110 J | 380 |
| bis(2-Ethylhexyl)phthalate | 23 J | 380 |
| Di-n-octylphthalate | ND | 380 |
| Benzo(b)fluoranthene | 160 | 38 |
| Benzo(k)fluoranthene | 66 | 38 |
| Benzo(a)pyrene | 94 | 38 |
| Indeno(1,2,3-cd)pyrene | 34 J | 38 |
| Dibenz(a,h)anthracene | 11 J | 38 |
| Benzo(g,h,i)perylene | 27 J | 380 |

303651

Client ID: **SSNDS-2A_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88563**
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/15/98
Date Analyzed: 10/20/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8302.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11.2

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. Unknown | 9.64 | 6800 | |
| 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 6800

303652

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d
Report Date: 20-Oct-98 20:12:59

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d
Lab Smp Id: 88563 Client Smp ID: SSNDS-2A_0-0.5
Inj Date : 20-OCT-98 19:26:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : 88563;30;2;1;11.2;
Misc Info : H941;TCLBN+10;4734;122
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/20oct98.b/8270C-REV..m
Meth Date : 20-Oct-98 10:36:06 Quant Type: ISTD
Cal Date : 17-OCT-98 00:00:00 Cal File: s8230.d
Als bottle: 13
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 | 2.000 | Volume of final extract (ml) |
| Ws | 30.000 | Weight of sample extracted (g) |
| M | 11.200 | % 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 | 12.680 | 12.669 | (1.000) | 508926 | 40 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.644 | 13.644 | (0.918) | 836662 | 44 | 3300 |
| * 80 Naphthalene-d8 | 136 | 14.857 | 14.856 | (1.000) | 1788676 | 40 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.654 | 16.649 | (0.937) | 1683411 | 46 | 3500 |
| 39 Acenaphthylene | 152 | 17.541 | 17.547 | (0.987) | 13317 | 0.24 | 18(a) |
| * 82 Acenaphthene-d10 | 164 | 17.777 | 17.778 | (1.000) | 1161050 | 40 | |
| * 83 Phenanthrene-d10 | 188 | 20.234 | 20.232 | (1.000) | 1662858 | 40 | |
| 52 Phenanthrene | 178 | 20.267 | 20.279 | (1.002) | 29288 | 0.58 | 43(a) |
| 53 Anthracene | 178 | 20.346 | 20.366 | (1.006) | 11488 | 0.22 | 16(a) |
| 56 Fluoranthene | 202 | 22.221 | 22.232 | (1.098) | 86302 | 1.9 | 140(a) |
| 57 Pyrene | 202 | 22.600 | 22.616 | (0.919) | 90804 | 2.2 | 170(aH) |
| $ 78 Terphenyl-d14 (SUR) | 244 | 22.853 | 22.848 | (0.929) | 1379795 | 49 | 3700 |
| 61 Benzo(a)anthracene | 228 | 24.568 | 24.578 | (0.999) | 41596 | 1.3 | 100 |
| * 81 Chrysene-d12 | 240 | 24.595 | 24.605 | (1.000) | 1011902 | 40 | |
| 62 Chrysene | 228 | 24.629 | 24.652 | (1.001) | 46882 | 1.5 | 110(a) |

303653

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d
Report Date: 20-Oct-98 20:12:59

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 63 bis(2-Ethylhexyl)phthalate | 149 | 24.562 | 24.565 | (0.999) | 10412 | 0.30 | 23(aM) |
| 65 Benzo(b)fluoranthene | 252 | 26.734 | 26.765 | (0.963) | 51982 | 2.1 | 160 |
| 66 Benzo(k)fluoranthene | 252 | 26.795 | 26.845 | (0.965) | 20505 | 0.88 | 66(M) |
| 67 Benzo(a)pyrene | 252 | 27.579 | 27.623 | (0.993) | 28671 | 1.2 | 94 |
| * 84 Perylene-d12 | 264 | 27.761 | 27.776 | (1.000) | 690108 | 40 | |
| 69 Dibenz(a,h)anthracene | 278 | 31.499 | 31.604 | (1.135) | 3187 | 0.15 | 11(aM) |
| 68 Indeno(1,2,3-cd)pyrene | 276 | 31.413 | 31.484 | (1.132) | 10693 | 0.45 | 34(aM) |
| 70 Benzo(g,h,i)perylene | 276 | 32.565 | 32.673 | (1.173) | 8478 | 0.36 | 27(aM) |

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.

303654

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d
Date : 20-OCT-98 19:26:00
Client ID: SSNDS-2A_0-0.5
Sample Info: 88563;30;2;1;11.2;

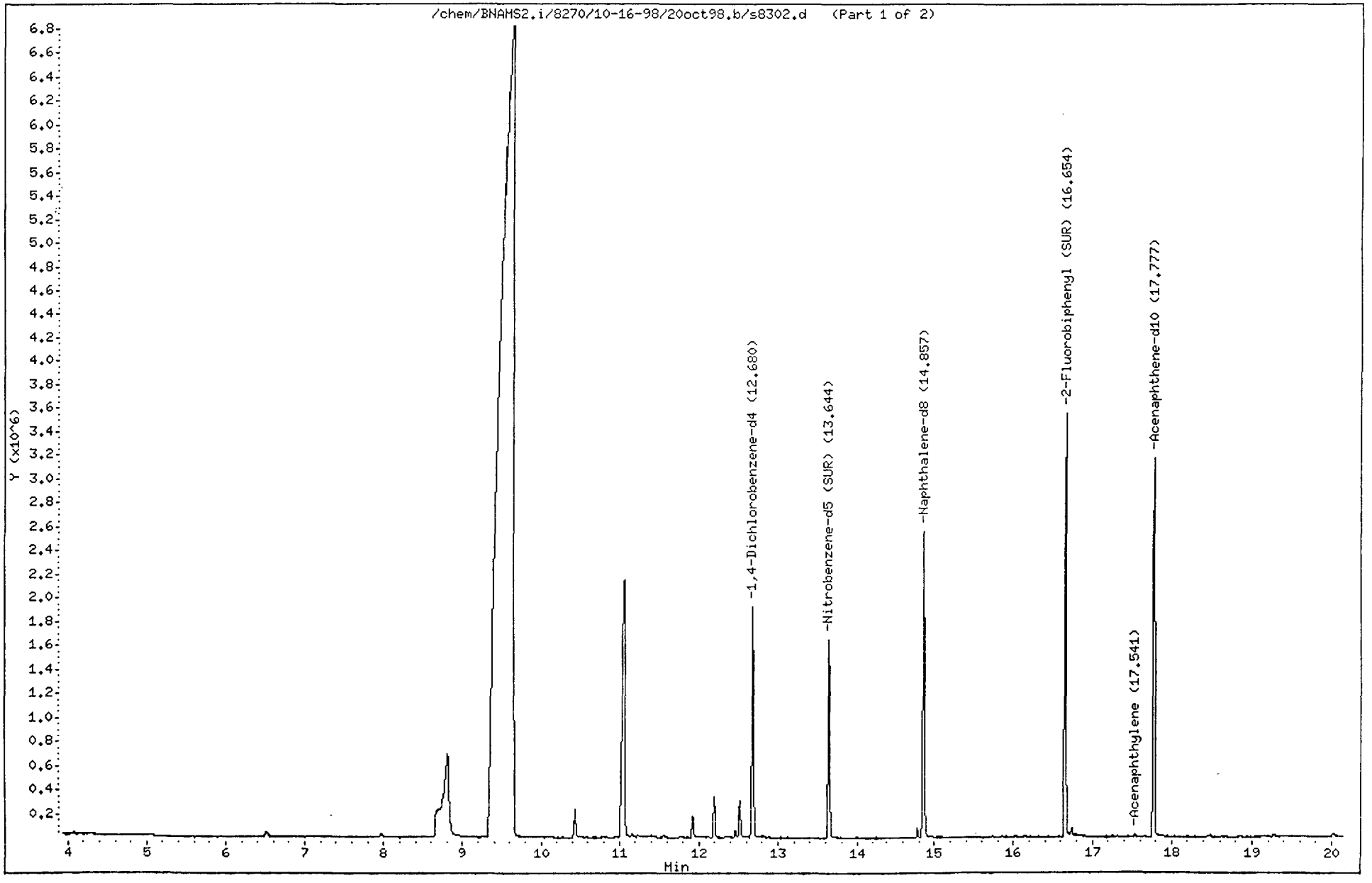
Column phase: DB-5

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

303655

120



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d
Date : 20-OCT-98 19:26:00
Client ID: SSNDS-2A_0-0.5
Sample Info: 88563;30;2;1;11.2;

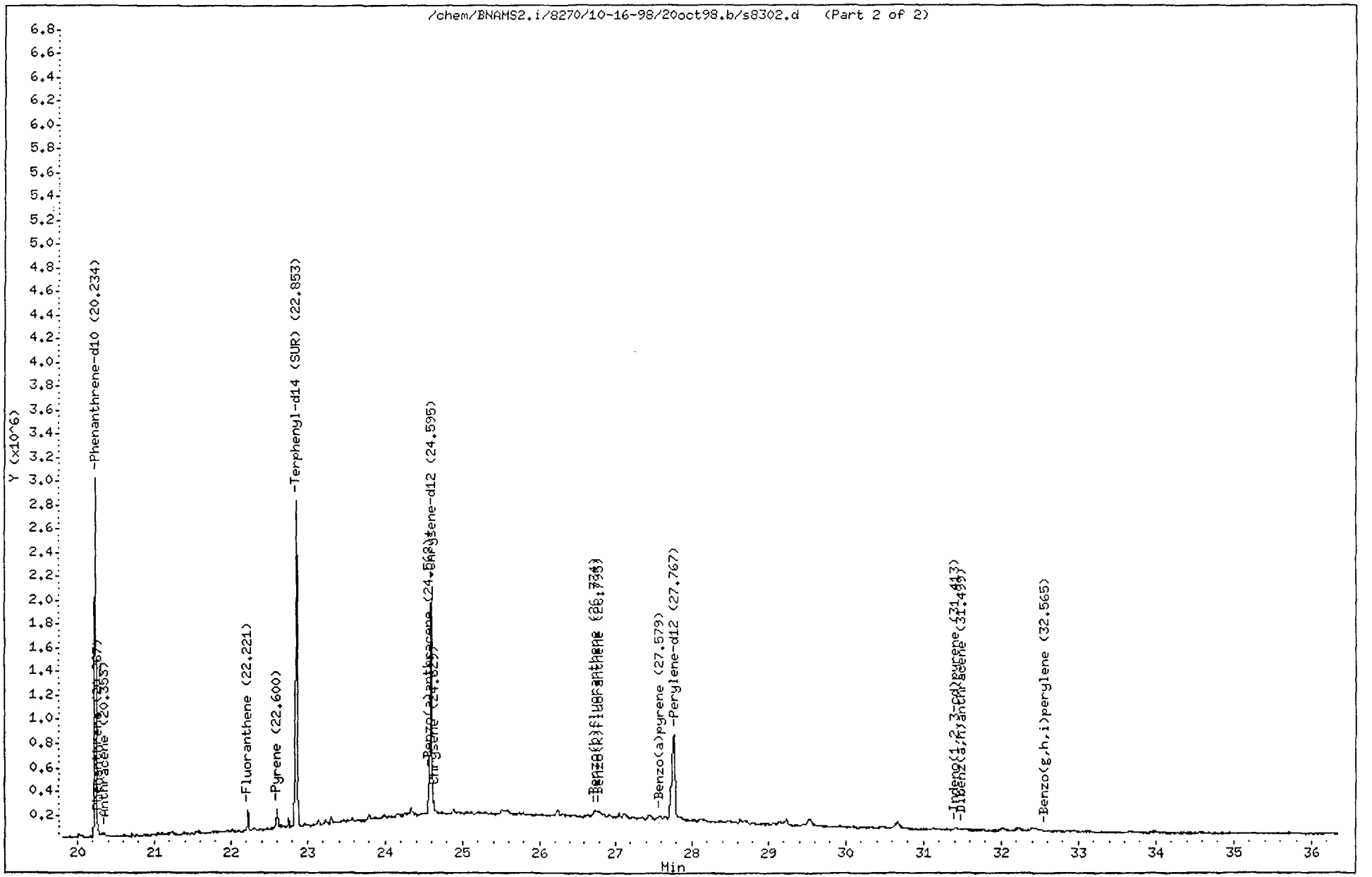
Instrument: BNAMS2.i

Operator: BNAMS 2

303656

Column phase: DB-5

Column diameter: 0.25




121

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

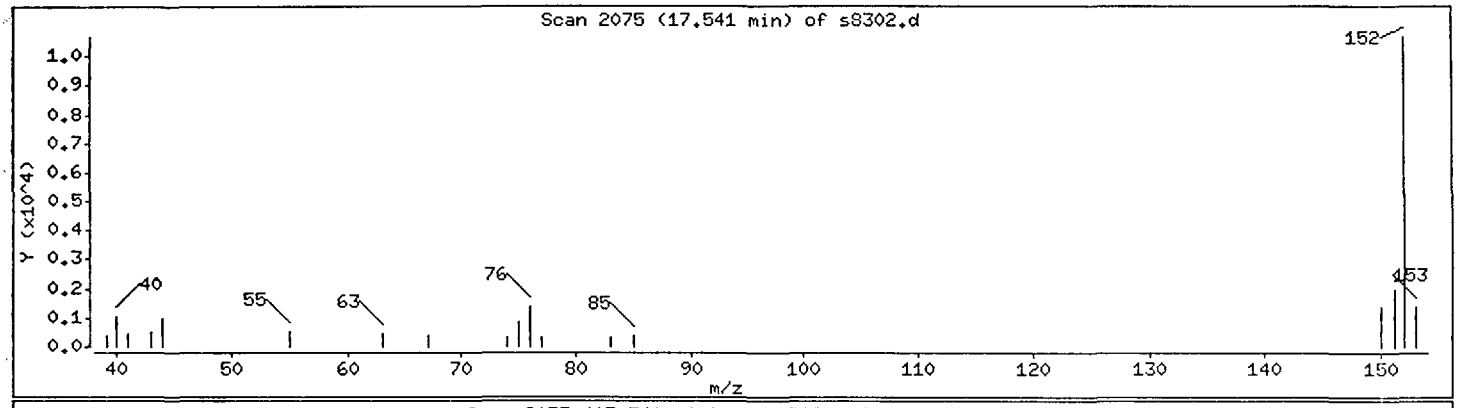
Sample Info: 88563;30;2;1;11.2;

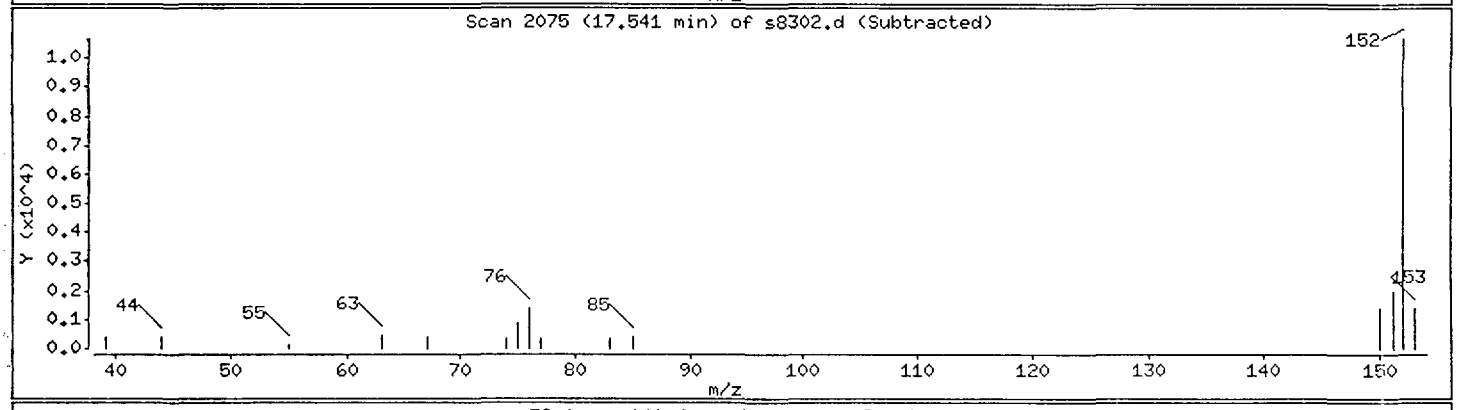
Operator: BNAMS 2

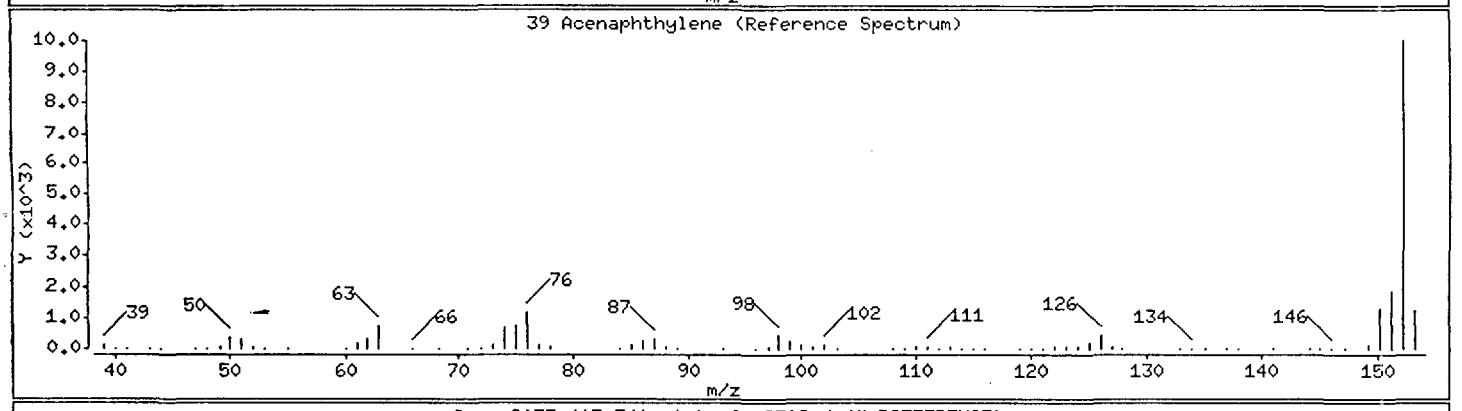
Column phase: DB-5 Column diameter: 0.25

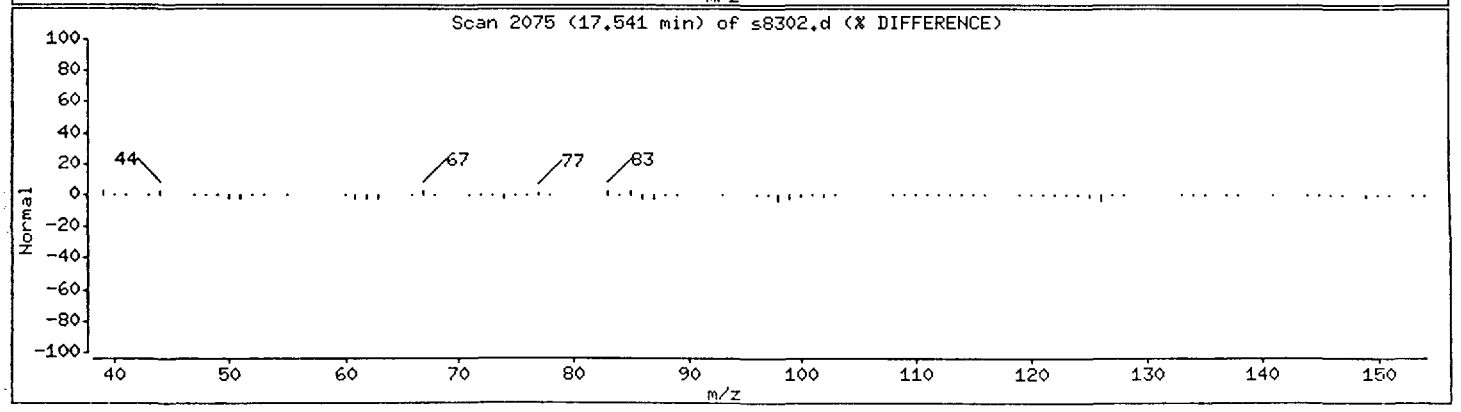
303657

39 Acenaphthylene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

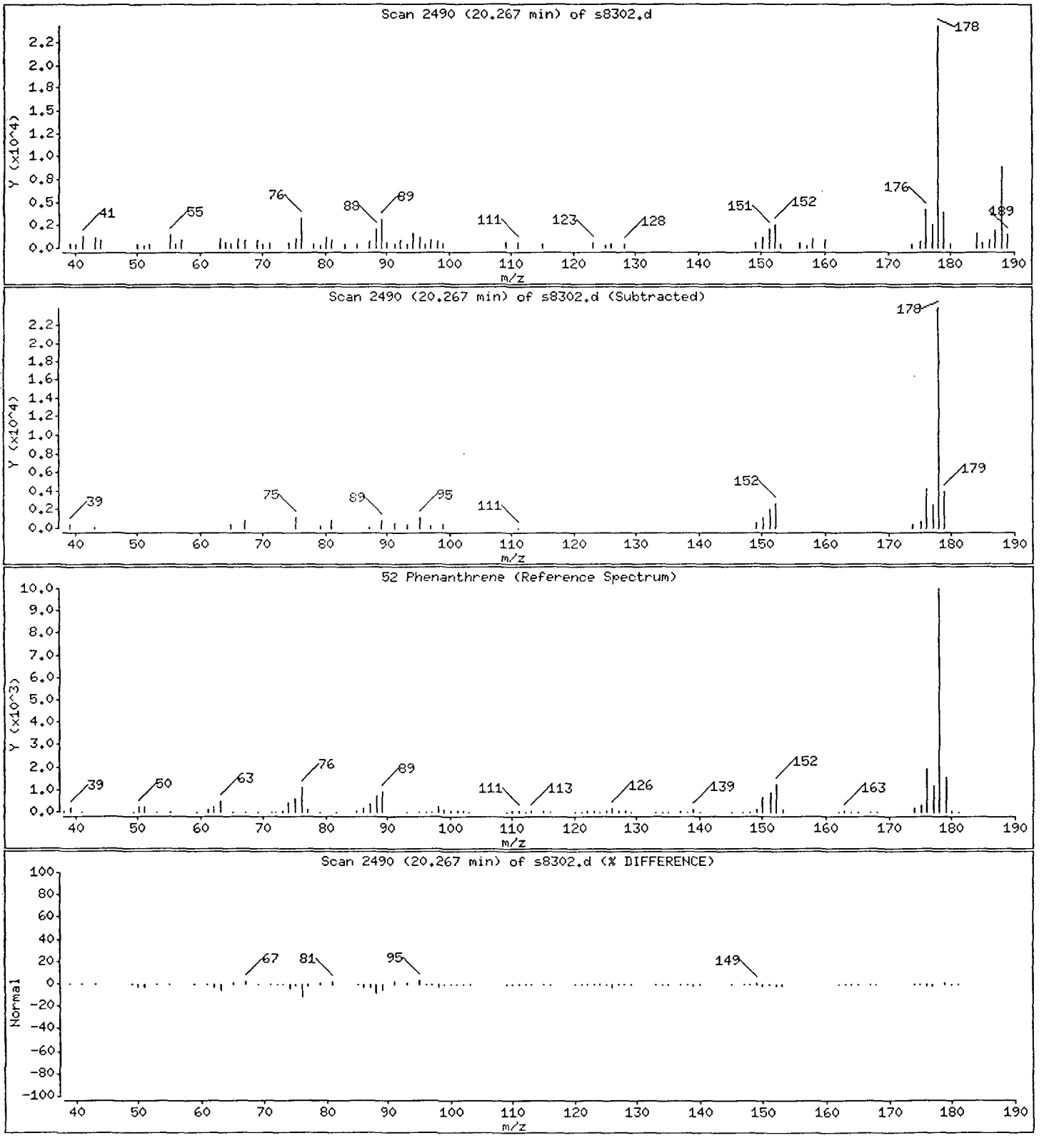
Sample Info: 88563;30;2;1;11.2;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303658

52 Phenanthrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5

Instrument: BNAMS2.i

Sample Info: 88563;30;2;1;11.2;

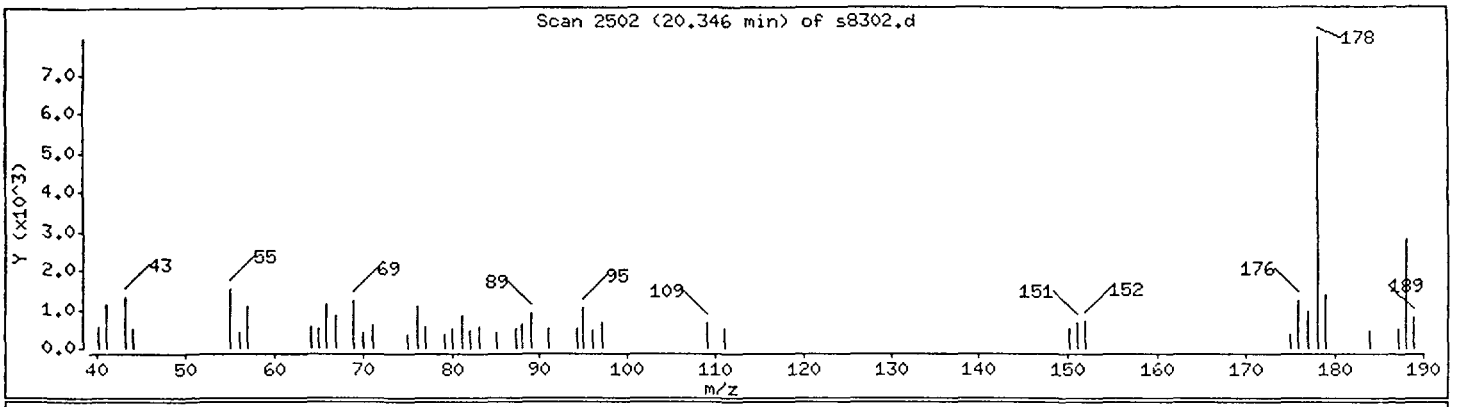
Operator: BNAMS 2

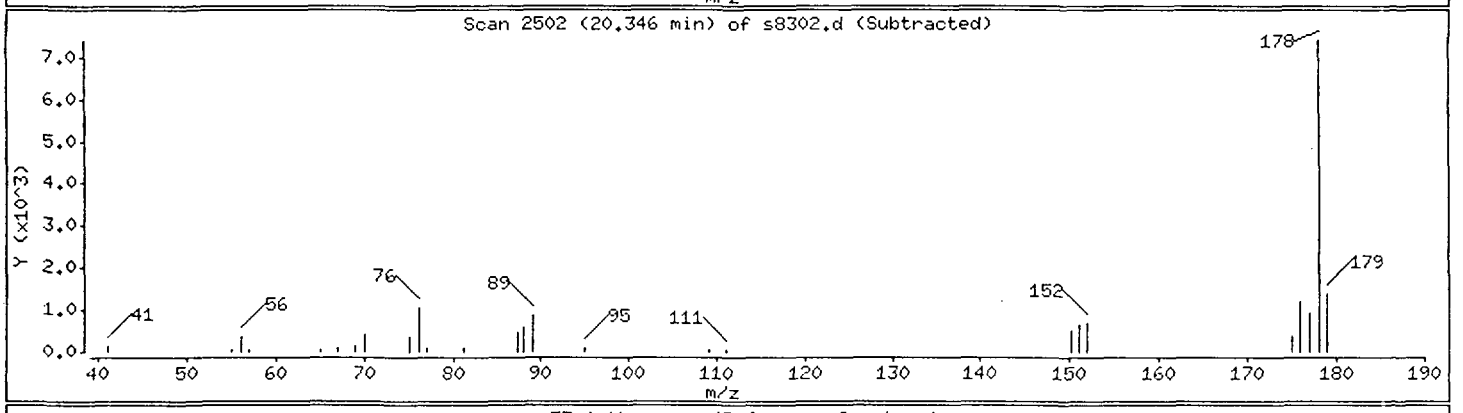
Column phase: DB-5

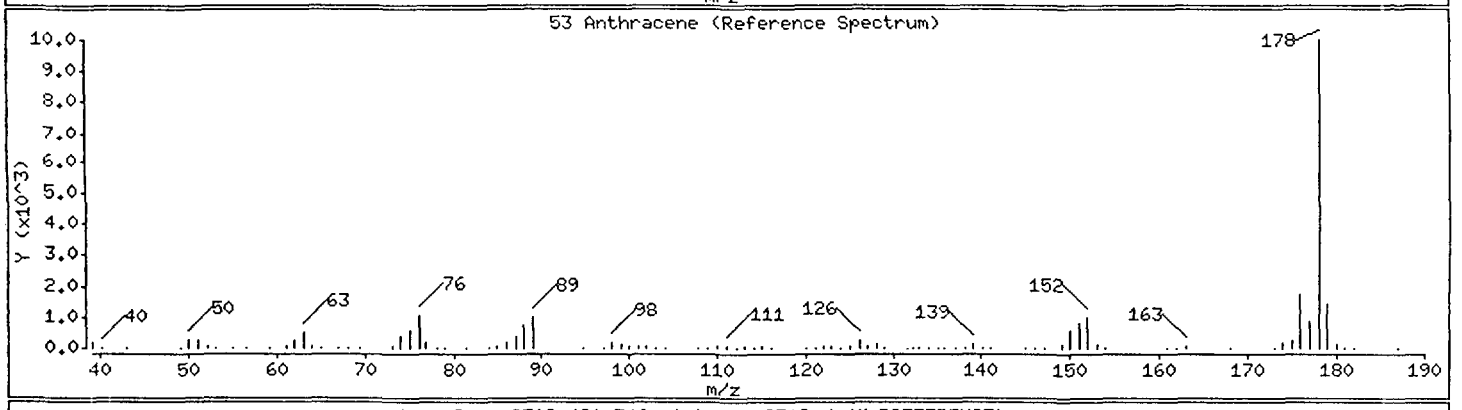
Column diameter: 0.25

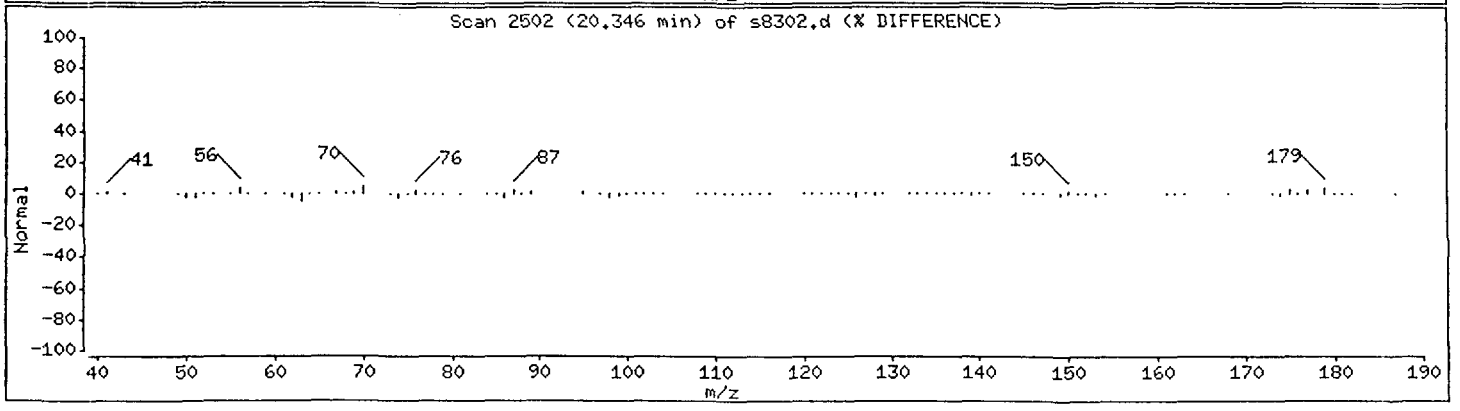
303659

53 Anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

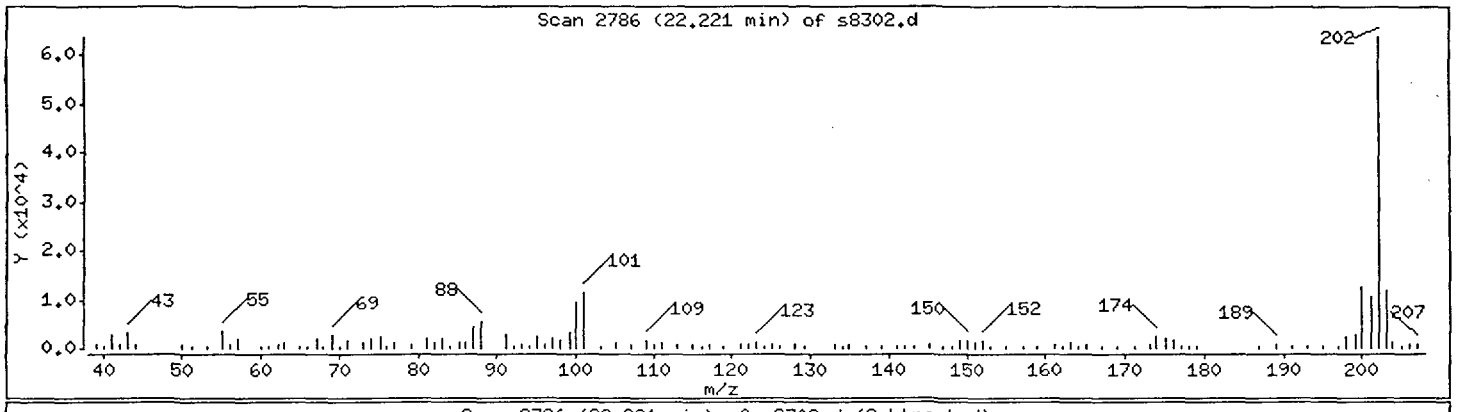
Sample Info: 88563;30;2;1;11.2;

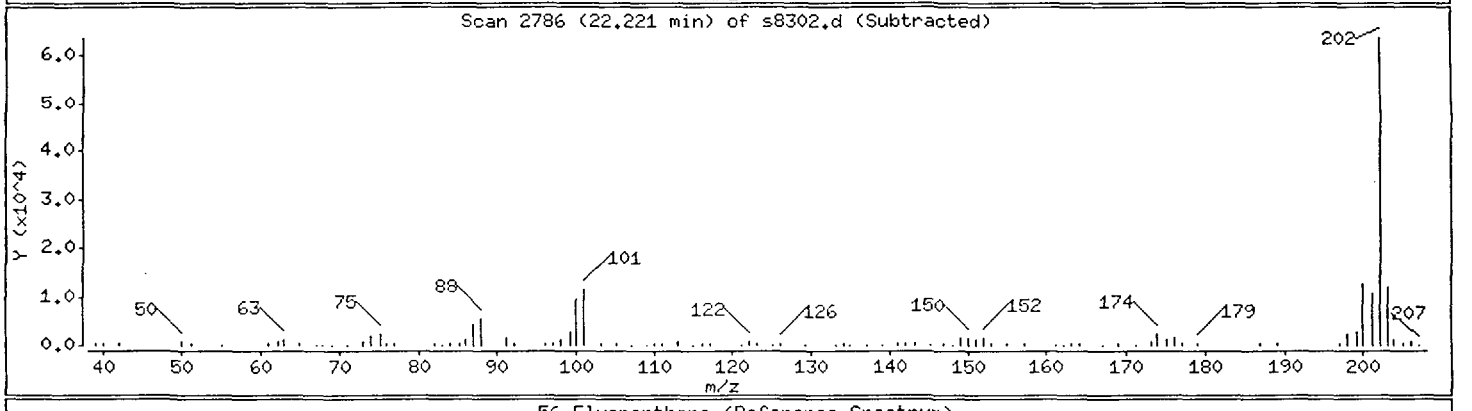
Operator: BNAMS 2

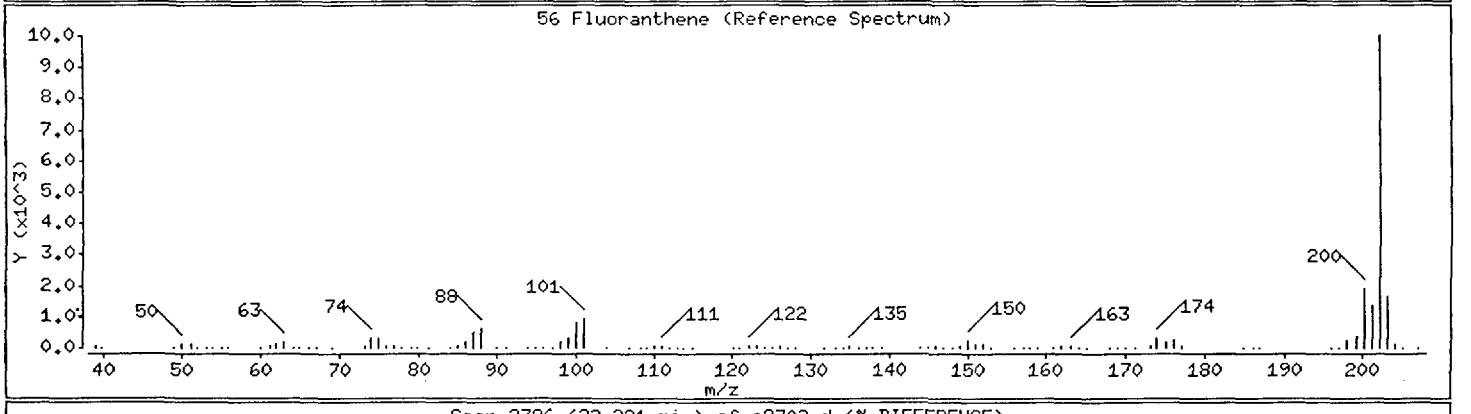
Column phase: DB-5 Column diameter: 0.25

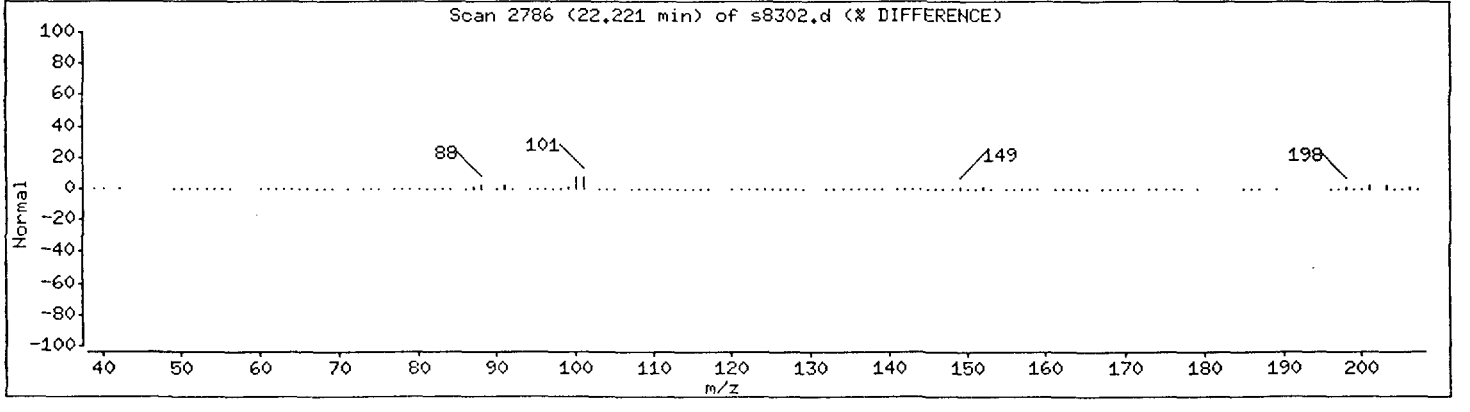
303660

56 Fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

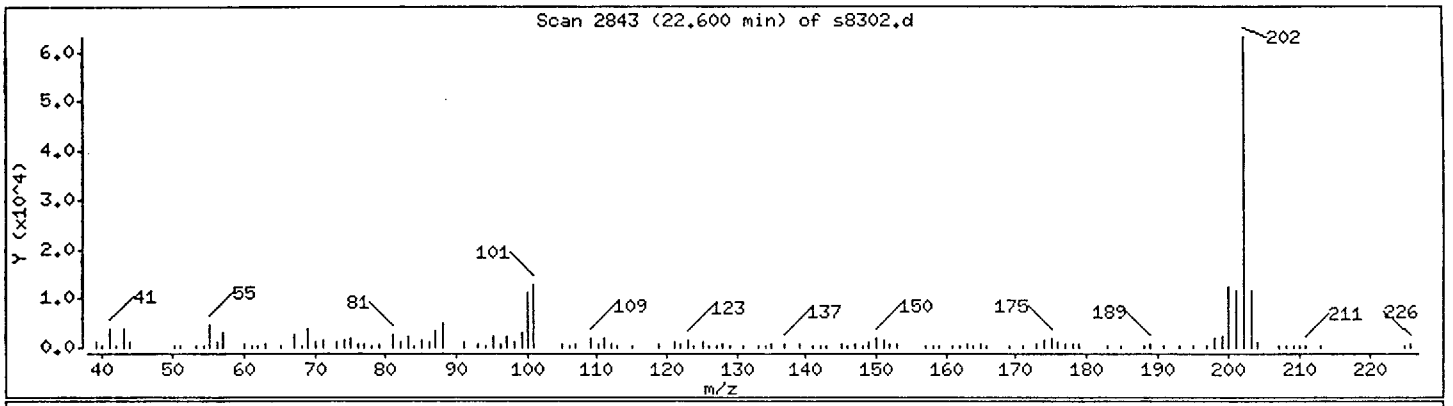
Sample Info: 88563;30;2;1;11.2;

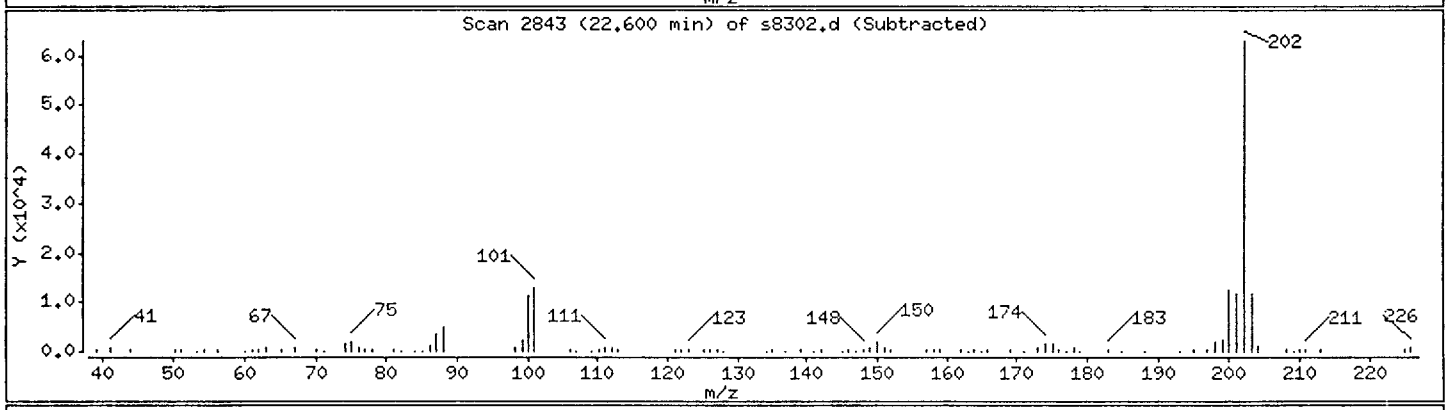
Operator: BNAMS 2

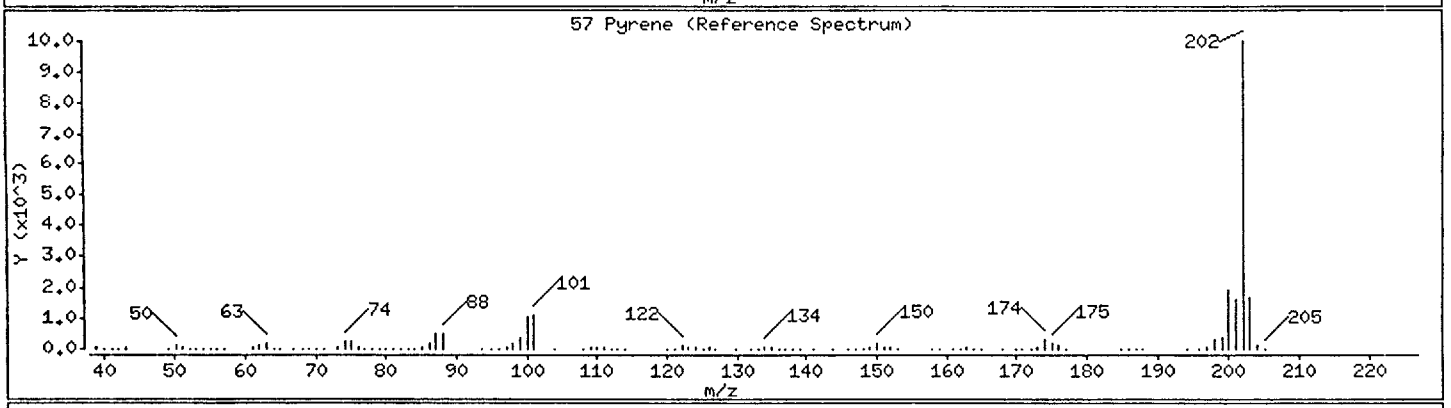
Column phase: DB-5 Column diameter: 0.25

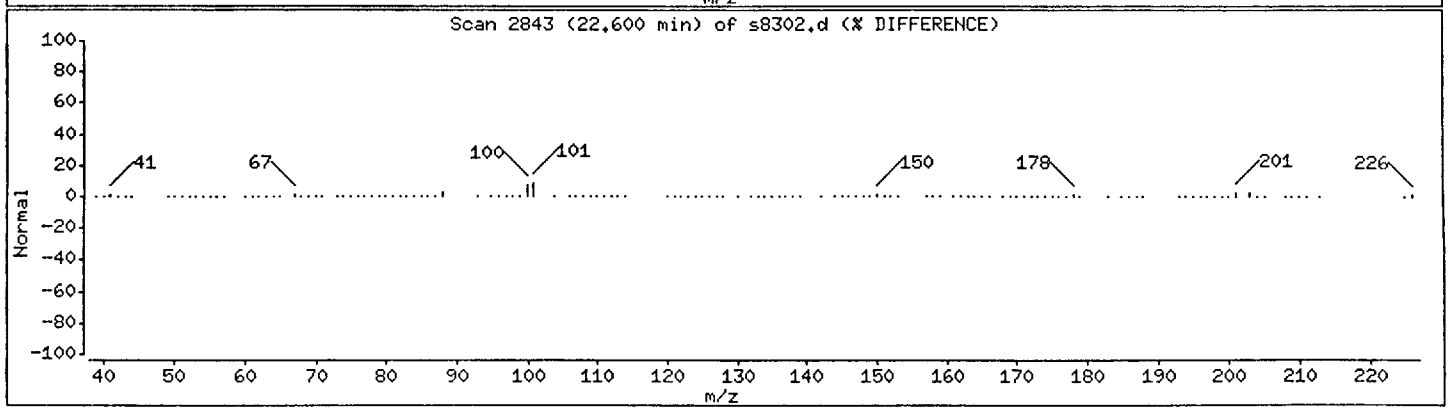
303661

57 Pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

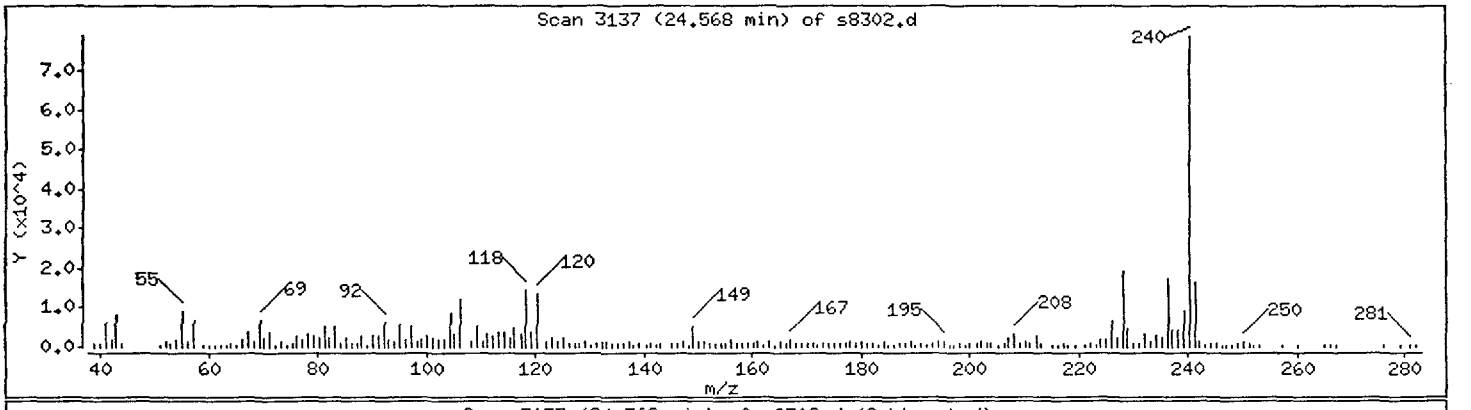
Sample Info: 88563;30;2;1;11.2;

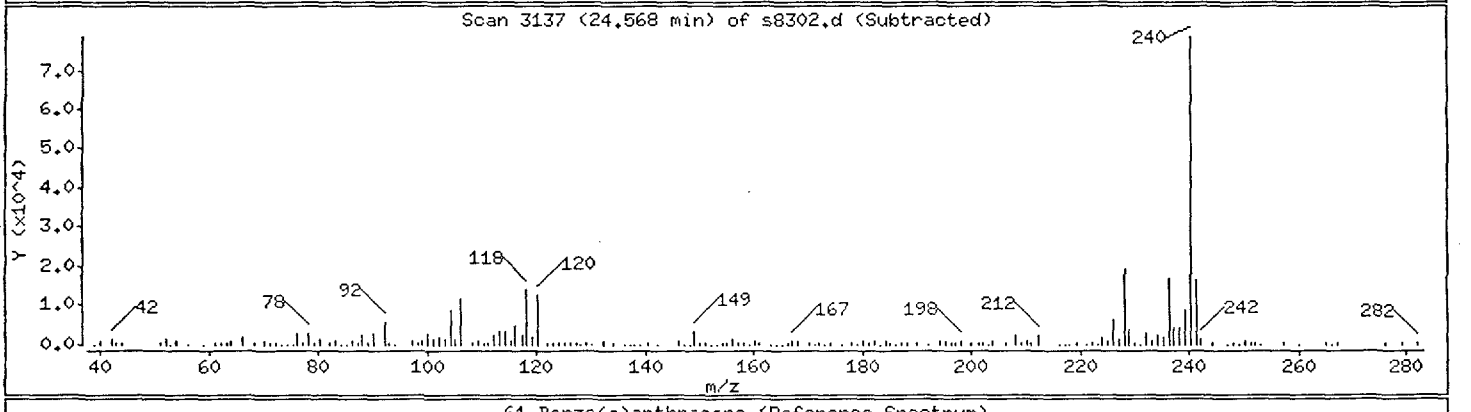
Operator: BNAMS 2

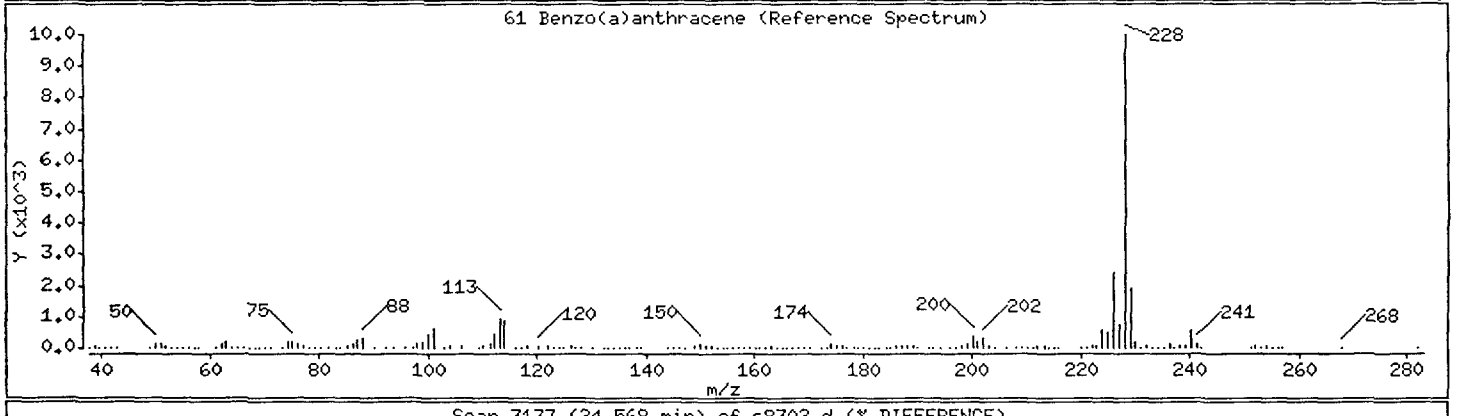
Column phase: DB-5 Column diameter: 0.25

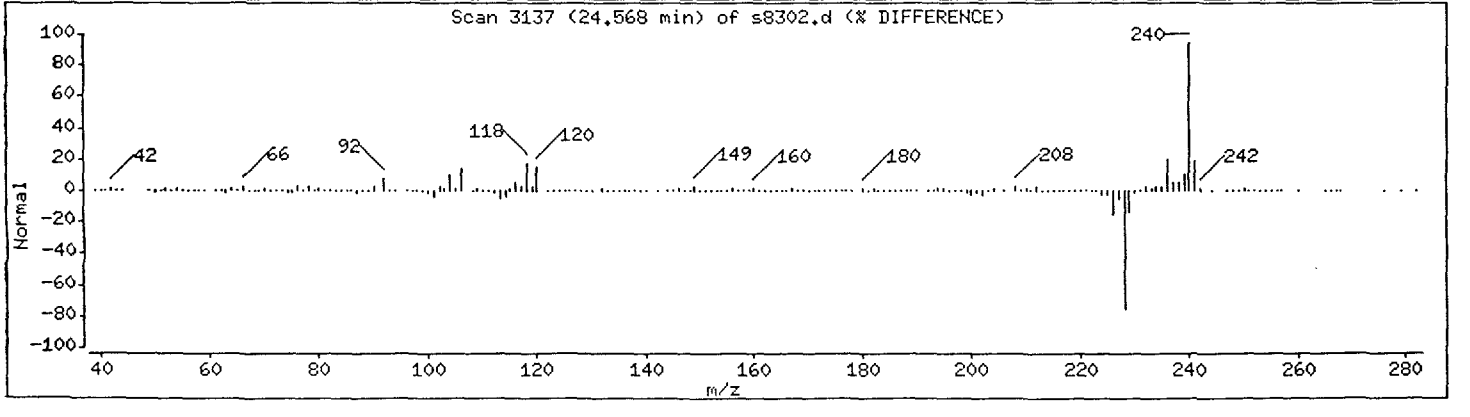
303662

61 Benzo(a)anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

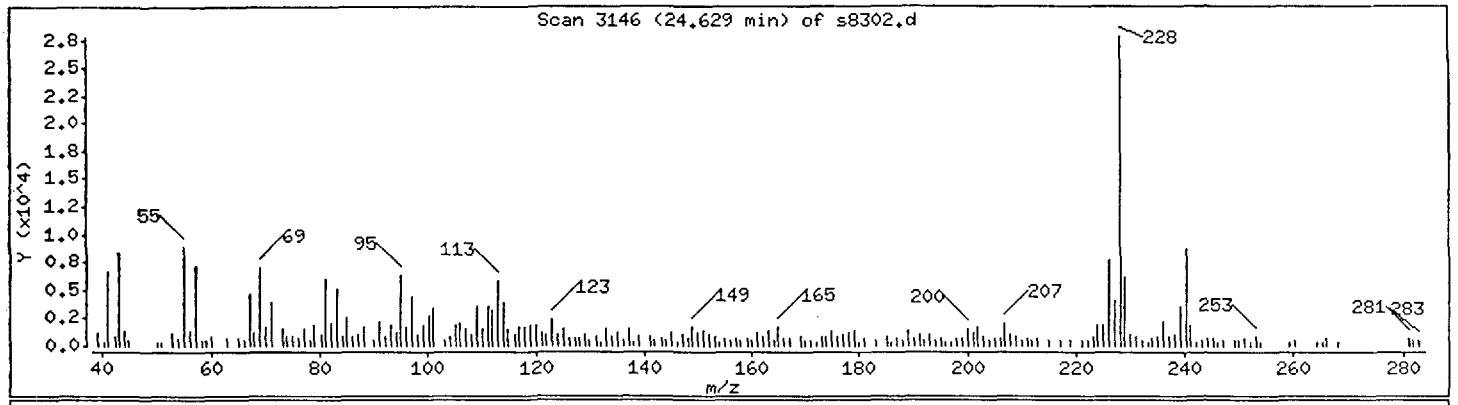
Sample Info: 88563;30;2;1;11.2;

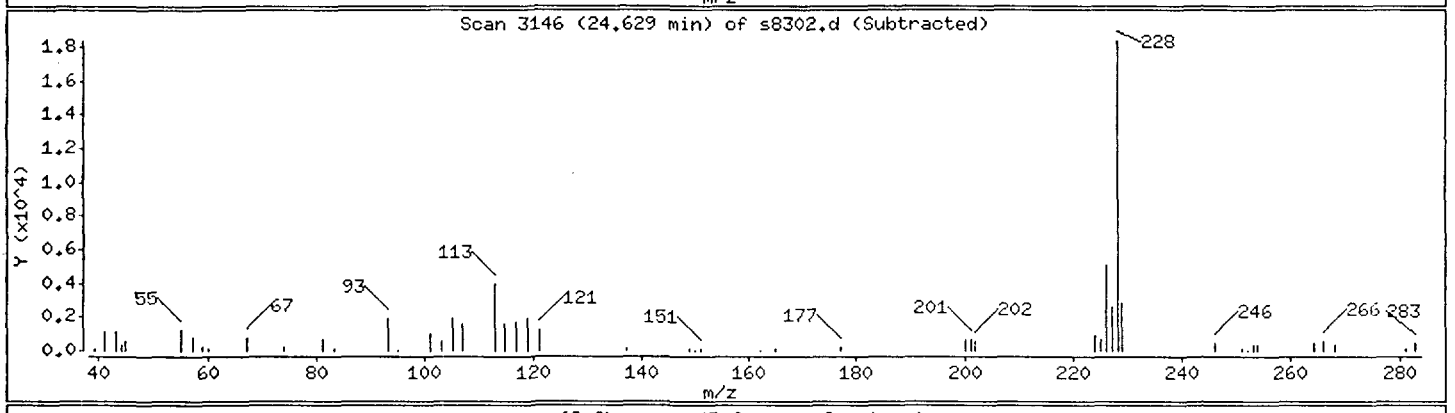
Operator: BNAMS 2

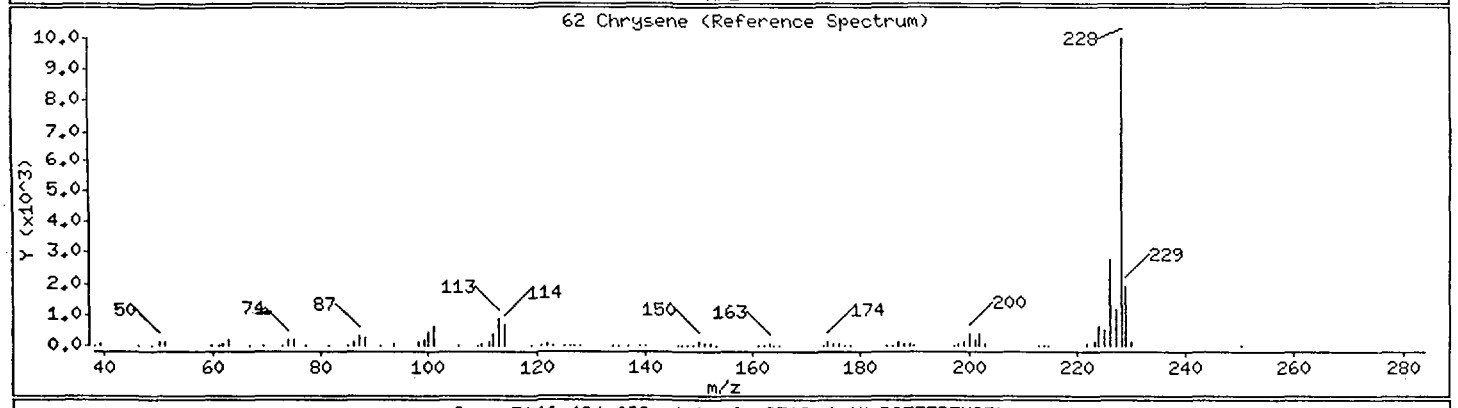
Column phase: DB-5 Column diameter: 0.25

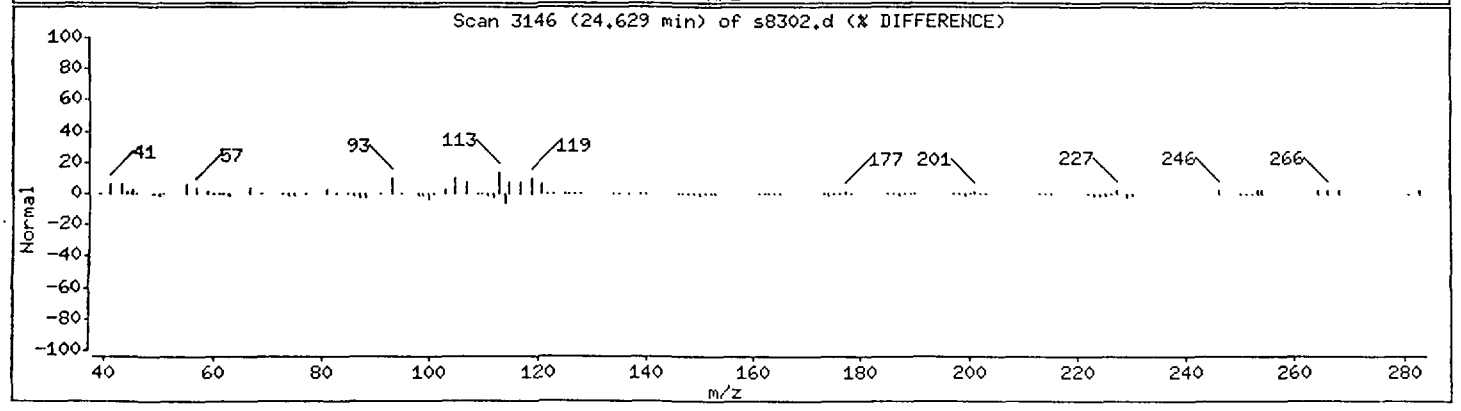
303663

62 Chrysene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

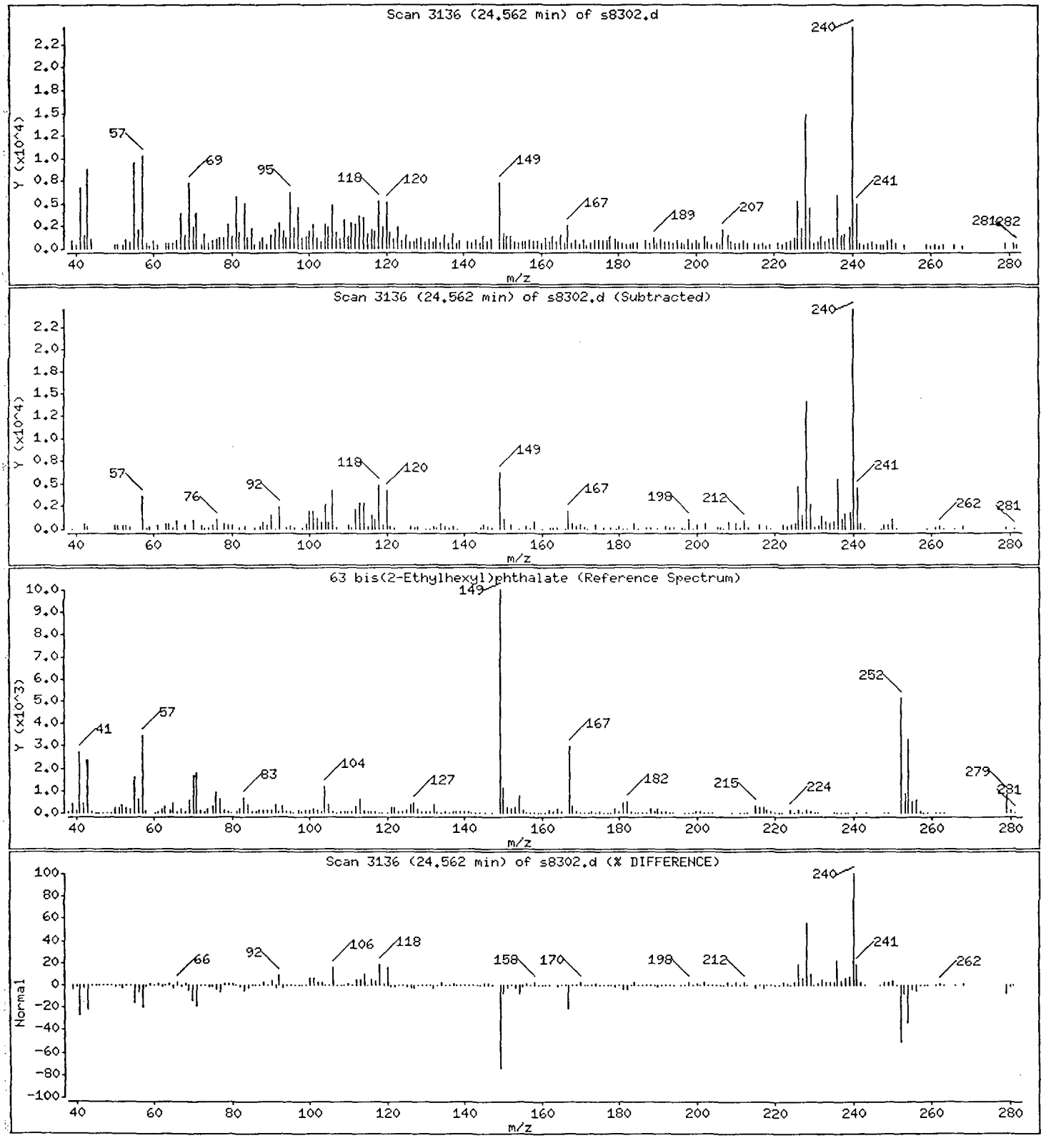
Sample Info: 88563;30;2;1;11.2;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303664

63 bis(2-Ethylhexyl)phthalate



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

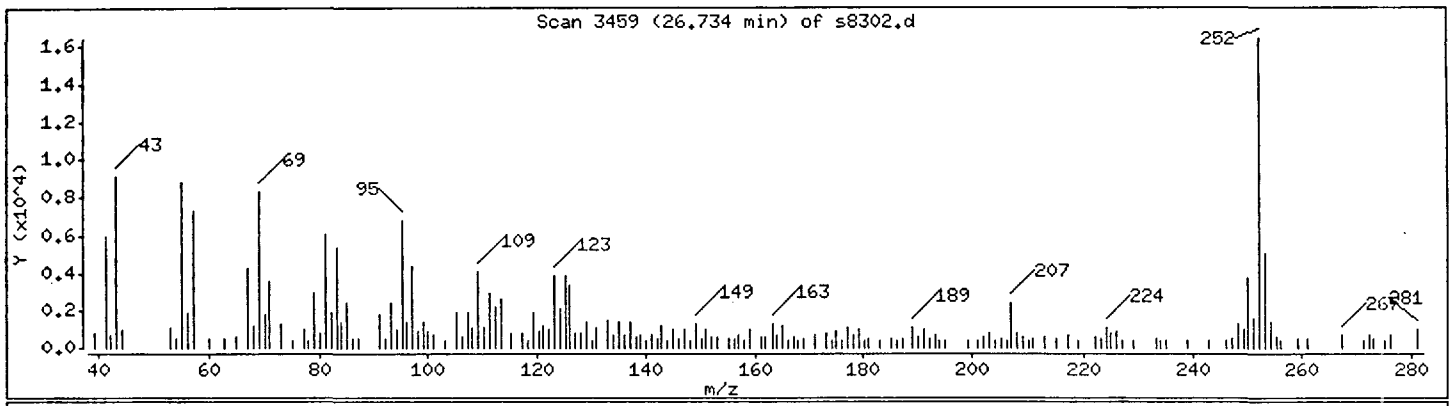
Sample Info: 88563;30;2;1;11.2;

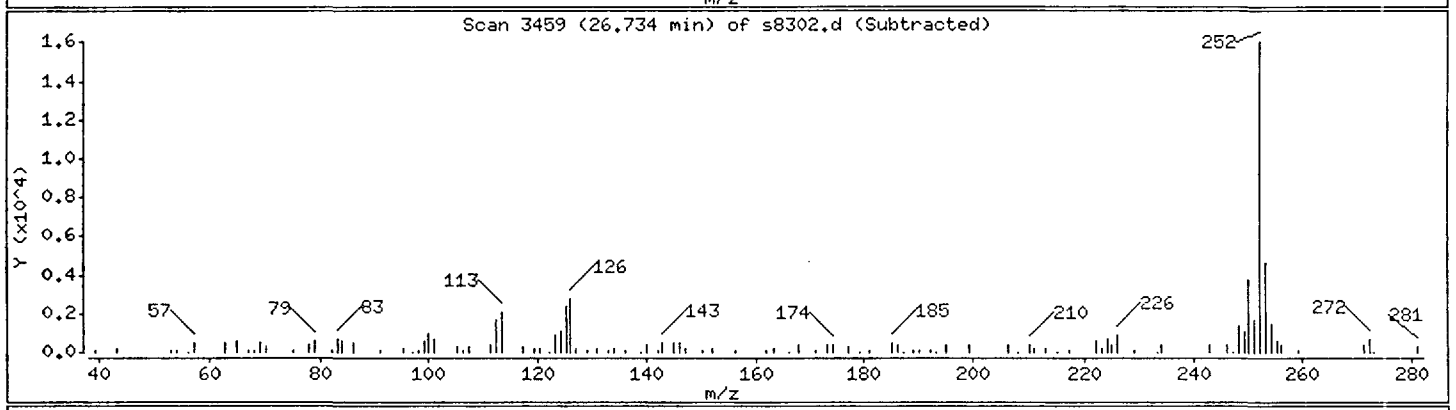
Operator: BNAMS 2

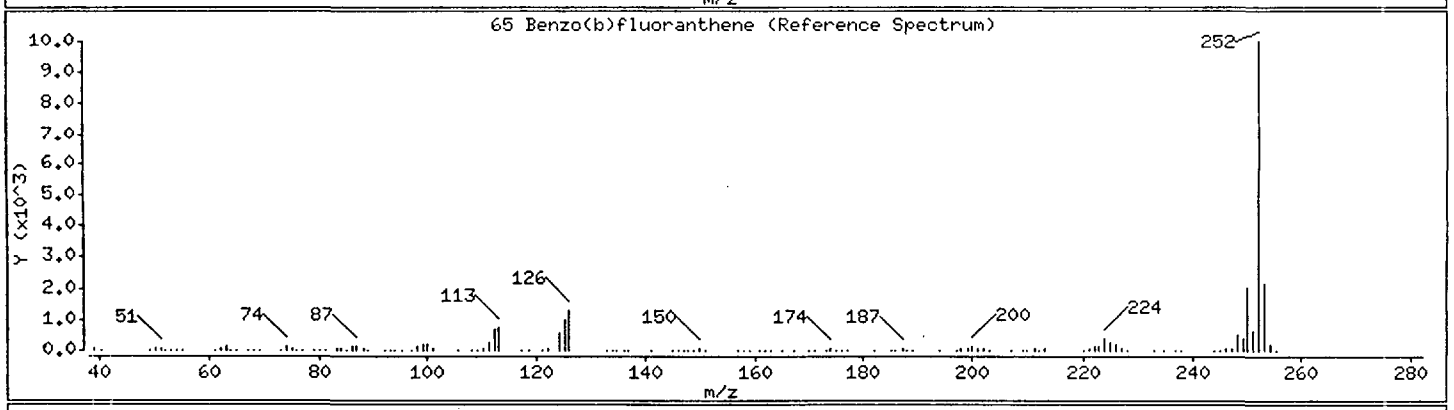
Column phase: DB-5 Column diameter: 0.25

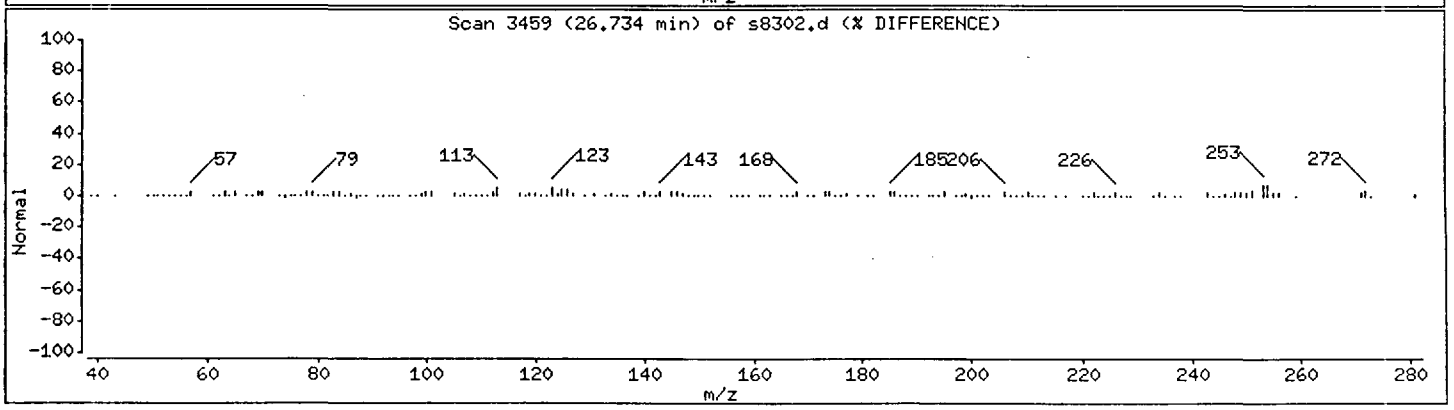
303665

65 Benzo(b)fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

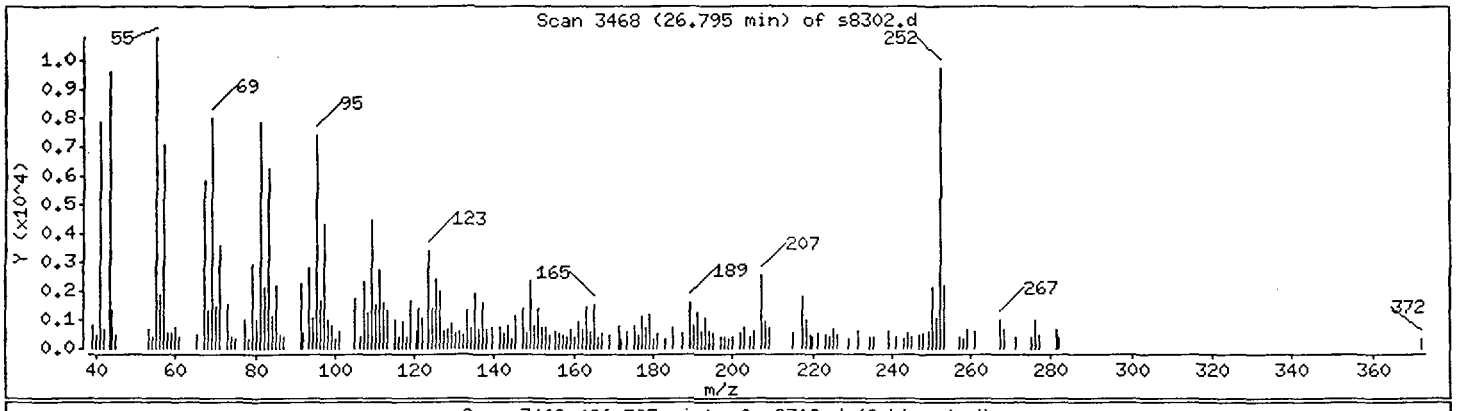
Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

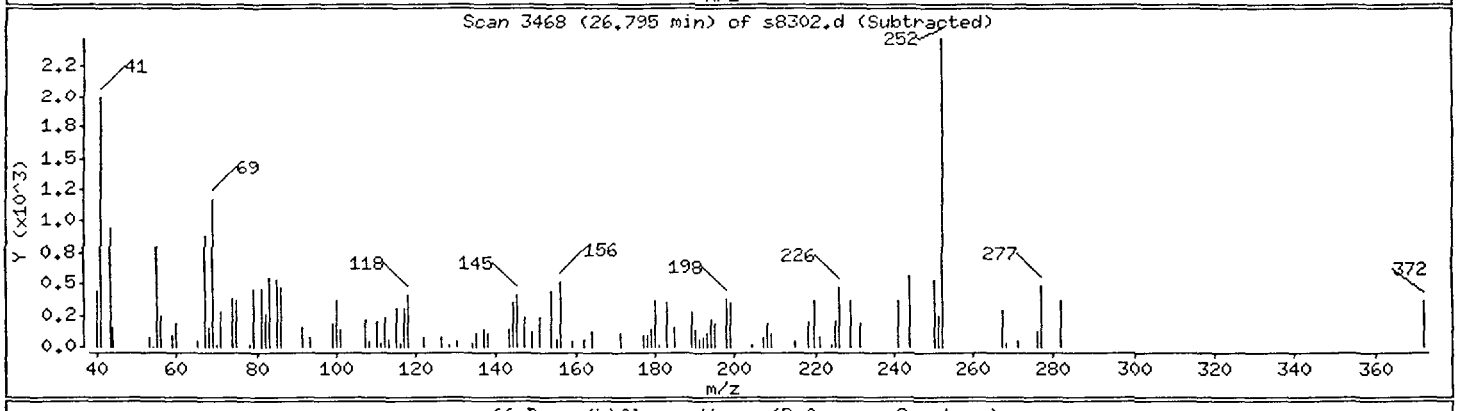
Sample Info: 88563;30;2;1;11.2;

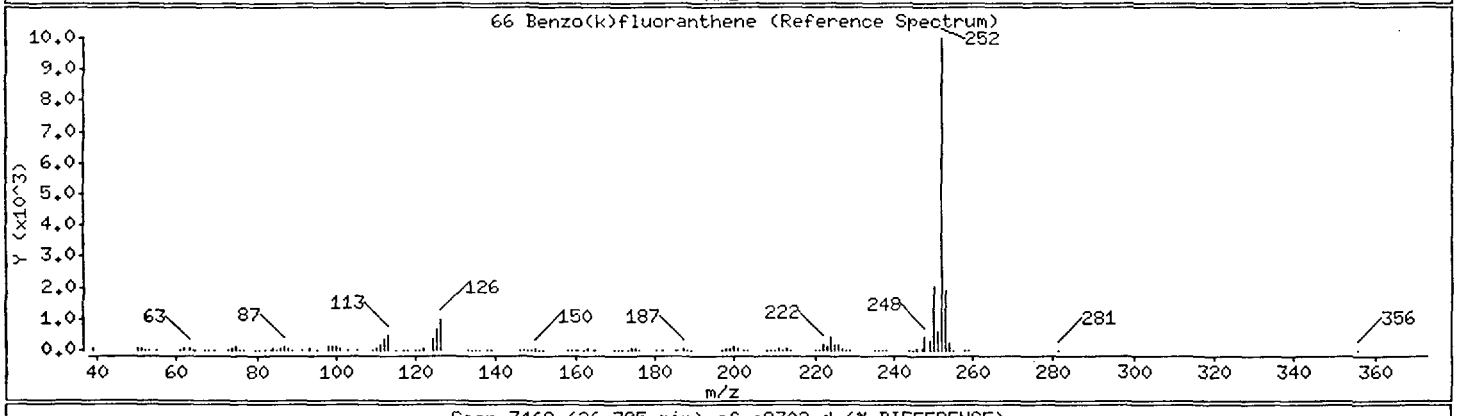
Operator: BNAMS 2

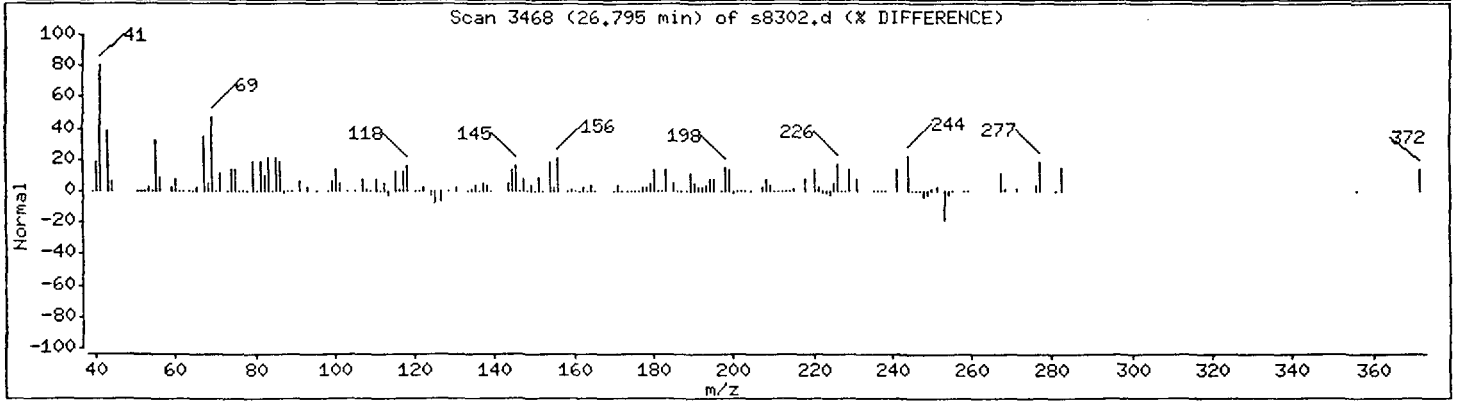
Column phase: DB-5 Column diameter: 0.25 303666

66 Benzo(k)fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

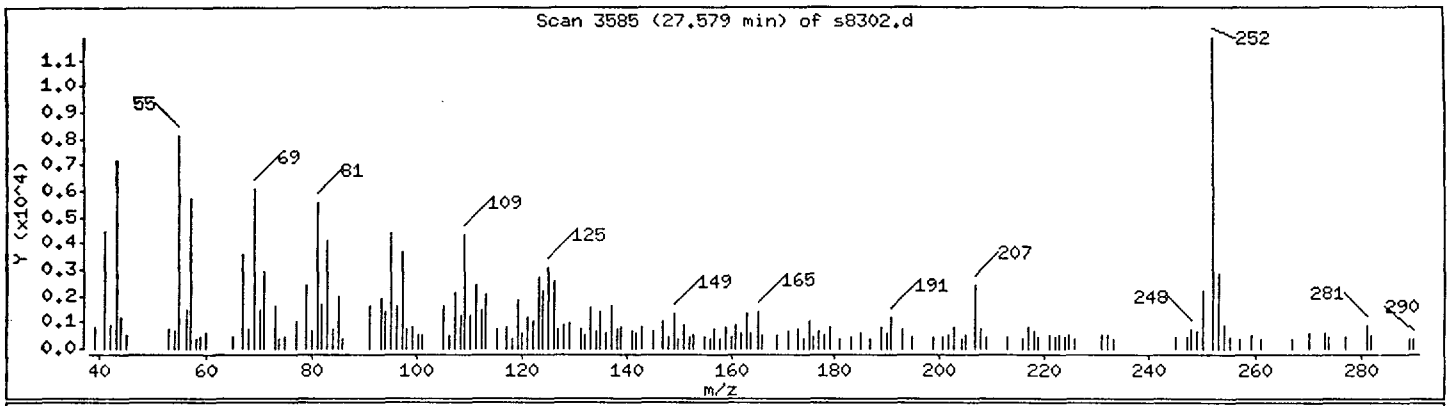
Sample Info: 88563;30;2;1;11.2;

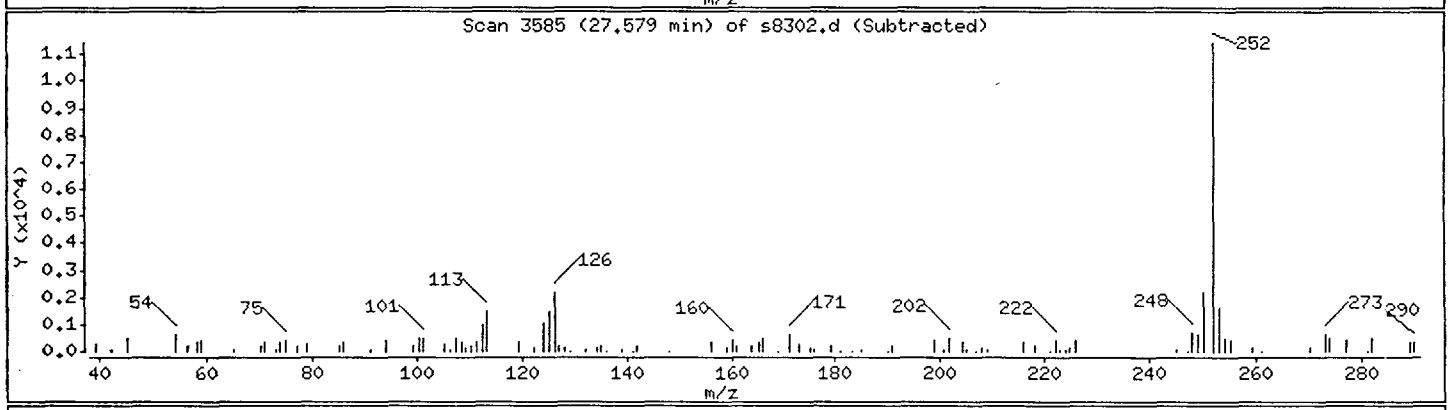
Operator: BNAMS 2

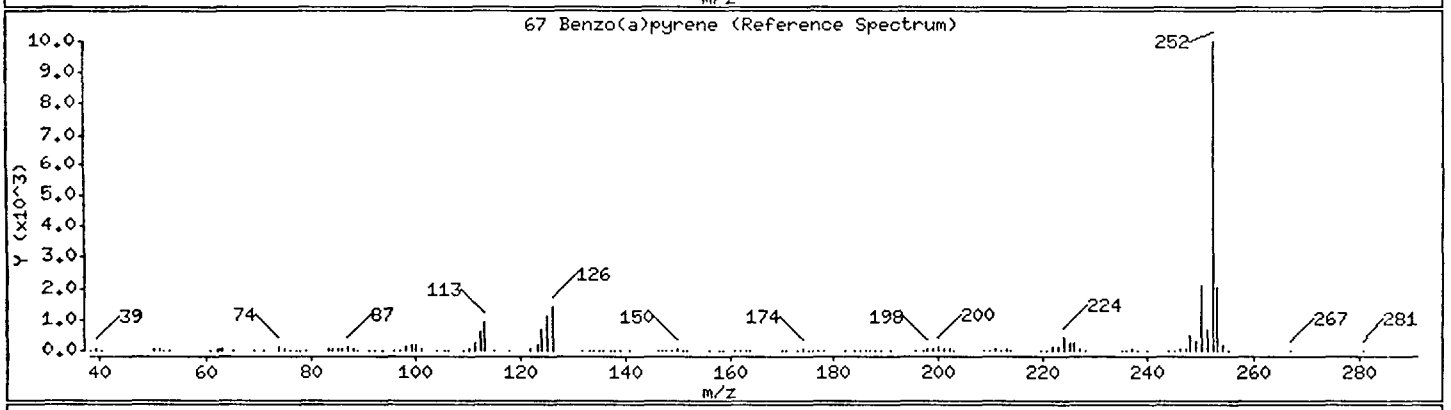
Column phase: DB-5 Column diameter: 0.25

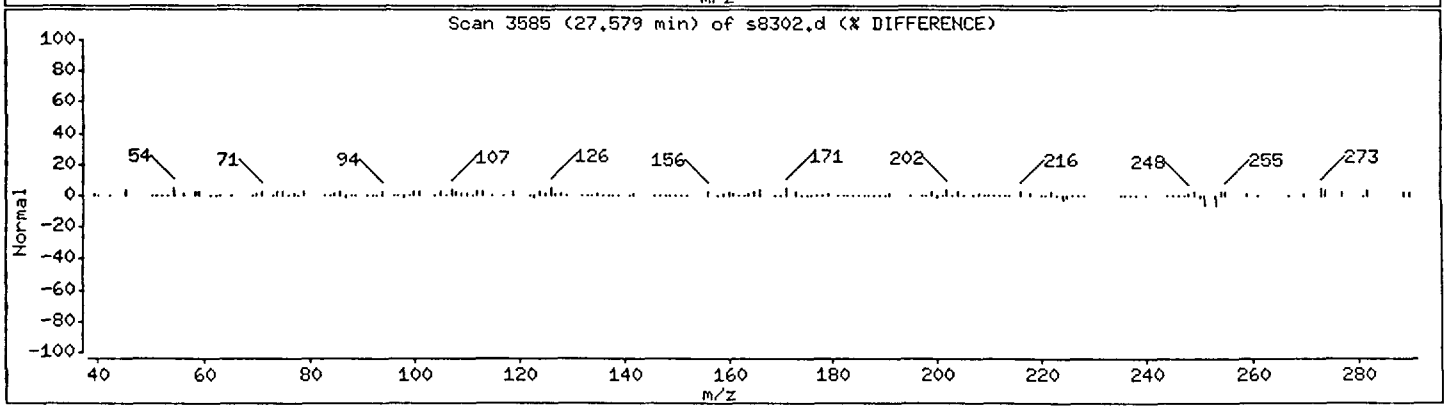
303667

67 Benzo(a)pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

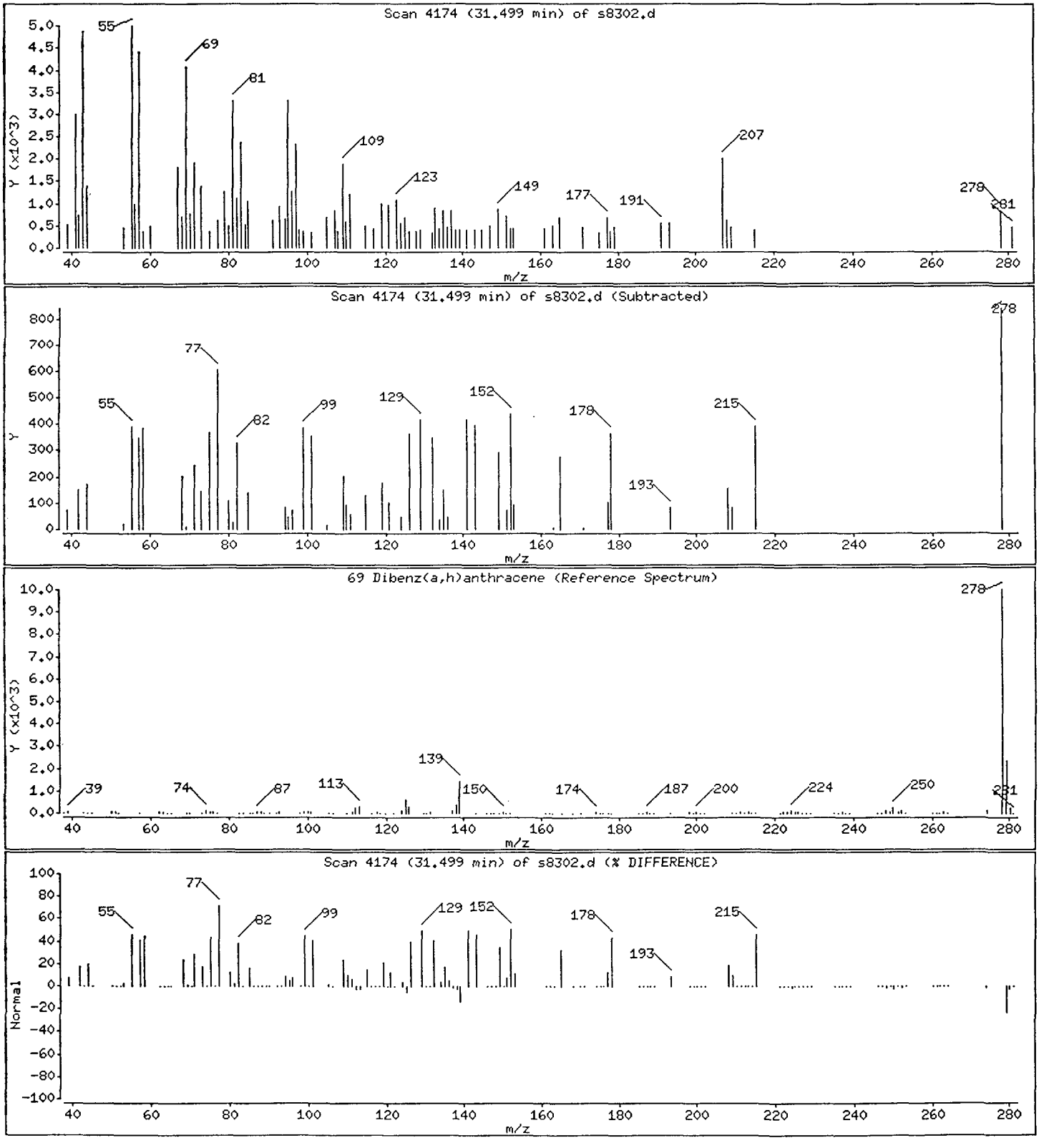
Sample Info: 88563;30;2;1;11.2;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303668

69 Dibenz(a,h)anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5

Instrument: BNAMS2.i

Sample Info: 88563;30;2;1;11.2;

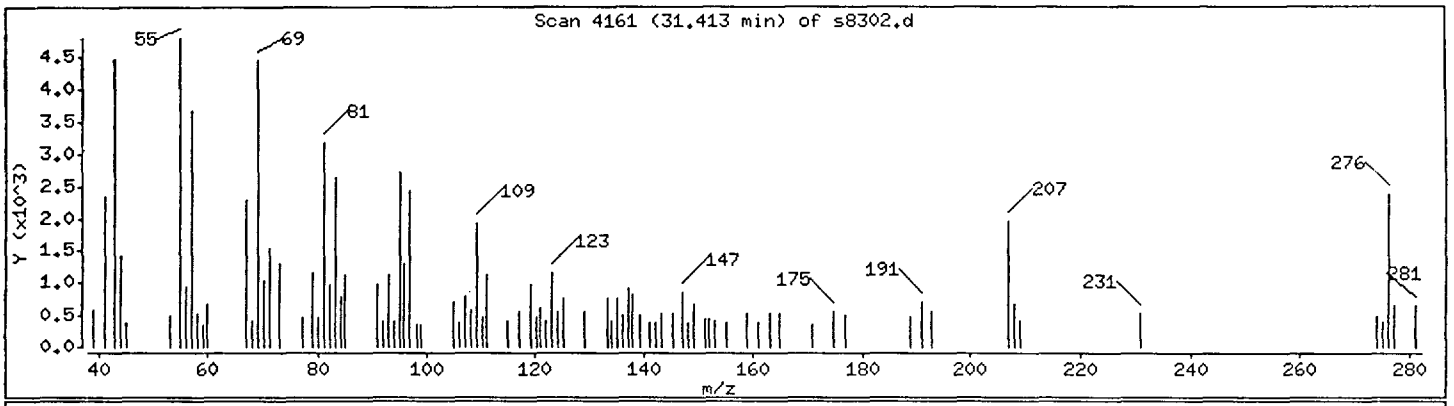
Operator: BNAMS 2

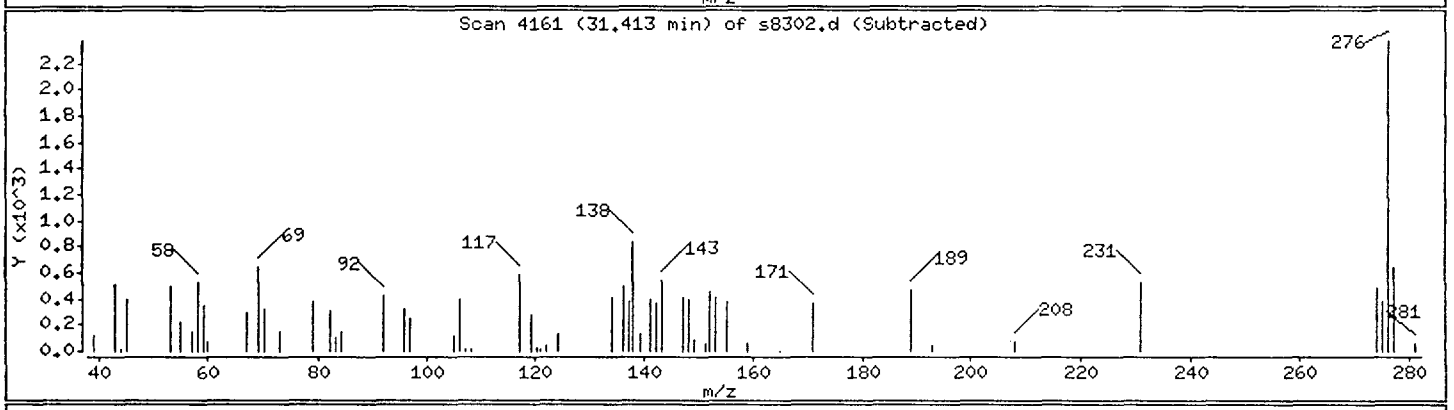
Column phase: DB-5

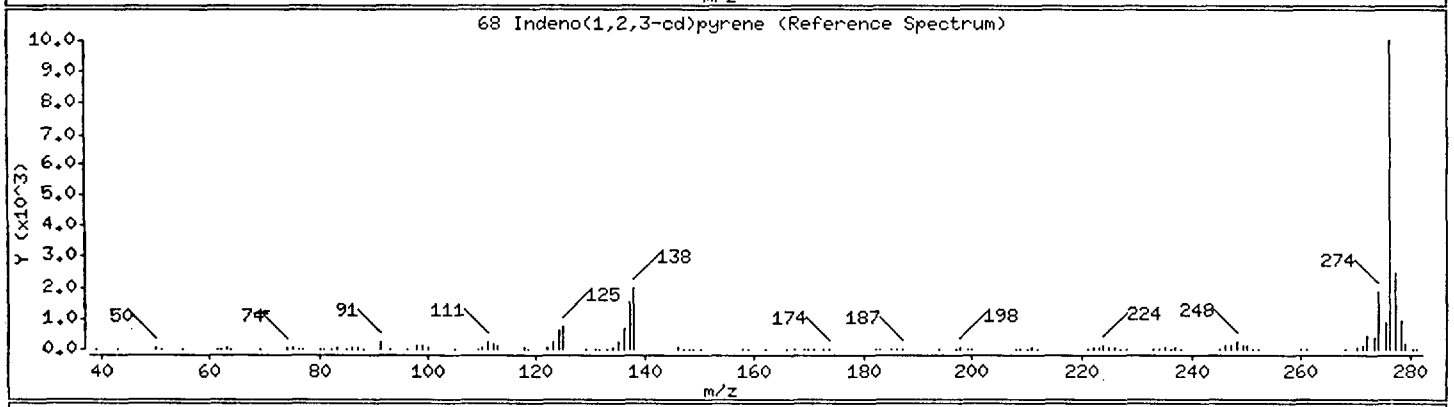
Column diameter: 0.25

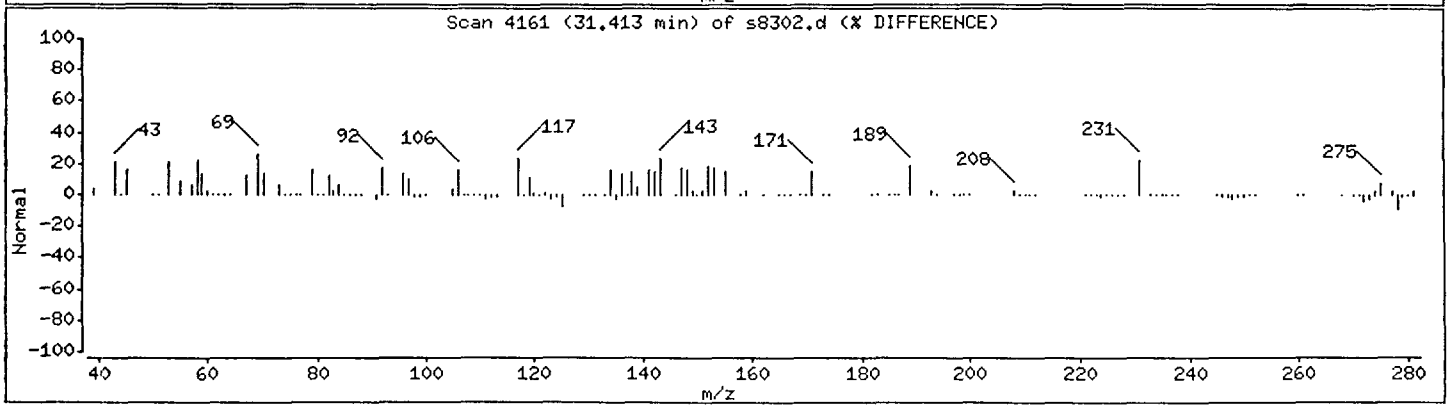
303669

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



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5 Instrument: BNAMS2.i

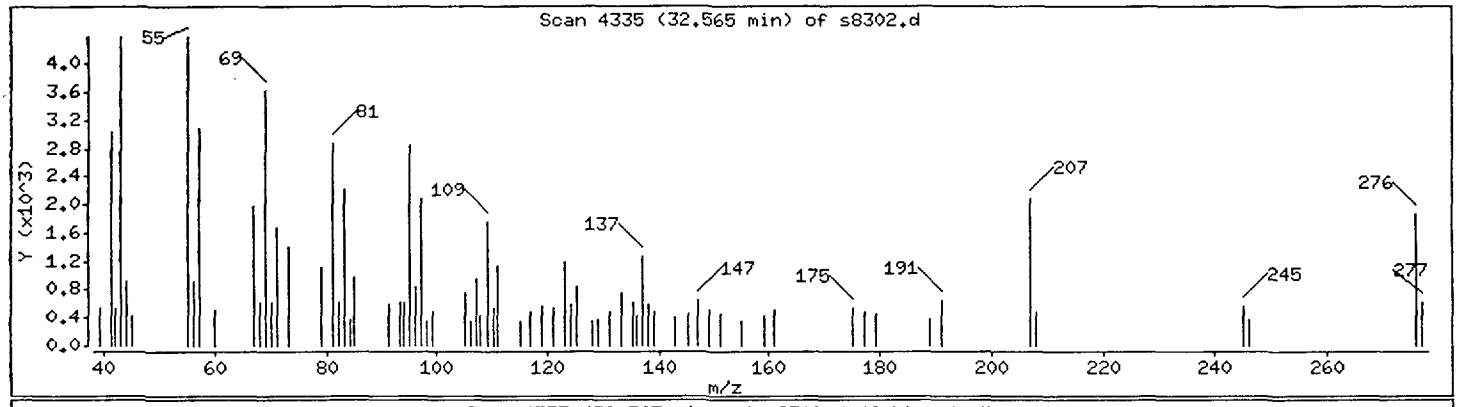
Sample Info: 88563;30;2;1;11.2;

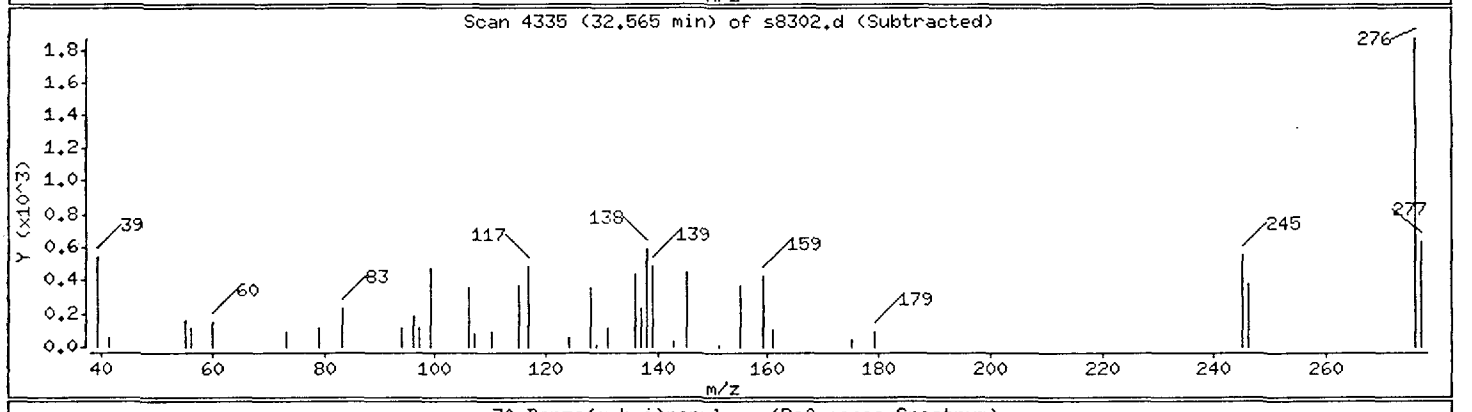
Operator: BNAMS 2

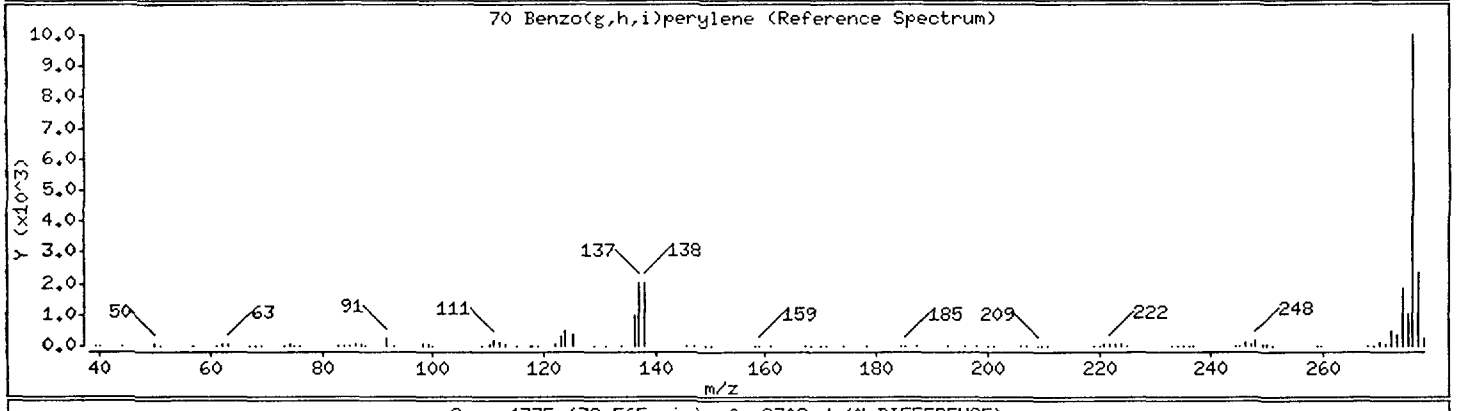
Column phase: DB-5 Column diameter: 0.25

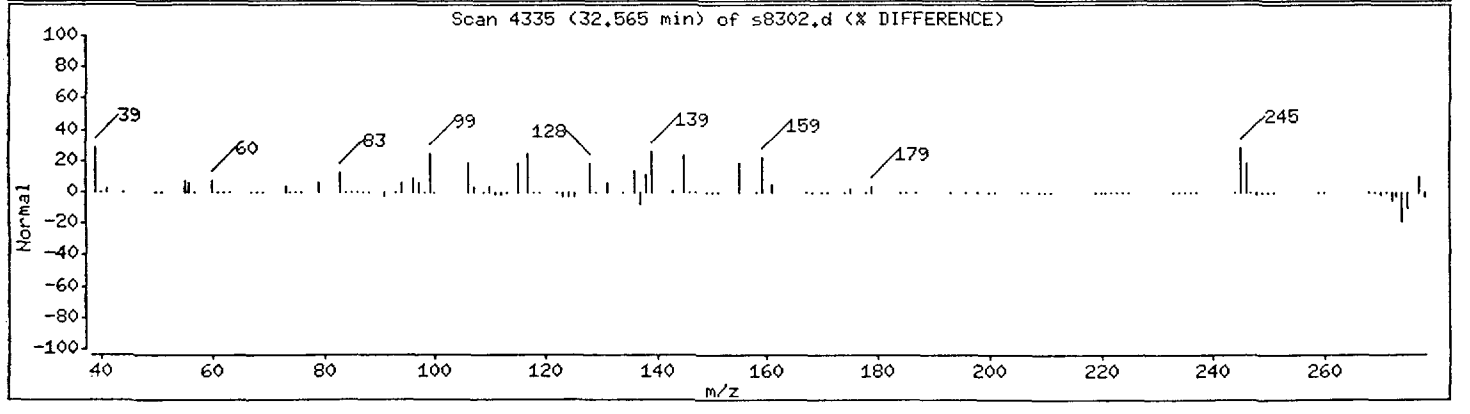
303670

70 Benzo(g,h,i)perylene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8302.d

Date : 20-OCT-98 19:26:00

Client ID: SSNDS-2A_0-0.5

Instrument: BNAMS2.i

Sample Info: 88563;30;2;1;11.2;

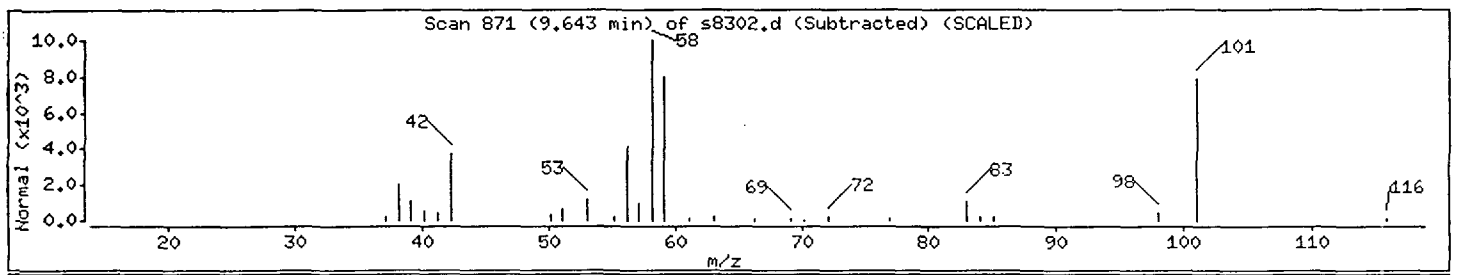
Operator: BNAMS 2

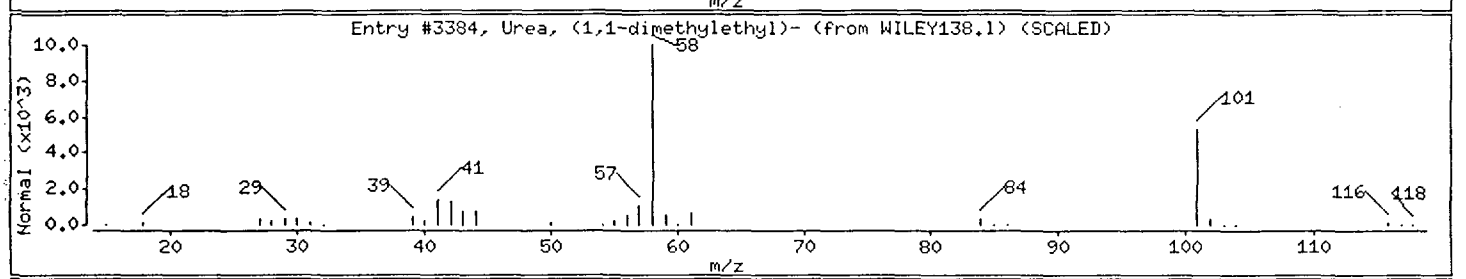
303671

Column phase: DB-5

Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| Urea, (1,1-dimethylethyl)- | 1118-12-3 | WILEY138.l | 3384 | 25 | C5H12N2O | 116 |



Client ID: SSFS-1_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88565
Lab Job No: H941

Date Sampled: 10/06/98
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: s8315.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

## 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 | 37 |
| 1,3-Dichlorobenzene | ND | 370 |
| 1,4-Dichlorobenzene | ND | 370 |
| 1,2-Dichlorobenzene | ND | 370 |
| bis(2-chloroisopropyl)ether | ND | 370 |
| N-Nitroso-di-n-propylamine | ND | 37 |
| Hexachloroethane | ND | 37 |
| Nitrobenzene | ND | 37 |
| Isophorone | ND | 370 |
| bis(2-Chloroethoxy)methane | ND | 370 |
| 1,2,4-Trichlorobenzene | ND | 37 |
| Naphthalene | ND | 370 |
| 4-Chloroaniline | ND | 370 |
| Hexachlorobutadiene | ND | 75 |
| 2-Methylnaphthalene | ND | 370 |
| Hexachlorocyclopentadiene | ND | 370 |
| 2-Chloronaphthalene | ND | 370 |
| 2-Nitroaniline | ND | 750 |
| Dimethylphthalate | ND | 370 |
| Acenaphthylene | 48 J | 370 |
| 2,6-Dinitrotoluene | ND | 75 |
| 3-Nitroaniline | ND | 750 |
| Acenaphthene | 8.1J | 370 |
| Dibenzofuran | ND | 370 |
| 2,4-Dinitrotoluene | ND | 75 |
| Diethylphthalate | ND | 370 |
| 4-Chlorophenyl-phenylether | ND | 370 |
| Fluorene | 14 J | 370 |
| 4-Nitroaniline | ND | 750 |
| N-Nitrosodiphenylamine | ND | 370 |
| 4-Bromophenyl-phenylether | ND | 370 |
| Hexachlorobenzene | ND | 37 |
| Phenanthrene | 130 J | 370 |
| Anthracene | 47 J | 370 |

303672

Client ID: **SSFS-1_0-0.5**
Site: Klockner & Klockner

Lab Sample No: **88565**
Lab Job No: H941

Date Sampled: 10/06/98
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: s8315.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 11

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Carbazole | 12 J | 370 |
| Di-n-butylphthalate | ND | 370 |
| Fluoranthene | 290 J | 370 |
| Pyrene | 360 J | 370 |
| Butylbenzylphthalate | 1000 | 370 |
| 3,3'-Dichlorobenzidine | ND | 750 |
| Benzo(a)anthracene | 170 | 37 |
| Chrysene | 220 J | 370 |
| bis(2-Ethylhexyl)phthalate | 260 J | 370 |
| Di-n-octylphthalate | ND | 370 |
| Benzo(b)fluoranthene | 270 | 37 |
| Benzo(k)fluoranthene | 120 | 37 |
| Benzo(a)pyrene | 180 | 37 |
| Indeno(1,2,3-cd)pyrene | 74 | 37 |
| Dibenz(a,h)anthracene | 25 J | 37 |
| Benzo(g,h,i)perylene | 59 J | 370 |

303673

Client ID: SSFS-1_0-0.5
Site: Klockner & Klockner

Lab Sample No: 88565
Lab Job No: H941

Date Sampled: 10/06/98
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: s8315.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 10.8

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. Tricresylphosphate isomer | 25.32 | 320 | |
| 2. Tricresylphosphate isomer | 25.53 | 620 | |
| 3. Unknown | 25.58 | 300 | |
| 4. Unknown | 25.80 | 540 | |
| 5. C20H12 PAH/Unknown | 27.46 | 630 | |
| 6. Unknown | 27.67 | 560 | |
| 7. Unknown | 28.12 | 1100 | |
| 8. Unknown | 29.04 | 520 | |
| 9. Unknown | 29.55 | 2300 | |
| 10. Unknown | 30.68 | 1800 | |
| 11. | | | |
| 12. | | | |
| 13. | | | |
| 14. | | | |
| 15. | | | |
| 16. | | | |
| 17. | | | |
| 18. | | | |
| 19. | | | |
| 20. | | | |
| 21. | | | |
| 22. | | | |
| 23. | | | |
| 24. | | | |
| 25. | | | |
| 26. | | | |
| 27. | | | |
| 28. | | | |
| 29. | | | |
| 30. | | | |
| TOTAL ESTIMATED CONCENTRATION | | 8690 | |

303674

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d
Report Date: 21-Oct-98 12:14:20

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d
Lab Smp Id: 88565 Client Smp ID: SSFS-1_0-0.5
Inj Date : 21-OCT-98 05:12:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : 88565;30;2;1;10.8;
Misc Info : H941;TCLBN+10;4734;122;
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/8270C-REV..m
Meth Date : 21-Oct-98 10:40:20 lisa Quant Type: ISTD
Cal Date : 17-OCT-98 00:00:00 Cal File: s8230.d
Als bottle: 11
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 | 2.000 | Volume of final extract (ml) |
| Ws | 30.000 | Weight of sample extracted (g) |
| M | 10.800 | % 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 | 12.659 | 12.666 | (1.000) | 617745 | 40 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.630 | 13.640 | (0.918) | 1046275 | 46 | 3400 |
| * 80 Naphthalene-d8 | 136 | 14.845 | 14.852 | (1.000) | 2165783 | 40 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.639 | 16.650 | (0.937) | 1997720 | 46 | 3400 |
| 39 Acenaphthylene | 152 | 17.523 | 17.541 | (0.987) | 41752 | 0.64 | 48(a) |
| * 82 Acenaphthene-d10 | 164 | 17.761 | 17.772 | (1.000) | 1393210 | 40 | |
| 42 Acenaphthene | 153 | 17.814 | 17.832 | (1.003) | 4366 | 0.11 | 8.1(a) |
| 47 Fluorene | 166 | 18.661 | 18.684 | (1.051) | 8142 | 0.19 | 14(a) |
| * 83 Phenanthrene-d10 | 188 | 20.220 | 20.229 | (1.000) | 1810267 | 40 | |
| 52 Phenanthrene | 178 | 20.253 | 20.269 | (1.002) | 98244 | 1.8 | 130(a) |
| 53 Anthracene | 178 | 20.341 | 20.355 | (1.006) | 35841 | 0.63 | 47(a) |
| 54 Carbazole | 167 | 20.596 | 20.619 | (1.019) | 9533 | 0.16 | 12(a) |
| 56 Fluoranthene | 202 | 22.219 | 22.230 | (1.099) | 192494 | 3.9 | 290(a) |
| 57 Pyrene | 202 | 22.593 | 22.614 | (0.919) | 213836 | 4.8 | 360(a) |
| $ 78 Terphenyl-d14 (SUR) | 244 | 22.846 | 22.845 | (0.929) | 1538515 | 50 | 3700 |

303675

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d
Report Date: 21-Oct-98 12:14:20

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 59 Butylbenzylphthalate | 149 | 23.631 | 23.636 | (0.961) | 458558 | 13 | 1000 |
| 61 Benzo(a)anthracene | 228 | 24.570 | 24.580 | (0.999) | 77660 | 2.2 | 170 |
| * 81 Chrysene-d12 | 240 | 24.597 | 24.600 | (1.000) | 1118607 | 40 | |
| 62 Chrysene | 228 | 24.632 | 24.647 | (1.001) | 98284 | 2.9 | 220(a) |
| 63 bis(2-Ethylhexyl)phthalate | 149 | 24.556 | 24.560 | (0.998) | 132132 | 3.5 | 260(a) |
| 65 Benzo(b)fluoranthene | 252 | 26.750 | 26.758 | (0.963) | 104223 | 3.6 | 270 |
| 66 Benzo(k)fluoranthene | 252 | 26.812 | 26.838 | (0.965) | 43724 | 1.6 | 120(M) |
| 67 Benzo(a)pyrene | 252 | 27.602 | 27.617 | (0.993) | 62816 | 2.4 | 180 |
| * 84 Perylene-d12 | 264 | 27.787 | 27.769 | (1.000) | 794024 | 40 | |
| 69 Dibenz(a,h)anthracene | 278 | 31.516 | 31.583 | (1.134) | 8260 | 0.33 | 25(aM) |
| 68 Indeno(1,2,3-cd)pyrene | 276 | 31.442 | 31.470 | (1.131) | 26760 | 0.99 | 74(M) |
| 70 Benzo(g,h,i)perylene | 276 | 32.553 | 32.651 | (1.171) | 21296 | 0.79 | 59(aM) |

## QC Flag Legend

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

303676

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d
Date : 21-OCT-98 05:12:00
Client ID: SSFS-1_0-0.5
Sample Info: 88565;30;2;1;10.8;

Instrument: BNAMS2.i

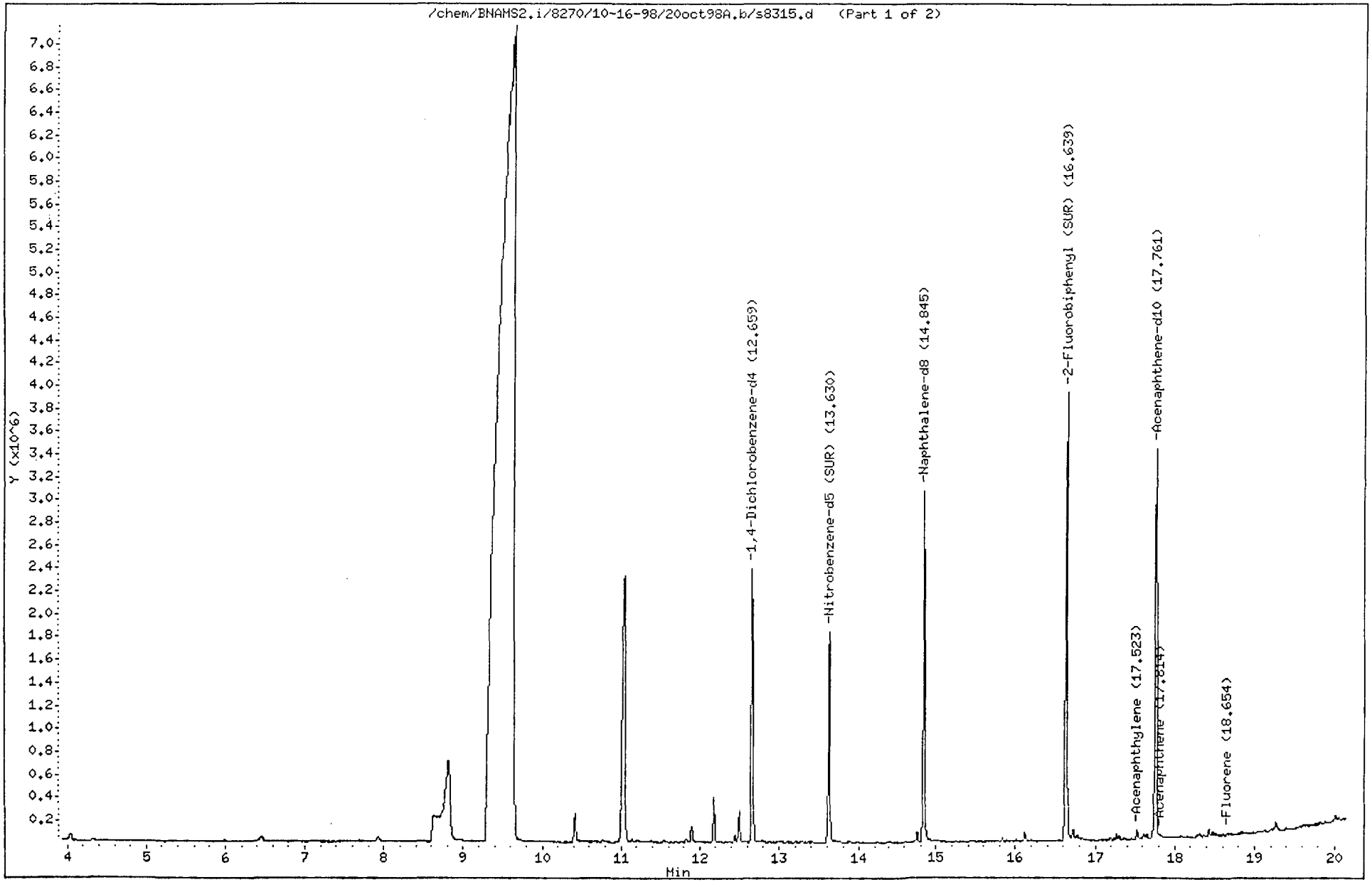
Operator: BNAMS 2

303677

142

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d
Date : 21-OCT-98 05:12:00
Client ID: SSFS-1_0-0.5
Sample Info: 88565;30;2;1;10.8;

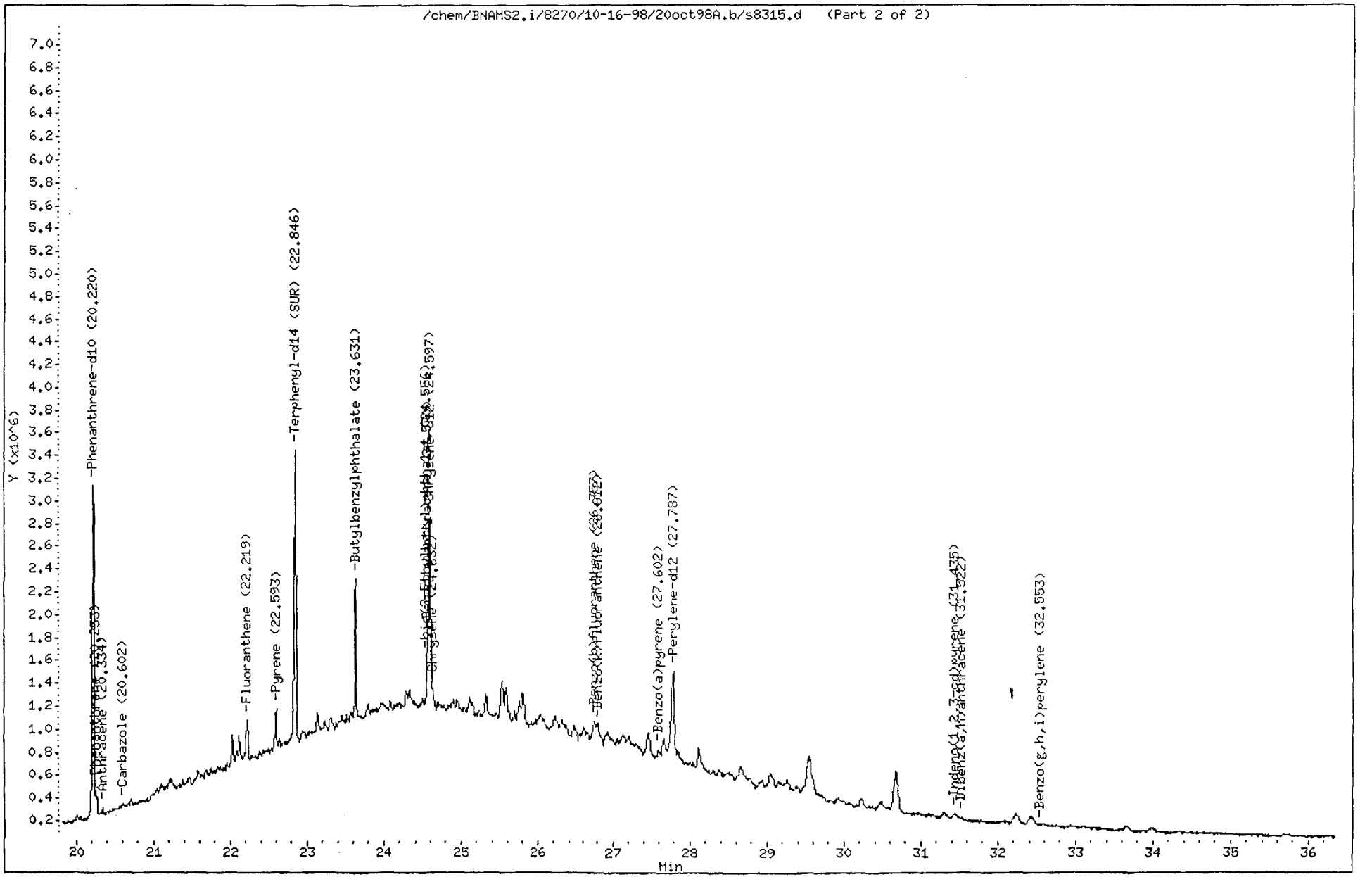
Instrument: BNAMS2.i

Operator: BNAMS 2

303678

Column phase: DB-5

Column diameter: 0.25




143

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

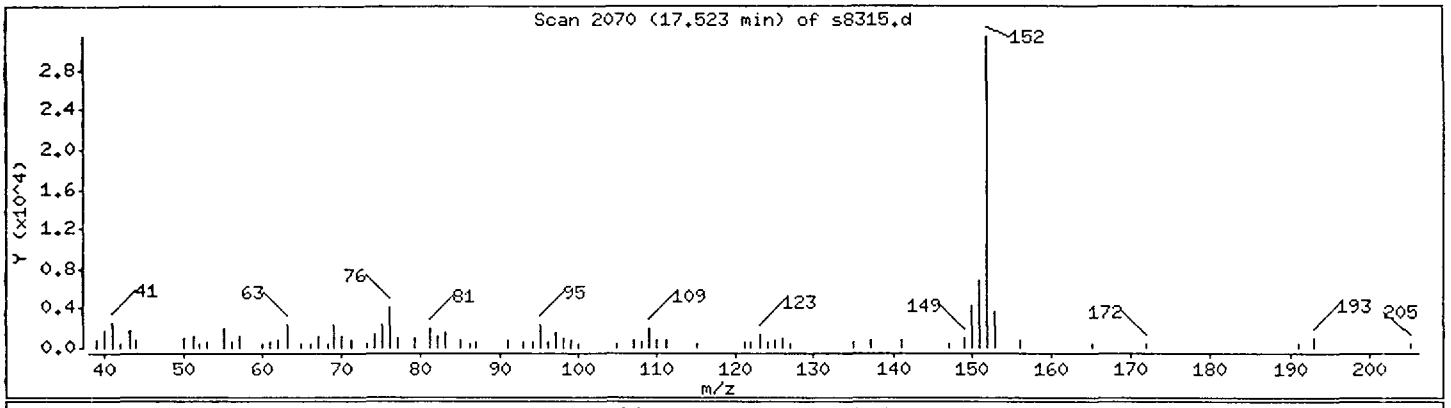
Sample Info: 88565;30;2;1;10.8;

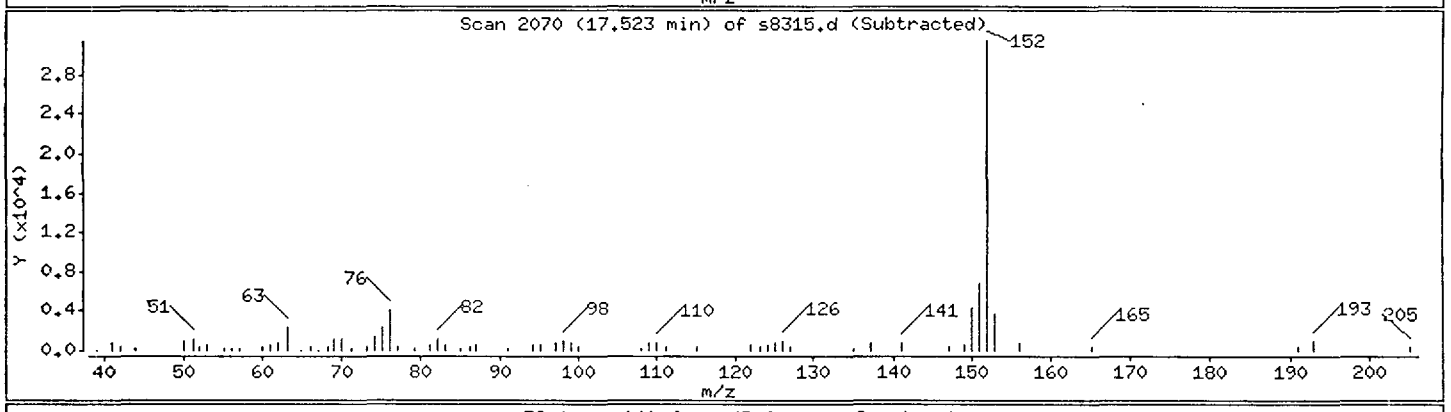
Operator: BNAMS 2

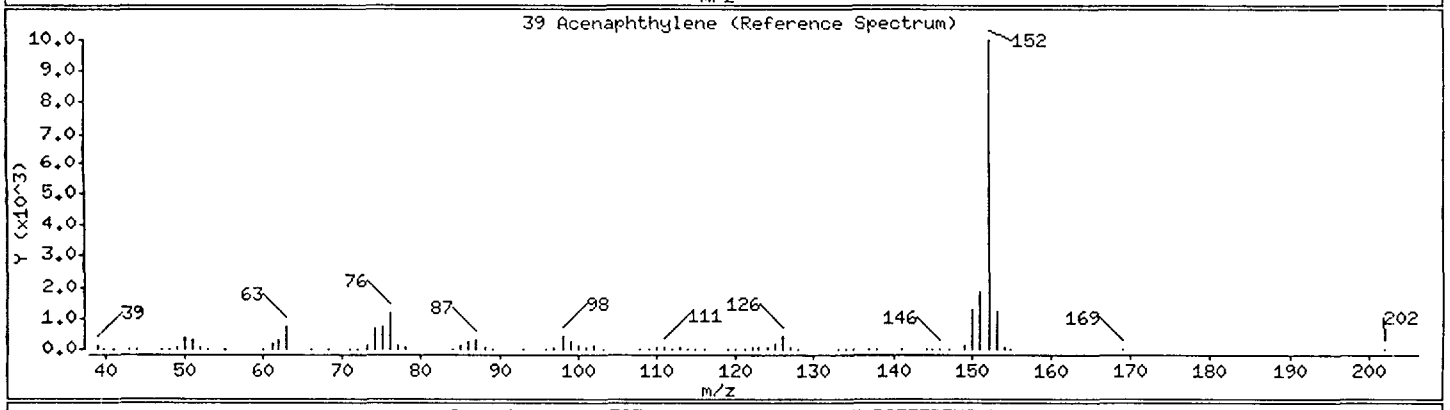
Column phase: DB-5 Column diameter: 0.25

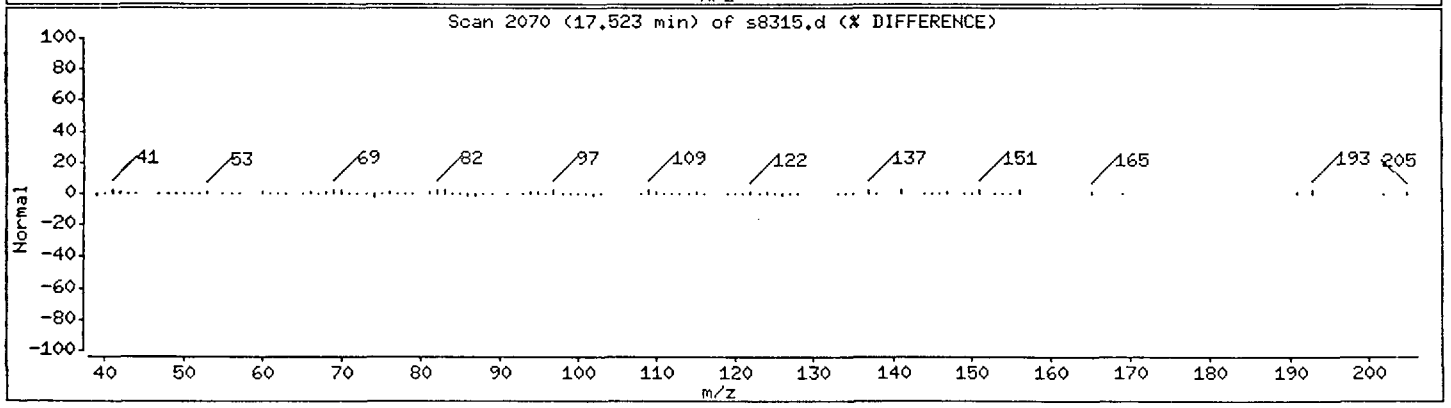
303679

39 Acenaphthylene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

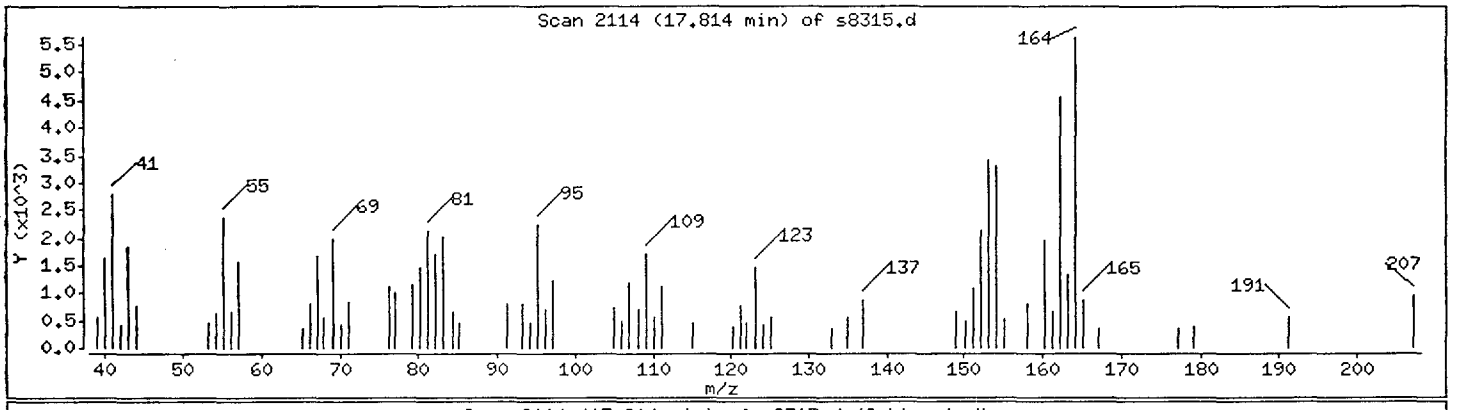
Sample Info: 88565;30;2;1;10.8;

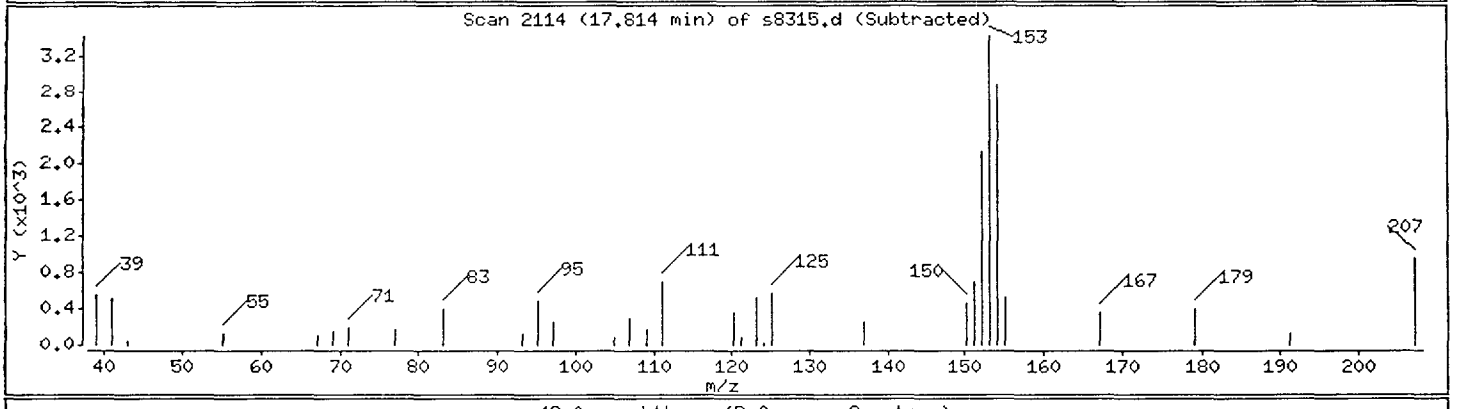
Operator: BNAMS 2

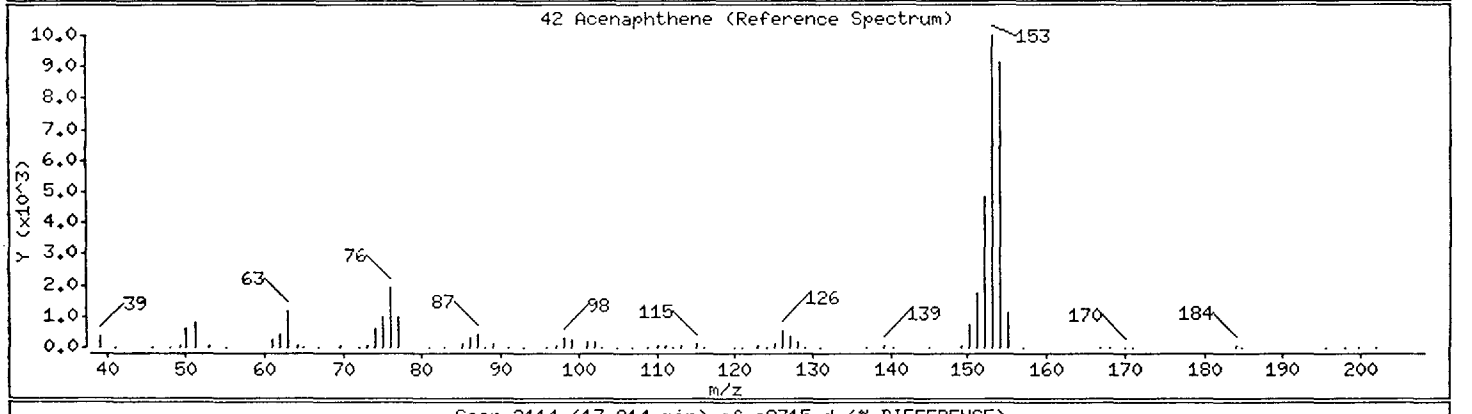
Column phase: DB-5 Column diameter: 0.25

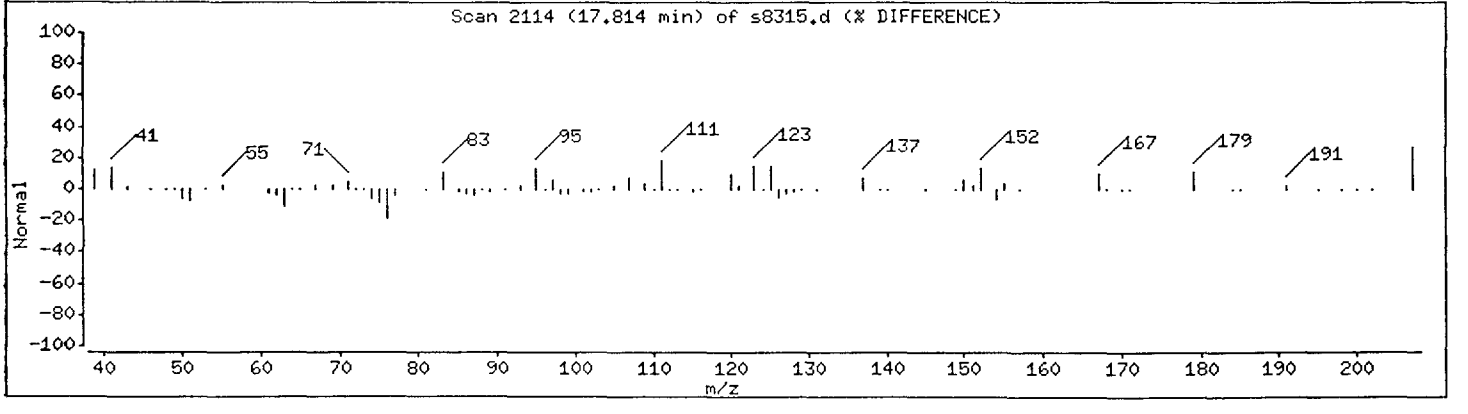
303680

42 Acenaphthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

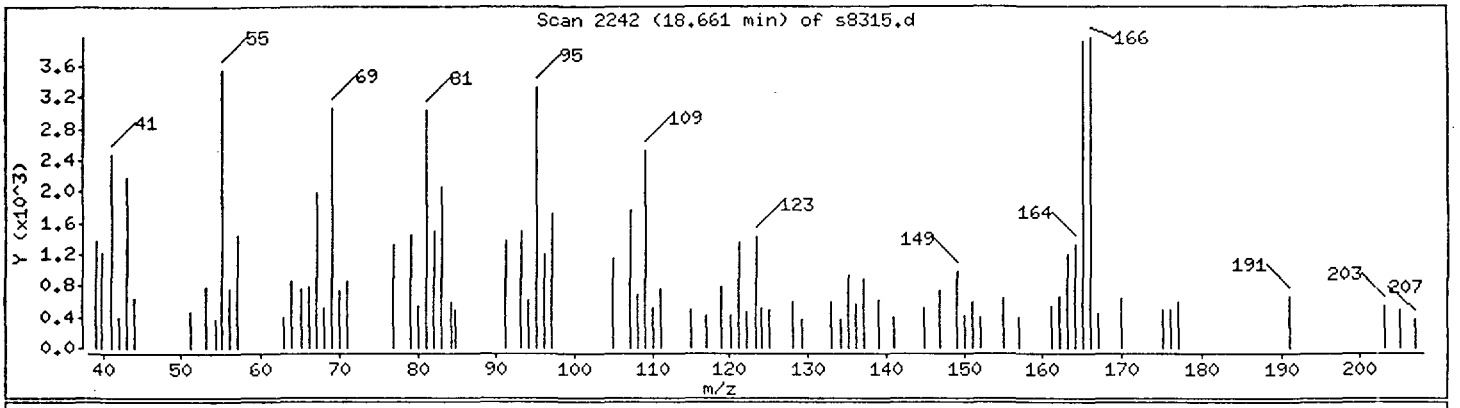
Sample Info: 88565;30;2;1;10.8;

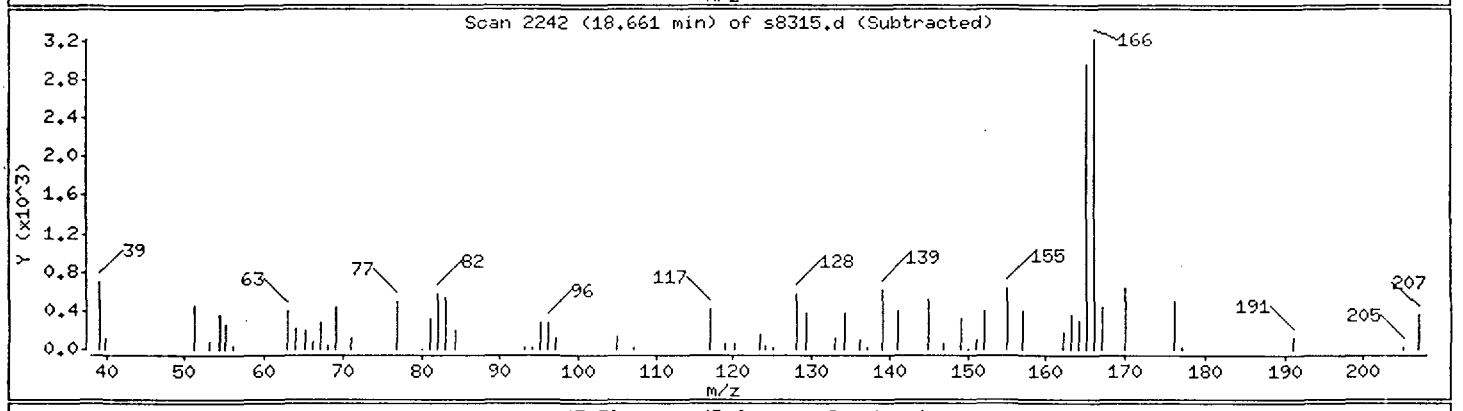
Operator: BNAMS 2

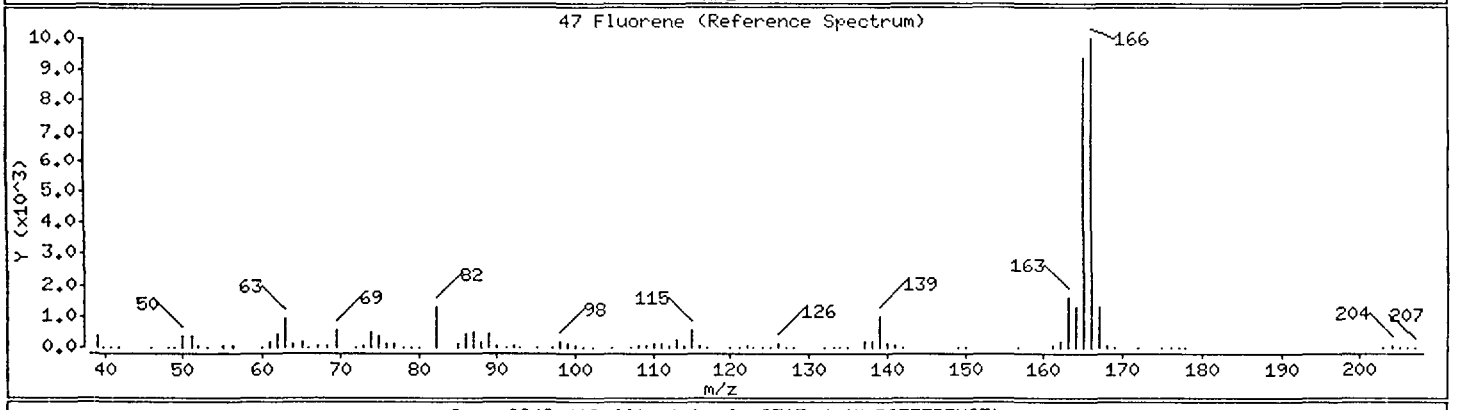
Column phase: DB-5 Column diameter: 0.25

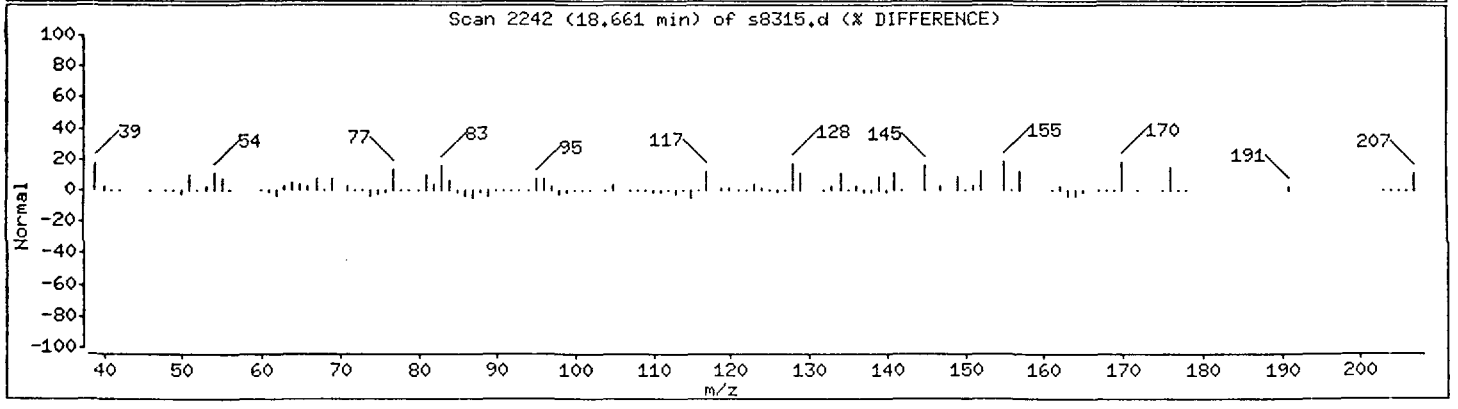
303681

47 Fluorene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

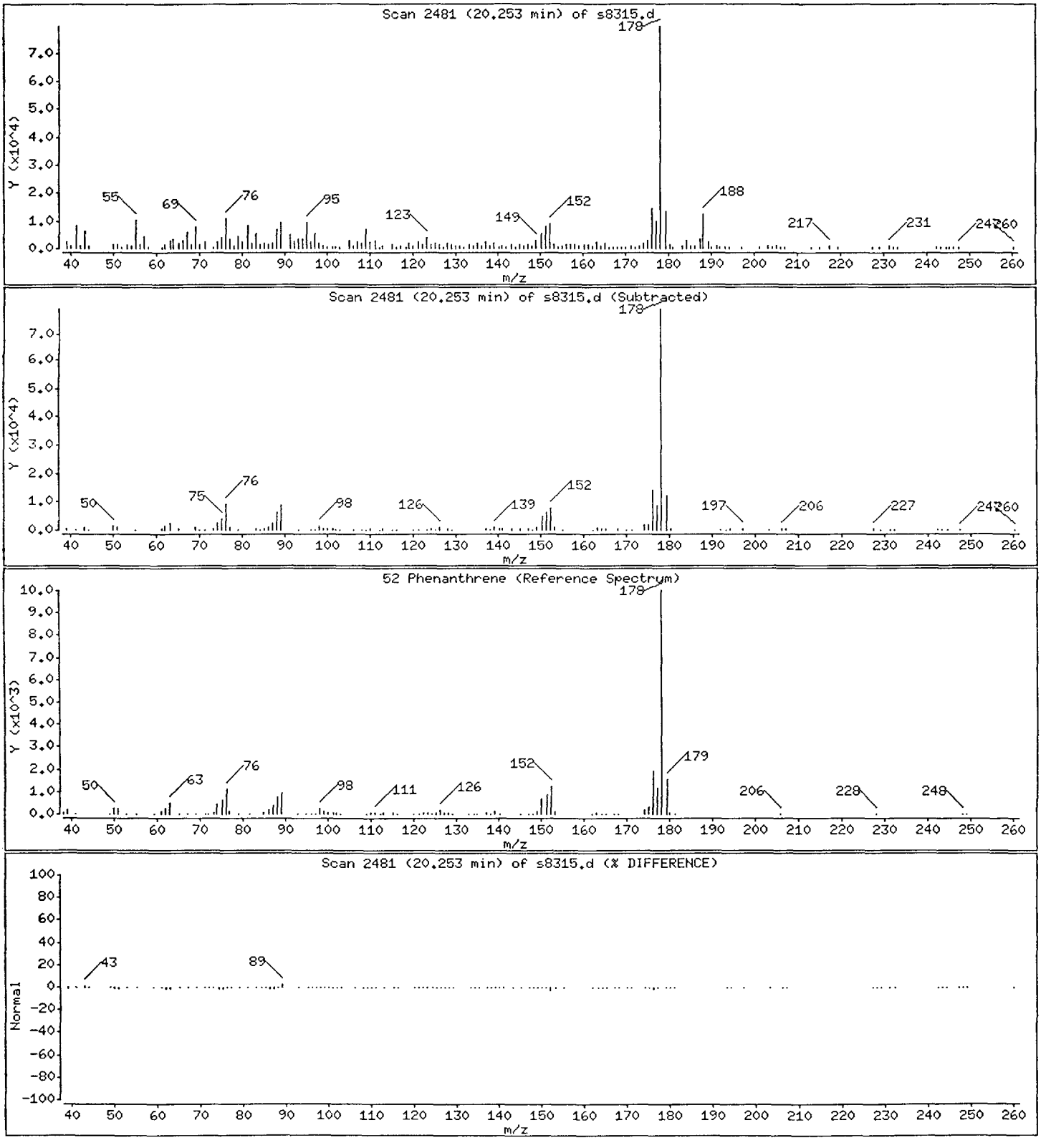
Sample Info: 88565;30;2;1;10.8;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303682

52 Phenanthrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

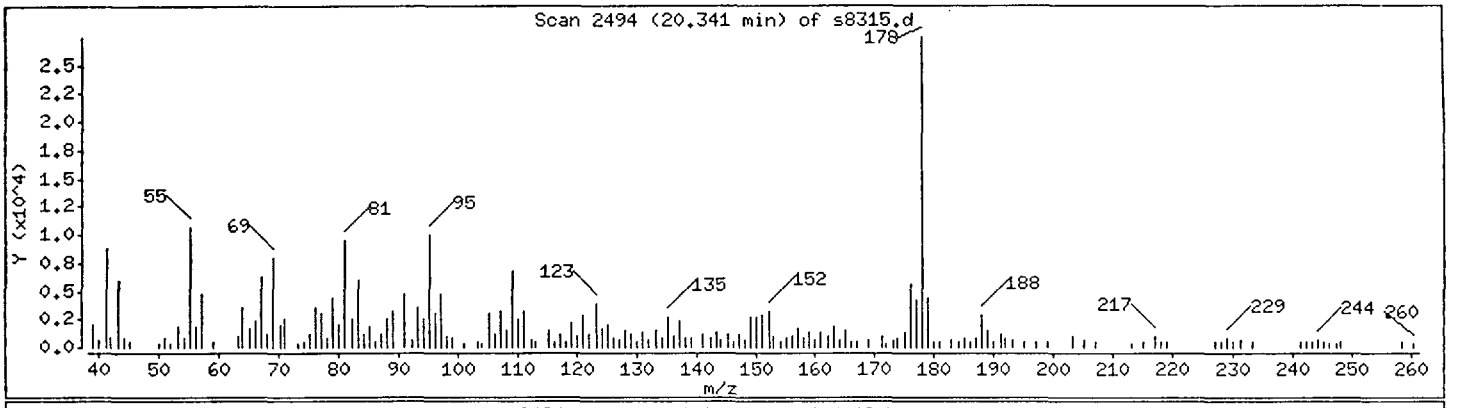
Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

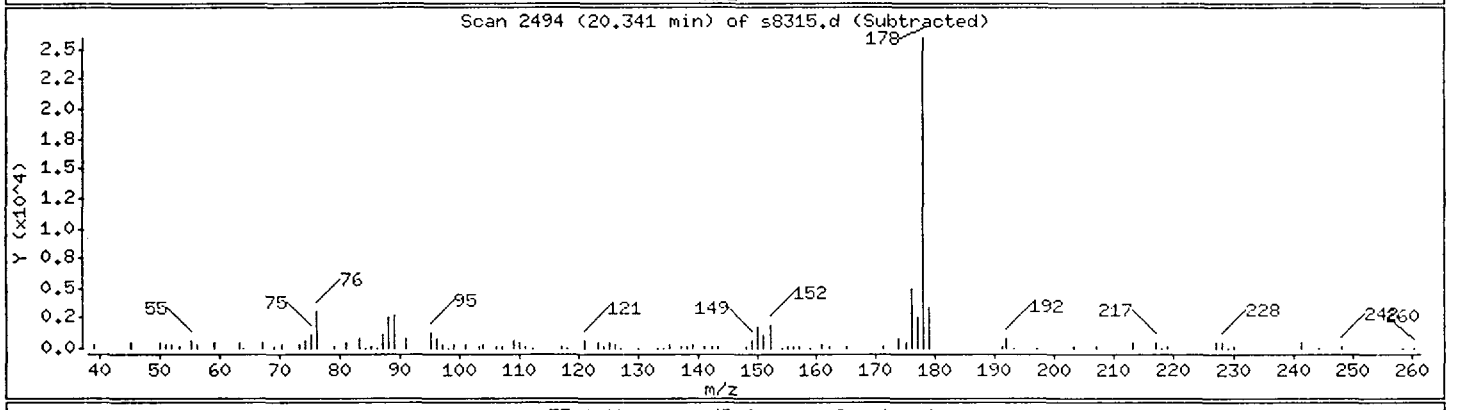
Sample Info: 88565;30;2;1;10.8;

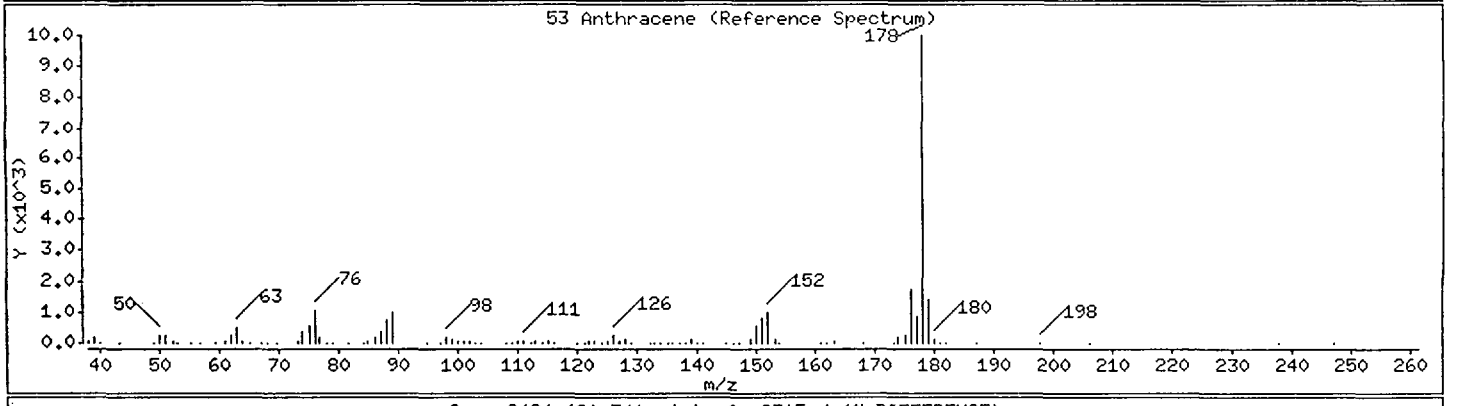
Operator: BNAMS 2

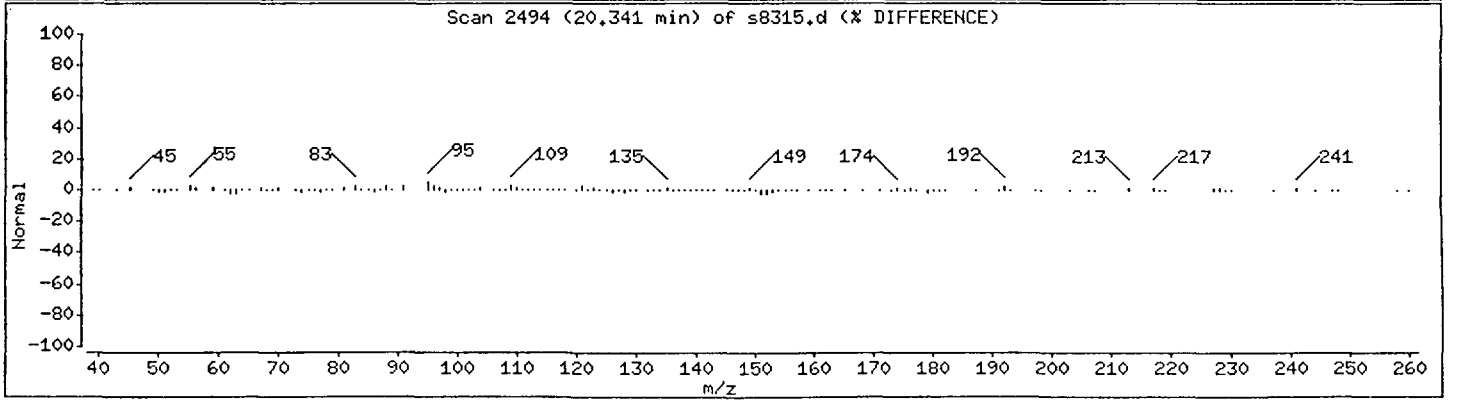
Column phase: DB-5 Column diameter: 0.25 303683

53 Anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

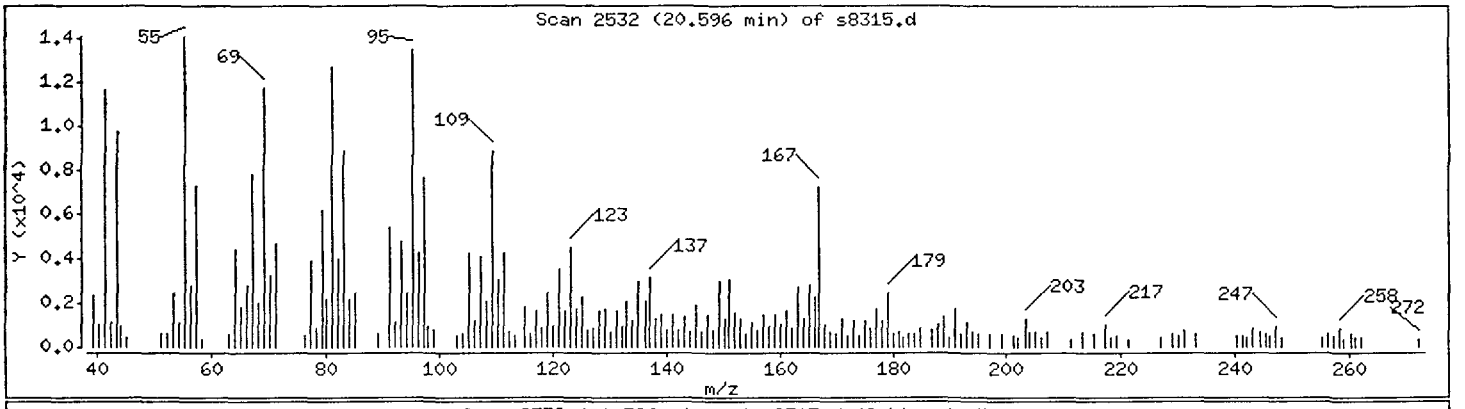
Sample Info: 88565;30;2;1;10.8;

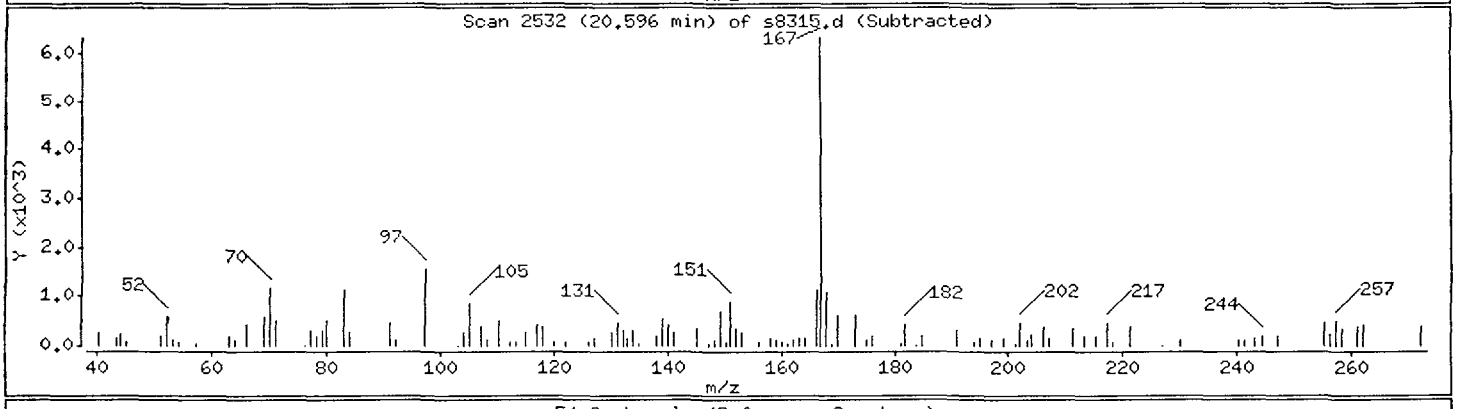
Operator: BNAMS 2

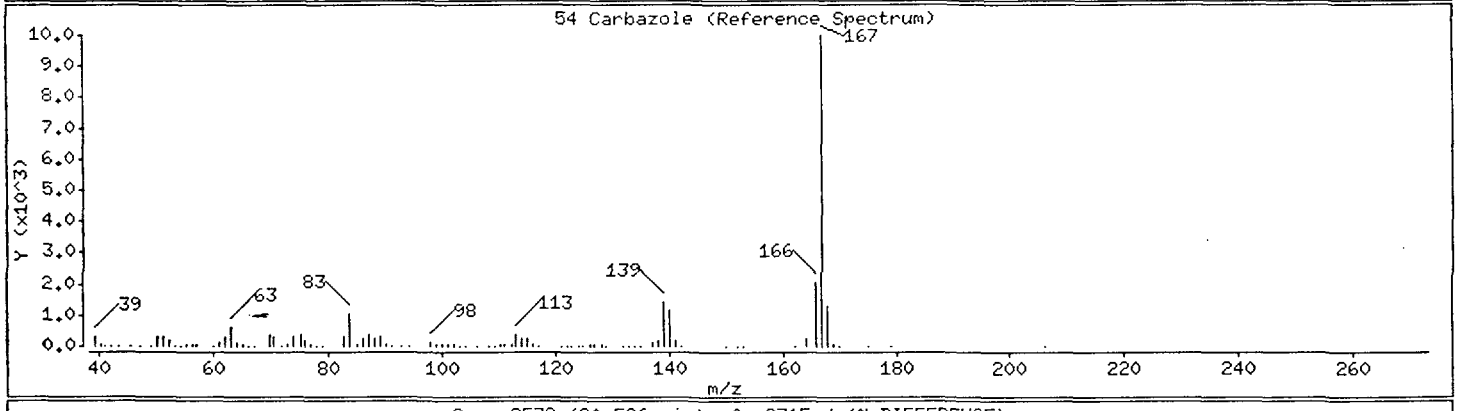
303684

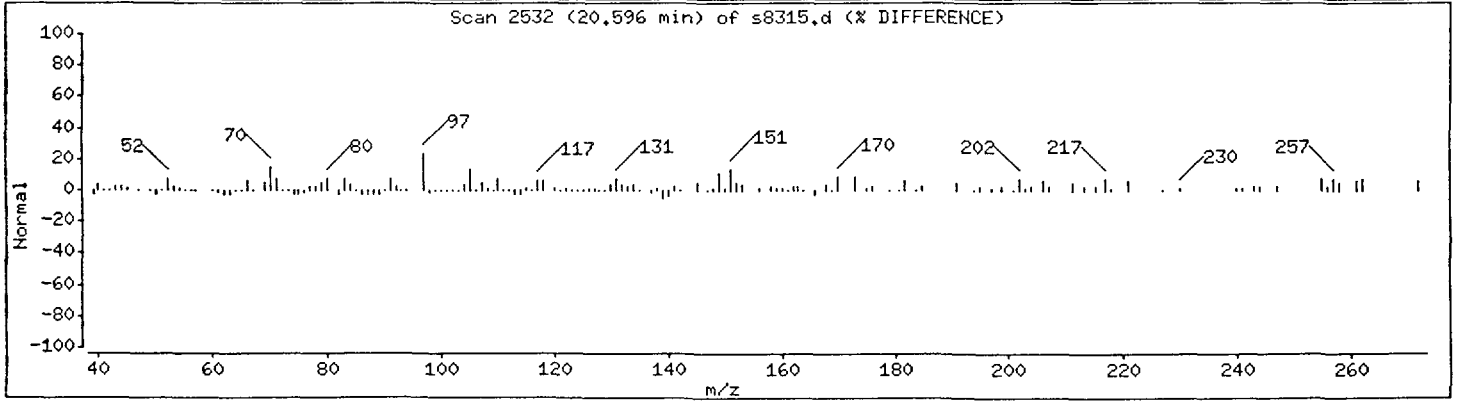
Column phase: DB-5 Column diameter: 0.25

54 Carbazole



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

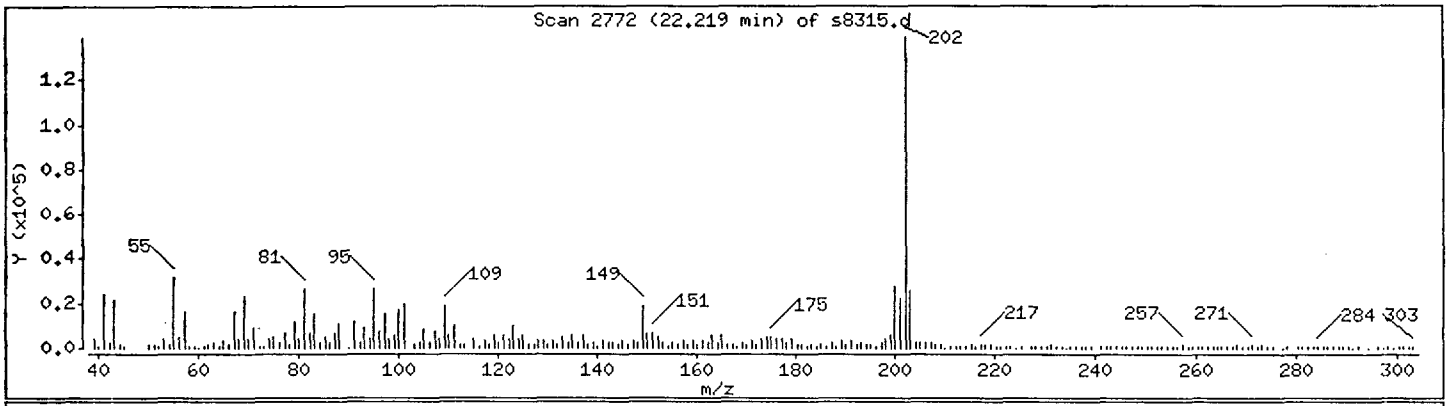
Sample Info: 88565;30;2;1;10.8;

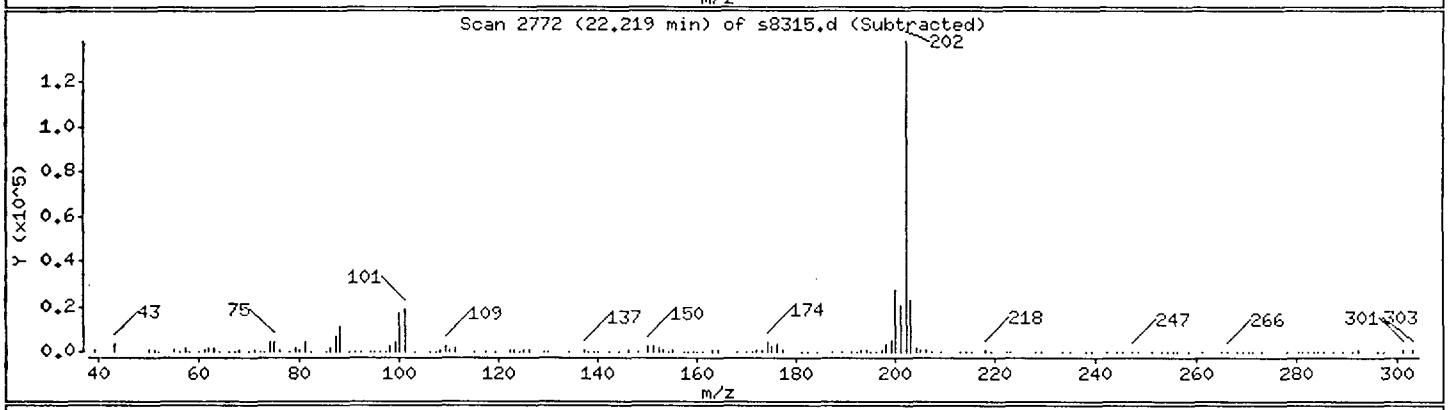
Operator: BNAMS 2

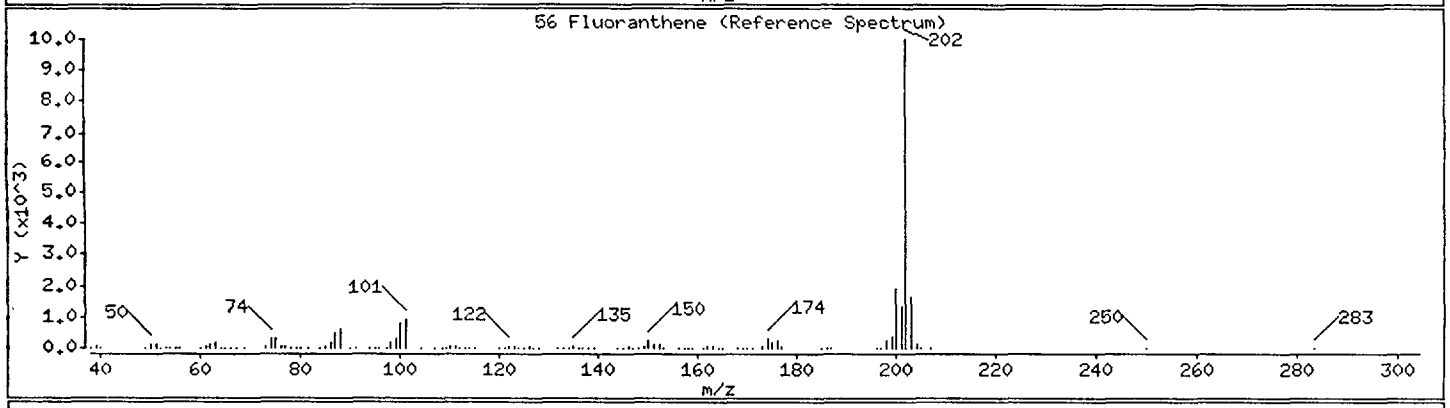
Column phase: DB-5 Column diameter: 0.25

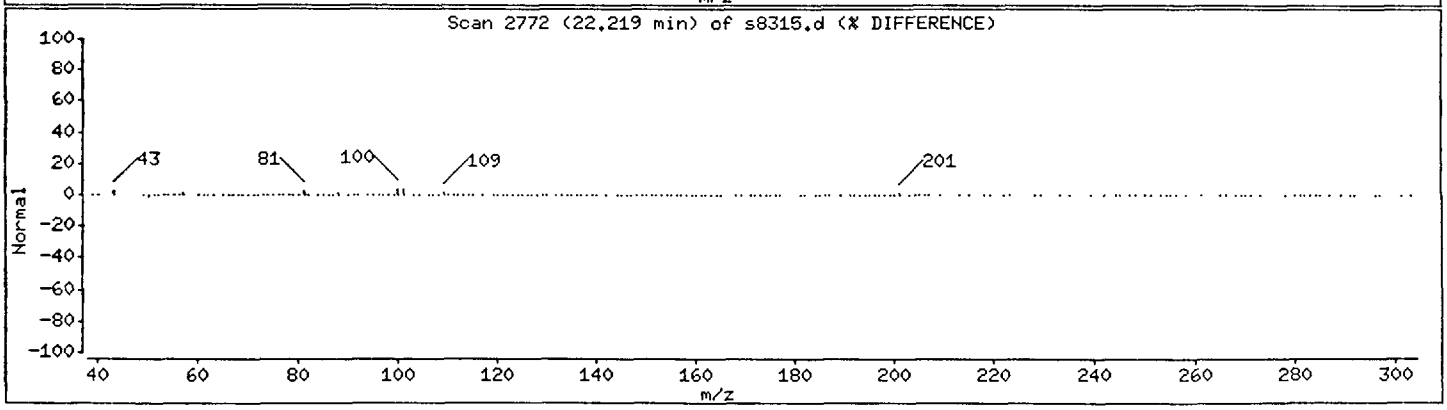
303685

56 Fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

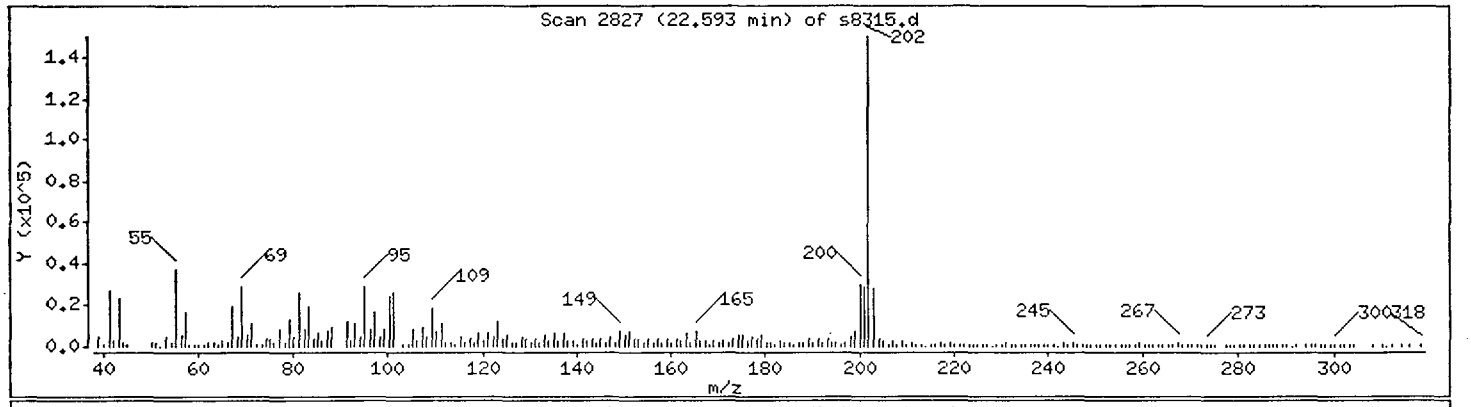
Sample Info: 88565;30;2;1;10.8;

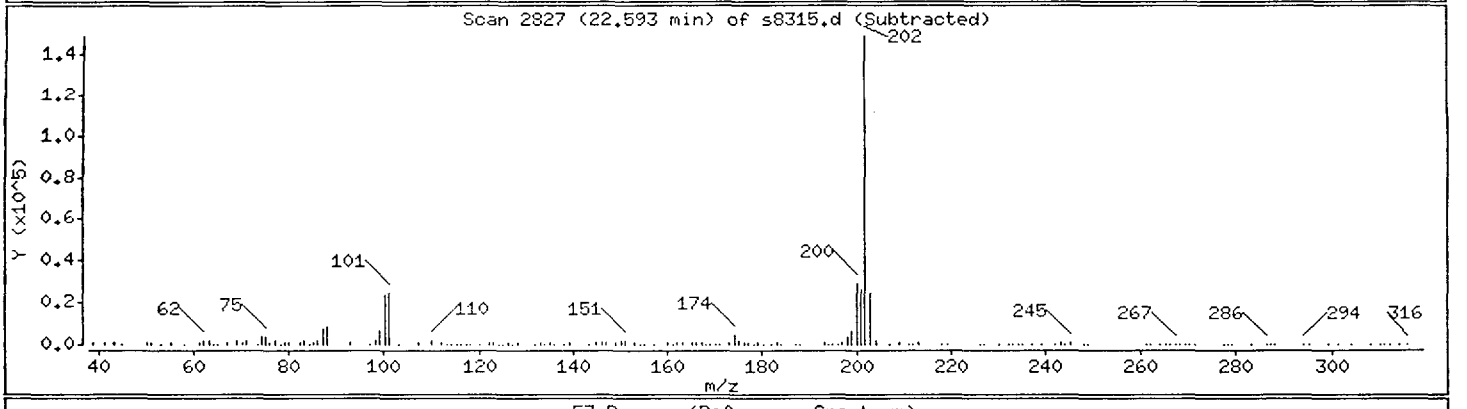
Operator: BNAMS 2

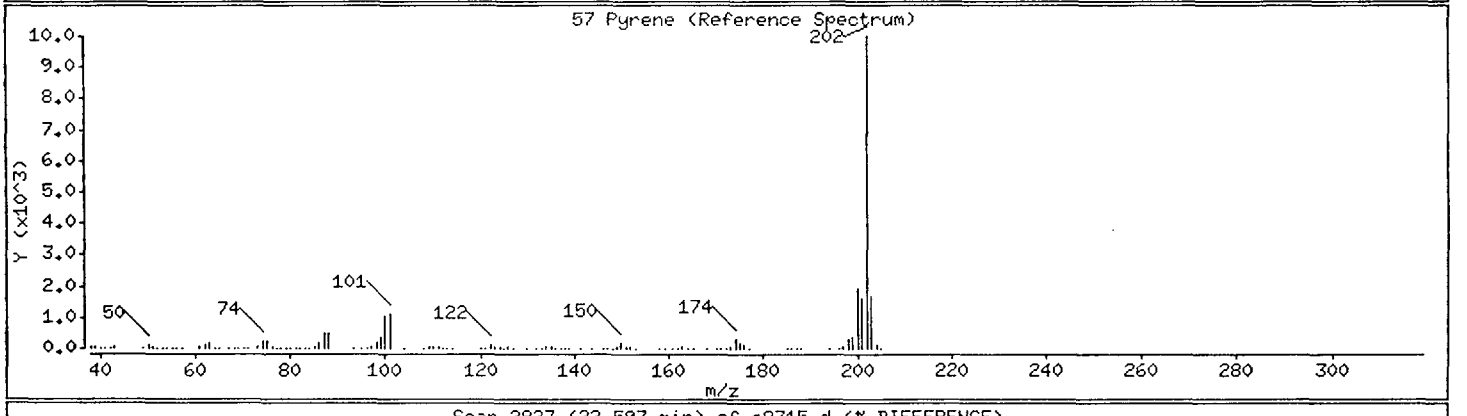
Column phase: DB-5 Column diameter: 0.25

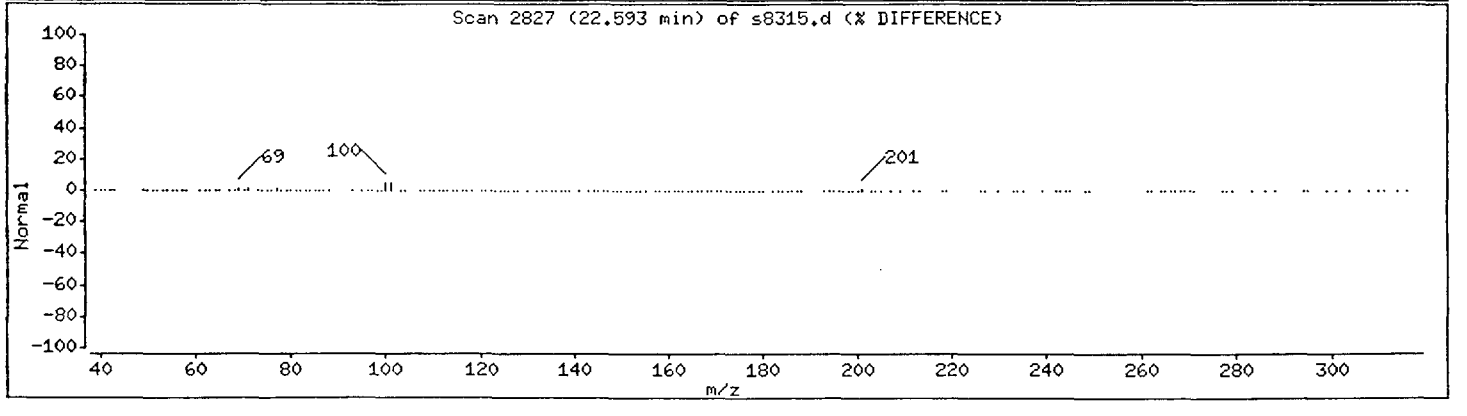
303686

57 Pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

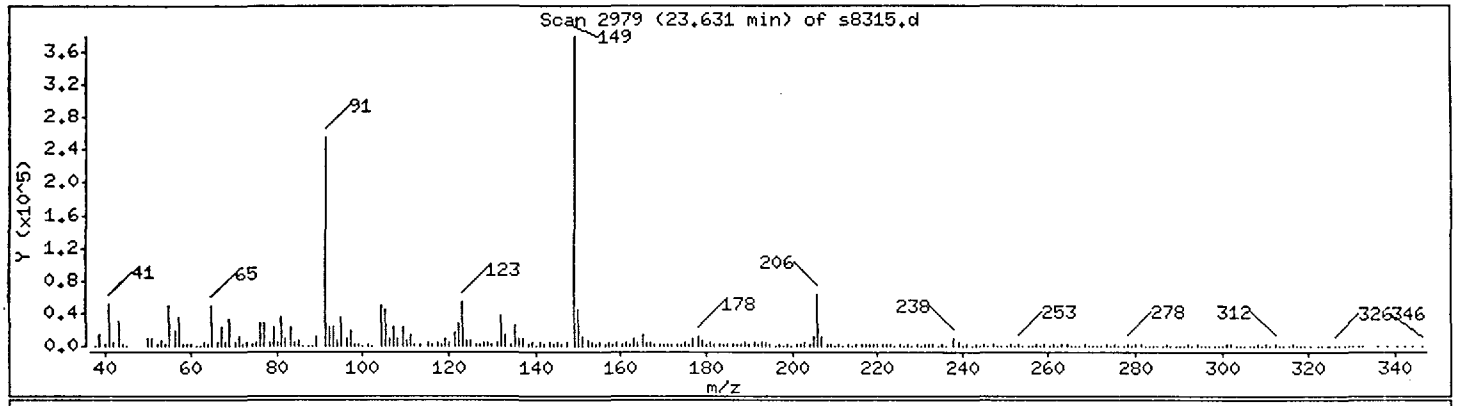
Sample Info: 88565;30;2;1;10.8;

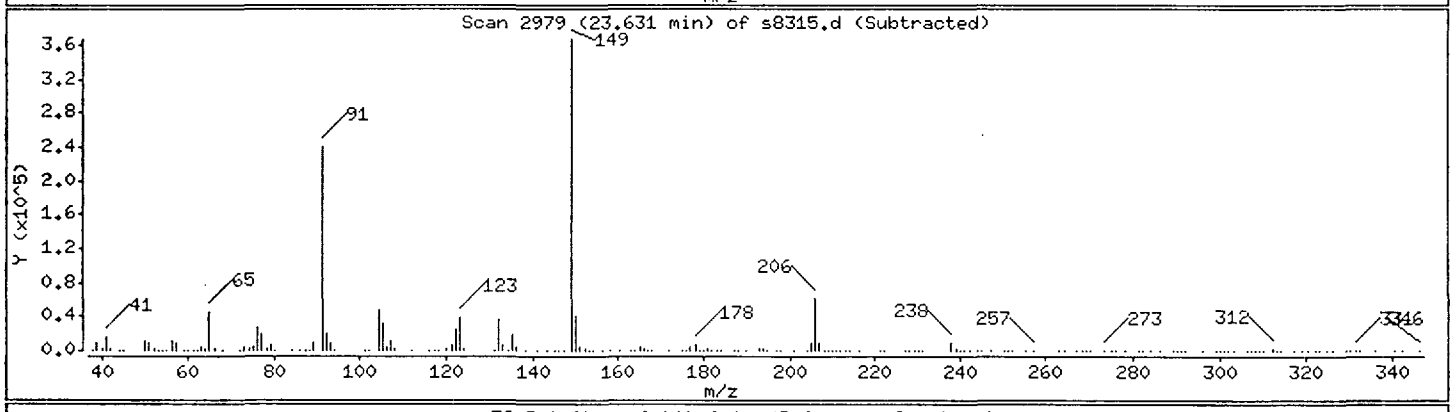
Operator: BNAMS 2

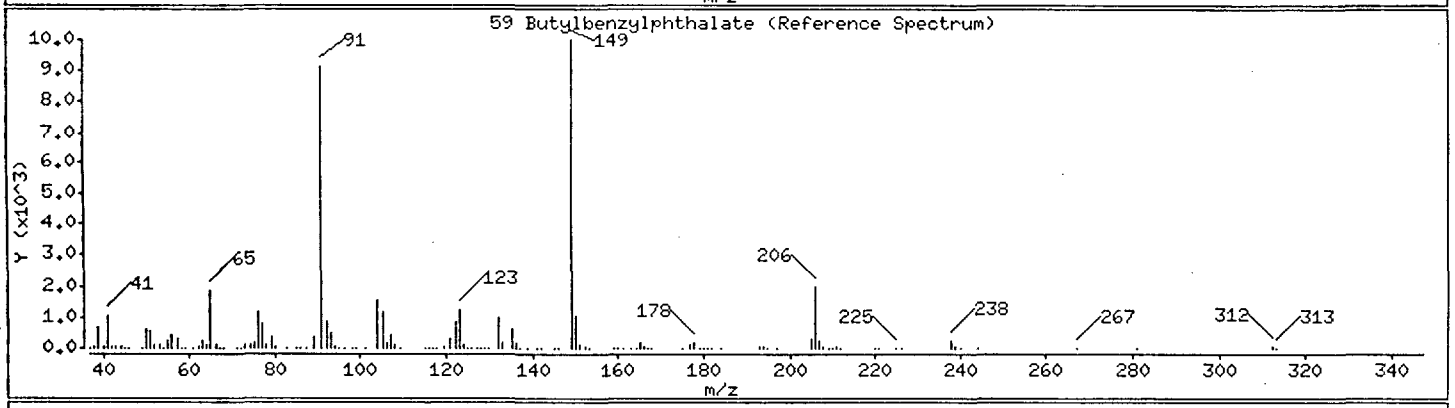
Column phase: DB-5 Column diameter: 0.25

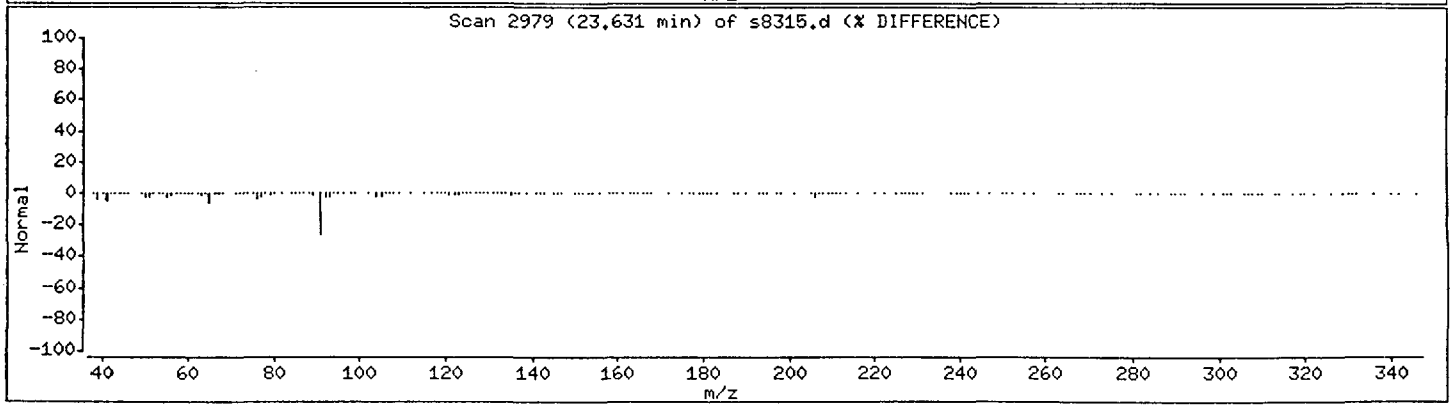
303687

59 Butylbenzylphthalate



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

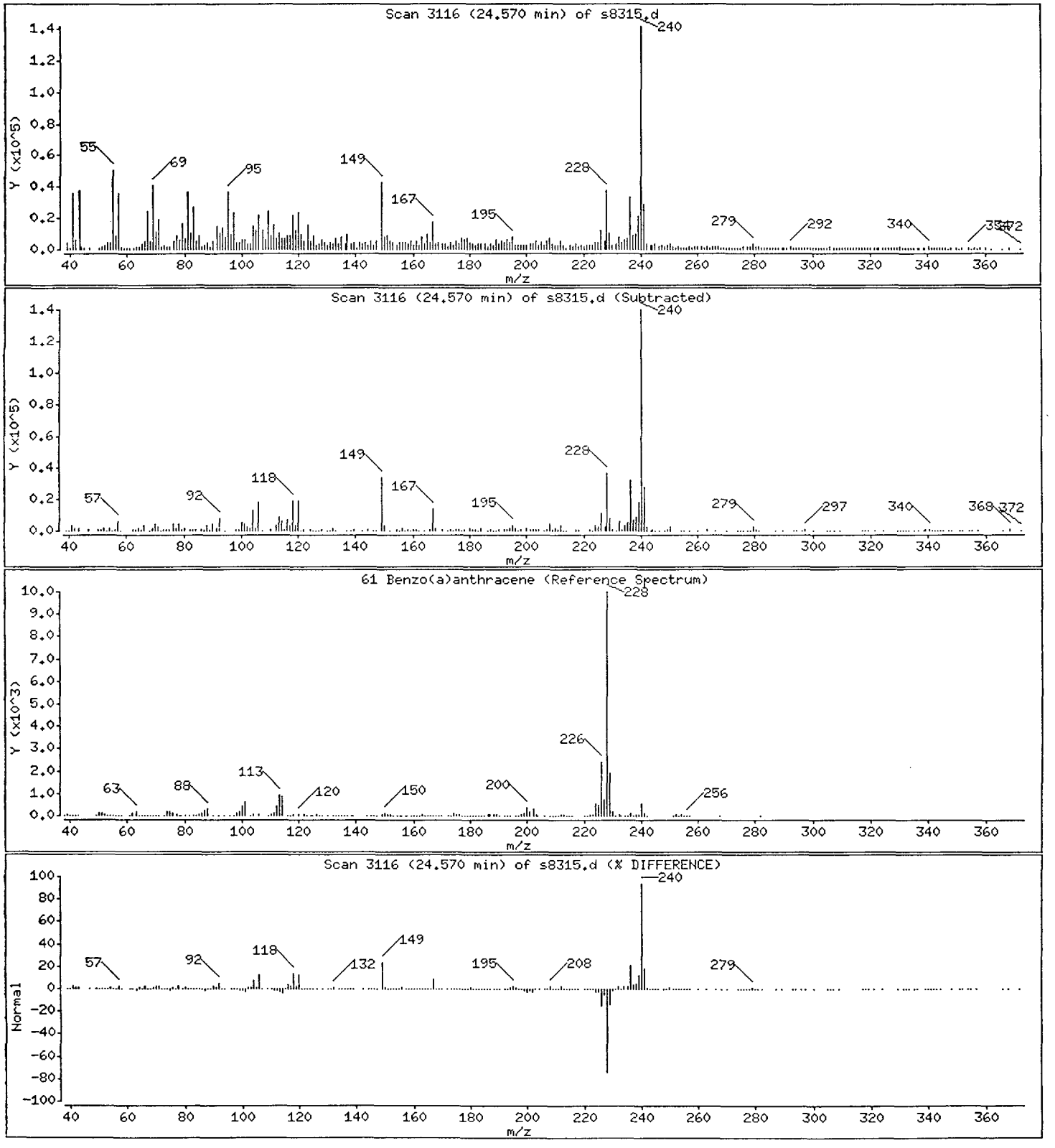
Sample Info: 88565;30;2;1;10.8;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303688

61 Benzo(a)anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

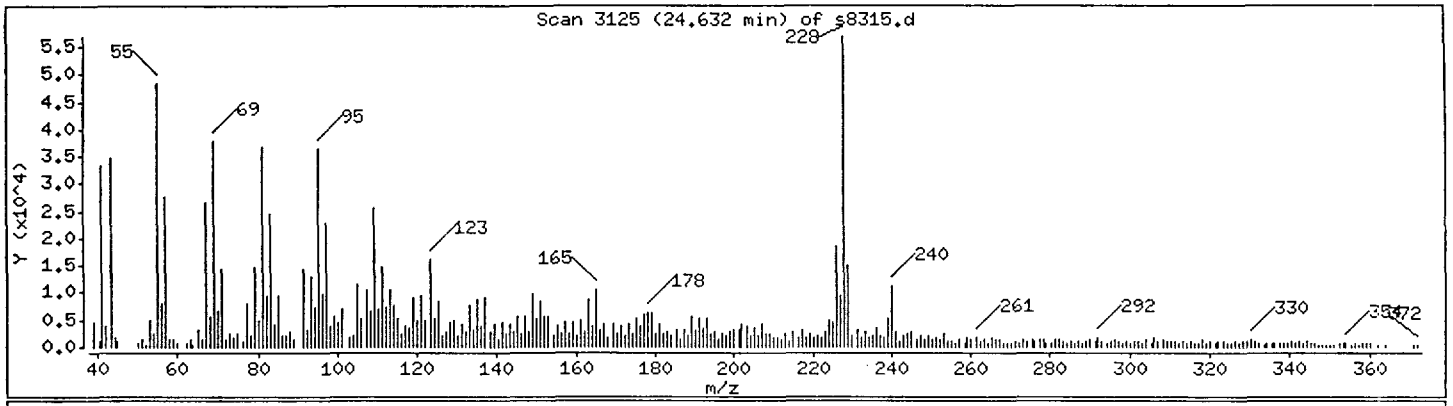
Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

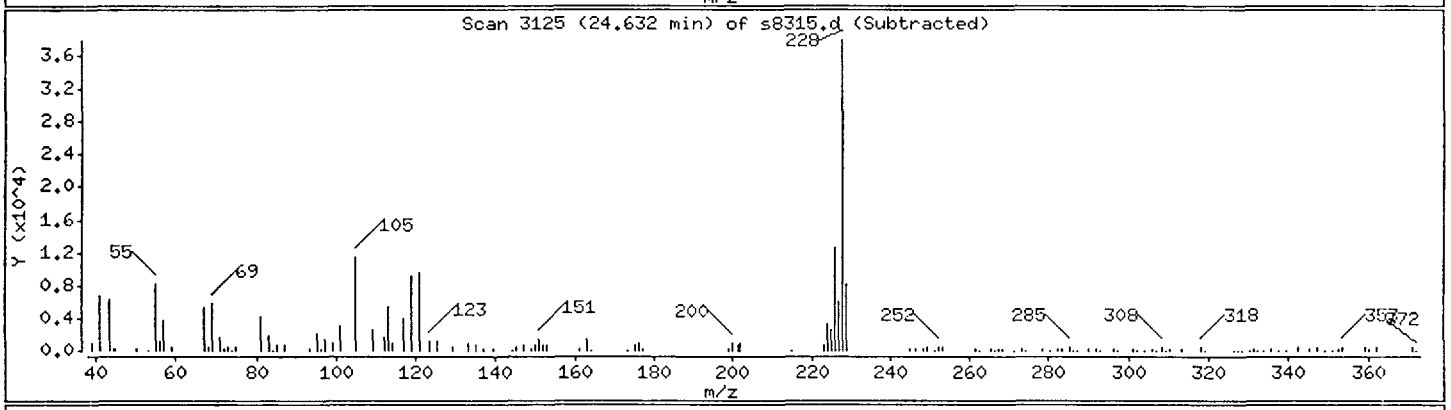
Sample Info: 88565;30;2;1;10.8;

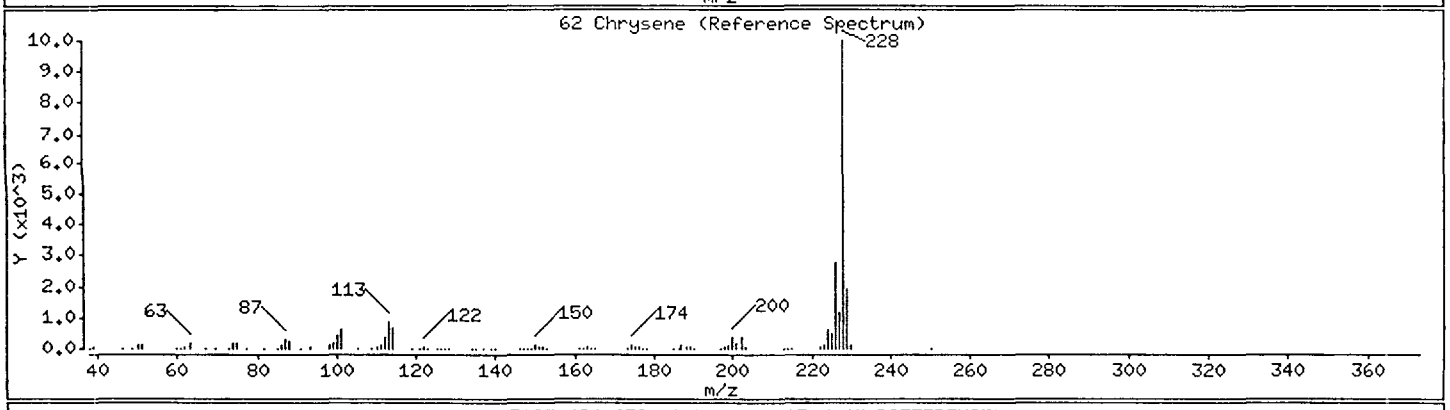
Operator: BNAMS 2

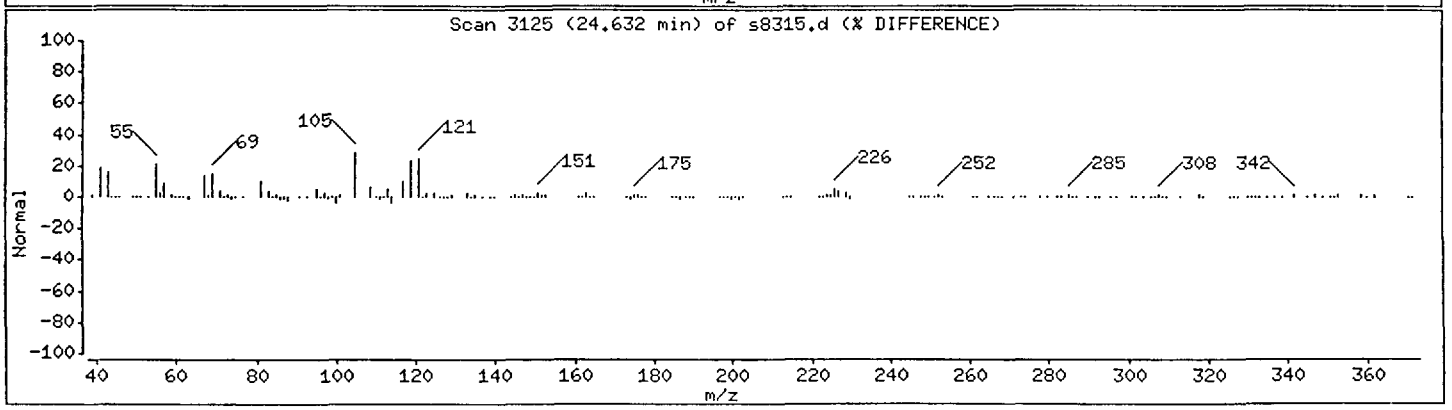
Column phase: DB-5 Column diameter: 0.25 303689

62 Chrysene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

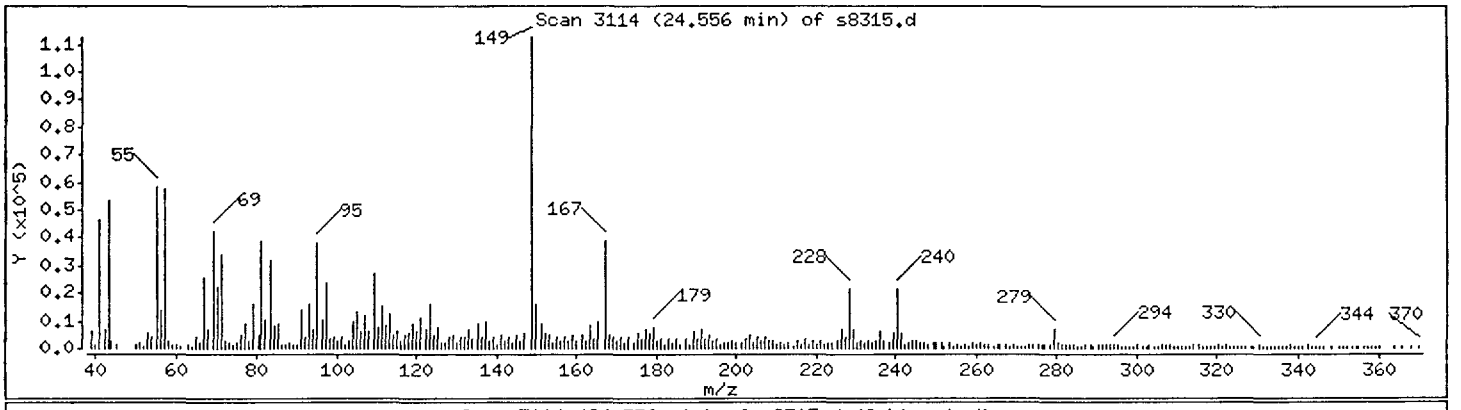
Sample Info: 88565;30;2;1;10.8;

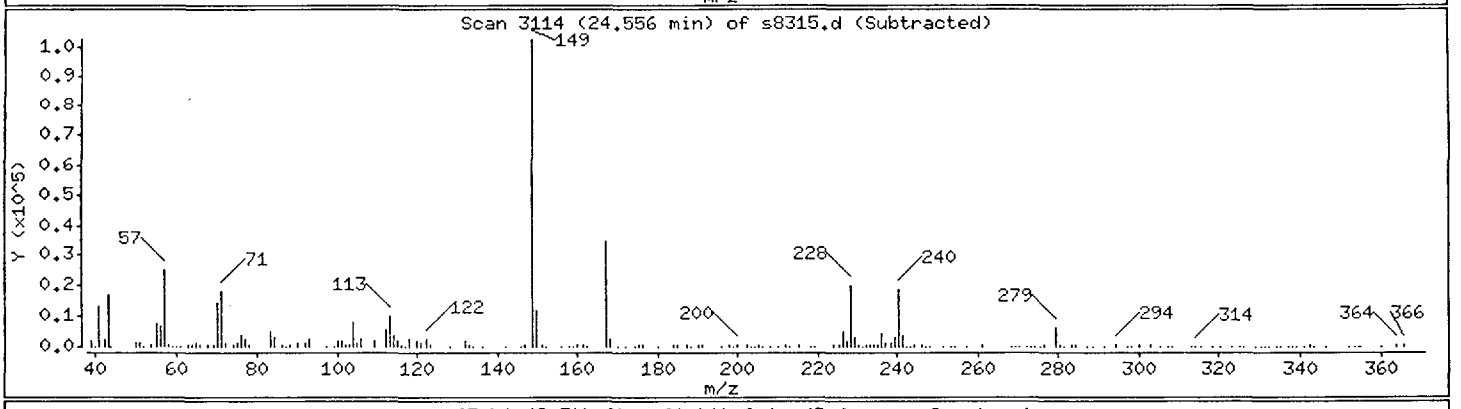
Operator: BNAMS 2

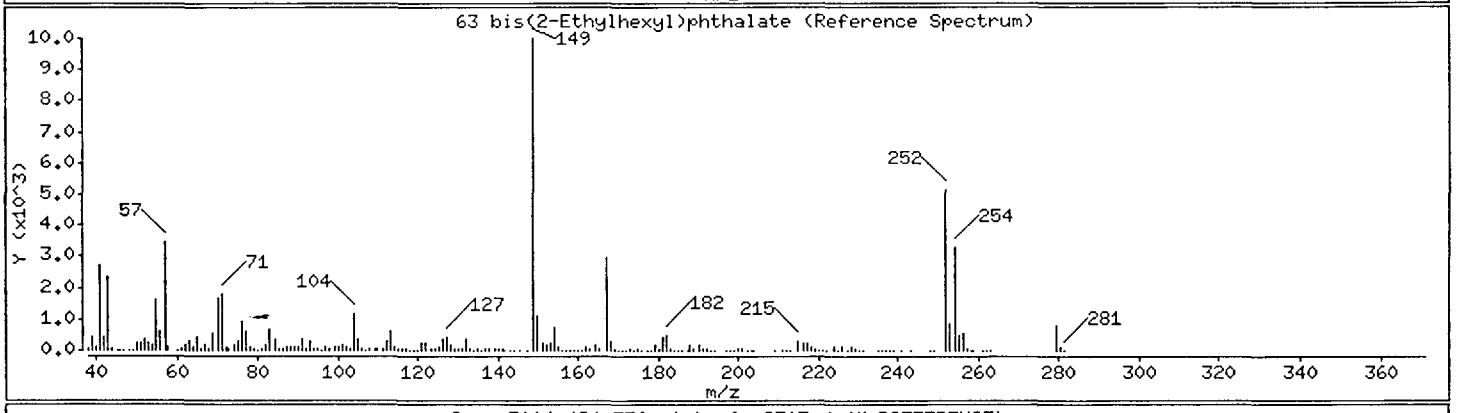
Column phase: DB-5 Column diameter: 0.25

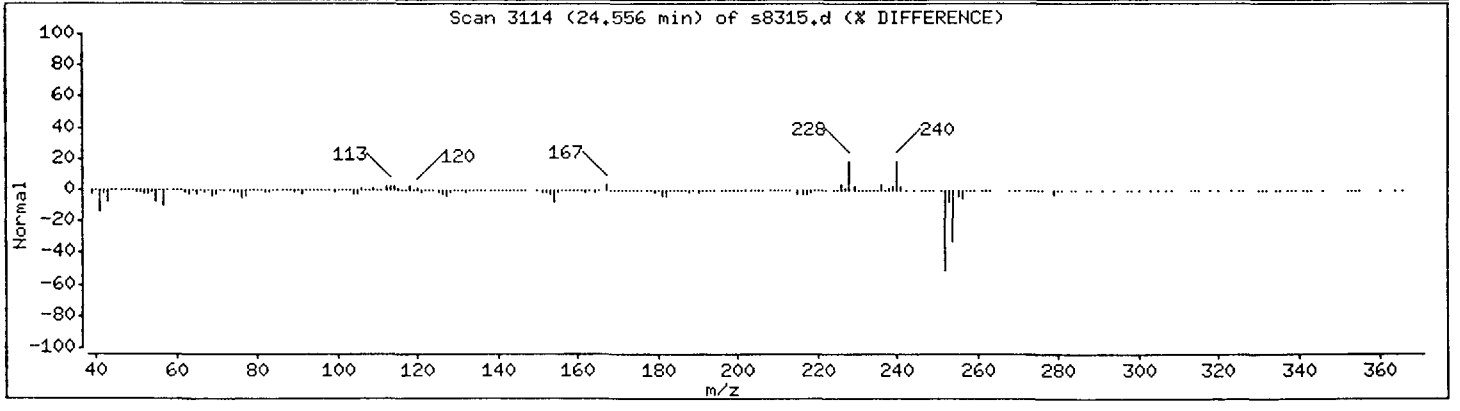
303690

63 bis(2-Ethylhexyl)phthalate



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

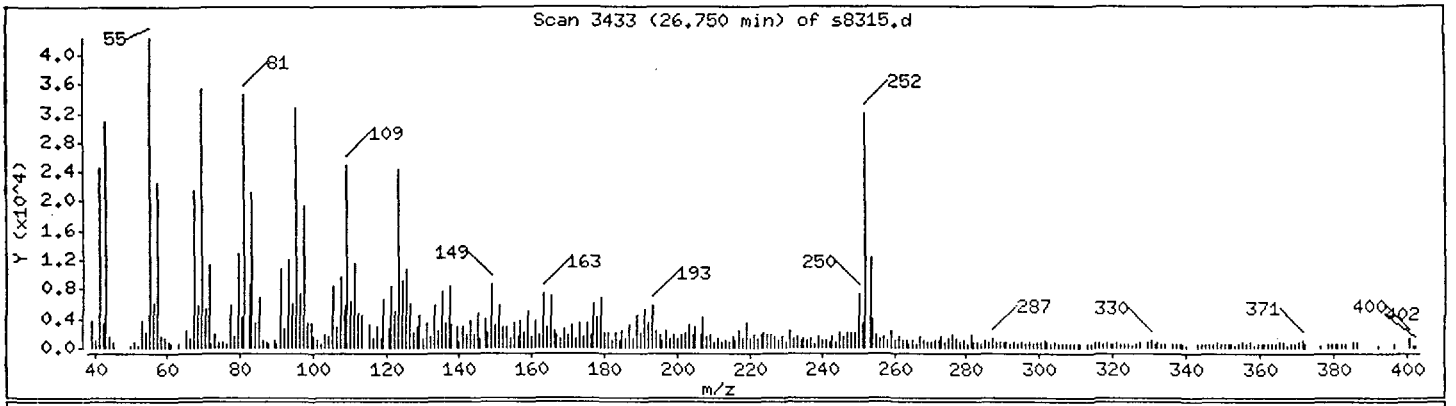
Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

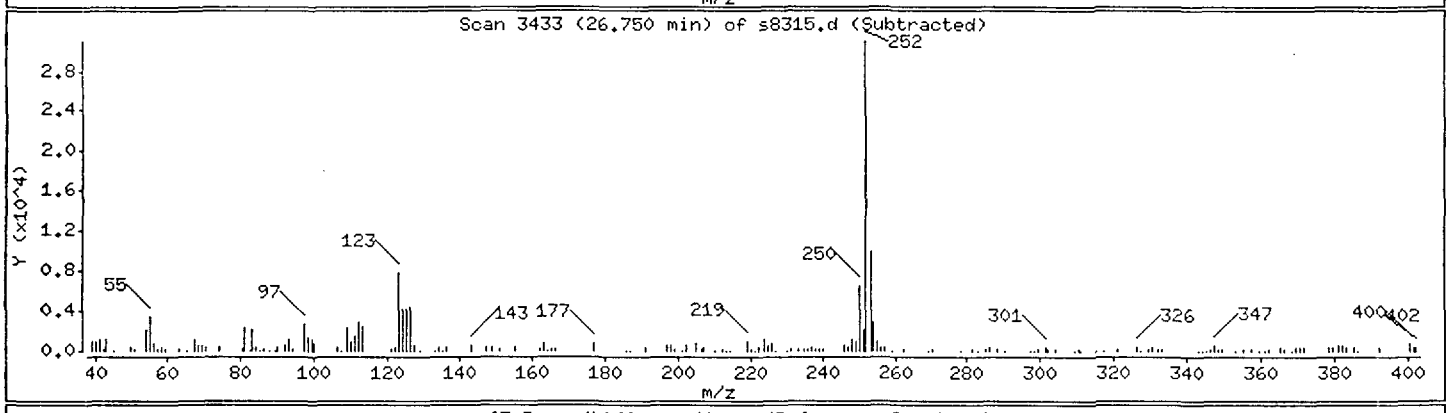
Sample Info: 88565;30;2;1;10.8;

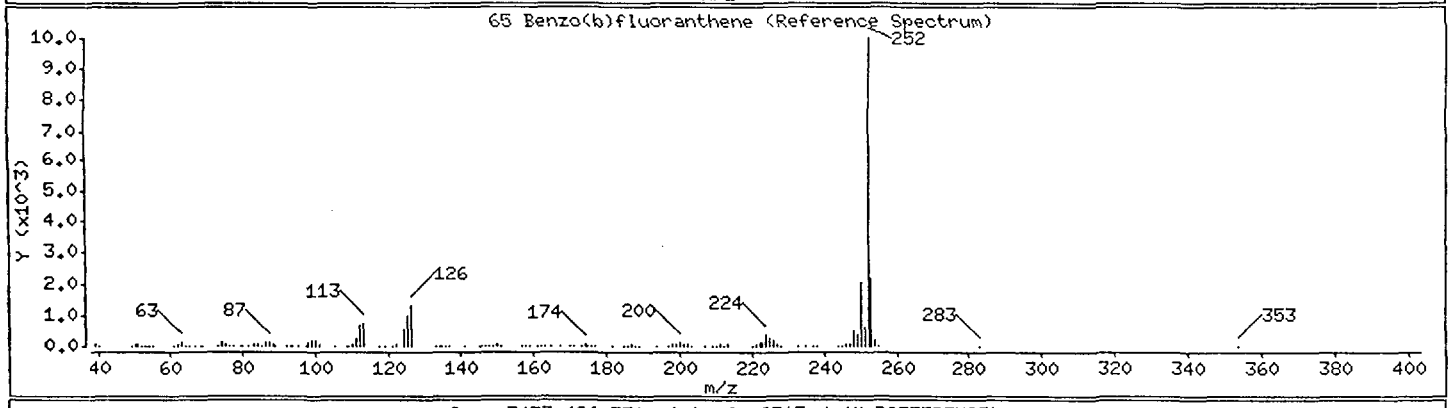
Operator: BNAMS 2

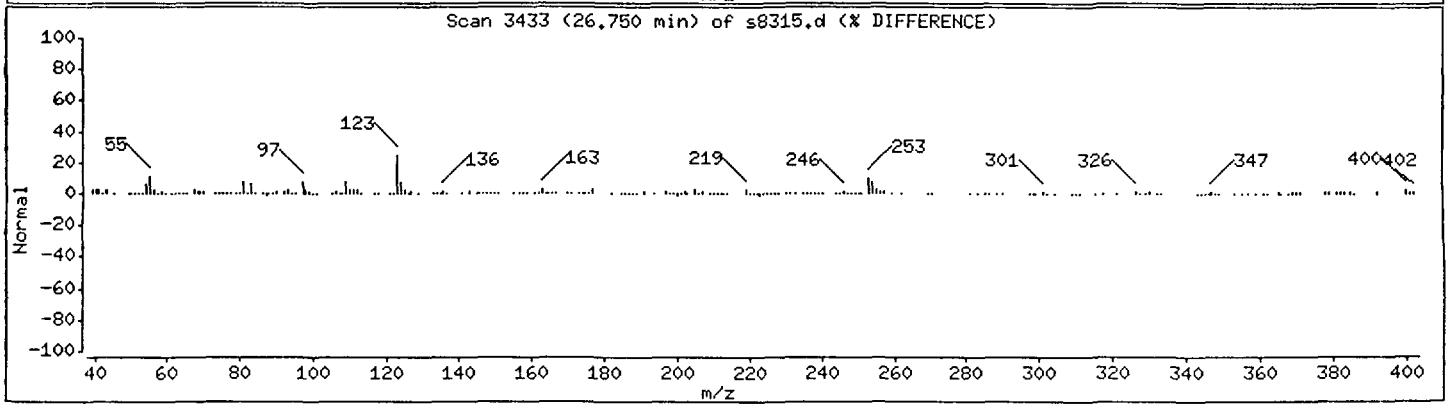
Column phase: DB-5 Column diameter: 0.25 303691

65 Benzo(b)fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

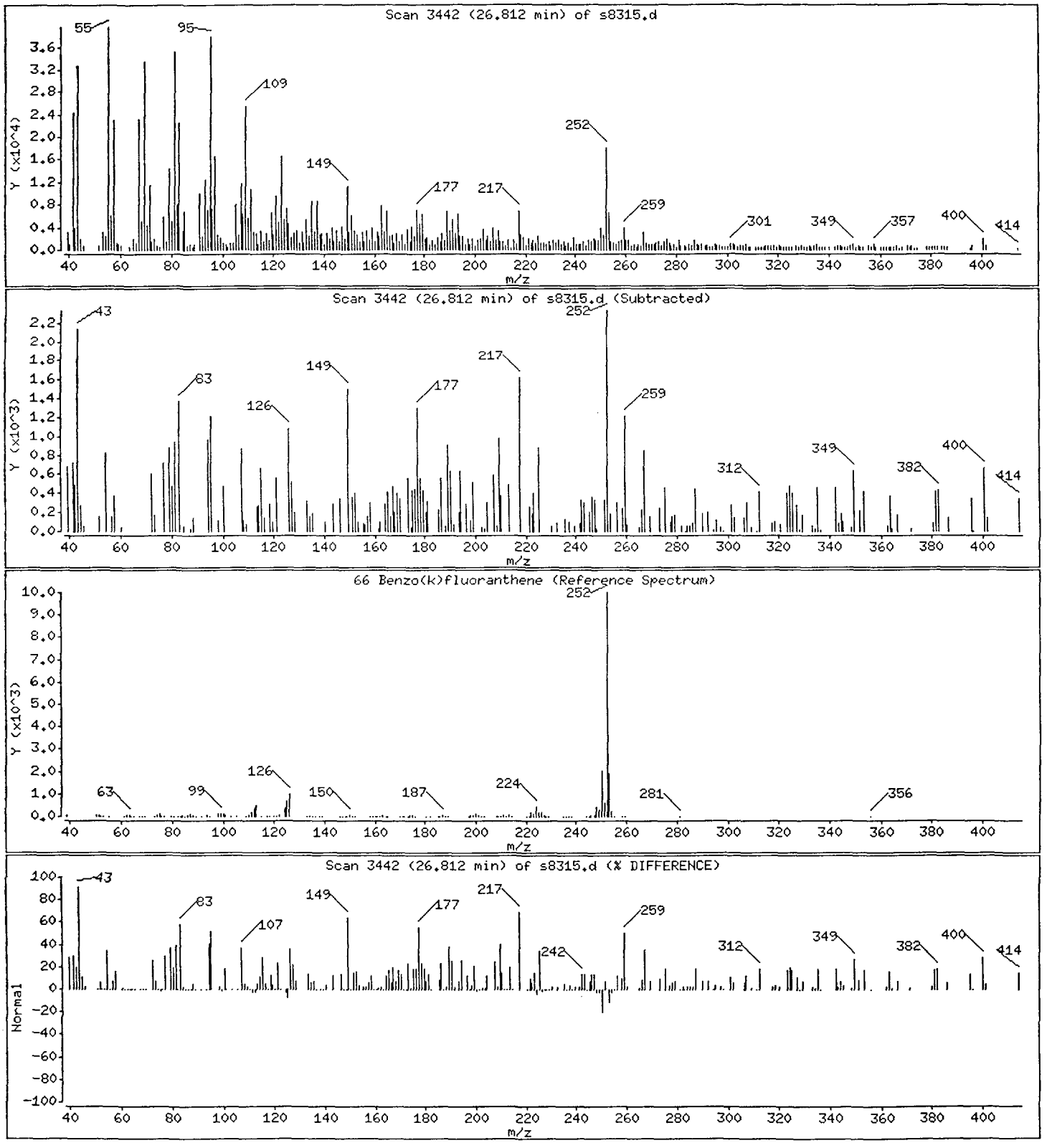
Sample Info: 88565;30;2;1;10.8;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303692

66 Benzo(k)fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

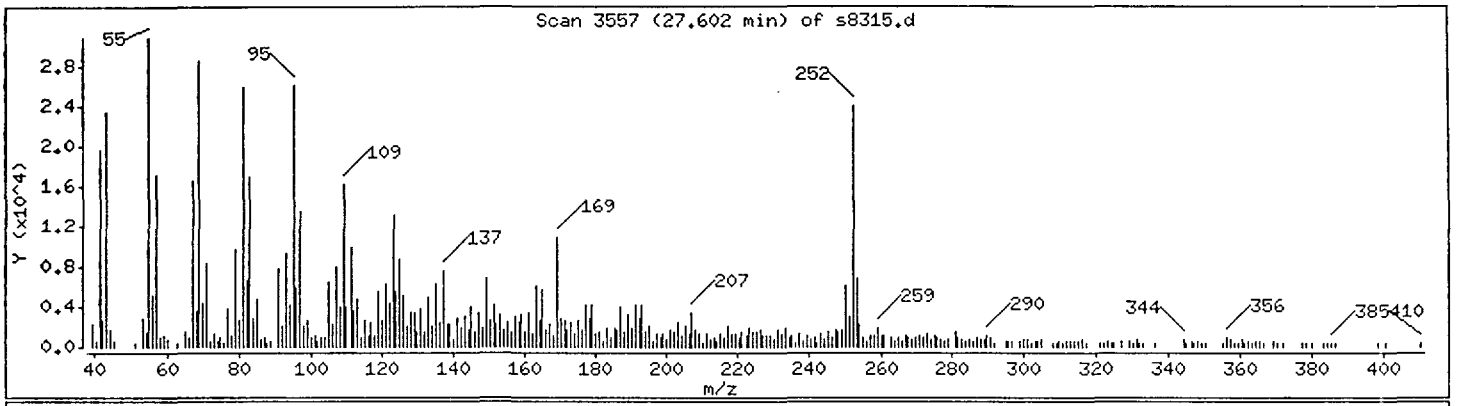
Sample Info: 88565;30;2;1;10.8;

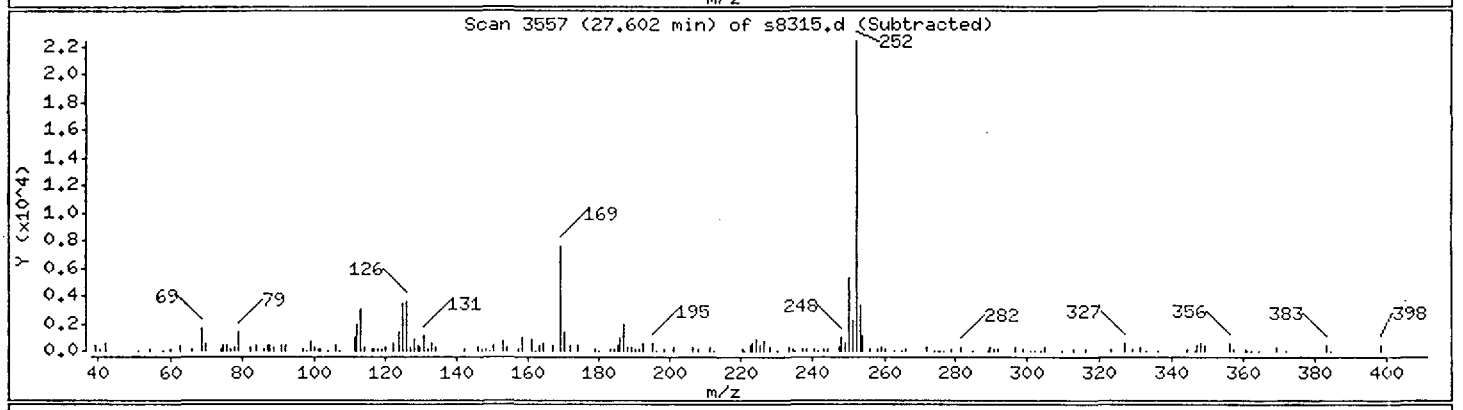
Operator: BNAMS 2

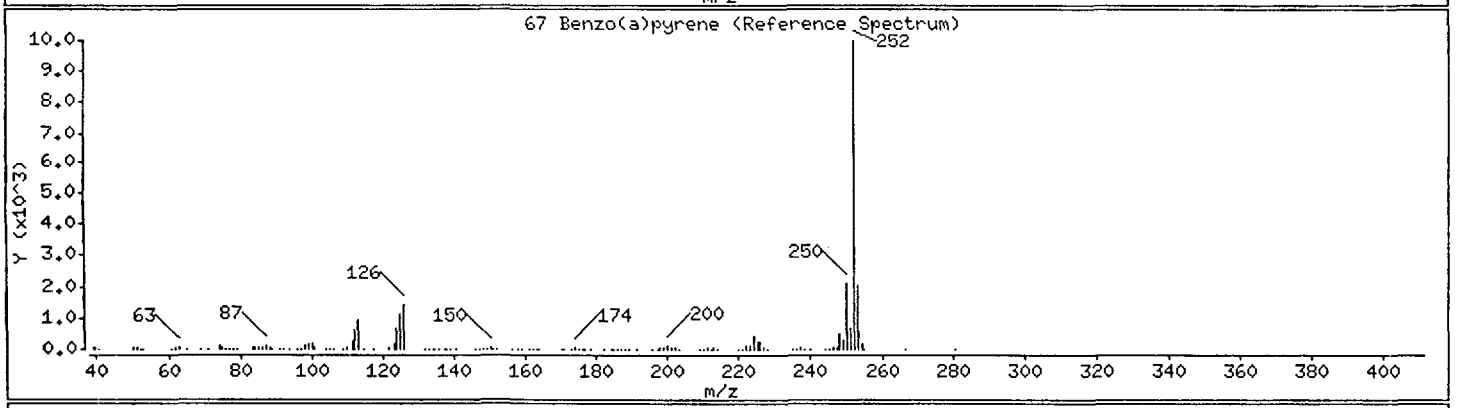
Column phase: DB-5 Column diameter: 0.25

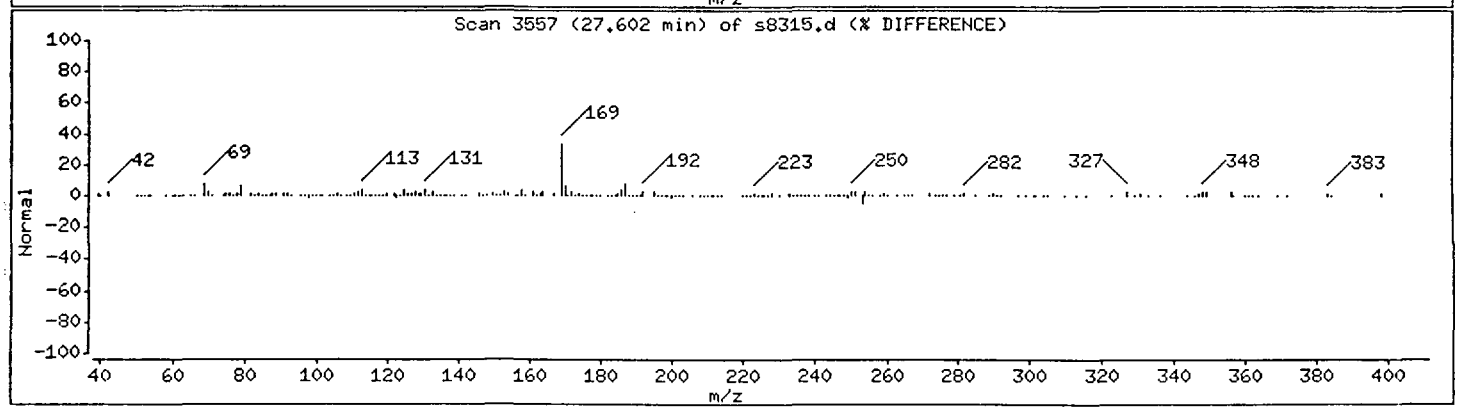
303693

67 Benzo(a)pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

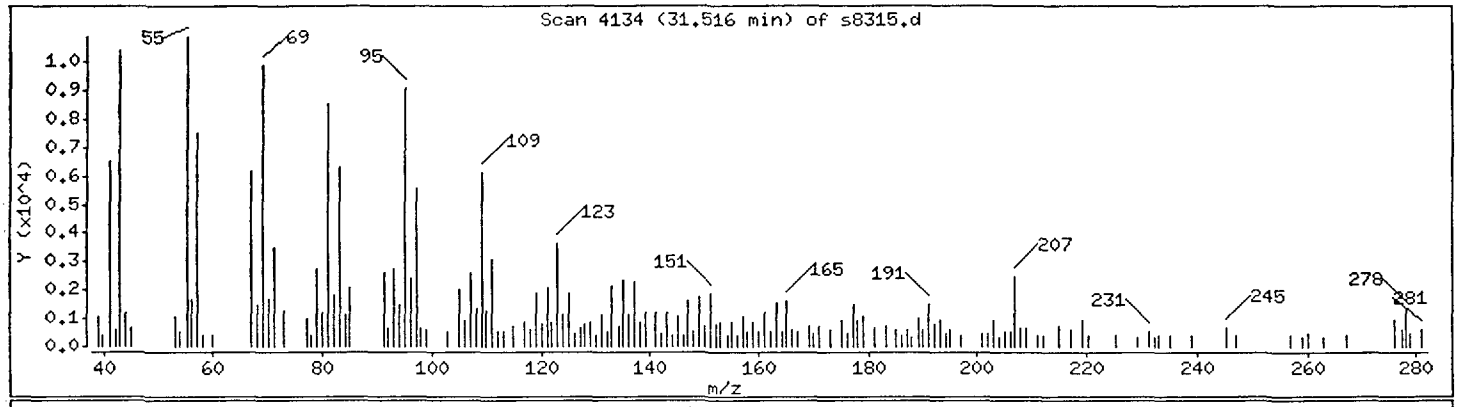
Sample Info: 88565;30;2;1;10.8;

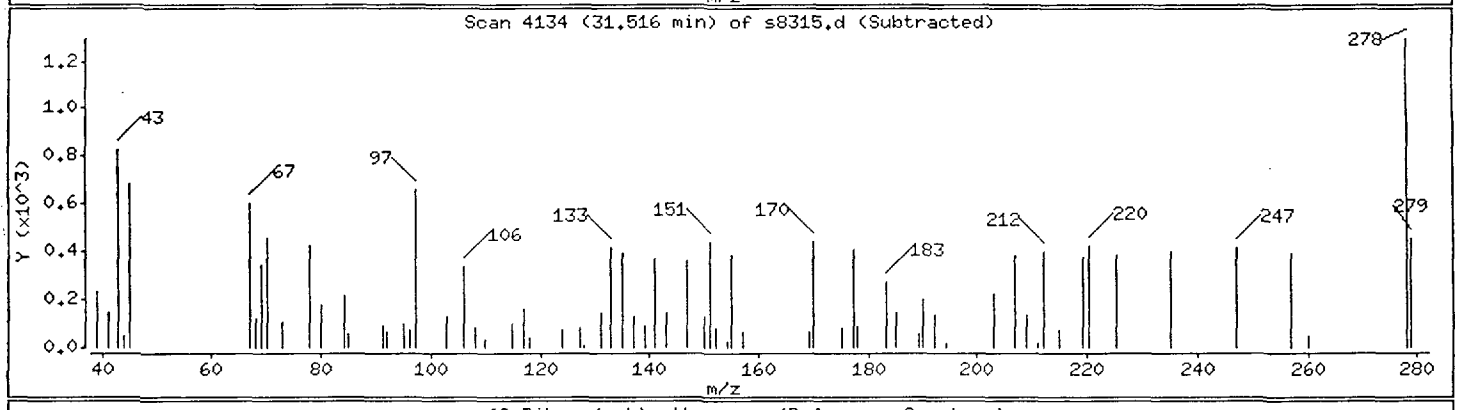
Operator: BNAMS 2

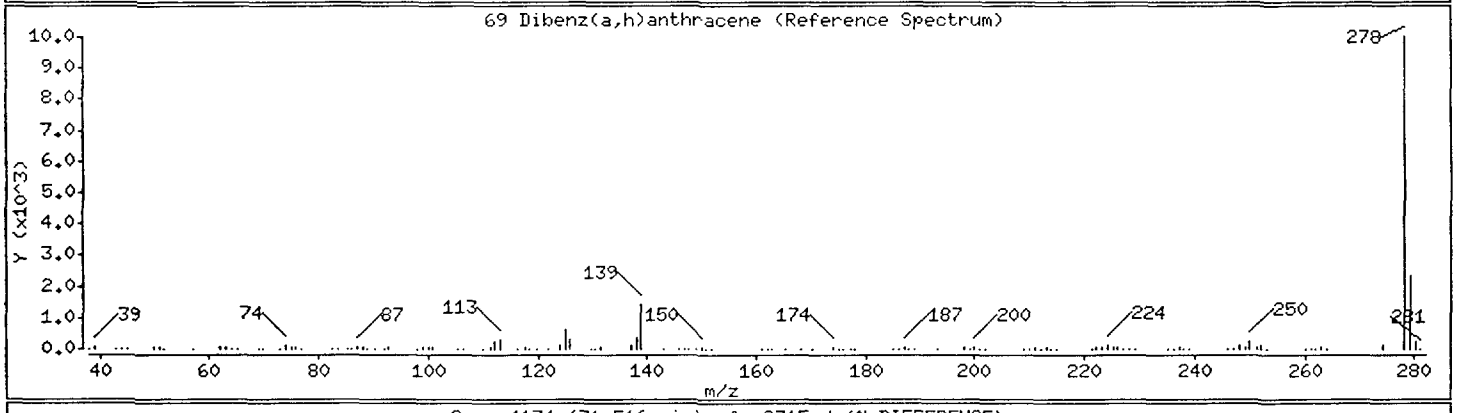
Column phase: DB-5 Column diameter: 0.25

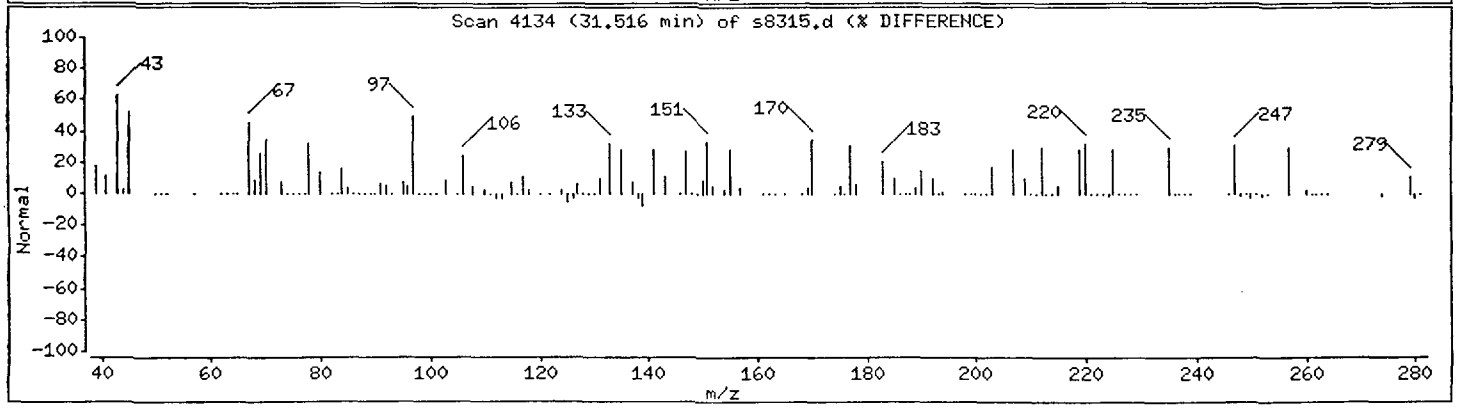
303694

69 Dibenz(a,h)anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

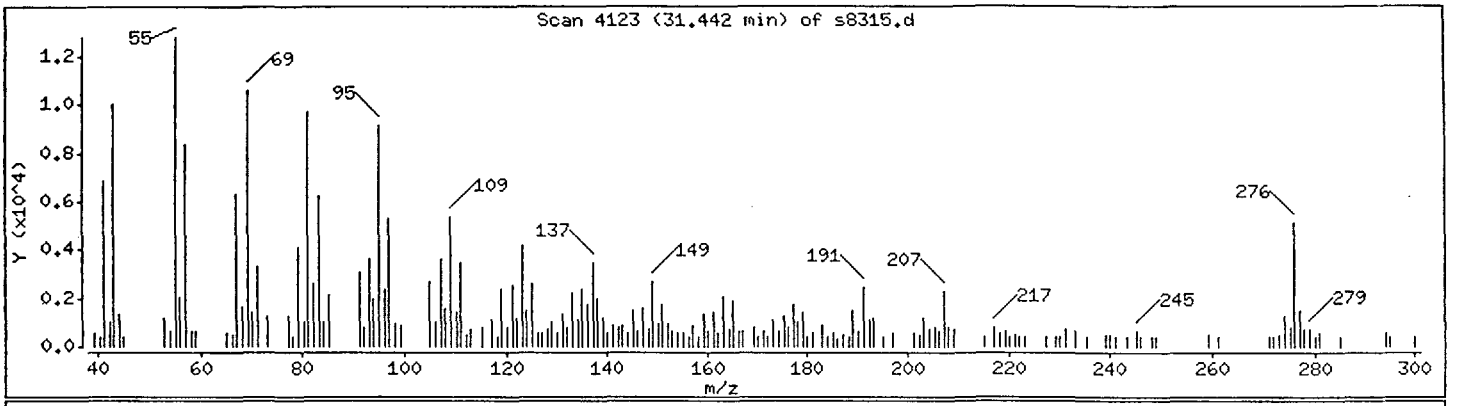
Sample Info: 88565;30;2;1;10.8;

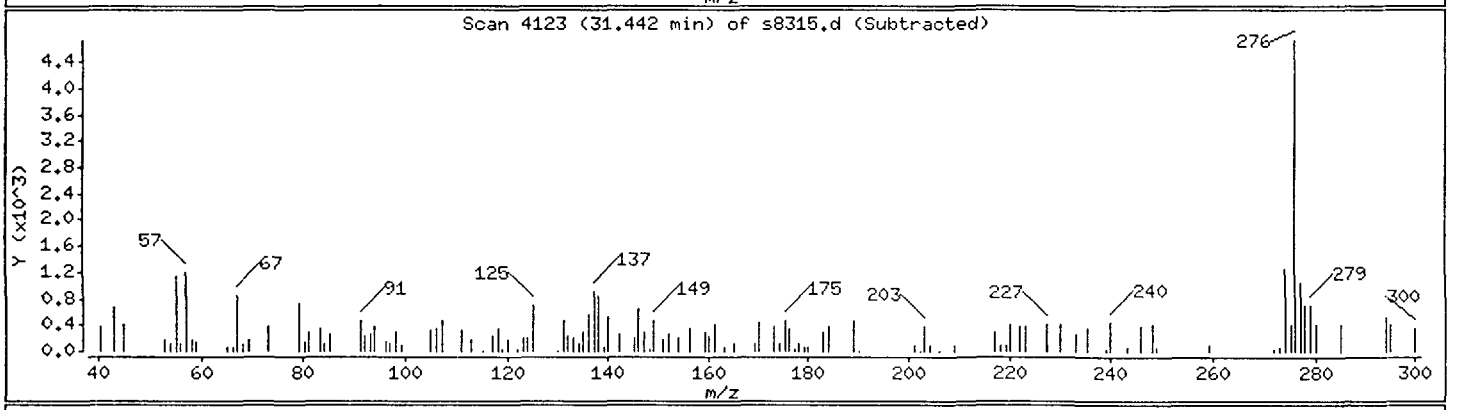
Operator: BNAMS 2

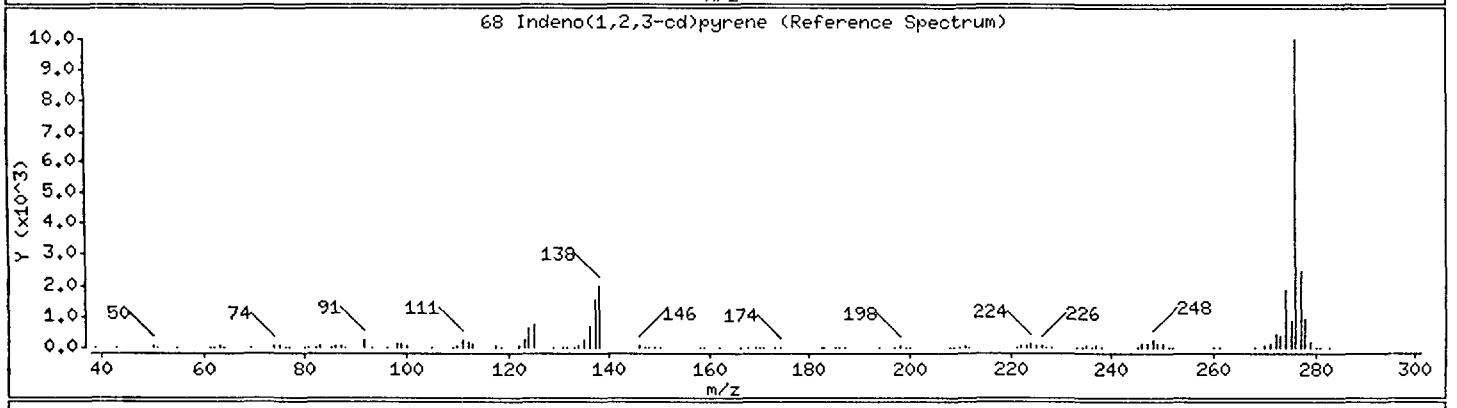
Column phase: DB-5 Column diameter: 0.25

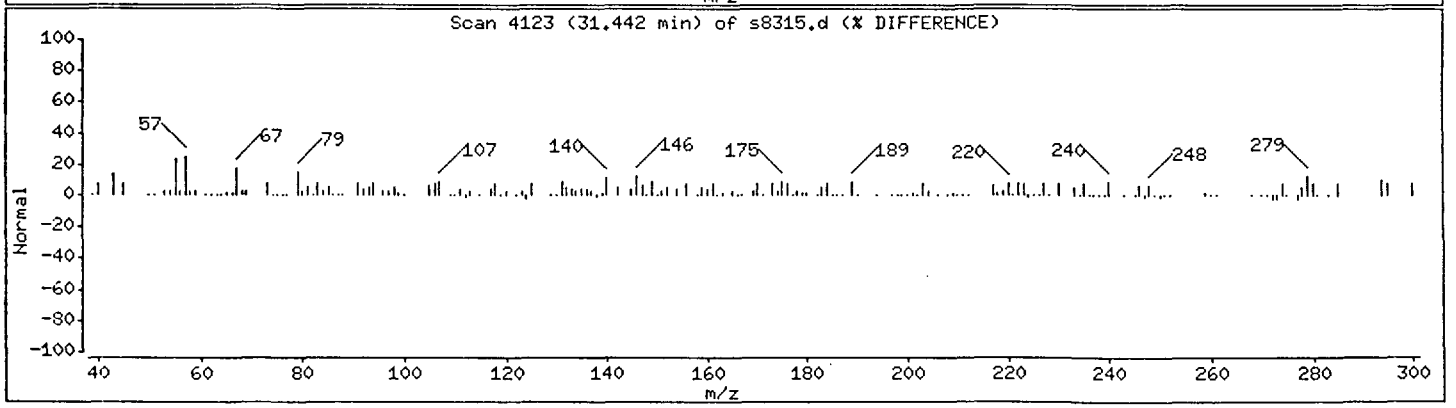
303695

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



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

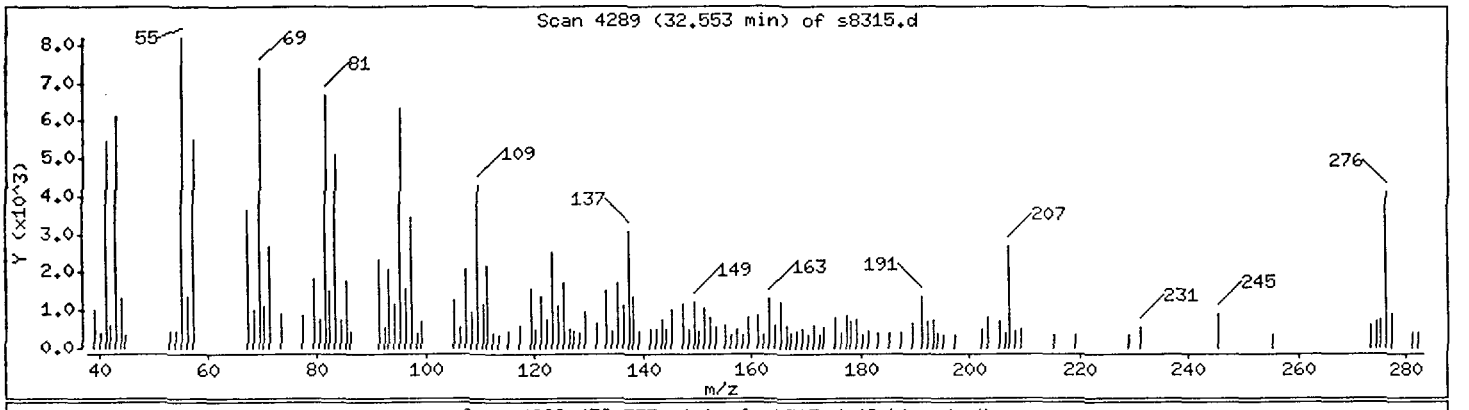
Sample Info: 88565;30;2;1;10.8;

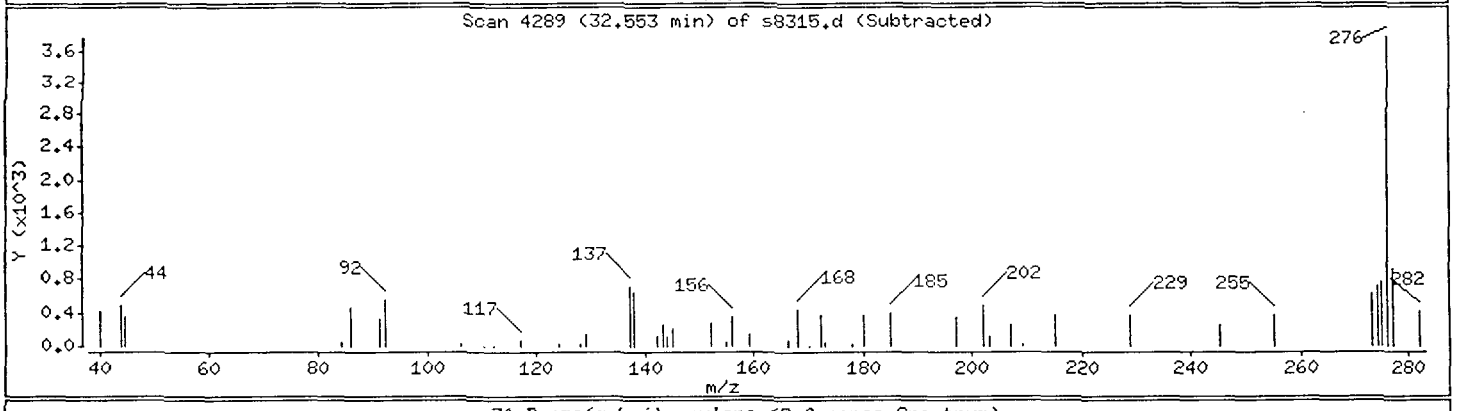
Operator: BNAMS 2

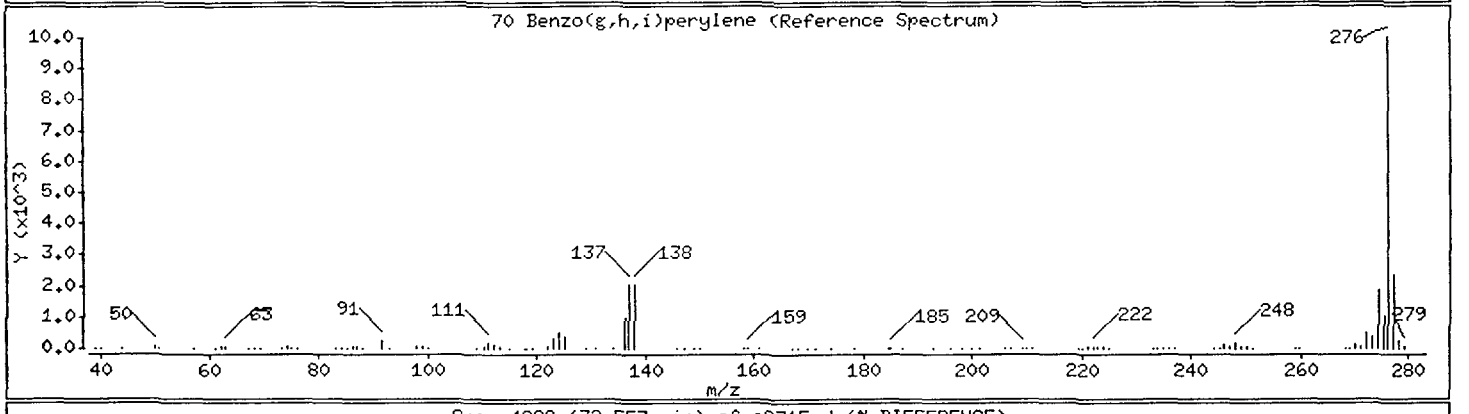
Column phase: DB-5 Column diameter: 0.25

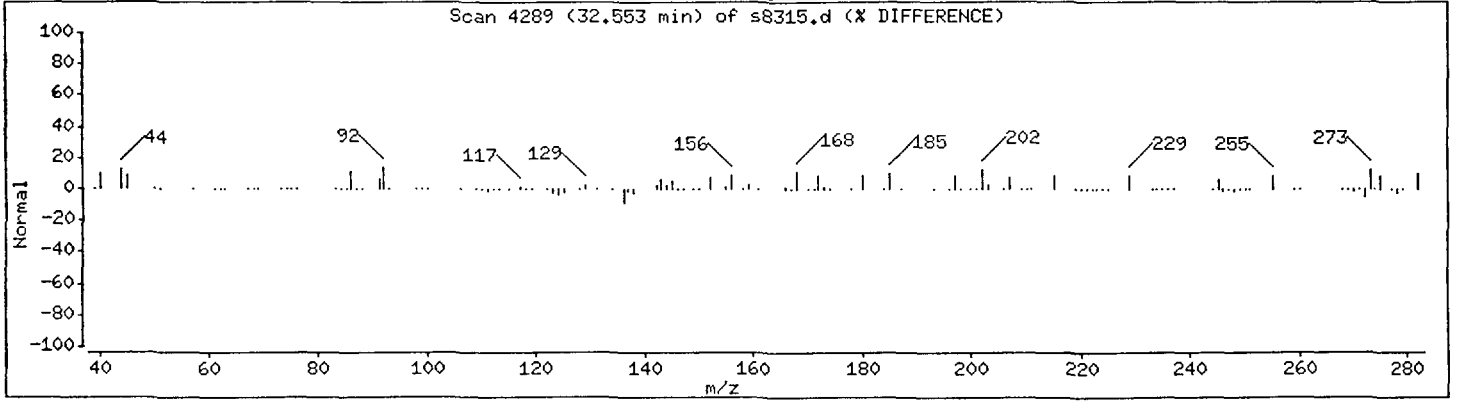
303696

70 Benzo(g,h,i)perylene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5

Instrument: BNAMS2.i

Sample Info: 88565;30;2;1;10.8;

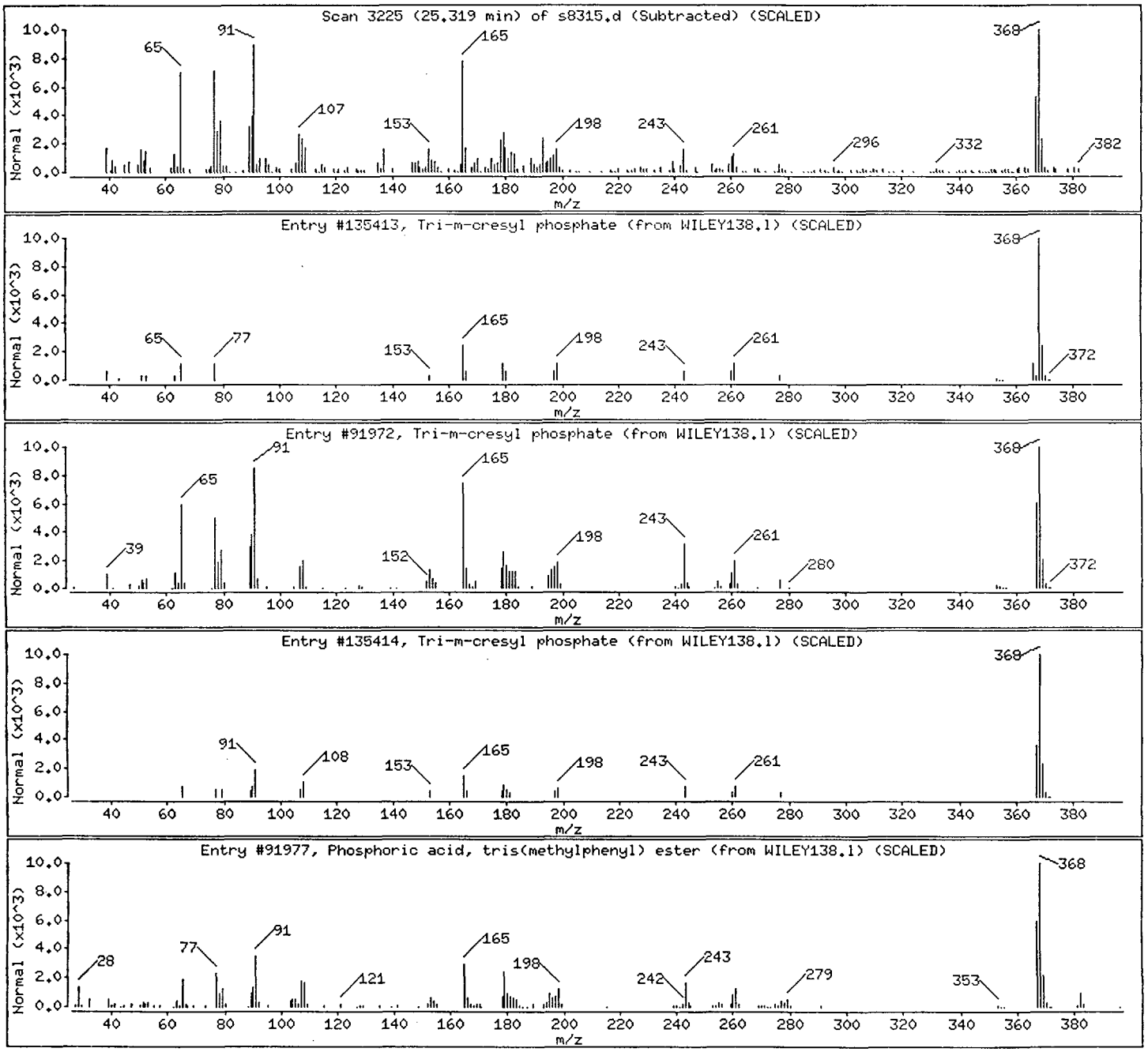
303697

Operator: BNAMS 2

Column phase: DB-5

Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| Tri-m-cresyl phosphate | 563-04-2 | WILEY138.1 | 135413 | 92 | C21H2104P | 368 |
| Tri-m-cresyl phosphate | 563-04-2 | WILEY138.1 | 91972 | 91 | C21H2104P | 368 |
| Tri-m-cresyl phosphate | 563-04-2 | WILEY138.1 | 135414 | 89 | C21H2104P | 368 |
| Phosphoric acid, tris(methylphenyl) este | 1330-78-5 | WILEY138.1 | 91977 | 84 | C21H2104P | 368 |



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

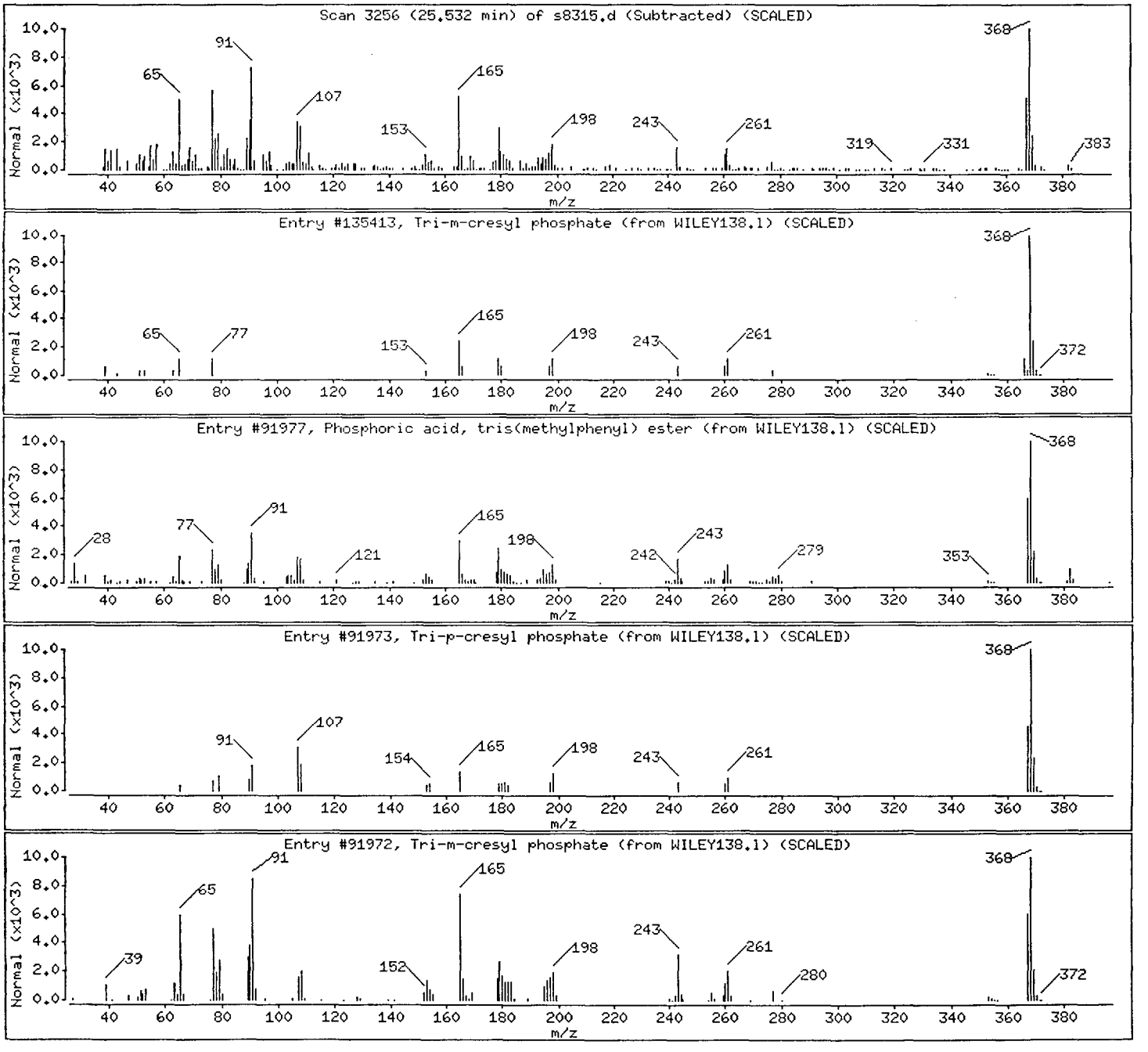
Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

Sample Info: 88565;30;2;1;10.8; 303698

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| Tri-m-cresyl phosphate | 563-04-2 | WILEY138.1 | 135413 | 96 | C21H2104P | 368 |
| Phosphoric acid, tris(methylphenyl) este | 1330-78-5 | WILEY138.1 | 91977 | 95 | C21H2104P | 368 |
| Tri-p-cresyl phosphate | 78-32-0 | WILEY138.1 | 91973 | 94 | C21H2104P | 368 |
| Tri-m-cresyl phosphate | 563-04-2 | WILEY138.1 | 91972 | 74 | C21H2104P | 368 |



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

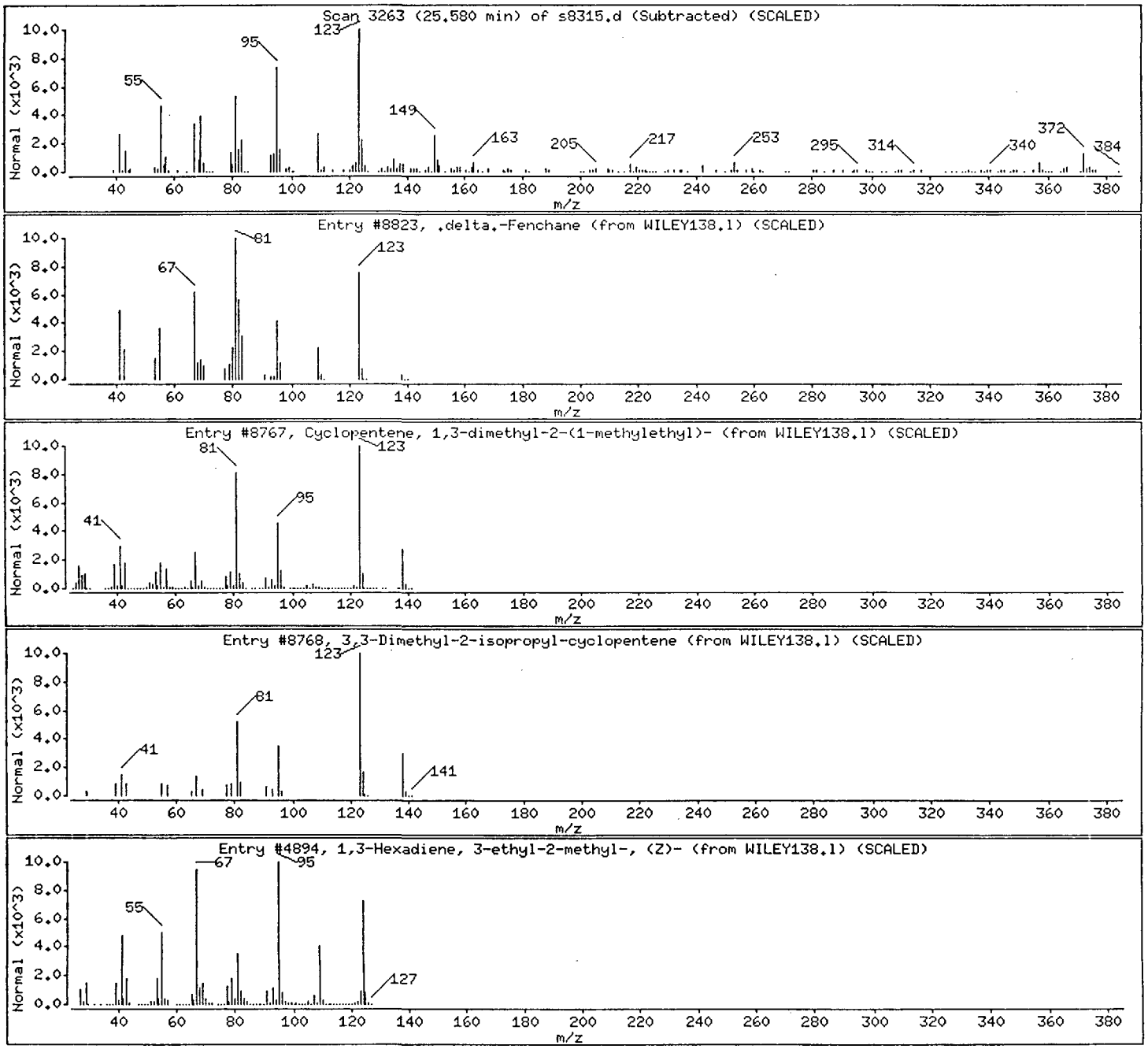
Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

Sample Info: 88565;30;2;1;10.8; 303699

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| .delta.-Fenchane | 6248-88-0 | WILEY138.1 | 8823 | 46 | C10H18 | 138 |
| Cyclopentene, 1,3-dimethyl-2-(1-methylet | 61142-32-3 | WILEY138.1 | 8767 | 42 | C10H18 | 138 |
| 3,3-Dimethyl-2-isopropyl-cyclopentene | 72535-89-8 | WILEY138.1 | 8768 | 42 | C10H18 | 138 |
| 1,3-Hexadiene, 3-ethyl-2-methyl-, (Z)- | 74752-97-9 | WILEY138.1 | 4894 | 38 | C9H16 | 124 |



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

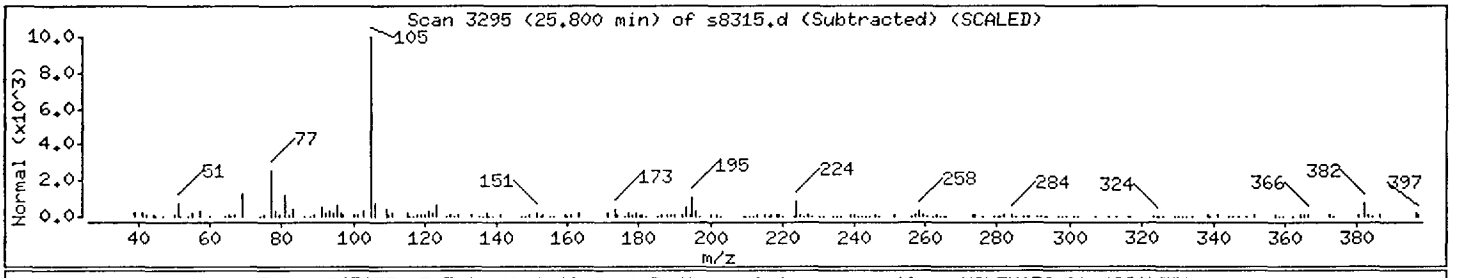
Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

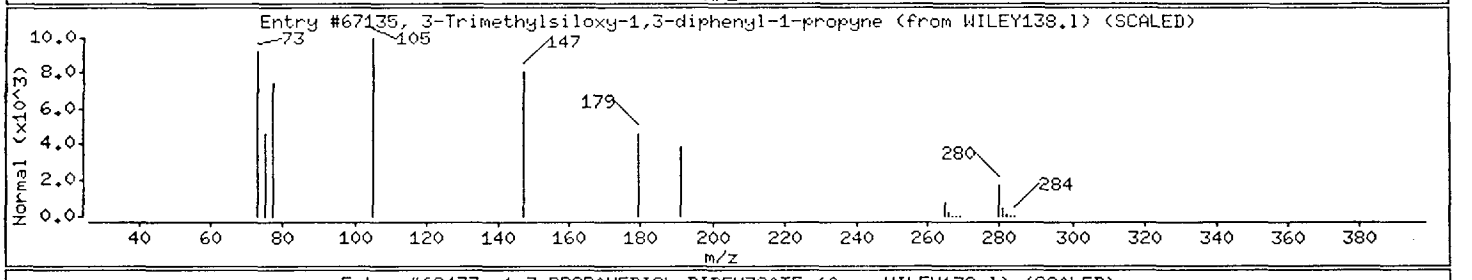
Sample Info: 88565;30;2;1;10.8; 303700

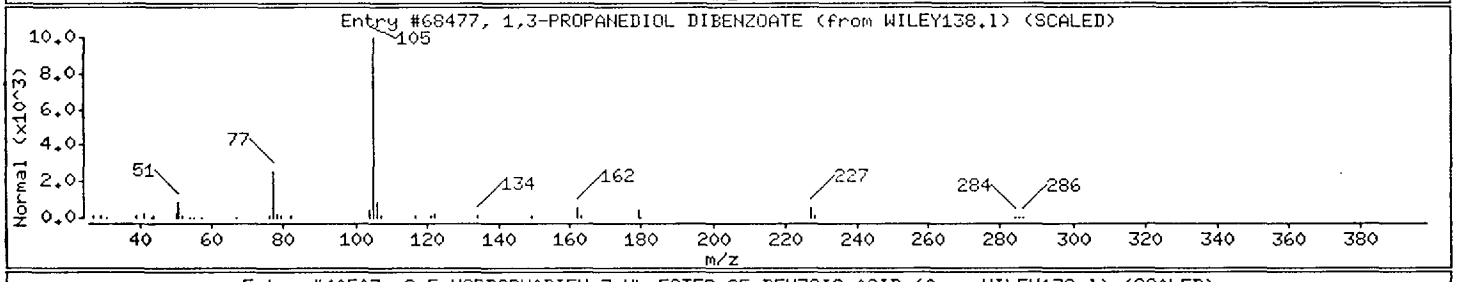
Operator: BNAMS 2

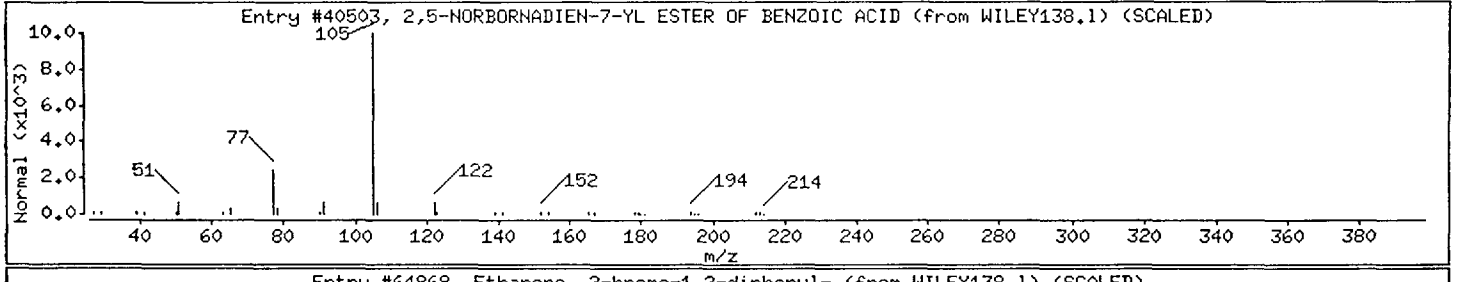
Column phase: DB-5 Column diameter: 0.25

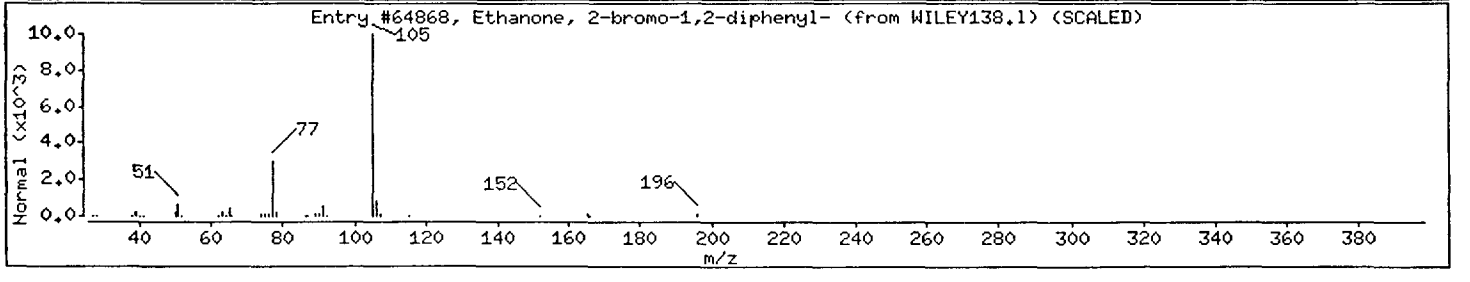
| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| 3-Trimethylsiloxy-1,3-diphenyl-1-propyne | 59738-52-2 | WILEY138.1 | 67135 | 38 | C18H20OSi | 280 |
| 1,3-PROPANEDIOL DIBENZOATE | 2451-86-7 | WILEY138.1 | 68477 | 38 | C17H16O4 | 284 |
| 2,5-NORBORNADIEN-7-YL ESTER OF BENZOIC A | 0-00-0 | WILEY138.1 | 40503 | 38 | C14H12O2 | 212 |
| Ethanone, 2-bromo-1,2-diphenyl- | 1484-50-0 | WILEY138.1 | 64868 | 38 | C14H11BrO | 274 |



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

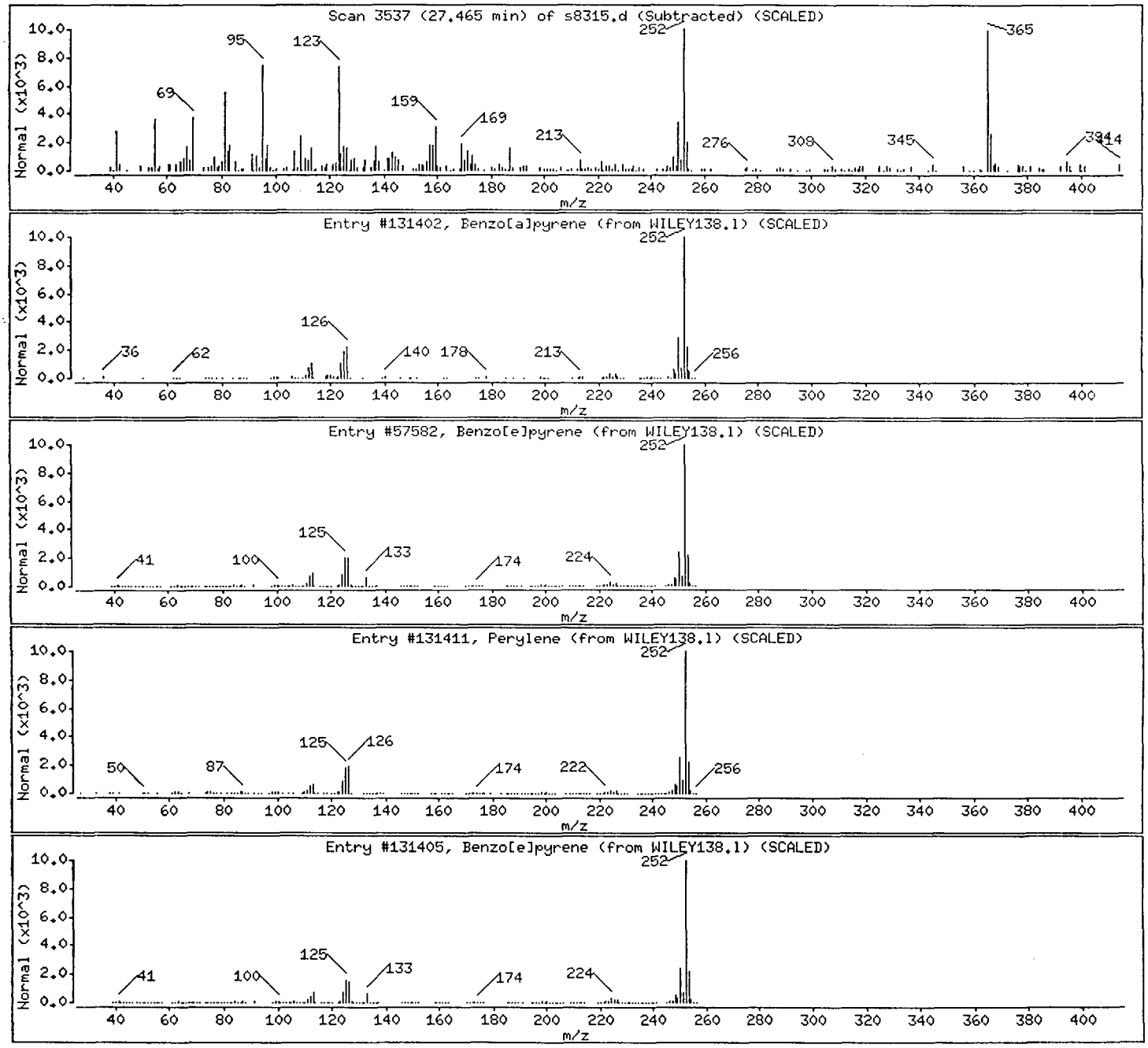
Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

Sample Info: 88565;30;2;1;10.8; 303701

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| Benzo[a]pyrene | 50-32-8 | WILEY138.1 | 131402 | 53 | C20H12 | 252 |
| Benzo[e]pyrene | 192-97-2 | WILEY138.1 | 57582 | 46 | C20H12 | 252 |
| Perylene | 198-55-0 | WILEY138.1 | 131411 | 44 | C20H12 | 252 |
| Benzo[e]pyrene | 192-97-2 | WILEY138.1 | 131405 | 42 | C20H12 | 252 |



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5

Instrument: BNAMS2.i

Sample Info: 88565;30;2;1;10.8;

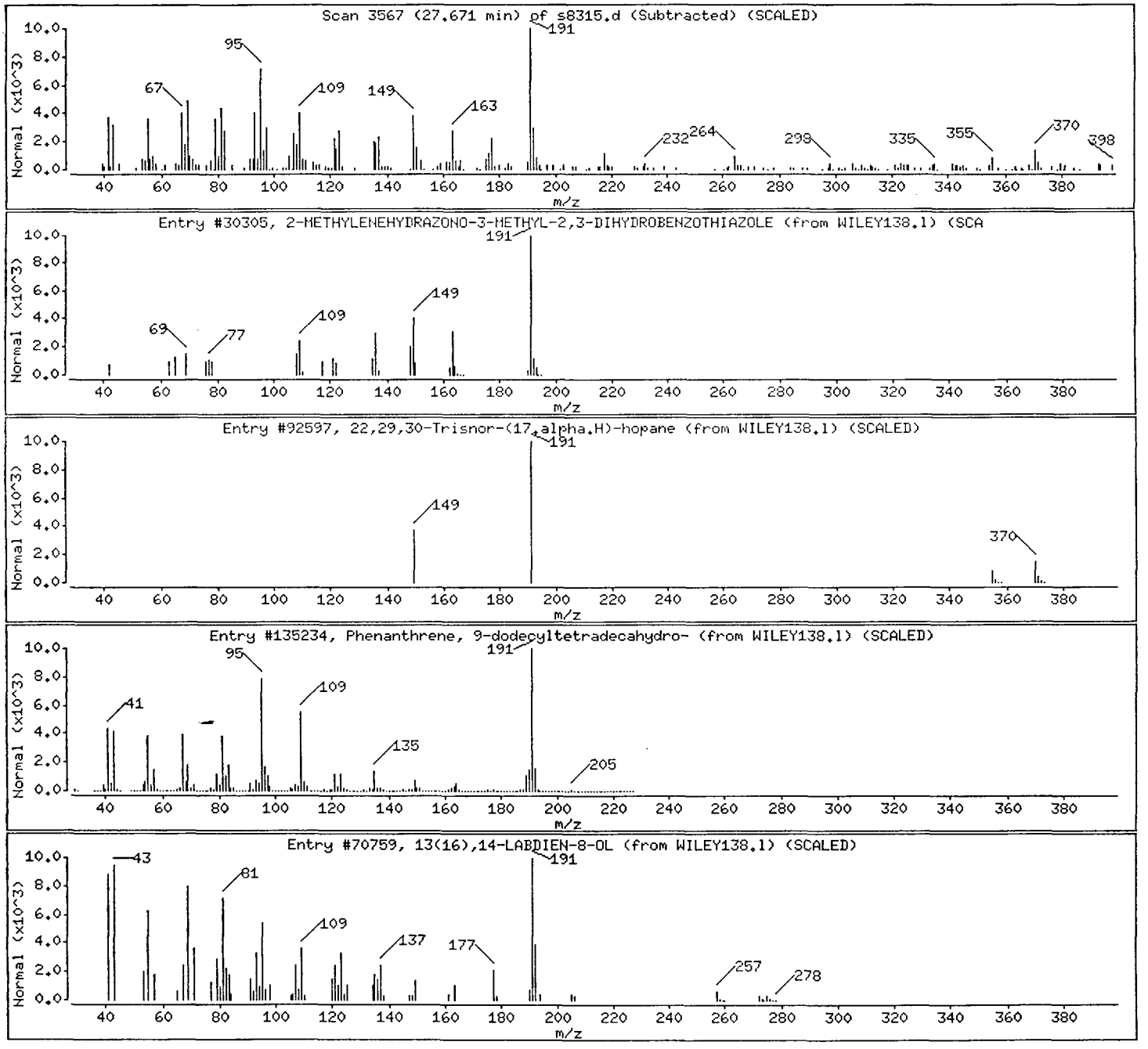
303702

Operator: BNAMS 2

Column phase: DB-5

Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| 2-METHYLENEHYDRAZONO-3-METHYL-2,3-DIHYDR | 63149-32-6 | WILEY138.1 | 30305 | 53 | C9H9N3S | 191 |
| 22,29,30-Trisnor-(17.alpha.H)-hopane | 0-00-0 | WILEY138.1 | 92597 | 49 | C27H46 | 370 |
| Phenanthrene, 9-dodecyltetradecahydro- | 55334-01-5 | WILEY138.1 | 135234 | 47 | C26H48 | 360 |
| 13(16),14-LABDIEN-8-OL | 0-00-0 | WILEY138.1 | 70759 | 47 | C20H340 | 290 |



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

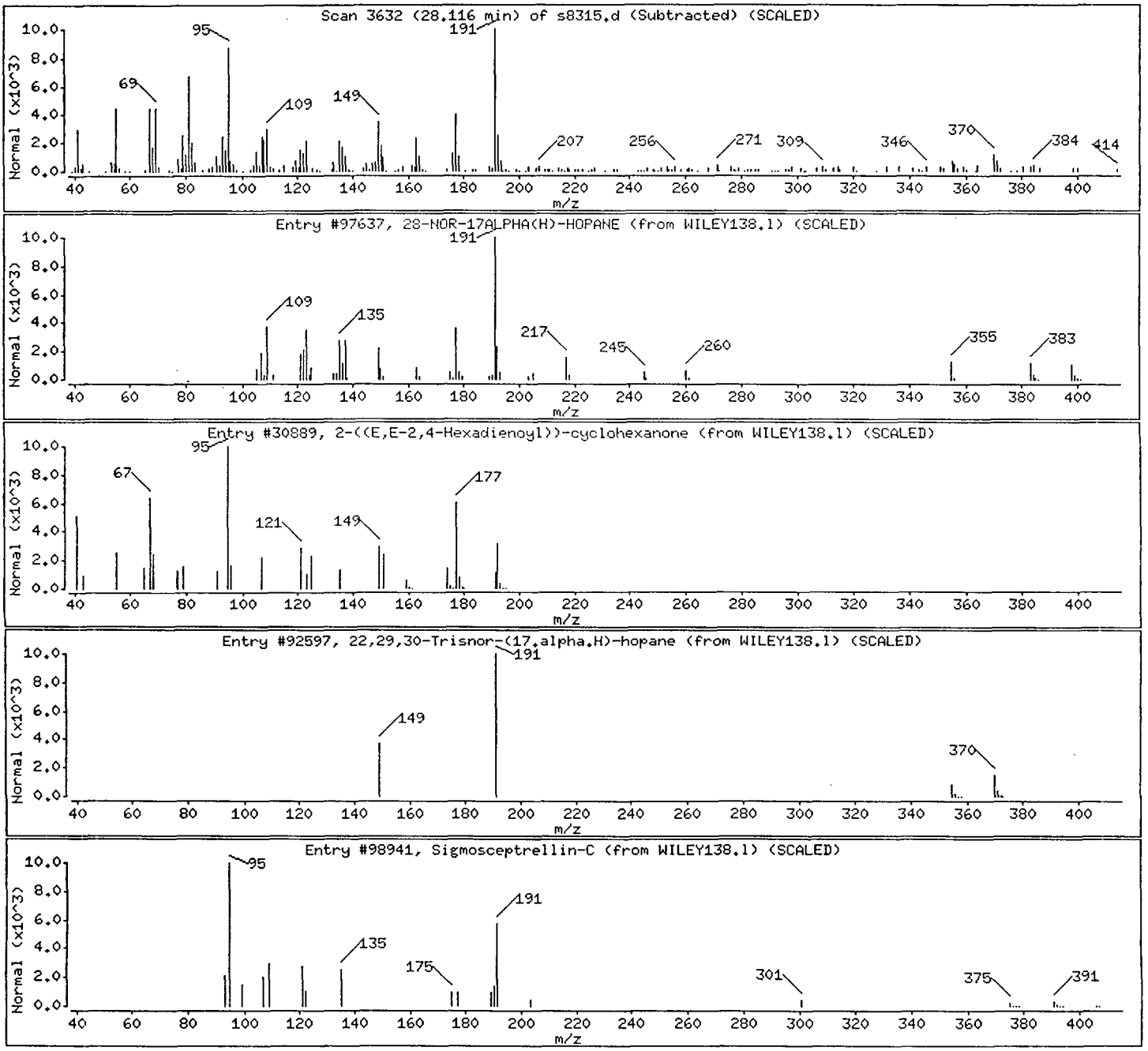
Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

Sample Info: 88565;30;2;1;10.8; 303703

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| 28-NOR-17ALPHA(H)-HOPANE | 53584-60-4 | WILEY138.1 | 97637 | 89 | C29H50 | 398 |
| 2-((E,E-2,4-Hexadienoyl))-cyclohexanone | 88924-70-3 | WILEY138.1 | 30889 | 43 | C12H16O2 | 192 |
| 22,29,30-Trisnor-(17.alpha.H)-hopane | 0-00-0 | WILEY138.1 | 92597 | 43 | C27H46 | 370 |
| Sigmosceptrellin-C | 83829-05-4 | WILEY138.1 | 98941 | 43 | C25H42O4 | 406 |



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

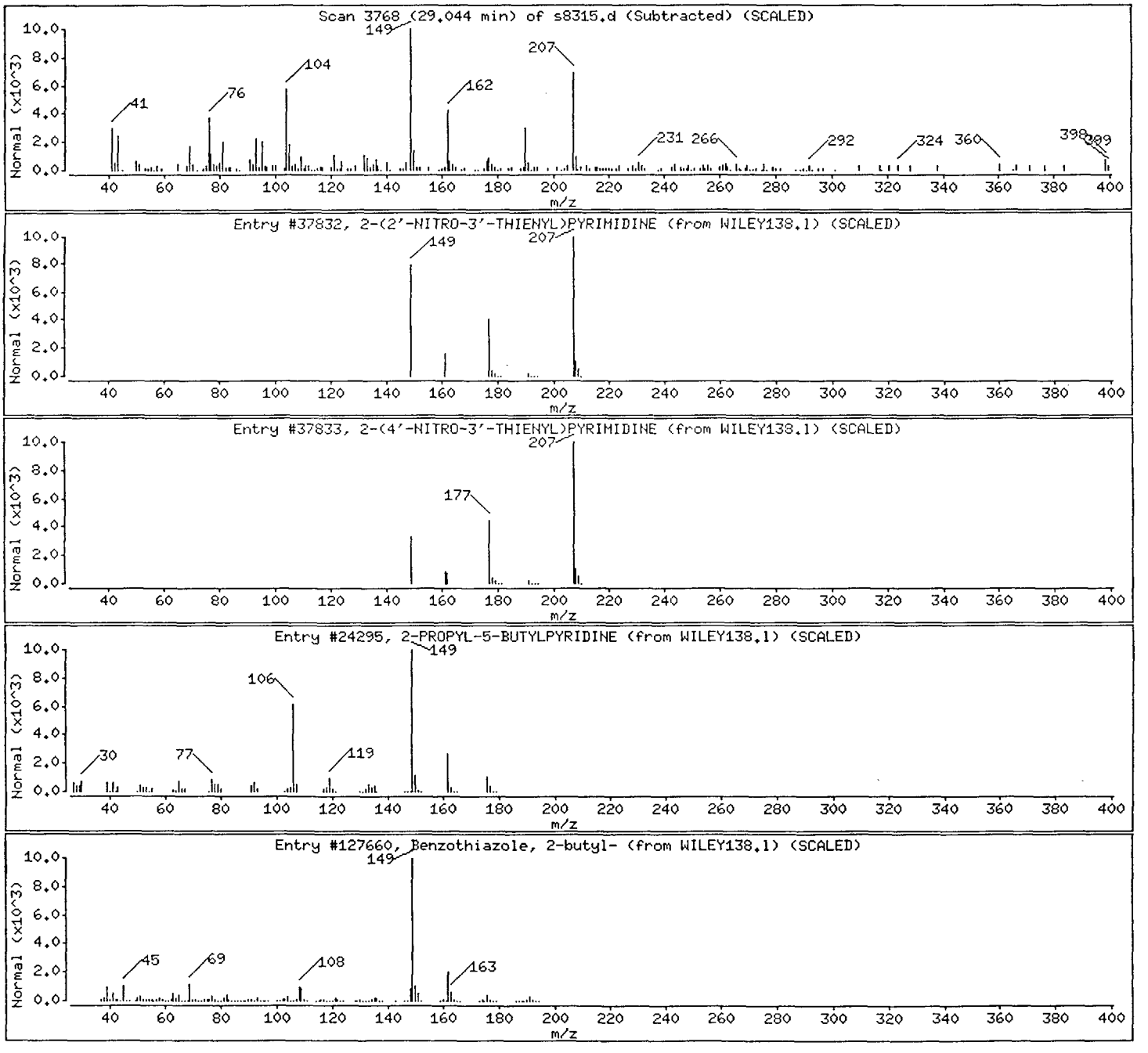
Sample Info: 88565;30;2;1;10.8;

303704

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| 2-(2'-NITRO-3'-THIENYL)PYRIMIDINE | 65912-10-9 | WILEY138.1 | 37832 | 50 | C8H5N3O2S | 207 |
| 2-(4'-NITRO-3'-THIENYL)PYRIMIDINE | 65868-26-0 | WILEY138.1 | 37833 | 40 | C8H5N3O2S | 207 |
| 2-PROPYL-5-BUTYLPYRIDINE | 0-00-0 | WILEY138.1 | 24295 | 27 | C12H19N | 177 |
| Benzothiazole, 2-butyl- | 54798-95-7 | WILEY138.1 | 127660 | 25 | C11H13NS | 191 |



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

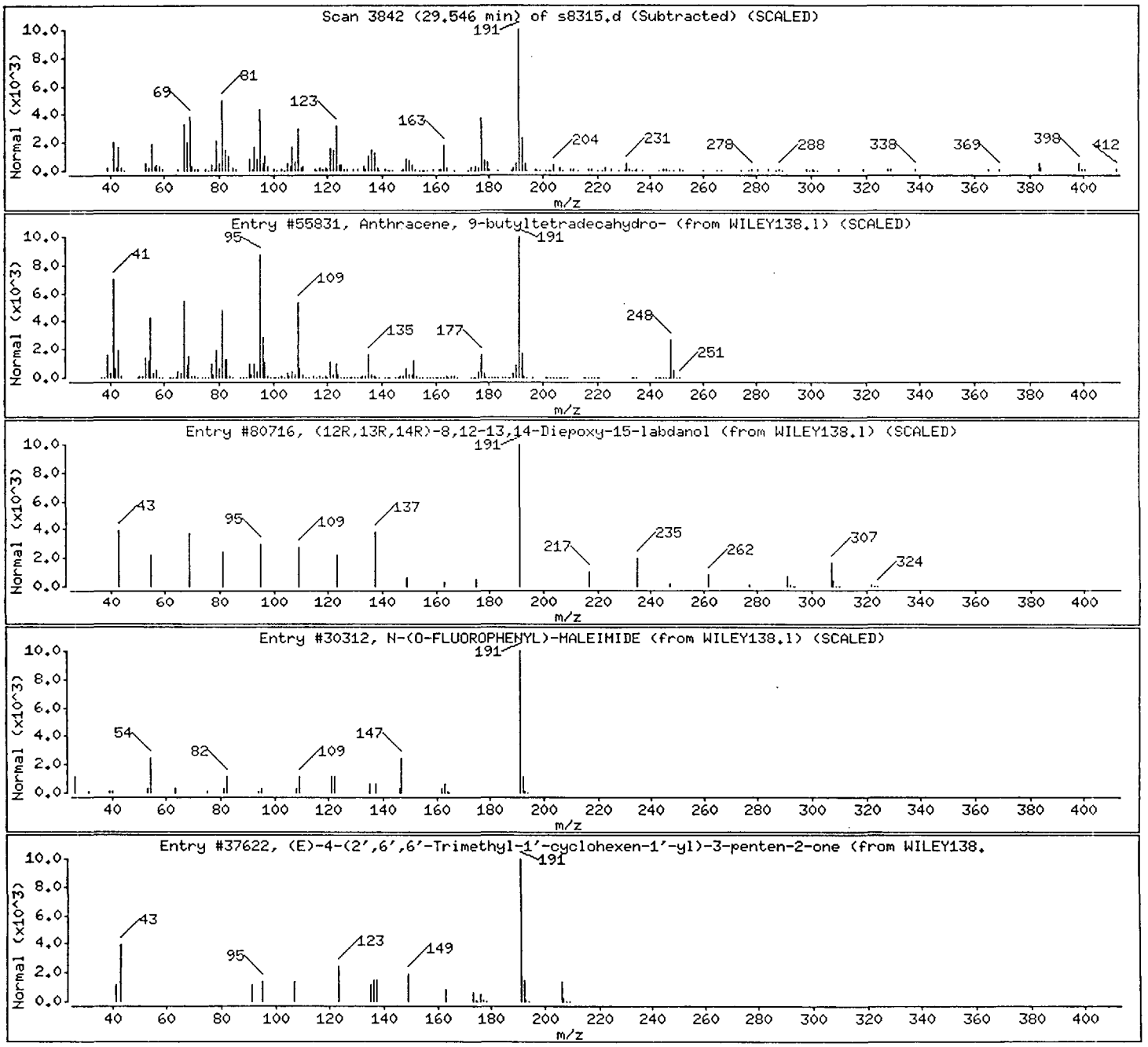
Client ID: SSFS-1_0-0.5 Instrument: BNAMS2.i

Sample Info: 88565;30;2;1;10.8; 303705

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| Anthracene, 9-butyltetradecahydro- | 55133-89-6 | WILEY138.1 | 55831 | 45 | C18H32 | 248 |
| (12R,13R,14R)-8,12-13,14-Diepoxy-15-labd | 87538-30-5 | WILEY138.1 | 80716 | 42 | C20H3403 | 322 |
| N-(O-FLUOROPHENYL)-MALEIMIDE | 0-00-0 | WILEY138.1 | 30312 | 38 | C10H6FNO2 | 191 |
| (E)-4-(2',6',6'-Trimethyl-1'-cyclohexen- | 89128-17-6 | WILEY138.1 | 37622 | 37 | C14H220 | 206 |



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8315.d

Date : 21-OCT-98 05:12:00

Client ID: SSFS-1_0-0.5

Instrument: BNAMS2.i

303706

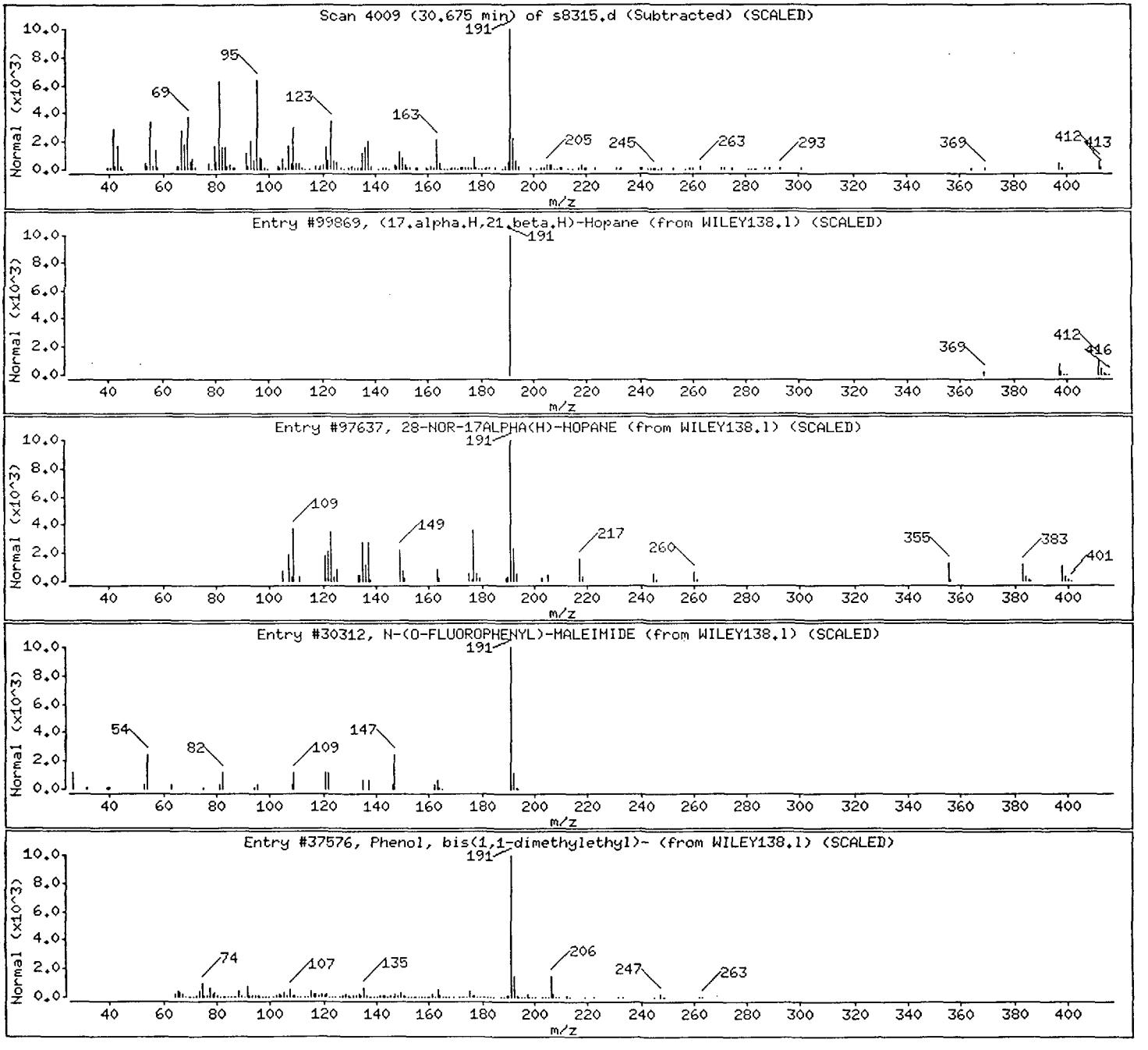
Sample Info: 88565;30;2;1;10.8;

Operator: BNAMS 2

Column phase: DB-5

Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| (17.alpha.H,21.beta.H)-Hopane | 0-00-0 | WILEY138.1 | 99869 | 64 | C30H52 | 412 |
| 28-NOR-17ALPHA(H)-HOPANE | 53584-60-4 | WILEY138.1 | 97637 | 50 | C29H50 | 398 |
| N-(O-FLUOROPHENYL)-MALEIMIDE | 0-00-0 | WILEY138.1 | 30312 | 35 | C10H6FNO2 | 191 |
| Phenol, bis(1,1-dimethylethyl)- | 26746-38-3 | WILEY138.1 | 37576 | 35 | C14H22O | 206 |



Client ID: SSCB-1_2-2.5
Site: Klockner & Klockner

Lab Sample No: 88566
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/14/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8316.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 12

## 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 | 38 |
| 1,3-Dichlorobenzene | ND | 380 |
| 1,4-Dichlorobenzene | ND | 380 |
| 1,2-Dichlorobenzene | ND | 380 |
| bis(2-chloroisopropyl)ether | ND | 380 |
| N-Nitroso-di-n-propylamine | ND | 38 |
| Hexachloroethane | ND | 38 |
| Nitrobenzene | ND | 38 |
| Isophorone | ND | 380 |
| bis(2-Chloroethoxy)methane | ND | 380 |
| 1,2,4-Trichlorobenzene | ND | 38 |
| Naphthalene | 9.3J | 380 |
| 4-Chloroaniline | ND | 380 |
| Hexachlorobutadiene | ND | 76 |
| 2-Methylnaphthalene | 12 J | 380 |
| Hexachlorocyclopentadiene | ND | 380 |
| 2-Chloronaphthalene | ND | 380 |
| 2-Nitroaniline | ND | 760 |
| Dimethylphthalate | ND | 380 |
| Acenaphthylene | 24 J | 380 |
| 2,6-Dinitrotoluene | ND | 76 |
| 3-Nitroaniline | ND | 760 |
| Acenaphthene | ND | 380 |
| Dibenzofuran | 9.6J | 380 |
| 2,4-Dinitrotoluene | ND | 76 |
| Diethylphthalate | ND | 380 |
| 4-Chlorophenyl-phenylether | ND | 380 |
| Fluorene | ND | 380 |
| 4-Nitroaniline | ND | 760 |
| N-Nitrosodiphenylamine | ND | 380 |
| 4-Bromophenyl-phenylether | ND | 380 |
| Hexachlorobenzene | ND | 38 |
| Phenanthrene | 86 J | 380 |
| Anthracene | 15 J | 380 |

303707

Client ID: SSCB-1_2-2.5
Site: Klockner & Klockner

Lab Sample No: 88566
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/14/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8316.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 12

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Results Units: ug/kg (Dry Weight) | Quantitation Limit Units: ug/kg |
|---|---|---|
| Carbazole | 9.0J | 380 |
| Di-n-butylphthalate | ND | 380 |
| Fluoranthene | 130 J | 380 |
| Pyrene | 140 J | 380 |
| Butylbenzylphthalate | 80 J | 380 |
| 3,3'-Dichlorobenzidine | ND | 760 |
| Benzo(a)anthracene | 55 | 38 |
| Chrysene | 83 J | 380 |
| bis(2-Ethylhexyl)phthalate | 85 J | 380 |
| Di-n-octylphthalate | ND | 380 |
| Benzo(b)fluoranthene | 110 | 38 |
| Benzo(k)fluoranthene | 50 | 38 |
| Benzo(a)pyrene | 71 | 38 |
| Indeno(1,2,3-cd)pyrene | 40 | 38 |
| Dibenz(a,h)anthracene | ND | 38 |
| Benzo(g,h,i)perylene | 39 J | 380 |

303708

Client ID: SSCB-1_2-2.5
Site: Klockner & Klockner

Lab Sample No: 88566
Lab Job No: H941

Date Sampled: 10/06/98
Date Received: 10/07/98
Date Extracted: 10/14/98
Date Analyzed: 10/21/98
GC Column: DB-5
Instrument ID: BNAMS2.i
Lab File ID: s8316.d

Matrix: SOIL
Level: LOW
Sample Weight: 30.0 g
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0
% Moisture: 12.1

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

| COMPOUND NAME | RT | EST. CONC. ug/kg | Q |
|---|---|---|---|
| 1. Unknown | 30.63 | 310 | |
| 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 310

303709

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d
Report Date: 21-Oct-98 12:14:41

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d
Lab Smp Id: 88566 Client Smp ID: SSCB-1_2-2.5
Inj Date : 21-OCT-98 05:57:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : 88566;30;2;1;12.1;
Misc Info : H941;TCLBN+10;4734;122;
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/8270C-REV..m
Meth Date : 21-Oct-98 10:40:20 lisa Quant Type: ISTD
Cal Date : 17-OCT-98 00:00:00 Cal File: s8230.d
Als bottle: 12
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 | 2.000 | Volume of final extract (ml) |
| Ws | 30.000 | Weight of sample extracted (g) |
| M | 12.100 | % 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 | 12.662 | 12.666 | (1.000) | 497566 | 40 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.626 | 13.640 | (0.918) | 777125 | 42 | 3200 |
| * 80 Naphthalene-d8 | 136 | 14.846 | 14.852 | (1.000) | 1746532 | 40 | |
| 31 Naphthalene | 128 | 14.879 | 14.892 | (1.002) | 5316 | 0.12 | 9.3(a) |
| 34 2-Methylnaphthalene | 142 | 16.033 | 16.043 | (1.080) | 5053 | 0.16 | 12(a) |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.637 | 16.650 | (0.937) | 1565208 | 45 | 3400 |
| 39 Acenaphthylene | 152 | 17.524 | 17.541 | (0.987) | 16844 | 0.32 | 24(a) |
| * 82 Acenaphthene-d10 | 164 | 17.761 | 17.772 | (1.000) | 1116182 | 40 | |
| 43 Dibenzofuran | 168 | 18.096 | 18.116 | (1.019) | 5646 | 0.13 | 9.6(a) |
| * 83 Phenanthrene-d10 | 188 | 20.221 | 20.229 | (1.000) | 1580322 | 40 | |
| 52 Phenanthrene | 178 | 20.255 | 20.269 | (1.002) | 54873 | 1.1 | 86(a) |
| 53 Anthracene | 178 | 20.334 | 20.355 | (1.006) | 9776 | 0.20 | 15(a) |
| 54 Carbazole | 167 | 20.598 | 20.619 | (1.019) | 6207 | 0.12 | 9.0(a) |
| 56 Fluoranthene | 202 | 22.209 | 22.230 | (1.098) | 74139 | 1.7 | 130(a) |
| 57 Pyrene | 202 | 22.589 | 22.614 | (0.919) | 75966 | 1.9 | 140(a) |

303710

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d
Report Date: 21-Oct-98 12:14:41

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| $ 78 Terphenyl-d14 (SUR) | 244 | 22.836 | 22.845 | (0.929) | 1353068 | 49 | 3700 |
| 59 Butylbenzylphthalate | 149 | 23.619 | 23.636 | (0.961) | 32270 | 1.1 | 80(a) |
| 61 Benzo(a)anthracene | 228 | 24.559 | 24.580 | (0.999) | 22328 | 0.72 | 55 |
| * 81 Chrysene-d12 | 240 | 24.580 | 24.600 | (1.000) | 1000348 | 40 | |
| 62 Chrysene | 228 | 24.614 | 24.647 | (1.001) | 33304 | 1.1 | 83(a) |
| 63 bis(2-Ethylhexyl)phthalate | 149 | 24.546 | 24.560 | (0.999) | 38123 | 1.1 | 85(a) |
| 65 Benzo(b)fluoranthene | 252 | 26.718 | 26.758 | (0.963) | 38882 | 1.4 | 110(H) |
| 66 Benzo(k)fluoranthene | 252 | 26.778 | 26.838 | (0.965) | 16494 | 0.65 | 50(M) |
| 67 Benzo(a)pyrene | 252 | 27.563 | 27.617 | (0.993) | 23278 | 0.94 | 71 |
| * 84 Perylene-d12 | 264 | 27.745 | 27.769 | (1.000) | 743343 | 40 | |
| 68 Indeno(1,2,3-cd)pyrene | 276 | 31.395 | 31.470 | (1.132) | 13259 | 0.52 | 40(M) |
| 70 Benzo(g,h,i)perylene | 276 | 32.507 | 32.651 | (1.172) | 12826 | 0.51 | 39(aM) |

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.

303711

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d
Date : 21-OCT-98 05:57:00
Client ID: SSCB-1_2-2.5
Sample Info: 88566;30;2;1;12.1;

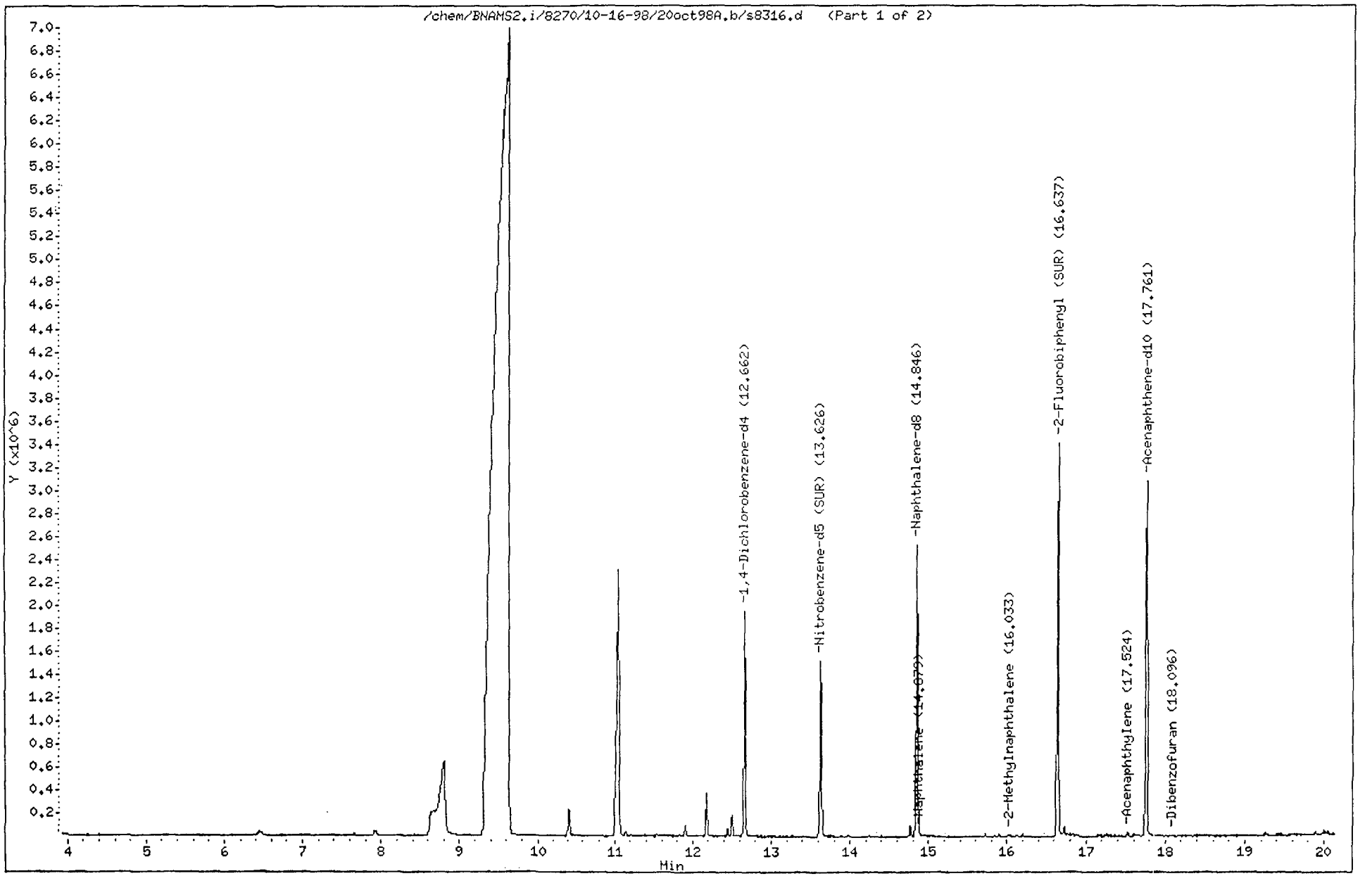
Instrument: BNAMS2.i

Operator: BNAMS 2

303712

Column phase: DB-5

Column diameter: 0.25




177

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d
Date : 21-OCT-98 05:57:00
Client ID: SSCB-1_2-2.5
Sample Info: 88566;30;2;1;12.1;

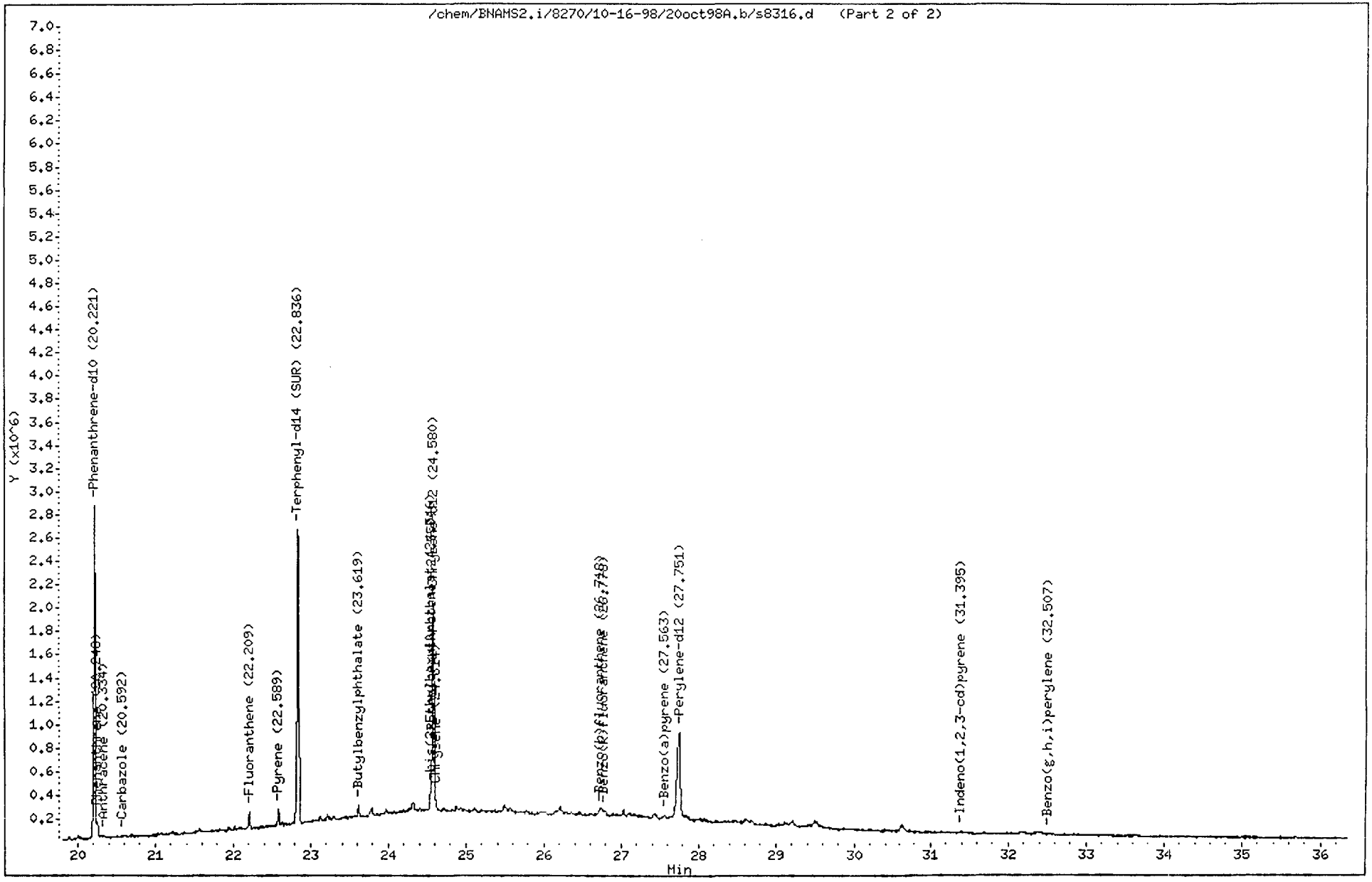
Instrument: BNAMS2.i

Operator: BNAMS 2

303713

Column phase: DB-5

Column diameter: 0.25




178

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

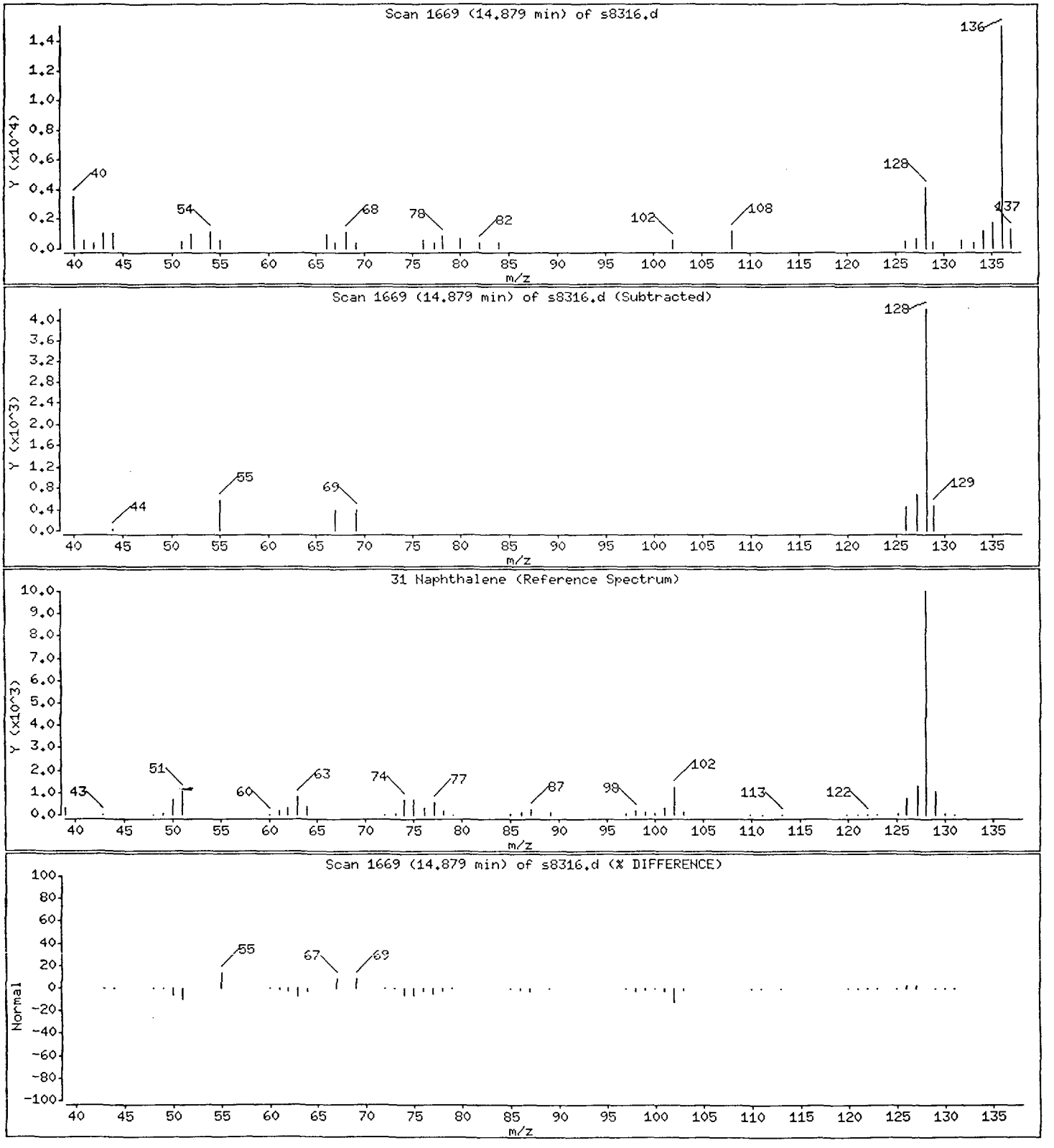
Sample Info: 88566;30;2;1;12.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303714

31 Naphthalene



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Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

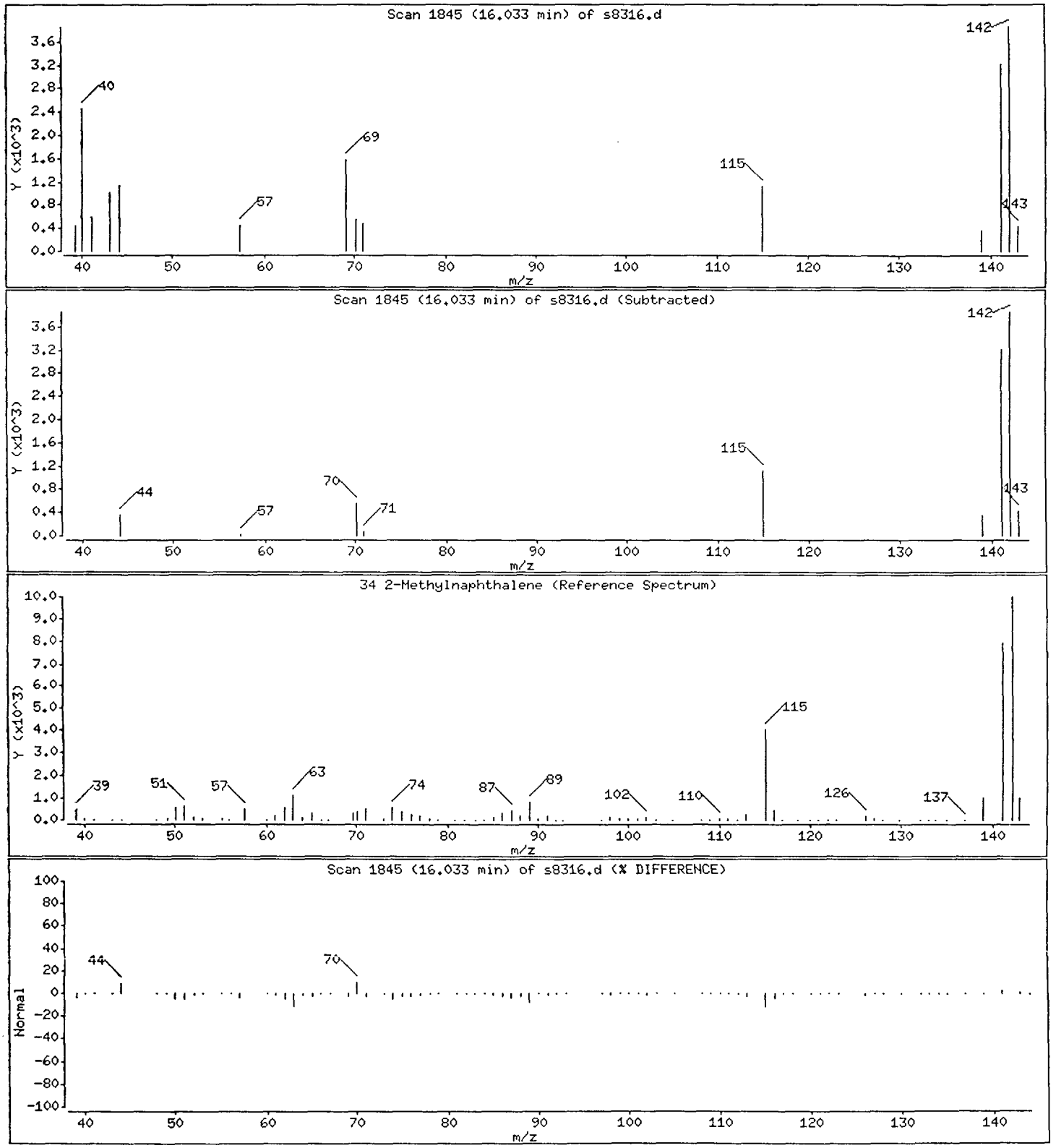
Sample Info: 88566;30;2;1;12.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303715

34 2-Methylnaphthalene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

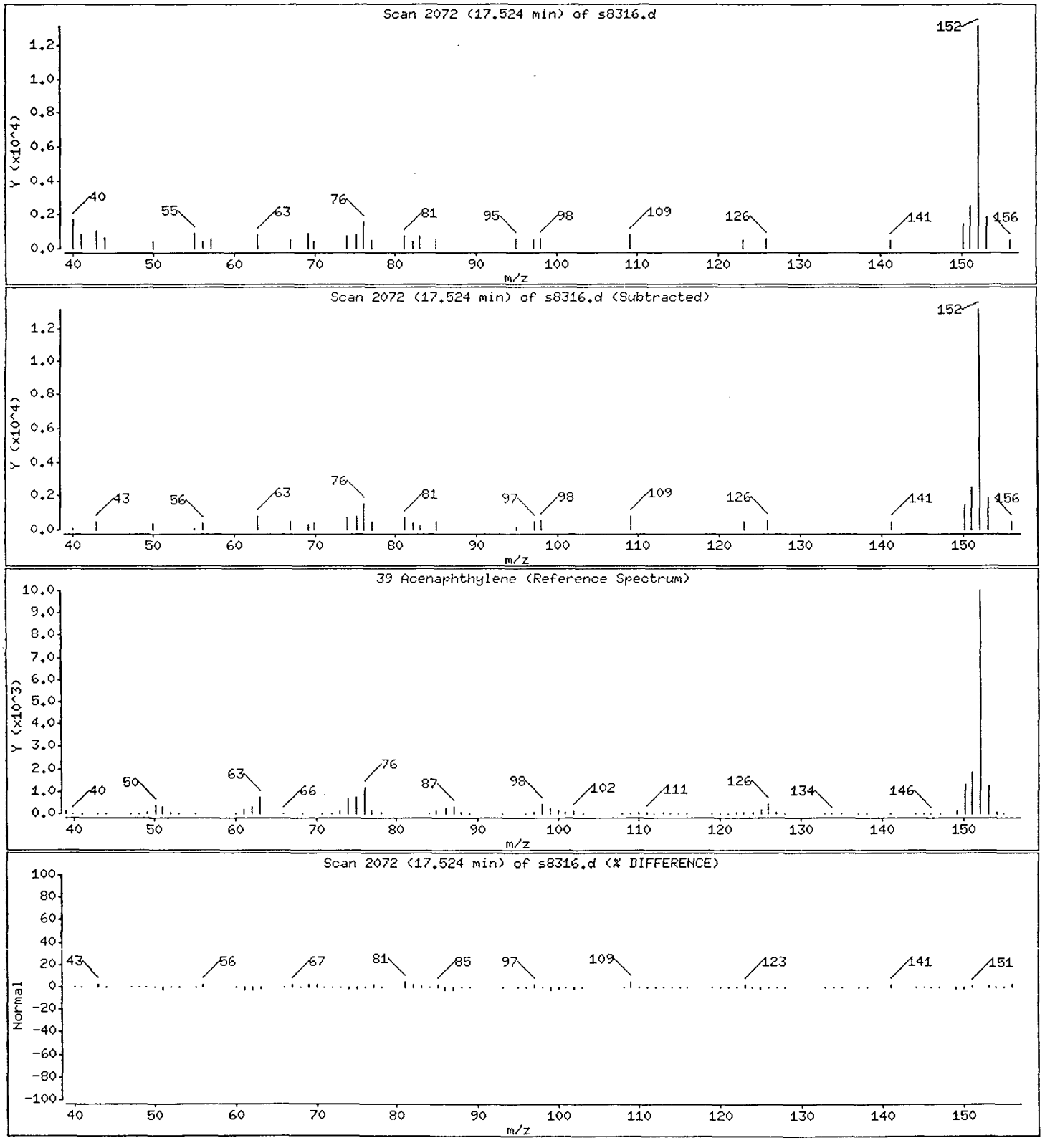
Sample Info: 88566;30;2;1;12.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303716

39 Acenaphthylene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

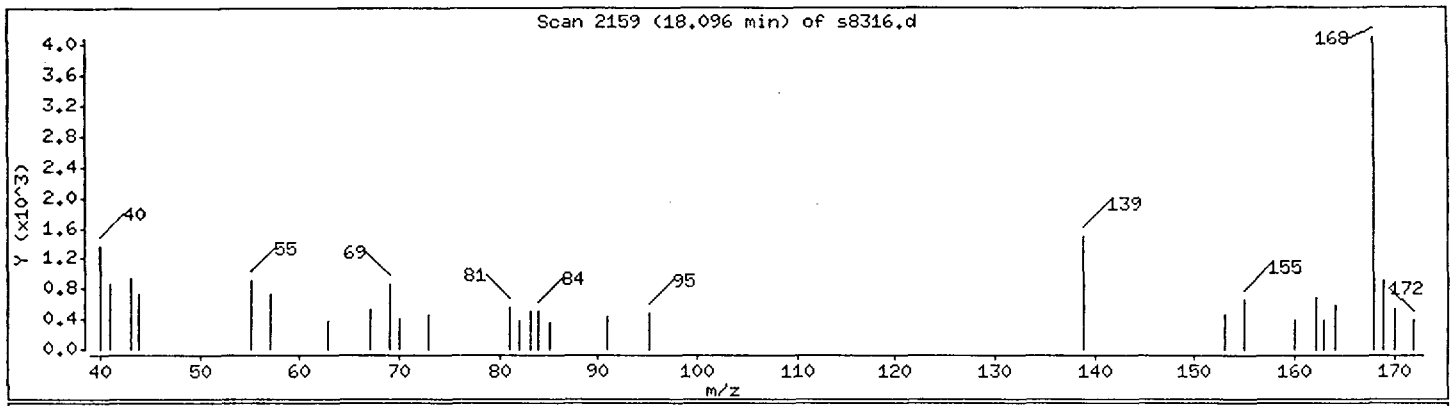
Sample Info: 88566;30;2;1;12.1;

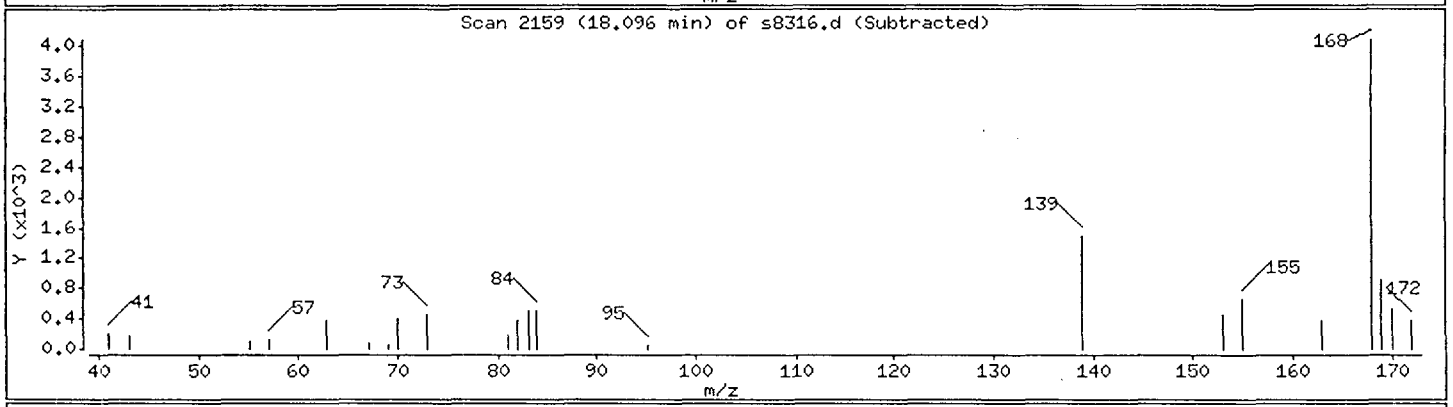
Operator: BNAMS 2

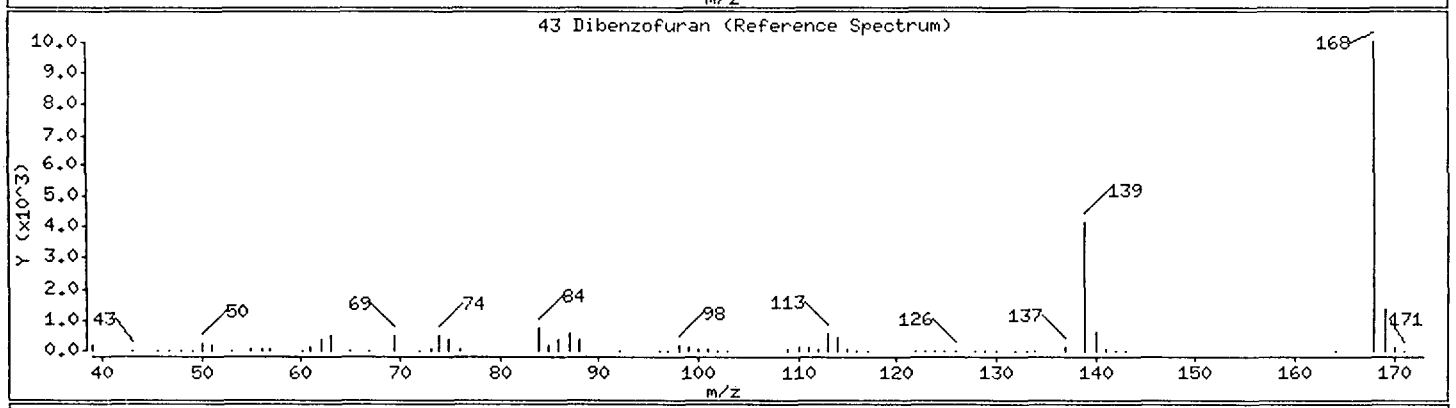
Column phase: DB-5 Column diameter: 0.25

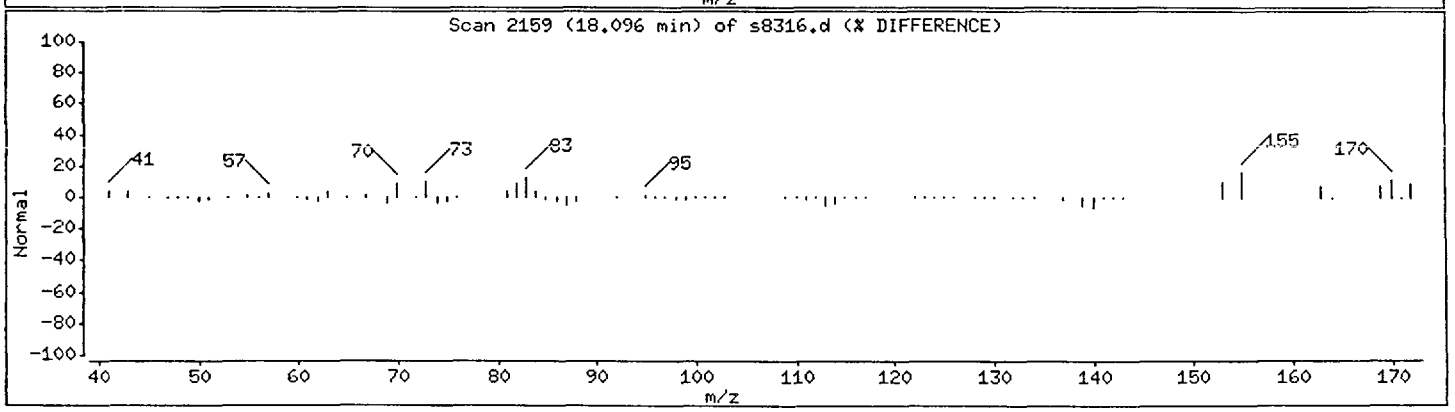
303717

43 Dibenzofuran



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

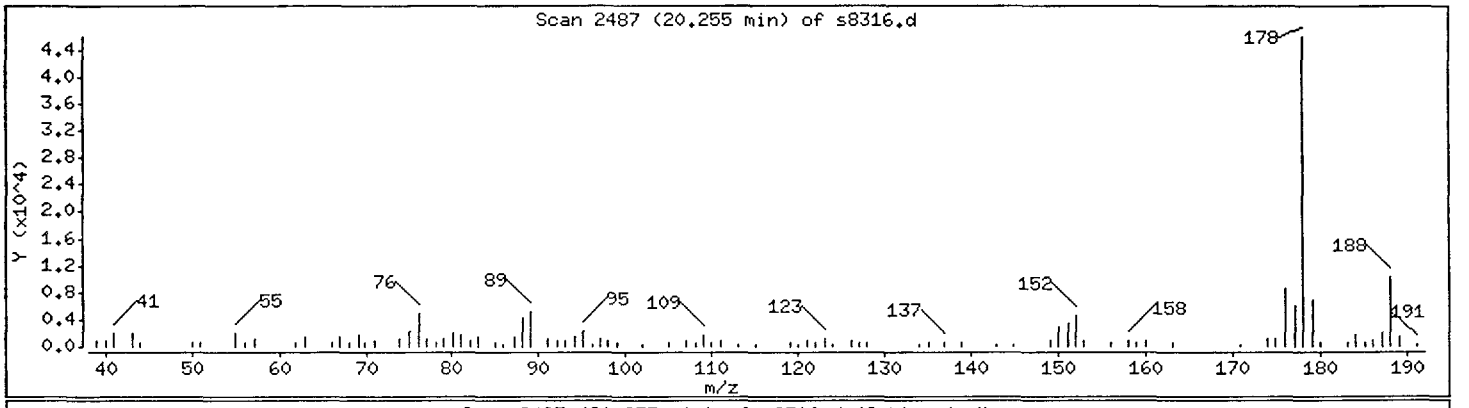
Sample Info: 88566;30;2;1;12.1;

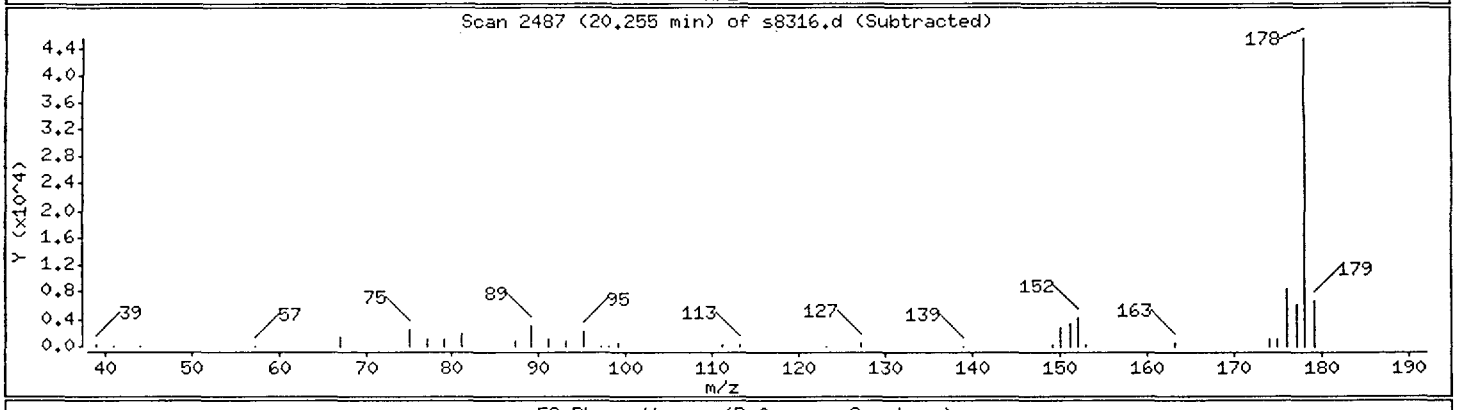
Operator: BNAMS 2

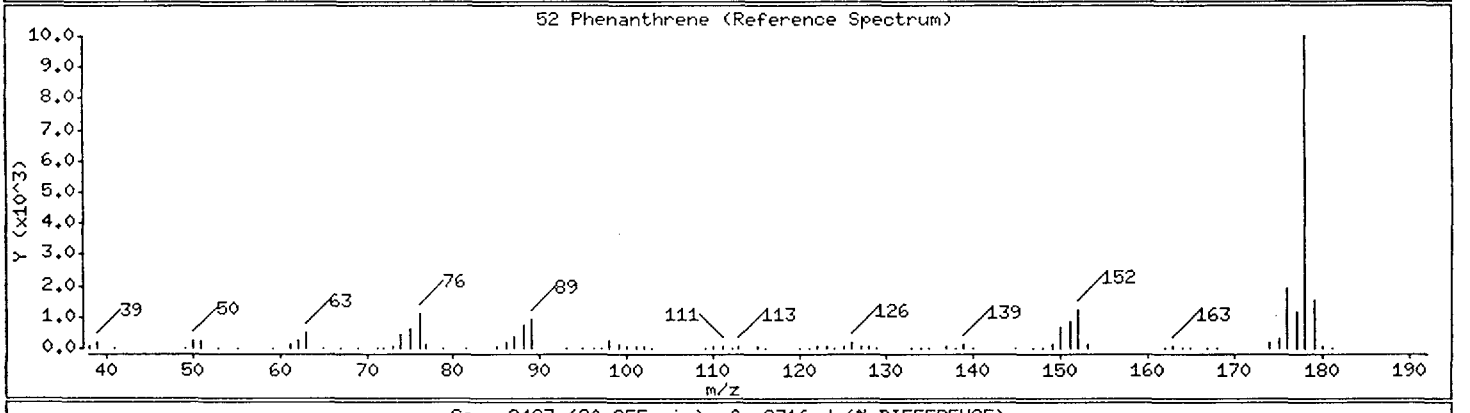
Column phase: DB-5 Column diameter: 0.25

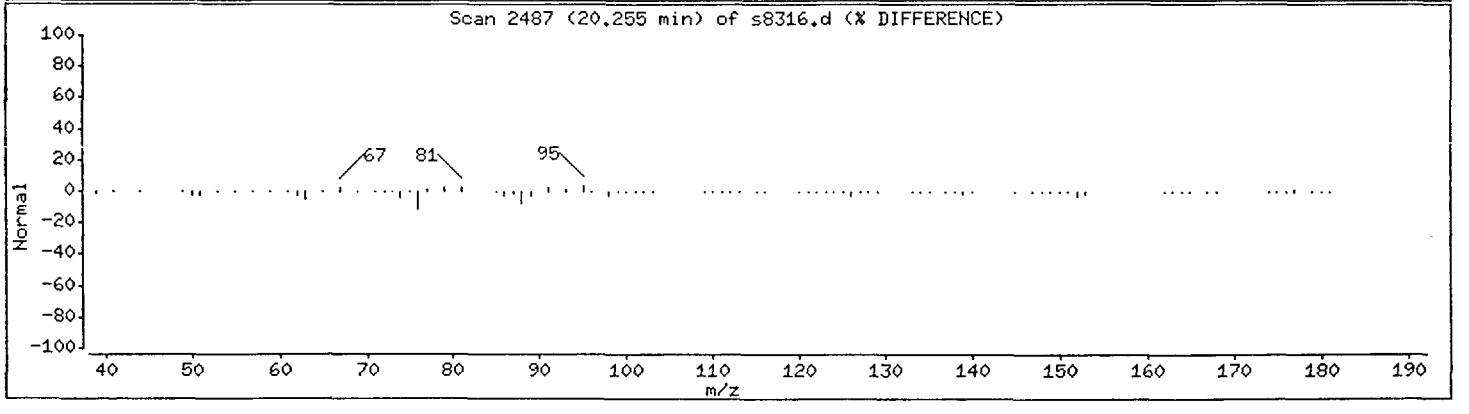
303718

52 Phenanthrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

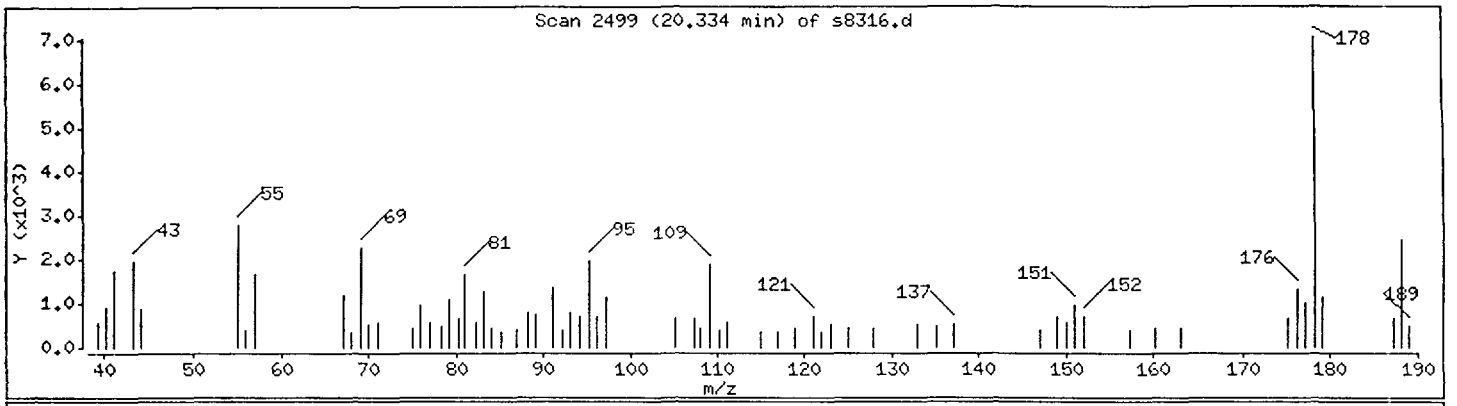
Sample Info: 88566;30;2;1;12.1;

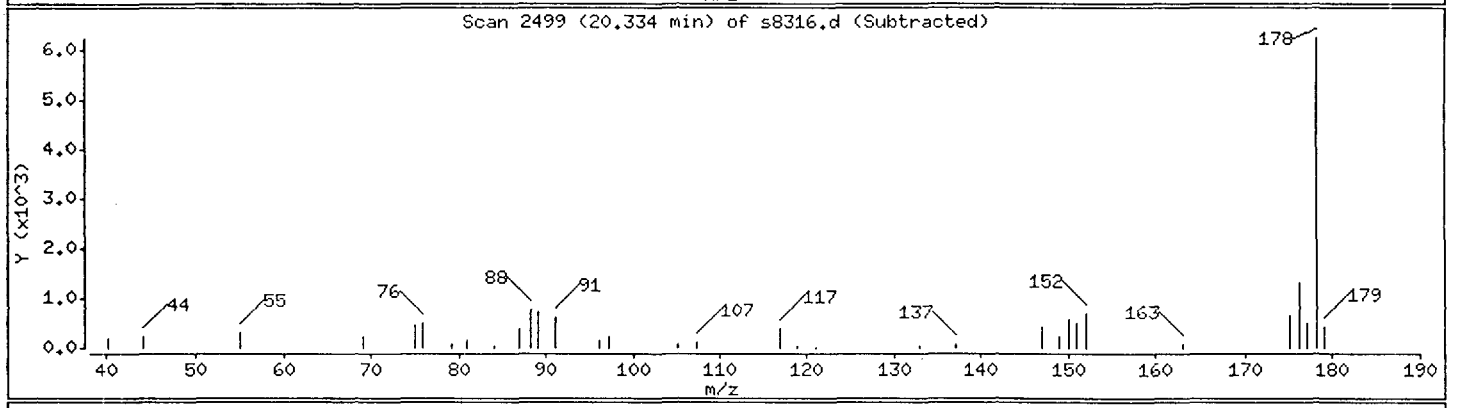
Operator: BNAMS 2

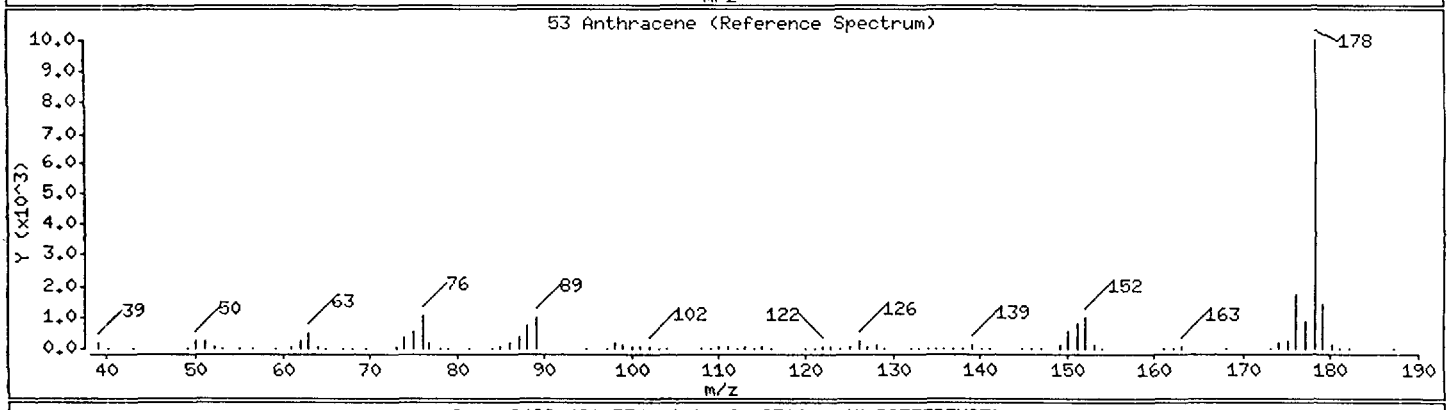
Column phase: DB-5 Column diameter: 0.25

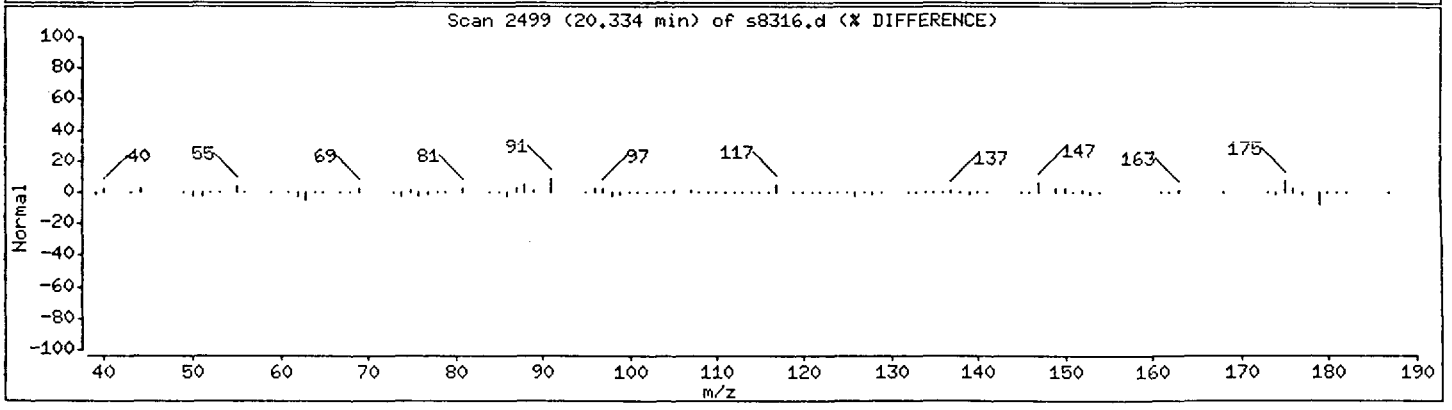
303719

53 Anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

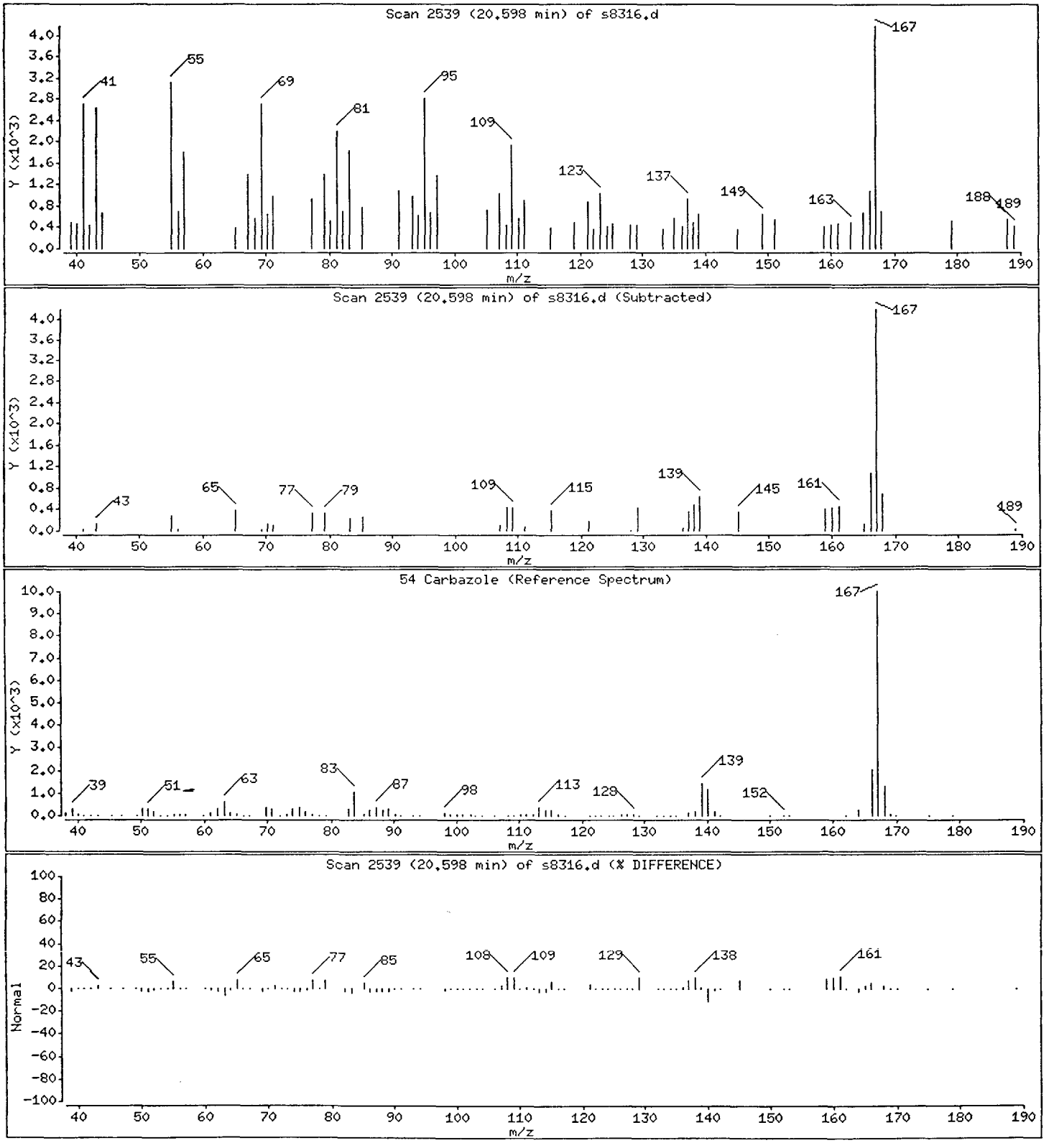
Sample Info: 88566;30;2;1;12.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303720

54 Carbazole



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

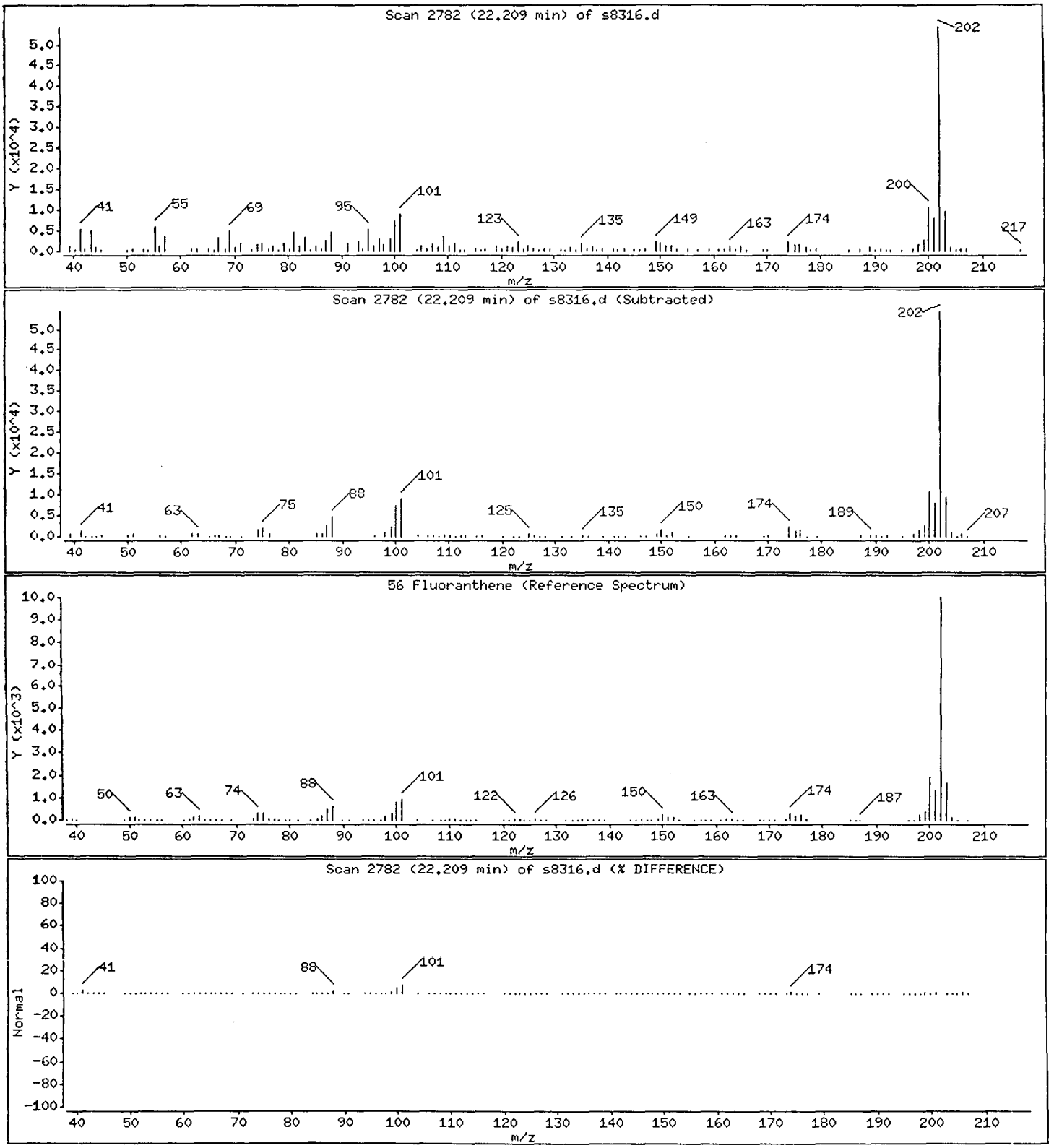
Sample Info: 88566;30;2;1;12.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303721

56 Fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

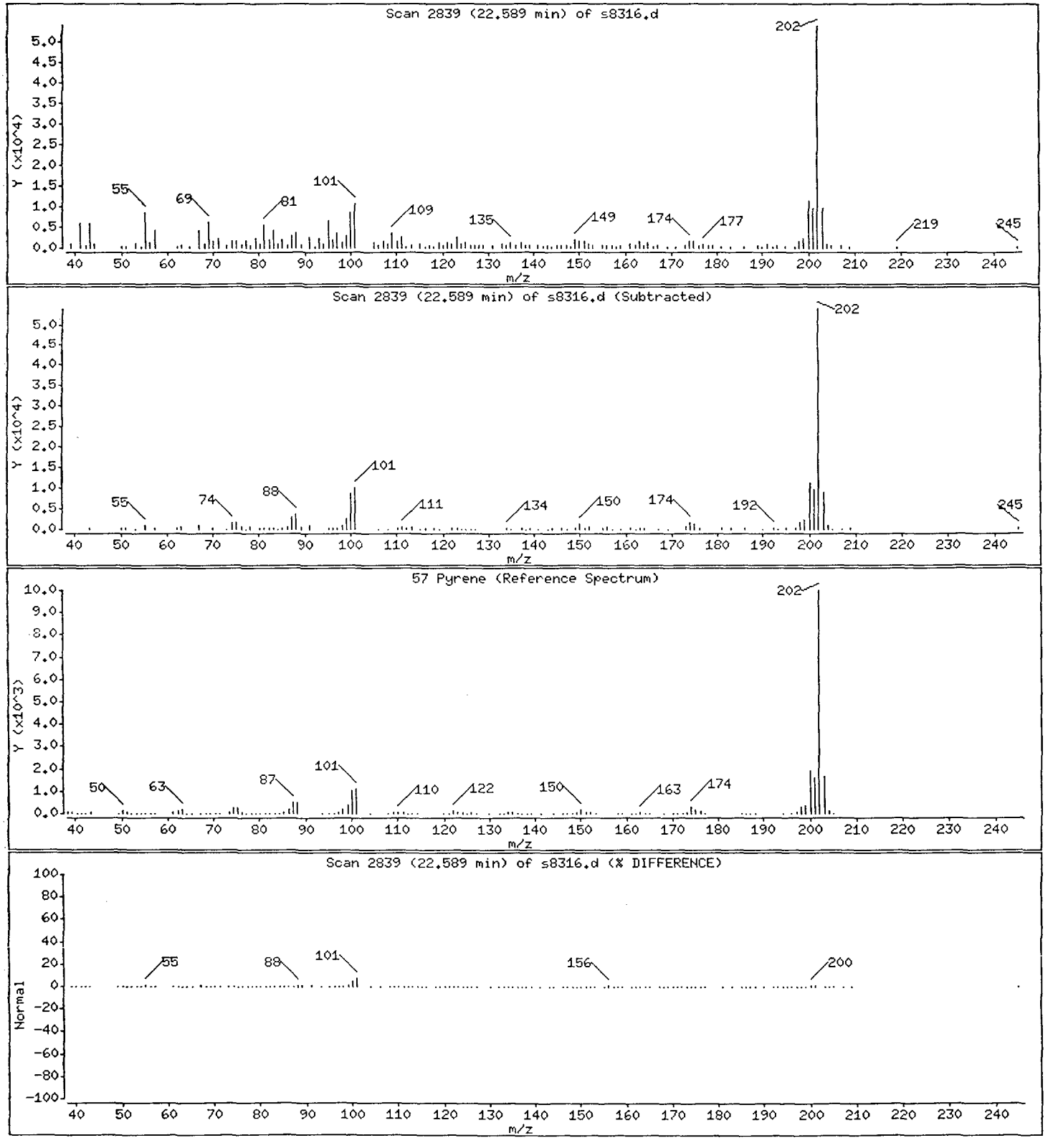
Sample Info: 88566;30;2;1;12.1;

Operator: BNAMS 2

Column phase: DB-5 Column diameter: 0.25

303722

57 Pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

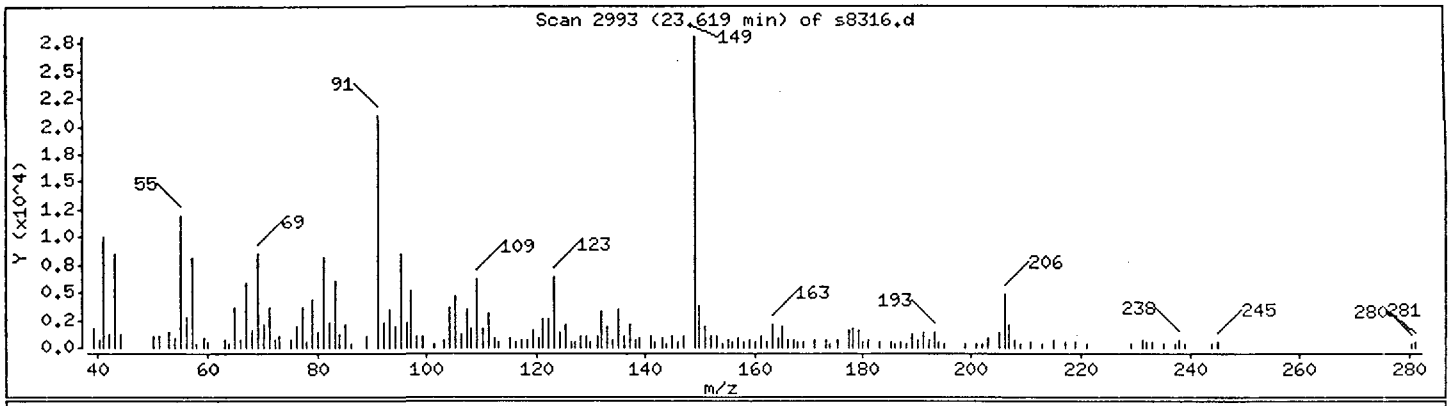
Sample Info: 88566;30;2;1;12.1;

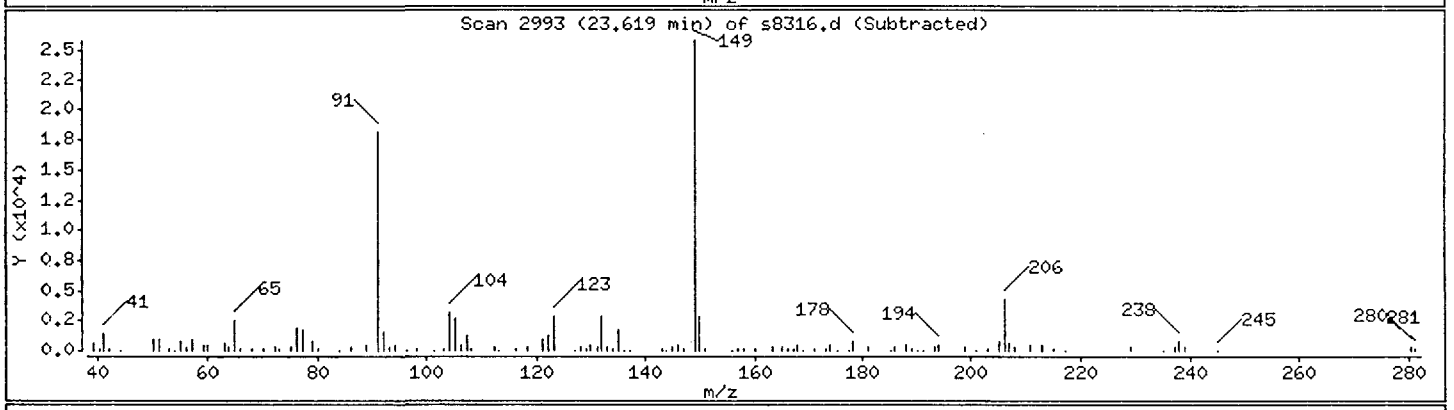
Operator: BNAMS 2

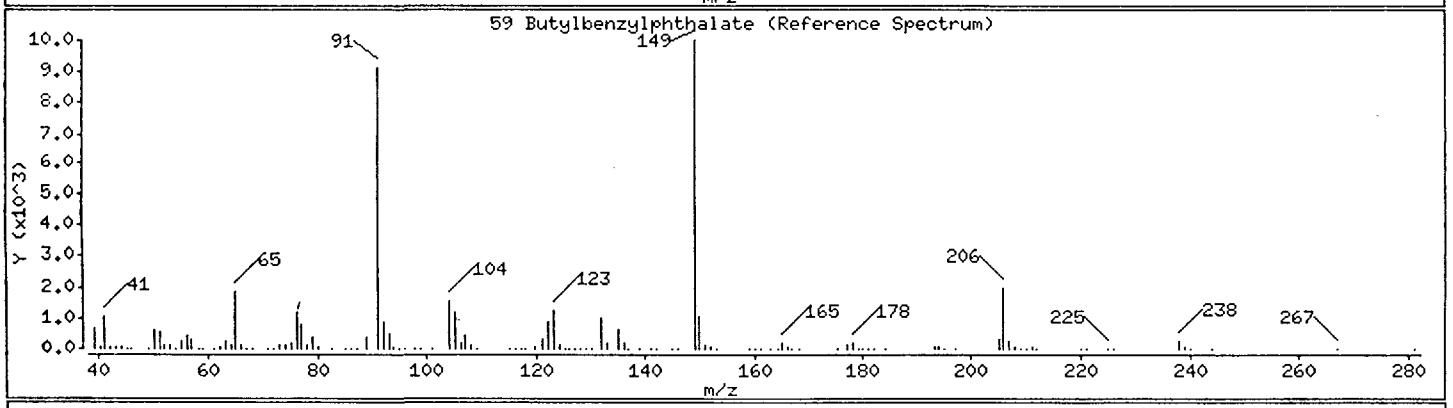
Column phase: DB-5 Column diameter: 0.25

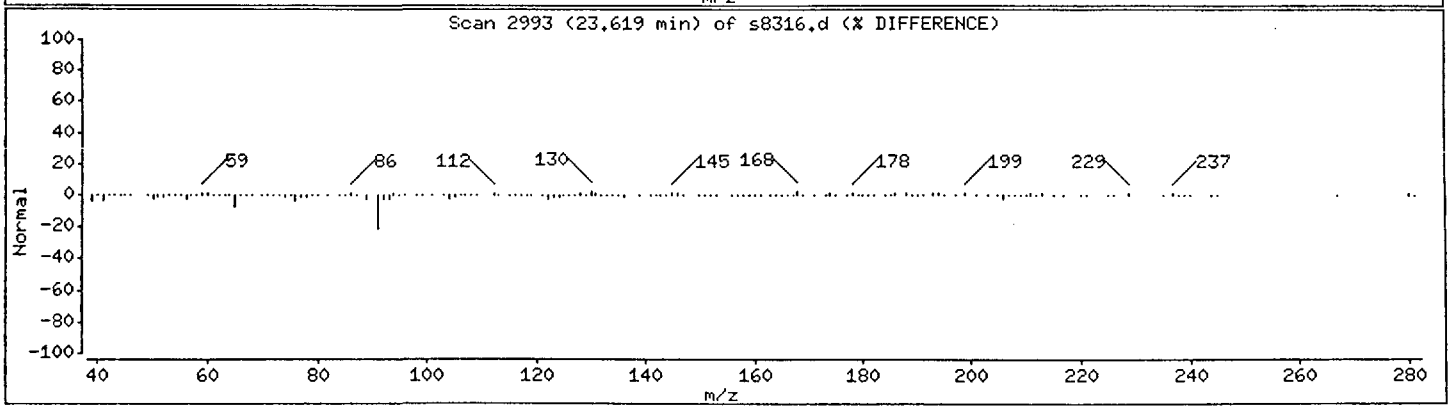
303723

59 Butylbenzylphthalate



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

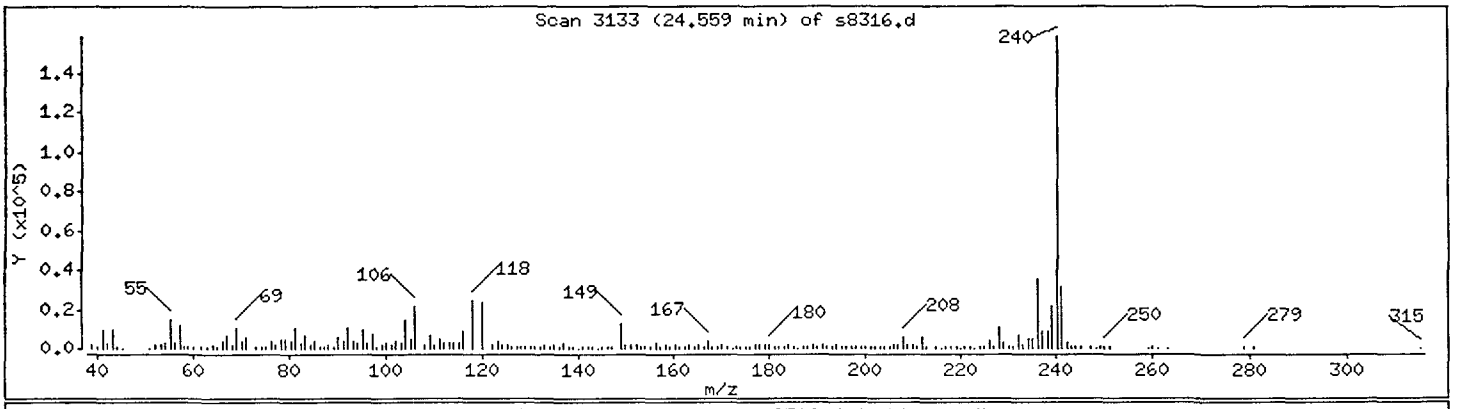
Sample Info: 88566;30;2;1;12.1;

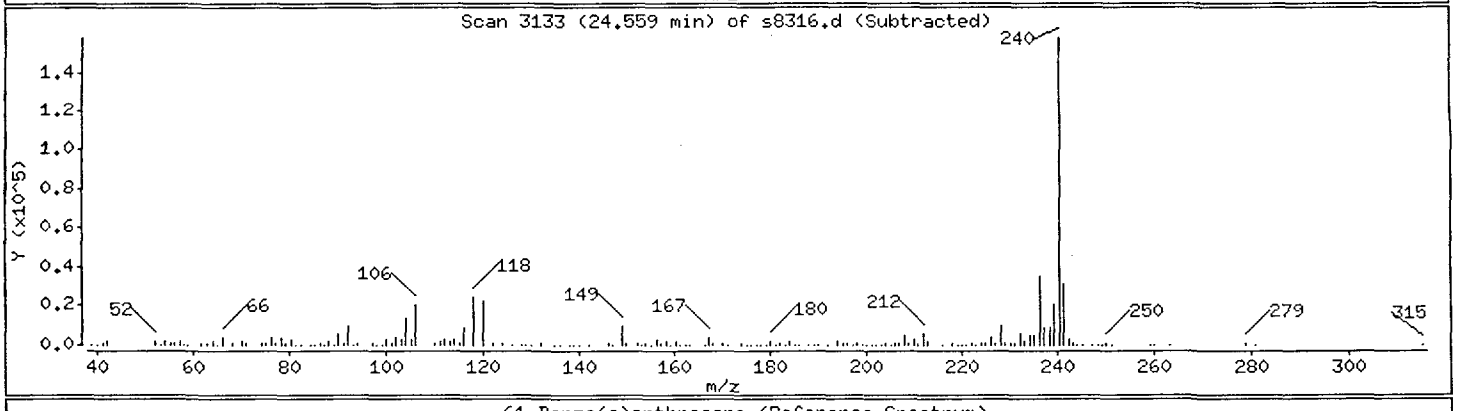
Operator: BNAMS 2

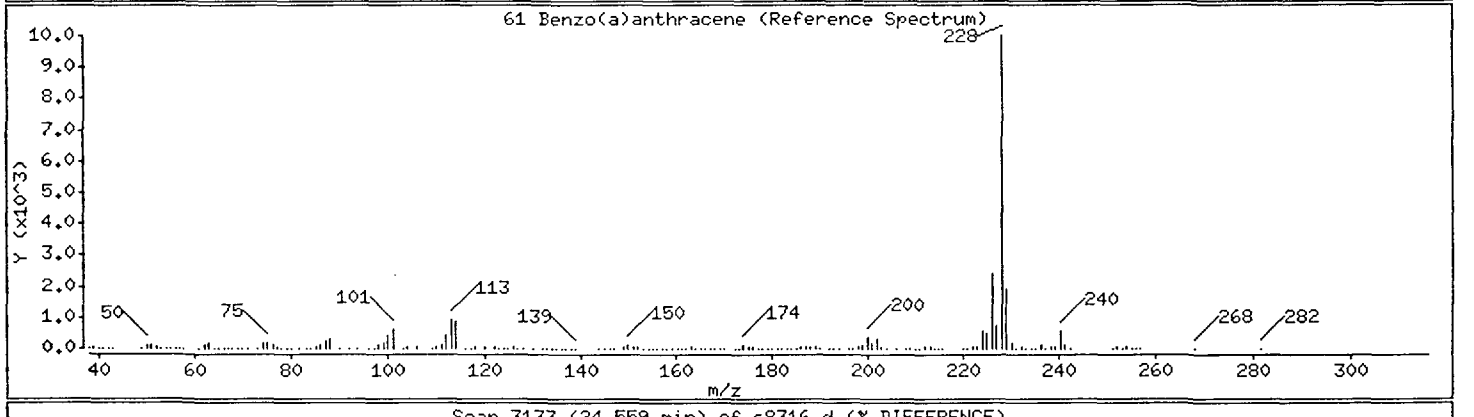
Column phase: DB-5 Column diameter: 0.25

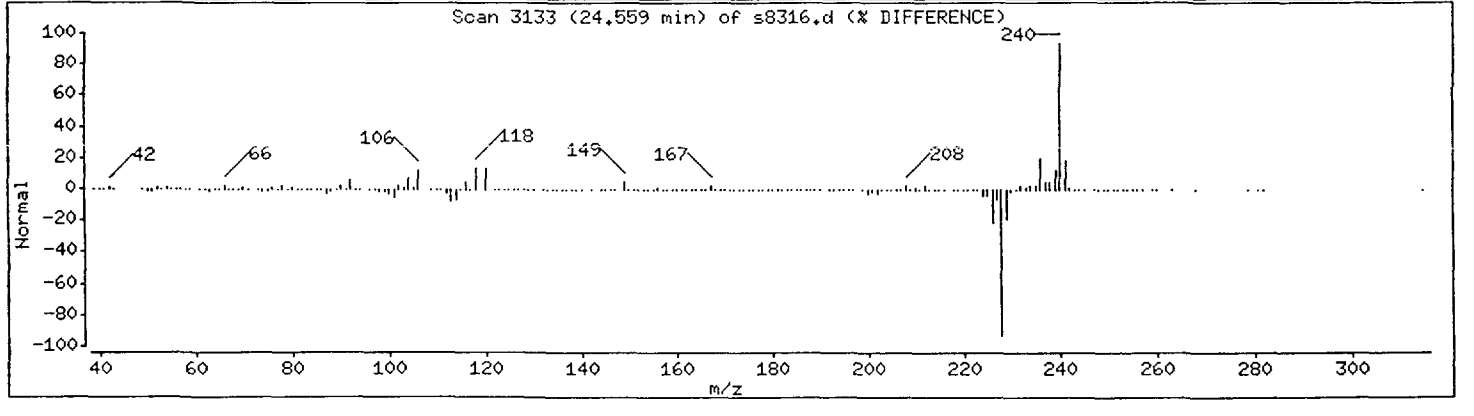
303724

61 Benzo(a)anthracene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

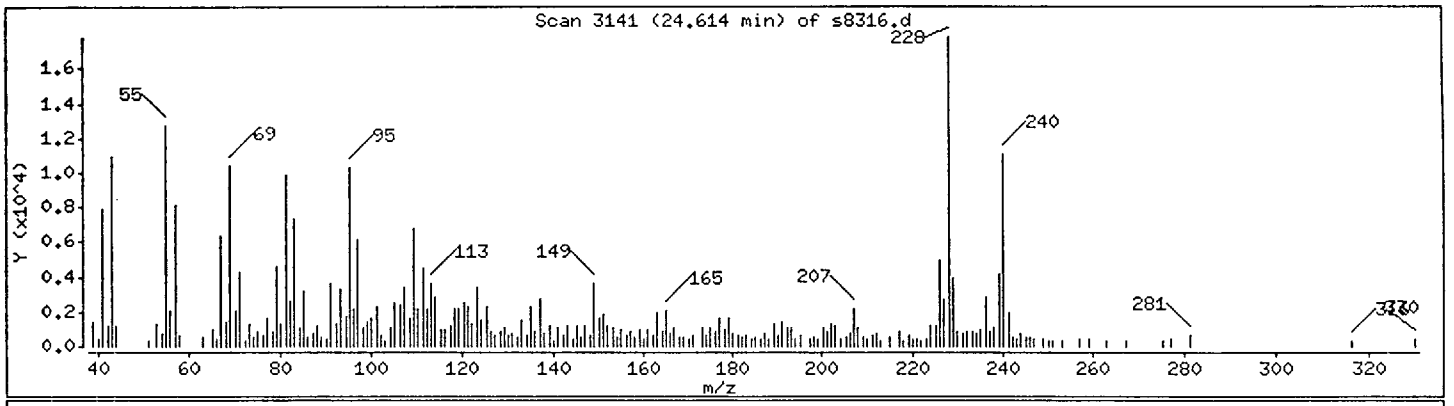
Sample Info: 88566;30;2;1;12.1;

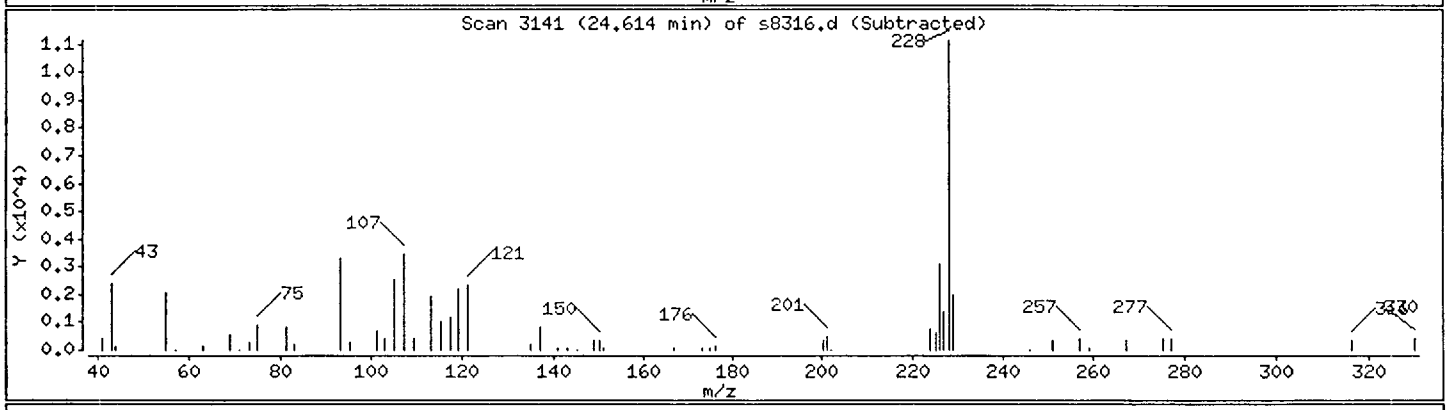
Operator: BNAMS 2

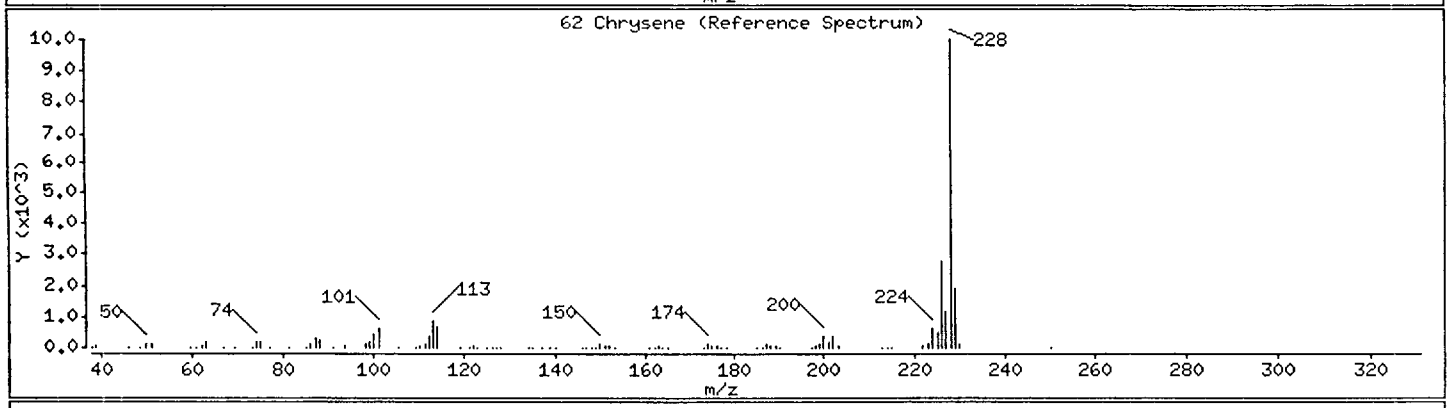
Column phase: DB-5 Column diameter: 0.25

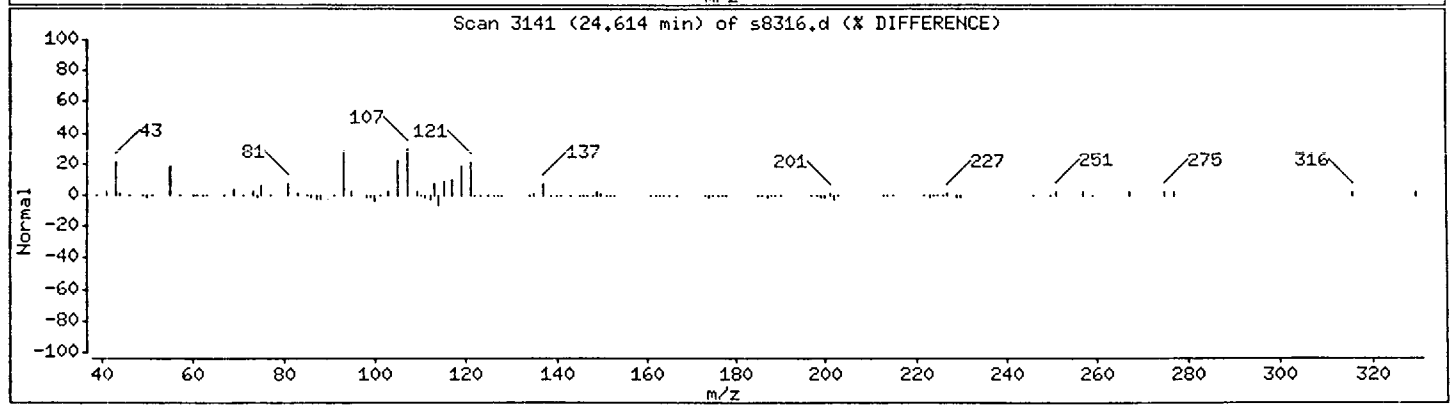
303725

62 Chrysene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

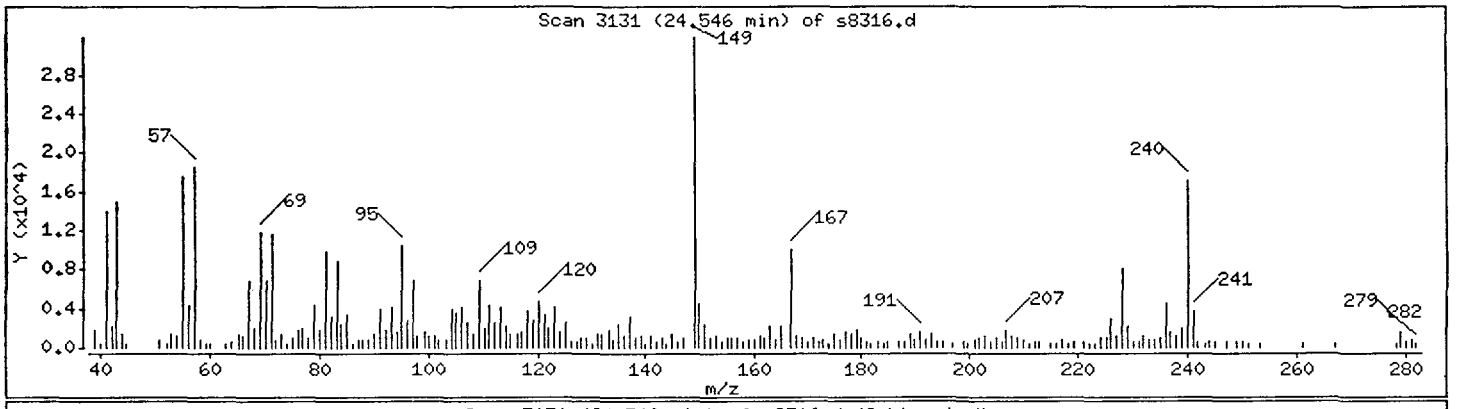
Sample Info: 88566;30;2;1;12.1;

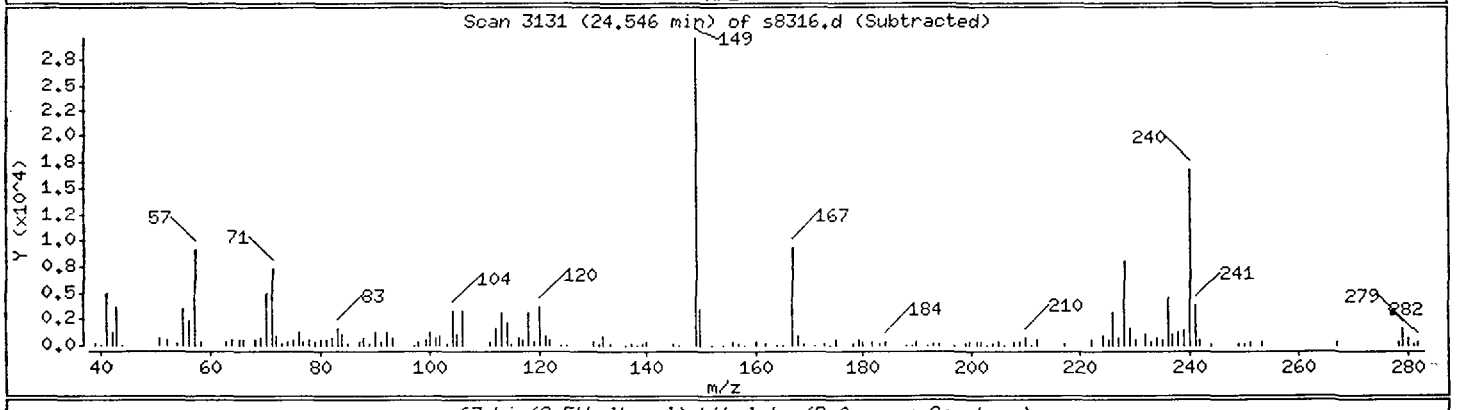
Operator: BNAMS 2

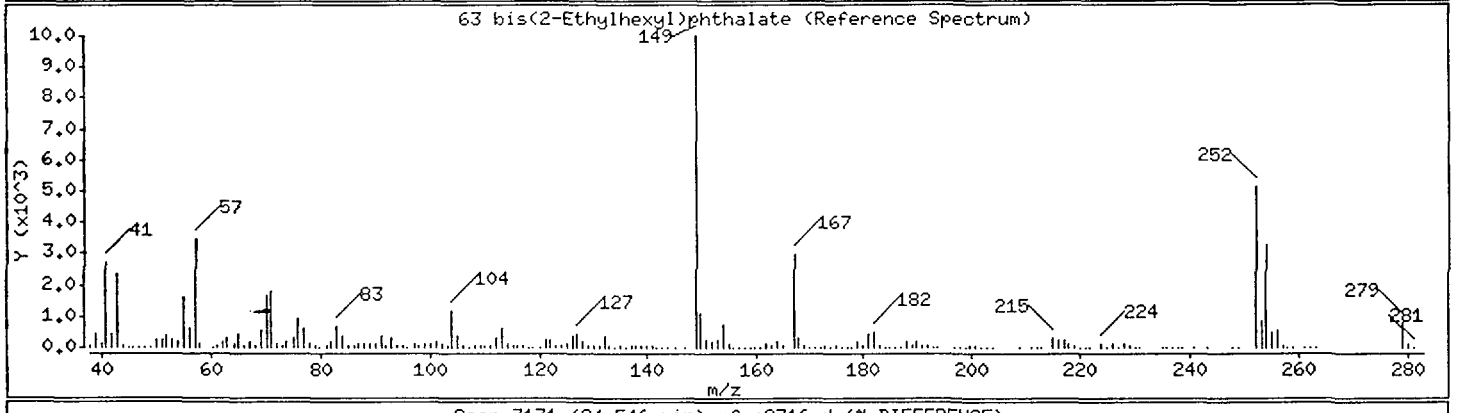
Column phase: DB-5 Column diameter: 0.25

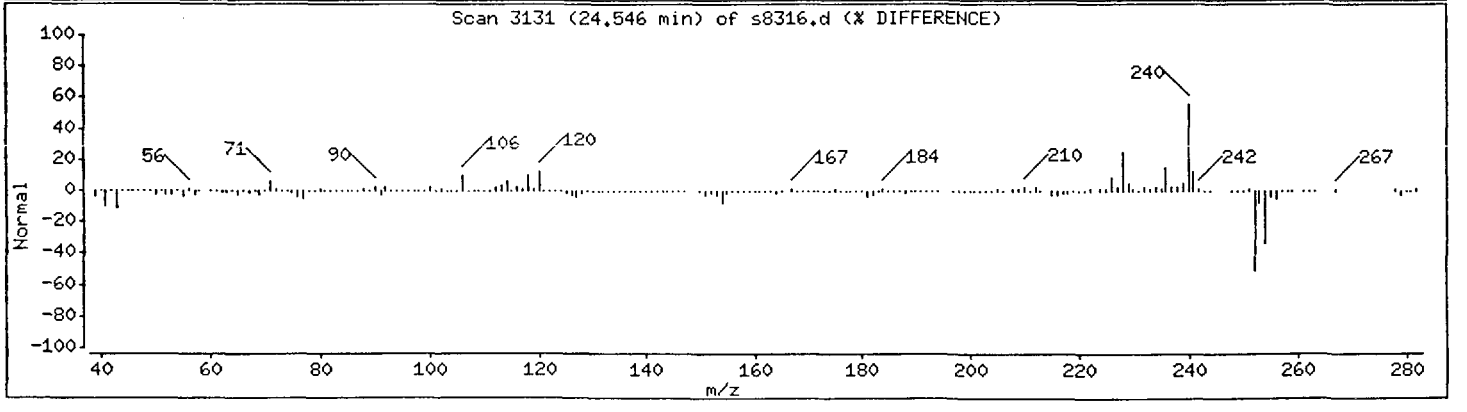
303726

63 bis(2-Ethylhexyl)phthalate



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

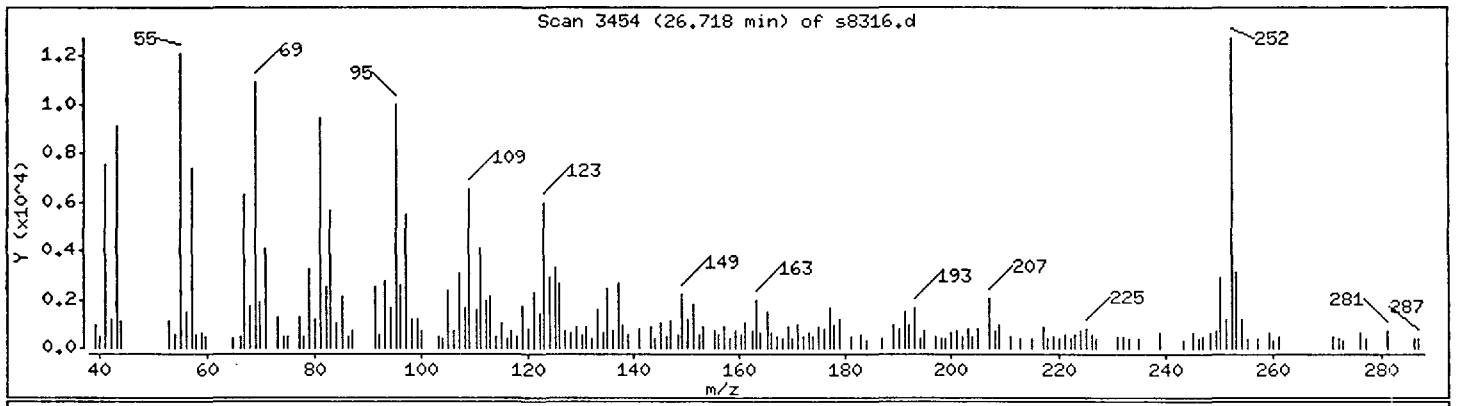
Sample Info: 88566;30;2;1;12.1;

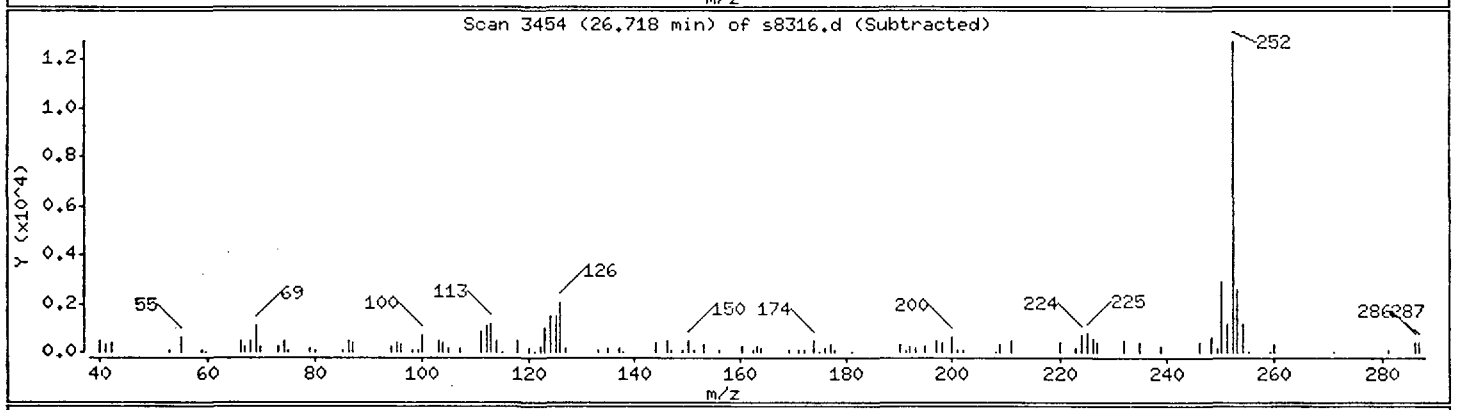
Operator: BNAMS 2

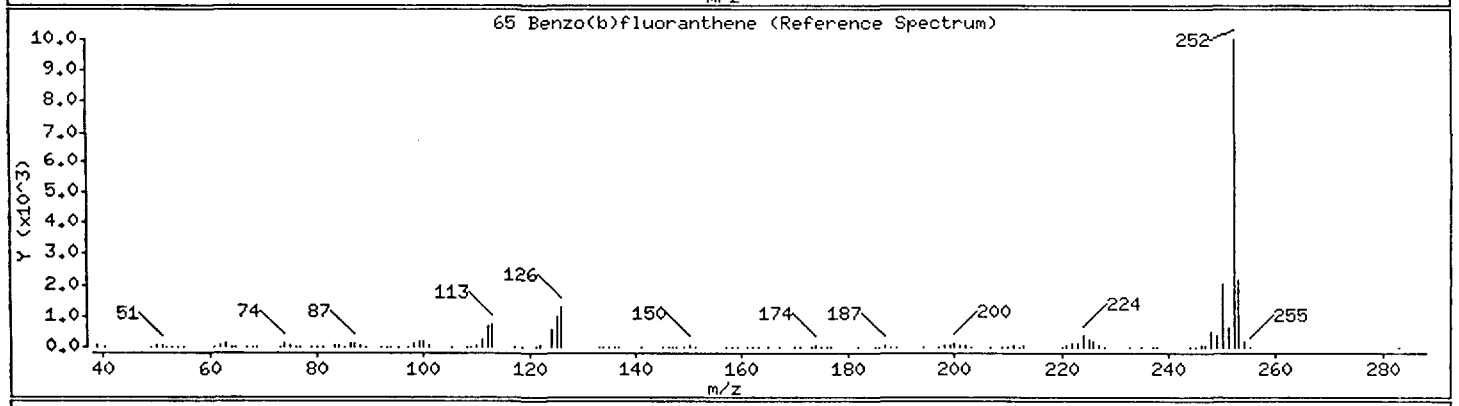
Column phase: DB-5 Column diameter: 0.25

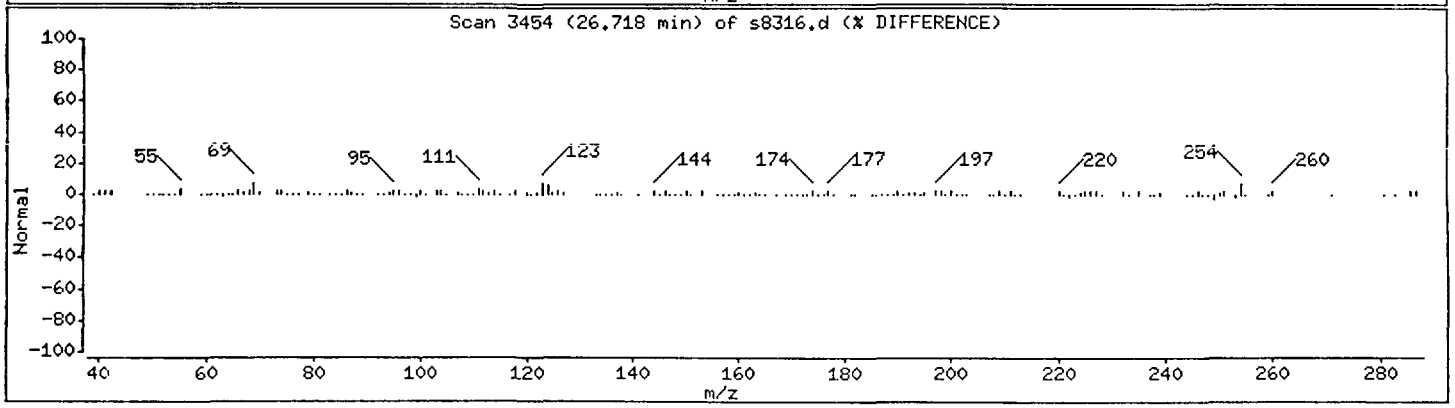
303727

65 Benzo(b)fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

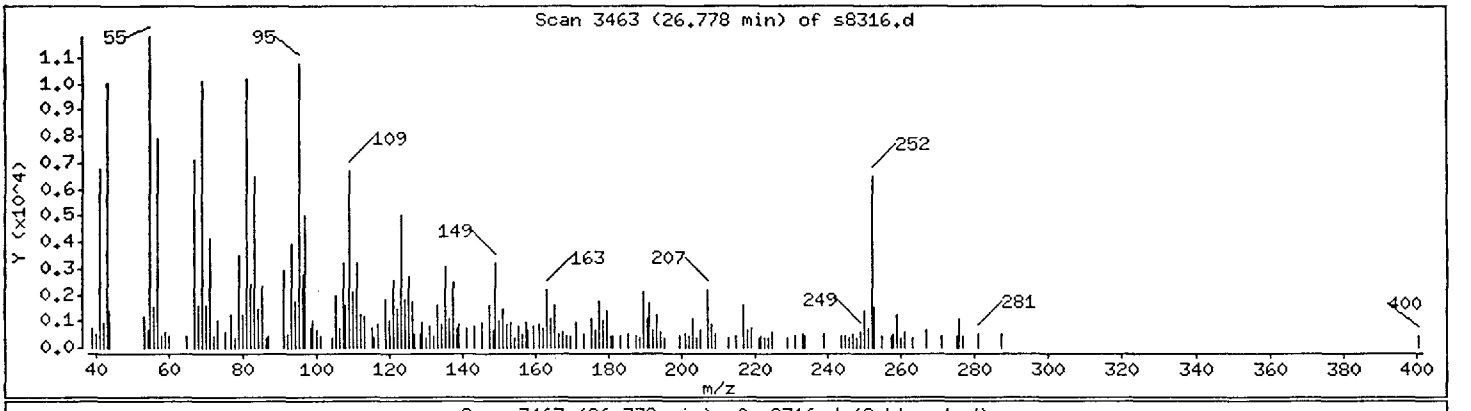
Sample Info: 88566;30;2;1;12.1;

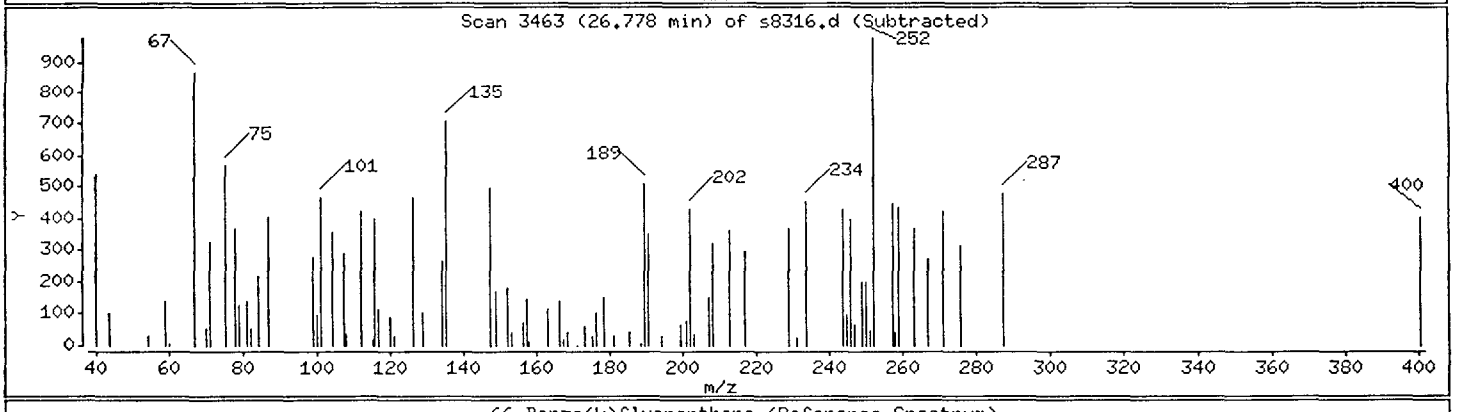
Operator: BNAMS 2

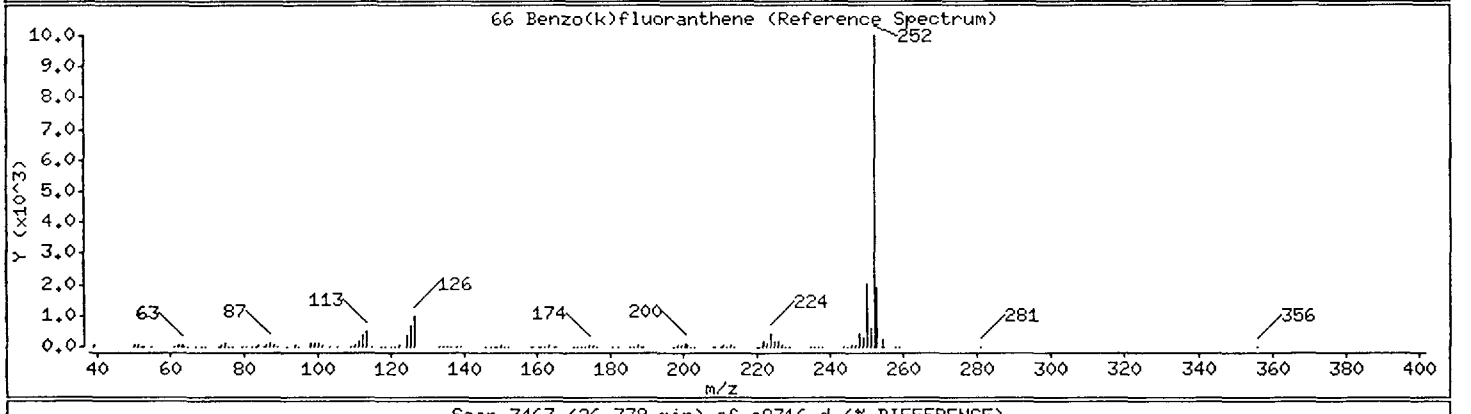
Column phase: DB-5 Column diameter: 0.25

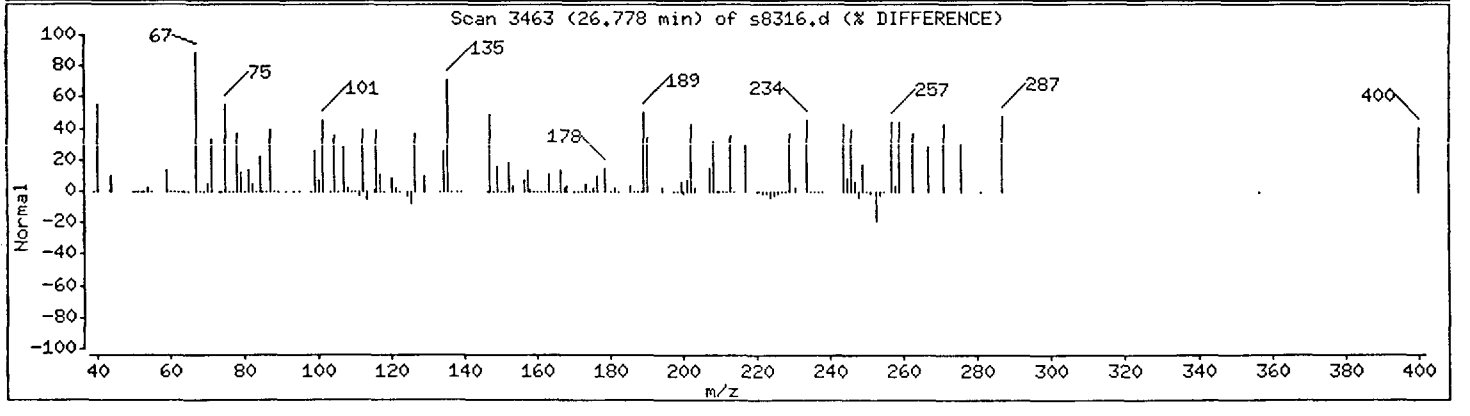
303728

66 Benzo(k)fluoranthene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

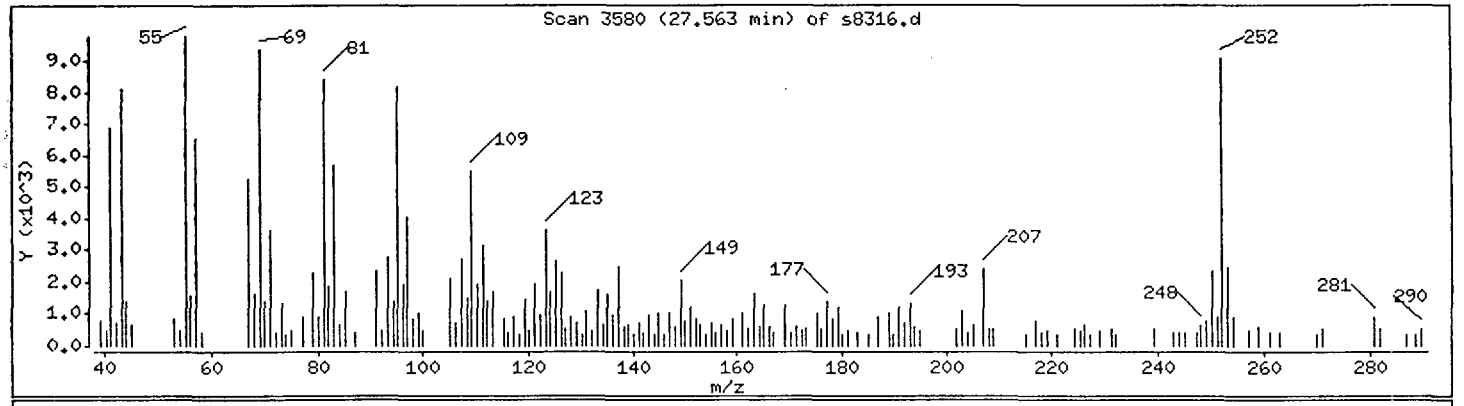
Sample Info: 88566;30;2;1;12.1;

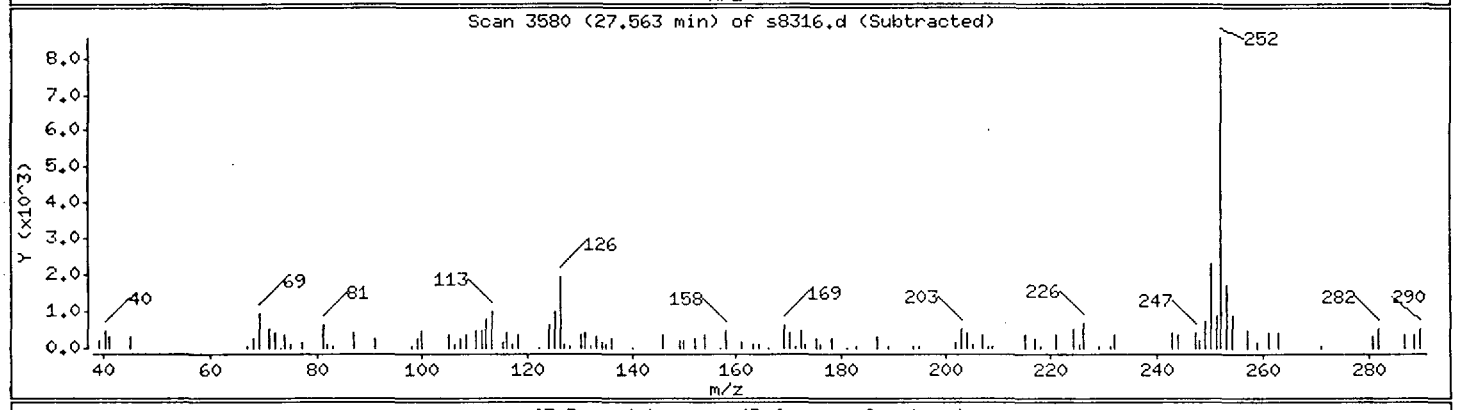
Operator: BNAMS 2

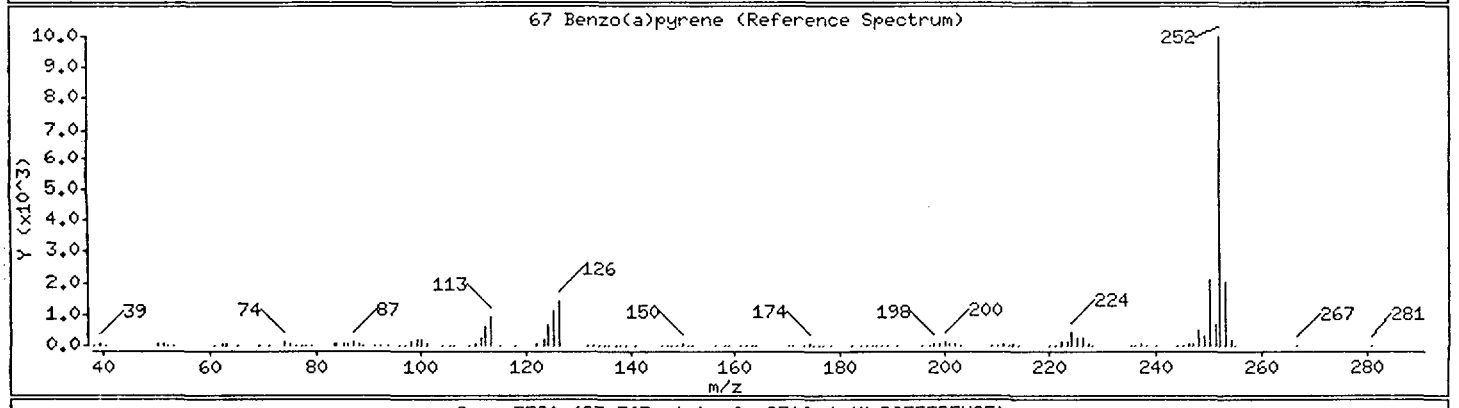
Column phase: DB-5 Column diameter: 0.25

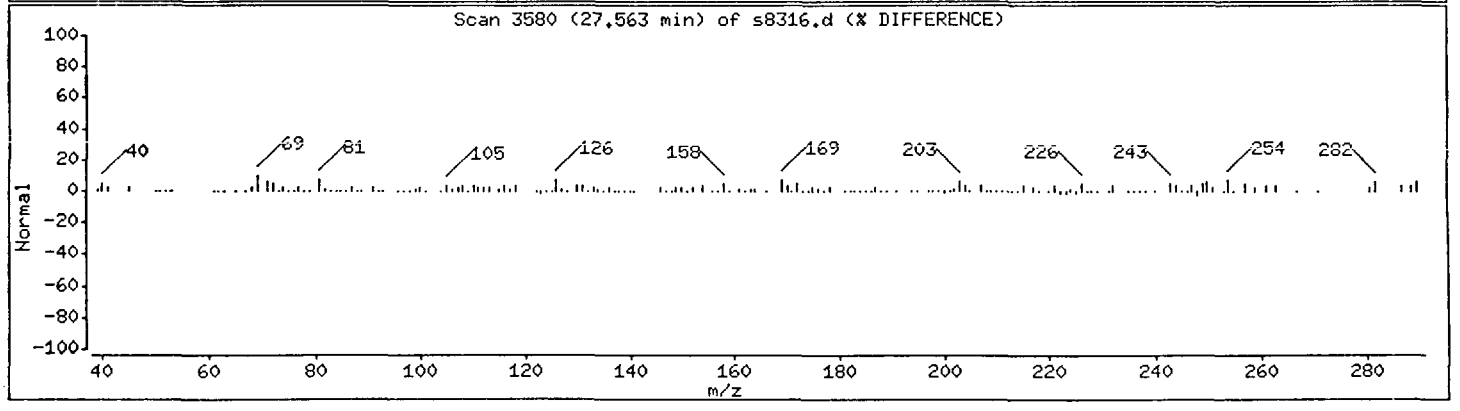
303729

67 Benzo(a)pyrene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

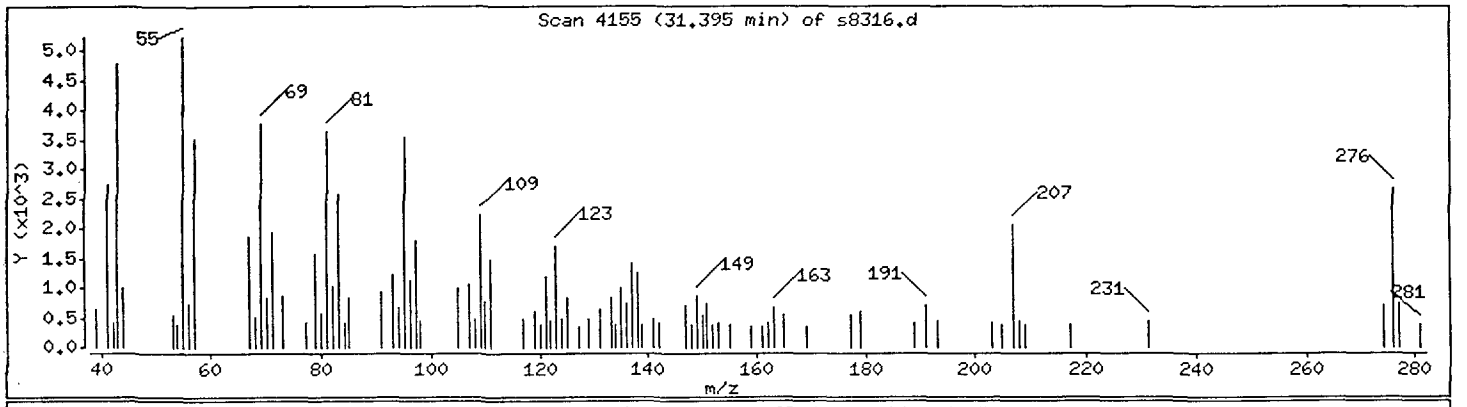
*Sample Info: 88566;30;2;1;12.1;*

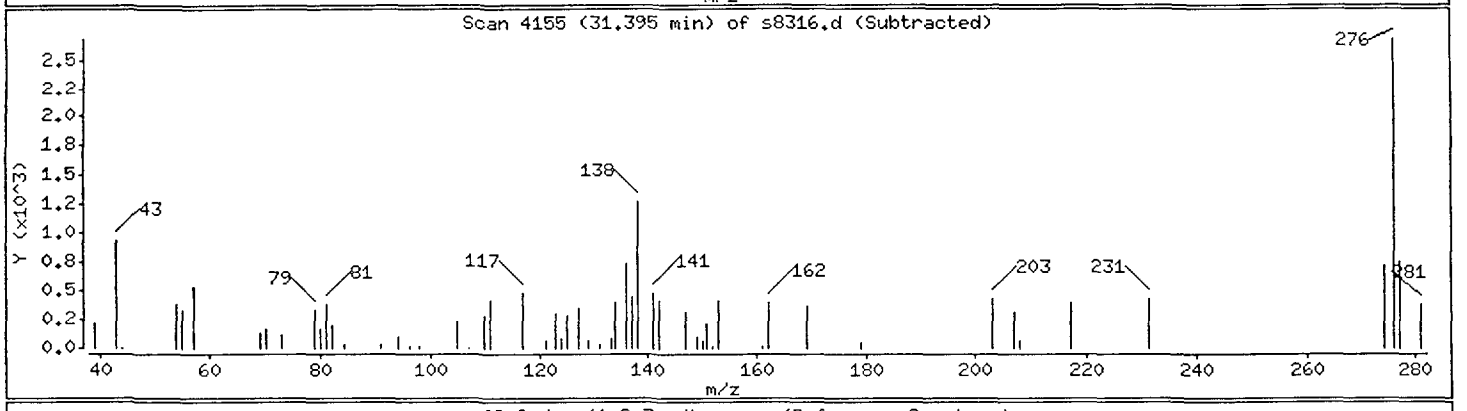
Operator: BNAMS 2

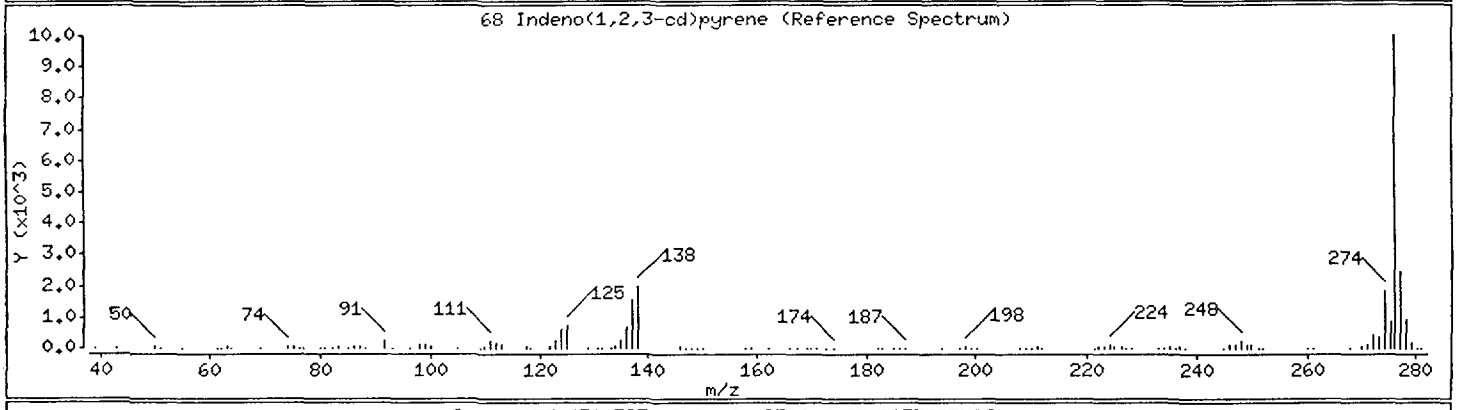
Column phase: DB-5 Column diameter: 0.25

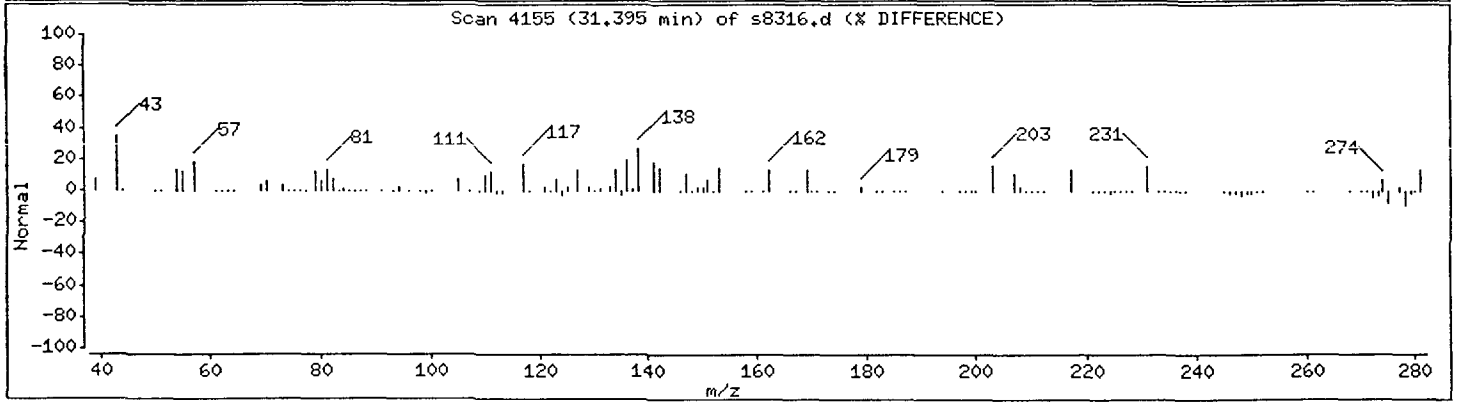
303730

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



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

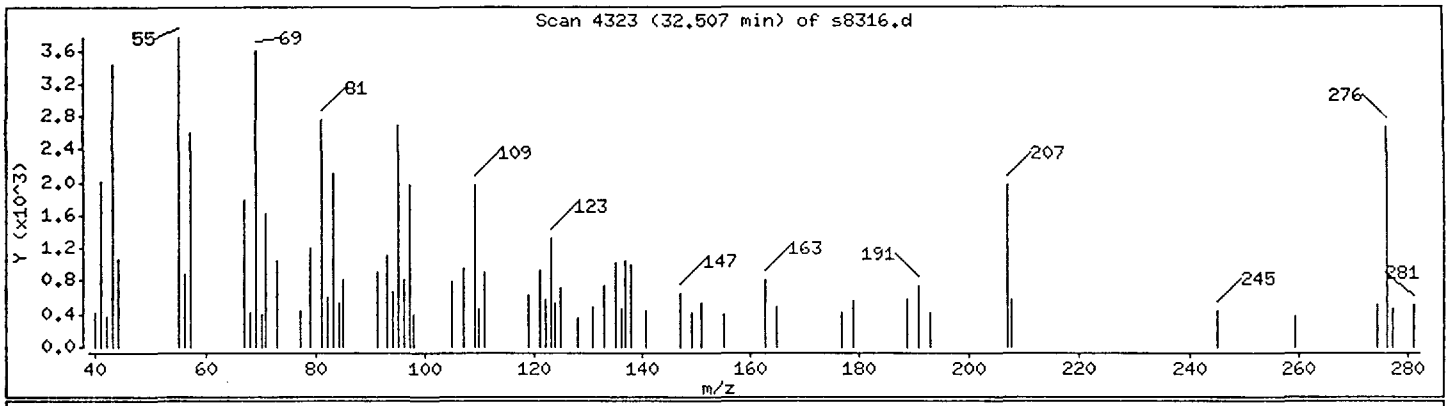
Sample Info: 88566;30;2;1;12.1;

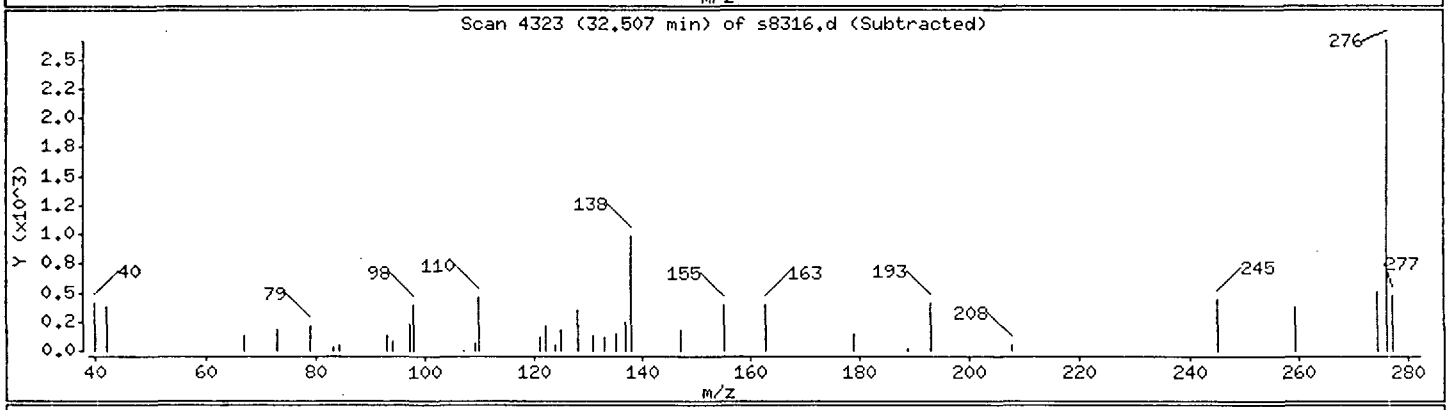
Operator: BNAMS 2

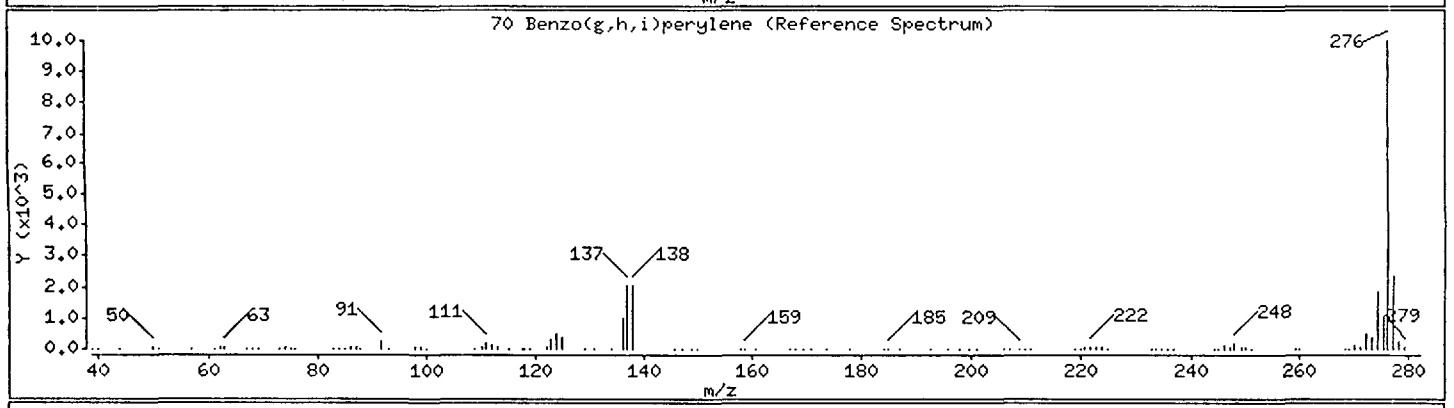
Column phase: DB-5 Column diameter: 0.25

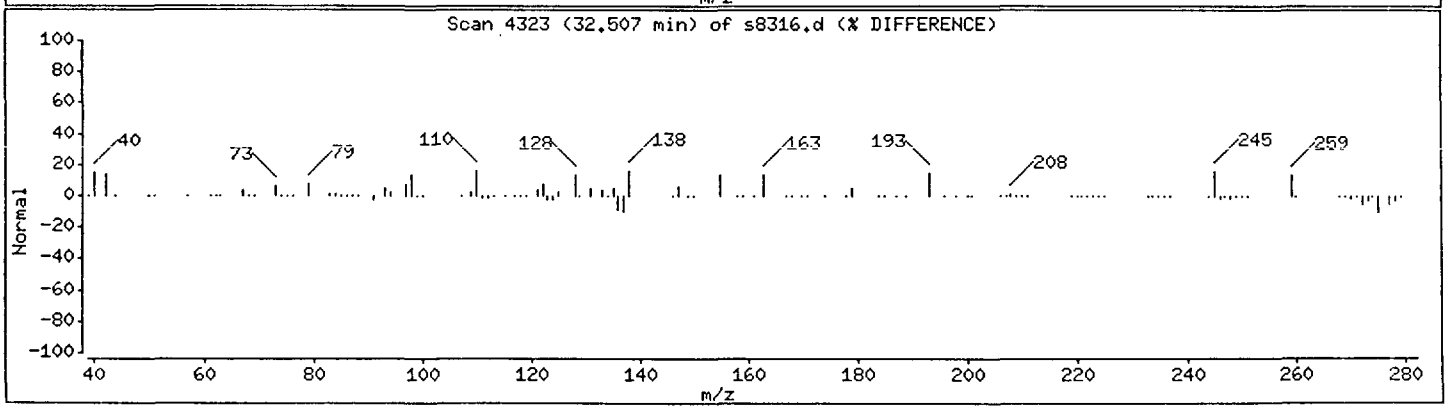
303731

70 Benzo(g,h,i)perylene



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8316.d

Date : 21-OCT-98 05:57:00

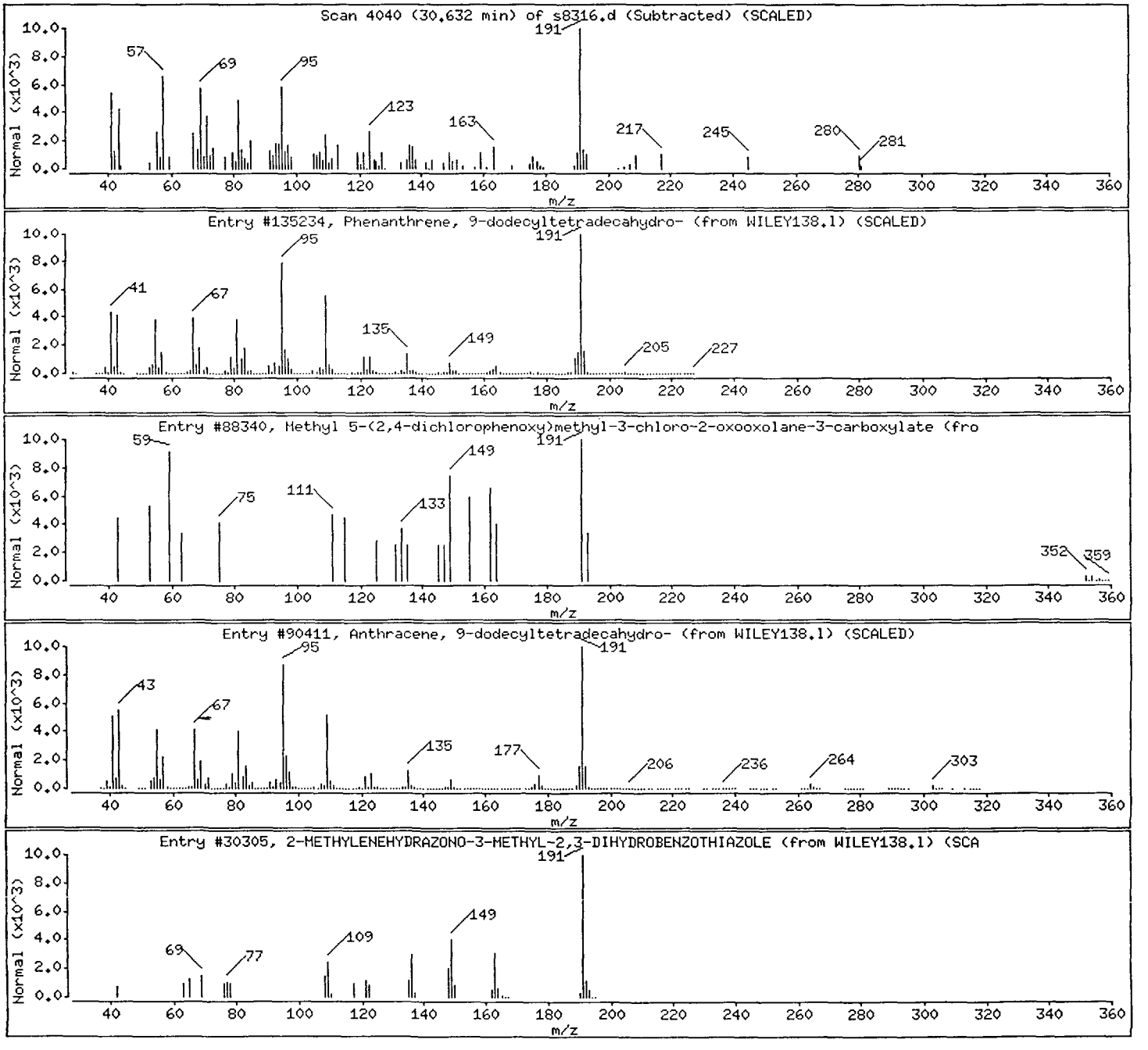
Client ID: SSCB-1_2-2.5 Instrument: BNAMS2.i

Sample Info: 88566;30;2;1;12.1;

Operator: BNAMS 2 **303732**

Column phase: DB-5 Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | | | | |
| Phenanthrene, 9-dodecyltetradecahydro- | 55334-01-5 | WILEY138.1 | 135234 | 47 | C26H48 | 360 |
| Methyl 5-(2,4-dichlorophenoxy)methyl-3-c | 85858-62-4 | WILEY138.1 | 88340 | 38 | C13H11Cl3O5 | 352 |
| Anthracene, 9-dodecyltetradecahydro- | 55401-75-7 | WILEY138.1 | 90411 | 38 | C26H48 | 360 |
| 2-METHYLENEHYDRAZONO-3-METHYL-2,3-DIHYDR | 63149-32-6 | WILEY138.1 | 30305 | 35 | C9H9N3S | 191 |



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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| 11 | | | | | |
| 12 | | | | | |
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| 21 | | | | | |
| 22 | | | | | |

303733

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

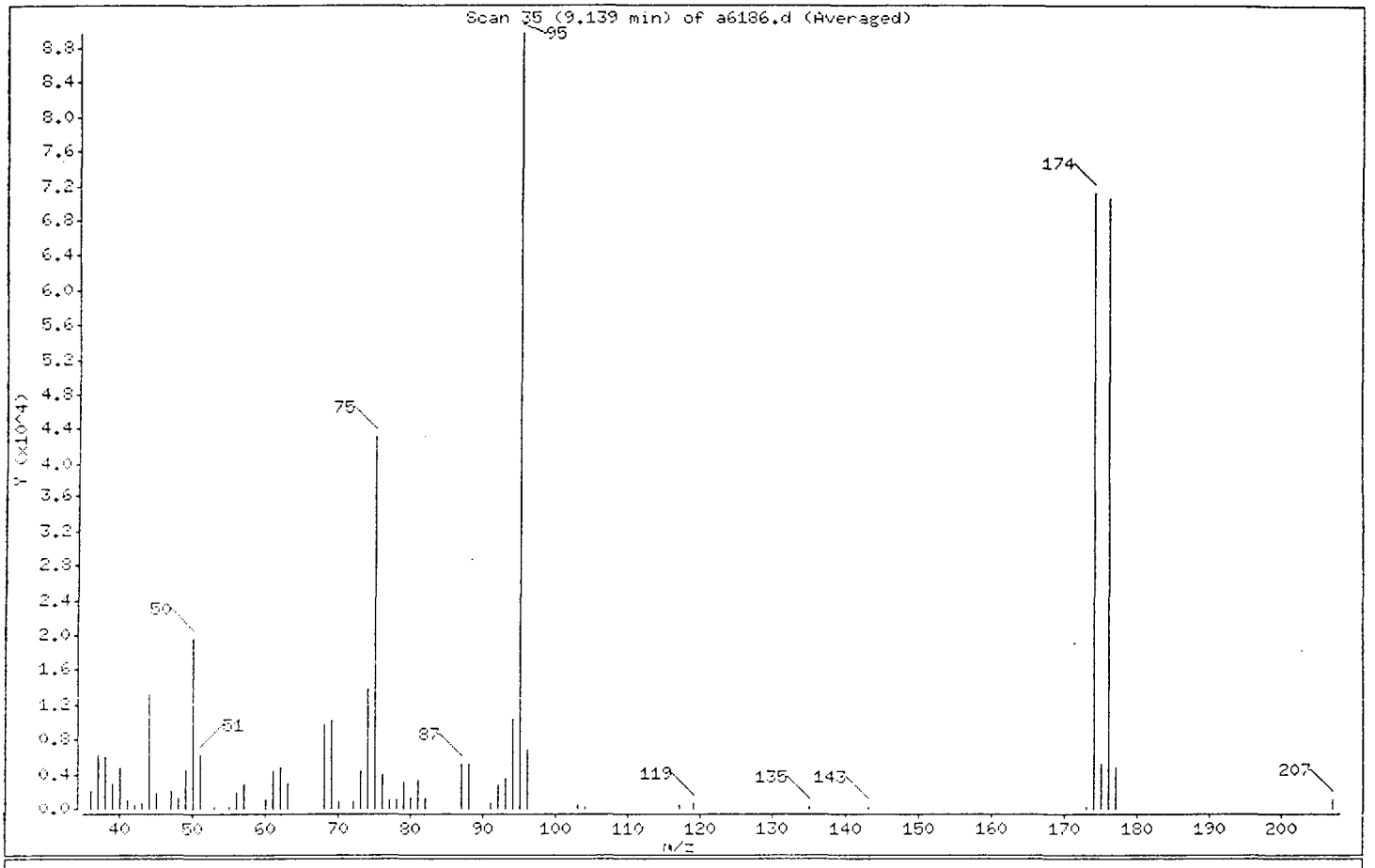
Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53

303734

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 | 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) |

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

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 | 4060 | 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 | 9709 | 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 | | |

303735

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



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

Client ID:

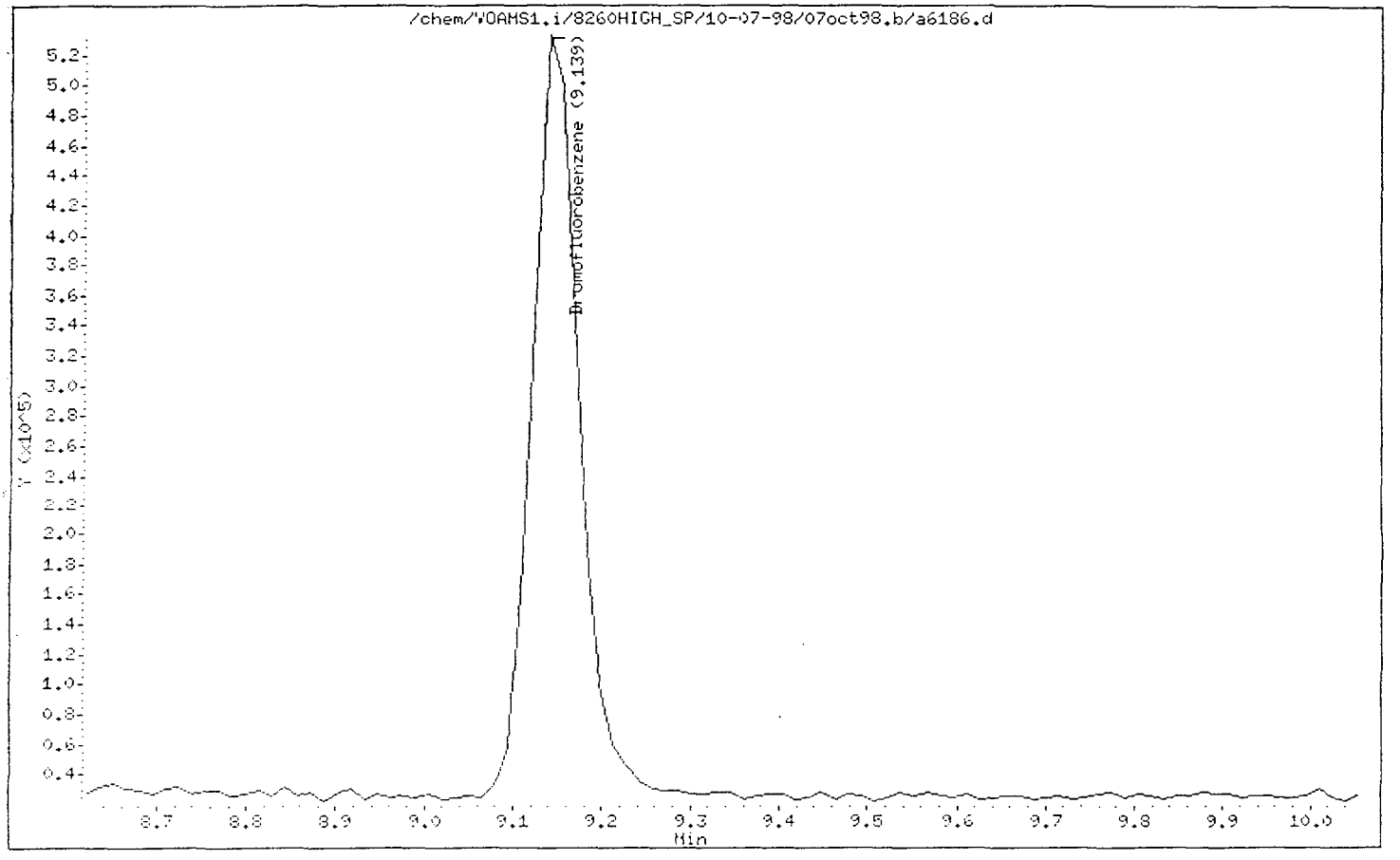
Instrument: VOAMS1.i

Sample Info: ABFB280 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53




303736

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 | SSNDS-1A_1-1 | 88559 | A6473 | 10/20/98 | 1355 |
| 04 | | | | | |
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303737

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

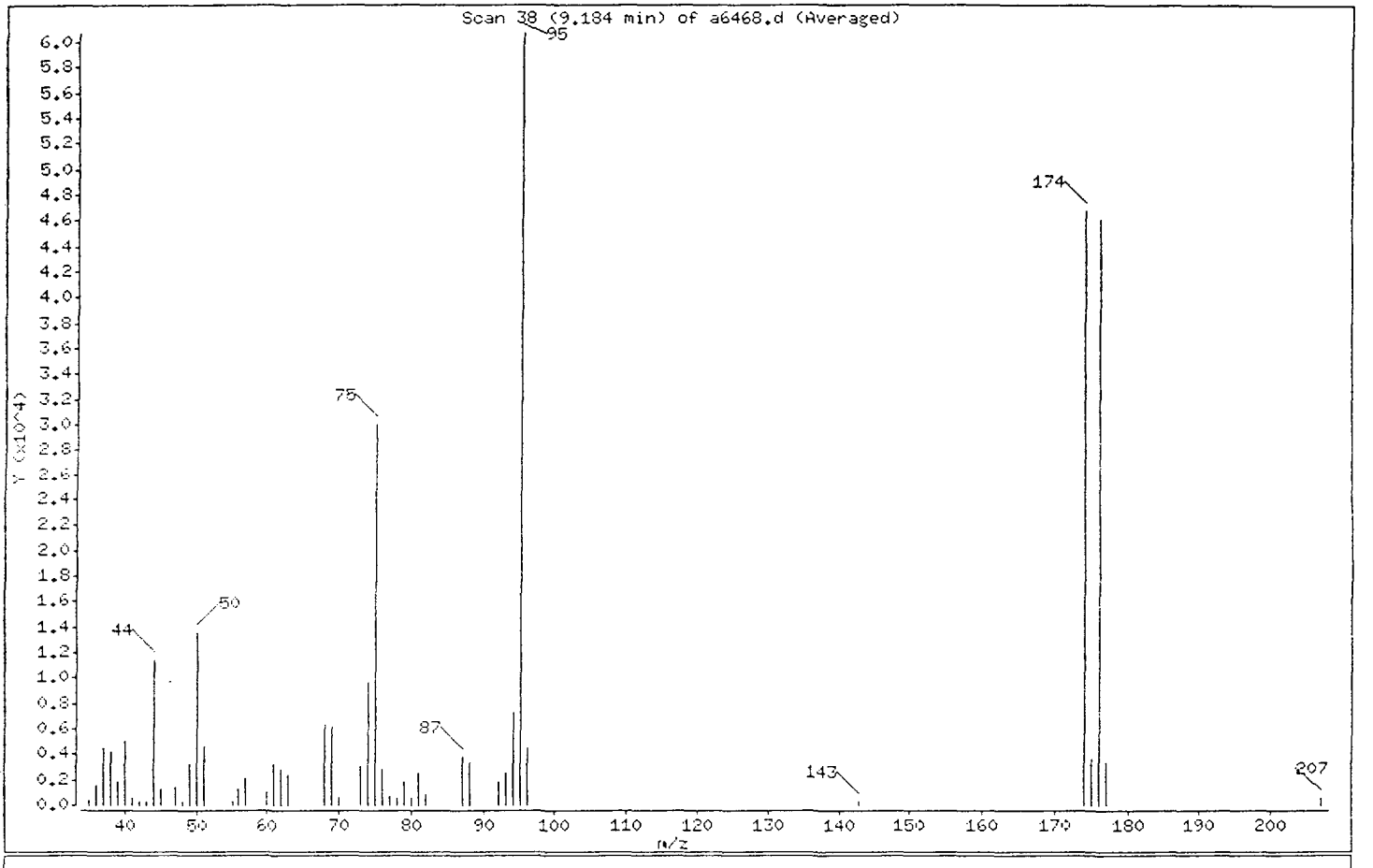
Sample Info: ABFB293 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53

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 | 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) |

303738

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

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 | | |

303739

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



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

Client ID:

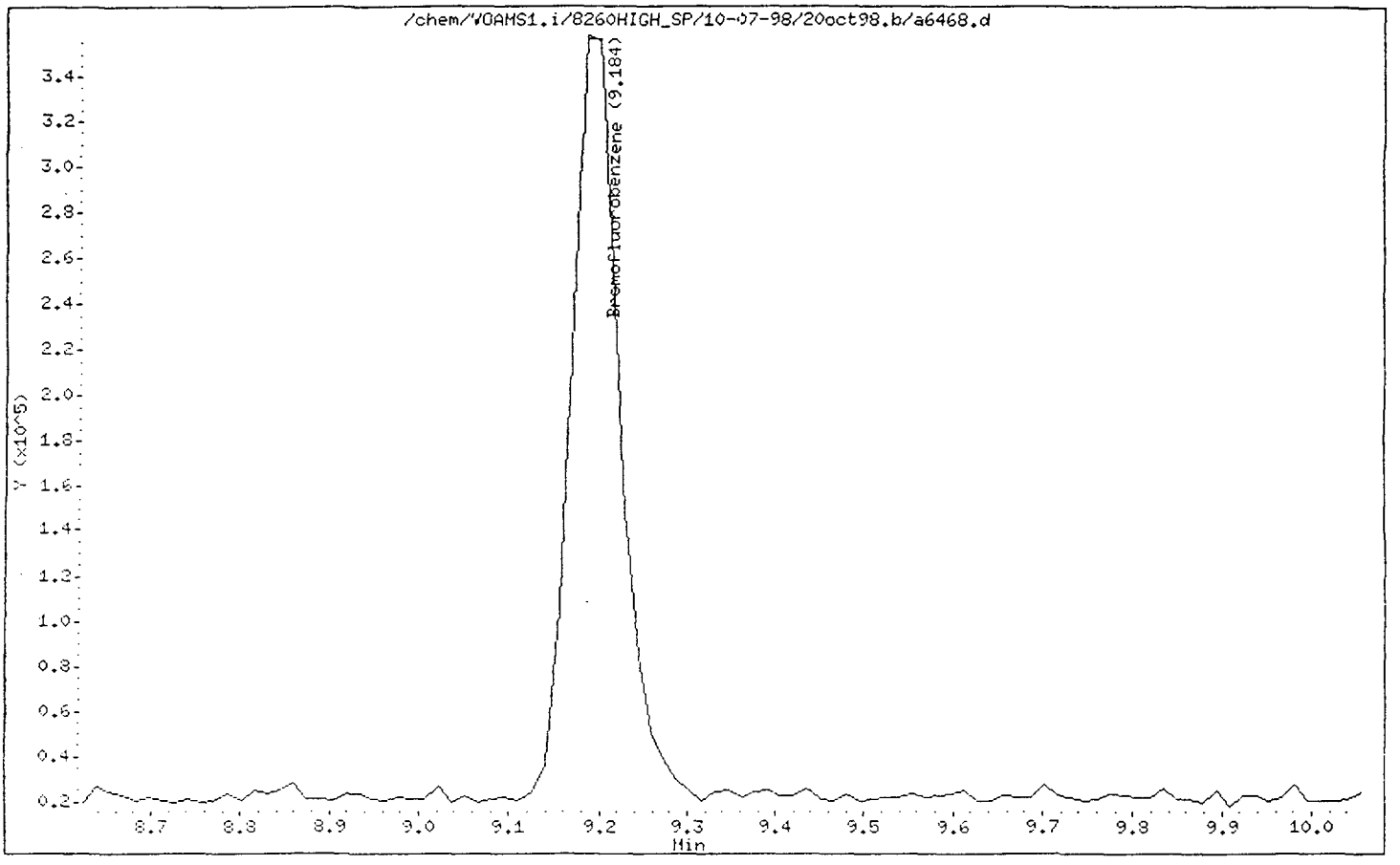
Instrument: VOAMS1.i

Sample Info: ABFB293 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53




303740

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab File ID: B8230 BFB Injection Date: 09/29/98

Instrument ID: VOAMS2 BFB Injection Time: 1623

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 18.2 |
| 75 | 30.0 - 60.0% of mass 95 | 44.9 |
| 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 | 0.0 ( 0.0)1 |
| 174 | 50.0 - 100.0% of mass 95 | 63.9 |
| 175 | 5.0 - 9.0% of mass 174 | 4.7 ( 7.3)1 |
| 176 | 95.0 - 101.0% of mass 174 | 61.7 ( 96.6)1 |
| 177 | 5.0 - 9.0% of mass 176 | 3.9 ( 6.4)2 |

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

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

| | CLIENT ID | LAB SAMPLE No. | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | BSTD005 | BSTD005 | B8233 | 09/29/98 | 1802 |
| 02 | BSTD020 | BSTD020 | B8235 | 09/29/98 | 1920 |
| 03 | BSTD050 | BSTD050 | B8236 | 09/29/98 | 1959 |
| 04 | BSTD100 | BSTD100 | B8237 | 09/29/98 | 2038 |
| 05 | BSTD200 | BSTD200 | B8238 | 09/29/98 | 2116 |
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303741

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8230.d



Date : 29-SEP-98 16:23:00

Client ID:

Instrument: VOAMS2.i

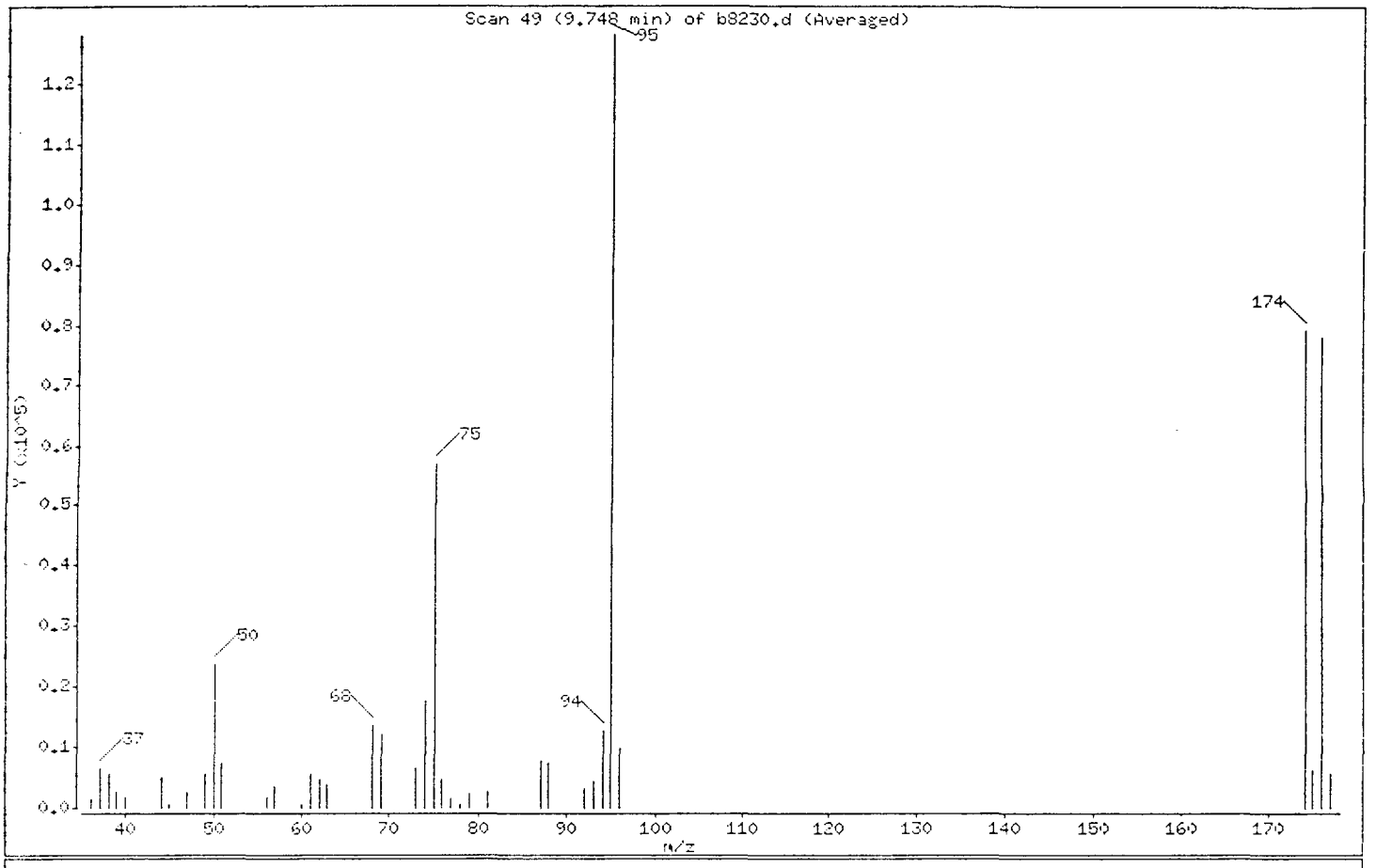
Sample Info: BBFB272 A 50 ng

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 | 18.23 |
| 75 | 30.00 - 60.00% of mass 95 | 44.92 |
| 96 | 5.00 - 9.00% of mass 95 | 7.48 |
| 173 | Less than 2.00% of mass 174 | 0.00 ( 0.00) |
| 174 | 50.00 - 100.00% of mass 95 | 63.90 |
| 175 | 5.00 - 9.00% of mass 174 | 4.65 ( 7.28) |
| 176 | 95.00 - 101.00% of mass 174 | 61.72 ( 96.60) |
| 177 | 5.00 - 9.00% of mass 176 | 3.92 ( 6.35) |

303742

Data File: /chem/VOAMS2.i/826CHIGH_SP/09-29-98/29sep98.b/b8230.d

Date : 29-SEP-98 16:23:00

Client ID:

Instrument: VOAMS2.i

Sample Info: BBFB272 A 50 ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53

Data File: b8230.d
Spectrum: Scan 50 (9.748 min) of b8230.d (Averaged)
Location of Maximum: 95.00
Number of points: 38

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1550 | 51.00 | 7513 | 74.00 | 17811 | 93.00 | 4323 |
| 37.00 | 6377 | 56.00 | 1762 | 75.00 | 57181 | 94.00 | 12531 |
| 38.00 | 5577 | 57.00 | 3620 | 76.00 | 4818 | 95.00 | 127898 |
| 39.00 | 2615 | 60.00 | 473 | 77.00 | 1494 | 96.00 | 9775 |
| 40.00 | 1686 | 61.00 | 5462 | 78.00 | 500 | 174.00 | 79173 |
| 44.00 | 4923 | 62.00 | 4859 | 79.00 | 2469 | 175.00 | 6226 |
| 45.00 | 491 | 63.00 | 3828 | 81.00 | 2732 | 176.00 | 77976 |
| 47.00 | 2715 | 68.00 | 13668 | 87.00 | 7563 | 177.00 | 5588 |
| 49.00 | 5583 | 69.00 | 11949 | 88.00 | 7371 | | |
| 50.00 | 23645 | 73.00 | 6454 | 92.00 | 3358 | | |

303743

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8230.d



Date : 29-SEP-98 16:23:00

Client ID:

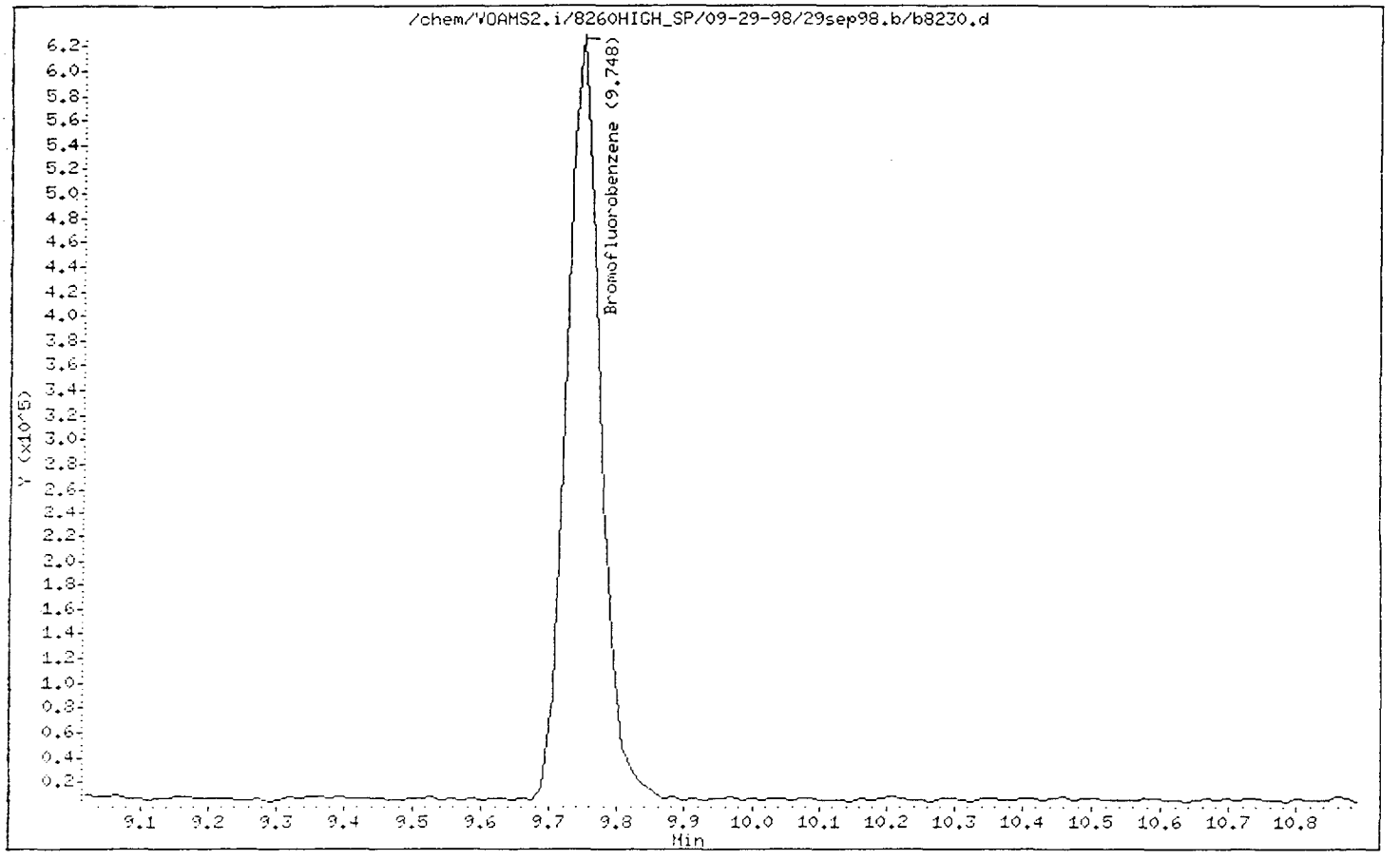
Instrument: VOAMS2.i

Sample Info: BBFB272 A 50 ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53




303744

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab File ID: B8521

BFB Injection Date: 10/18/98

Instrument ID: VOAMS2

BFB Injection Time: 1119

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 20.1 |
| 75 | 30.0 - 60.0% of mass 95 | 46.0 |
| 95 | Base Peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.6 |
| 173 | Less than 2.0% of mass 174 | 0.0 ( 0.0)1 |
| 174 | 50.0 - 100.0% of mass 95 | 60.3 |
| 175 | 5.0 - 9.0% of mass 174 | 4.5 ( 7.4)1 |
| 176 | 95.0 - 101.0% of mass 174 | 57.5 ( 95.4)1 |
| 177 | 5.0 - 9.0% of mass 176 | 3.9 ( 6.8)2 |

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

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

| | CLIENT ID | LAB SAMPLE No. | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | BSTD291 | BSTD291 | B8522 | 10/18/98 | 1150 |
| 02 | BV291 | BV291 | B8524 | 10/18/98 | 1322 |
| 03 | TB-1 | 88550 | B8532 | 10/18/98 | 1806 |
| 04 | | | | | |
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303745

Data File: /chem/VOAMS2.i/826CHIGH_SP/09-29-98/18oct98.b/b8521.d

Date : 18-OCT-98 11:19:00

Client ID:

Instrument: VOAMS2.i

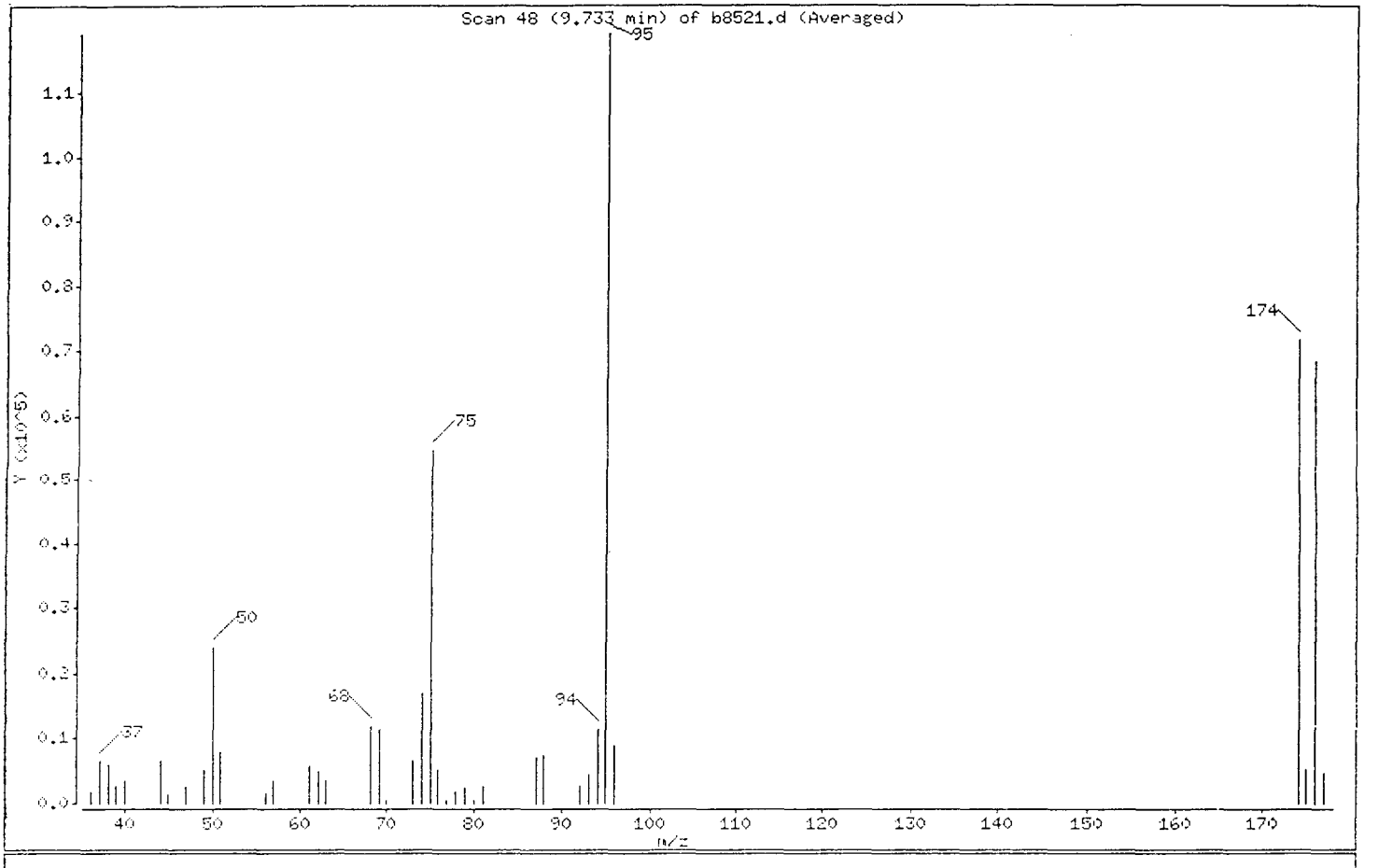
Sample Info: BBFB291 50 ng

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 | 20.15 |
| 75 | 30.00 - 60.00% of mass 95 | 46.04 |
| 96 | 5.00 - 9.00% of mass 95 | 7.59 |
| 173 | Less than 2.00% of mass 174 | 0.00 ( 0.00) |
| 174 | 50.00 - 100.00% of mass 95 | 60.31 |
| 175 | 5.00 - 9.00% of mass 174 | 4.48 ( 7.43) |
| 176 | 95.00 - 101.00% of mass 174 | 57.51 ( 95.36) |
| 177 | 5.00 - 9.00% of mass 176 | 3.90 ( 6.78) |

303746

Data File: /chem/VOAMS2.i/826CHIGH_SP/09-29-98/18oct98.b/b8521.d

Date : 18-OCT-98 11:19:00

Client ID:

Instrument: VOAMS2.i

Sample Info: BBFB291 50 ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53

Data File: b8521.d
Spectrum: Scan 49 (9.733 min) of b8521.d (Averaged)
Location of Maximum: 95.00
Number of points: 39

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1806 | 51.00 | 7914 | 74.00 | 16885 | 92.00 | 2701 |
| 37.00 | 6569 | 56.00 | 1738 | 75.00 | 54845 | 93.00 | 4336 |
| 38.00 | 6047 | 57.00 | 3426 | 76.00 | 5217 | 94.00 | 11444 |
| 39.00 | 2729 | 61.00 | 5789 | 77.00 | 490 | 95.00 | 119125 |
| 40.00 | 3629 | 62.00 | 4871 | 78.00 | 1890 | 96.00 | 9042 |
| 44.00 | 6494 | 63.00 | 3475 | 79.00 | 2454 | 174.00 | 71842 |
| 45.00 | 1368 | 68.00 | 12180 | 80.00 | 467 | 175.00 | 5338 |
| 47.00 | 2663 | 69.00 | 11549 | 81.00 | 2644 | 176.00 | 68506 |
| 49.00 | 5274 | 70.00 | 461 | 87.00 | 7088 | 177.00 | 4648 |
| 50.00 | 24002 | 73.00 | 6616 | 88.00 | 7436 | | |

303747

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8521.d



Date : 18-OCT-98 11:19:00

Client ID:

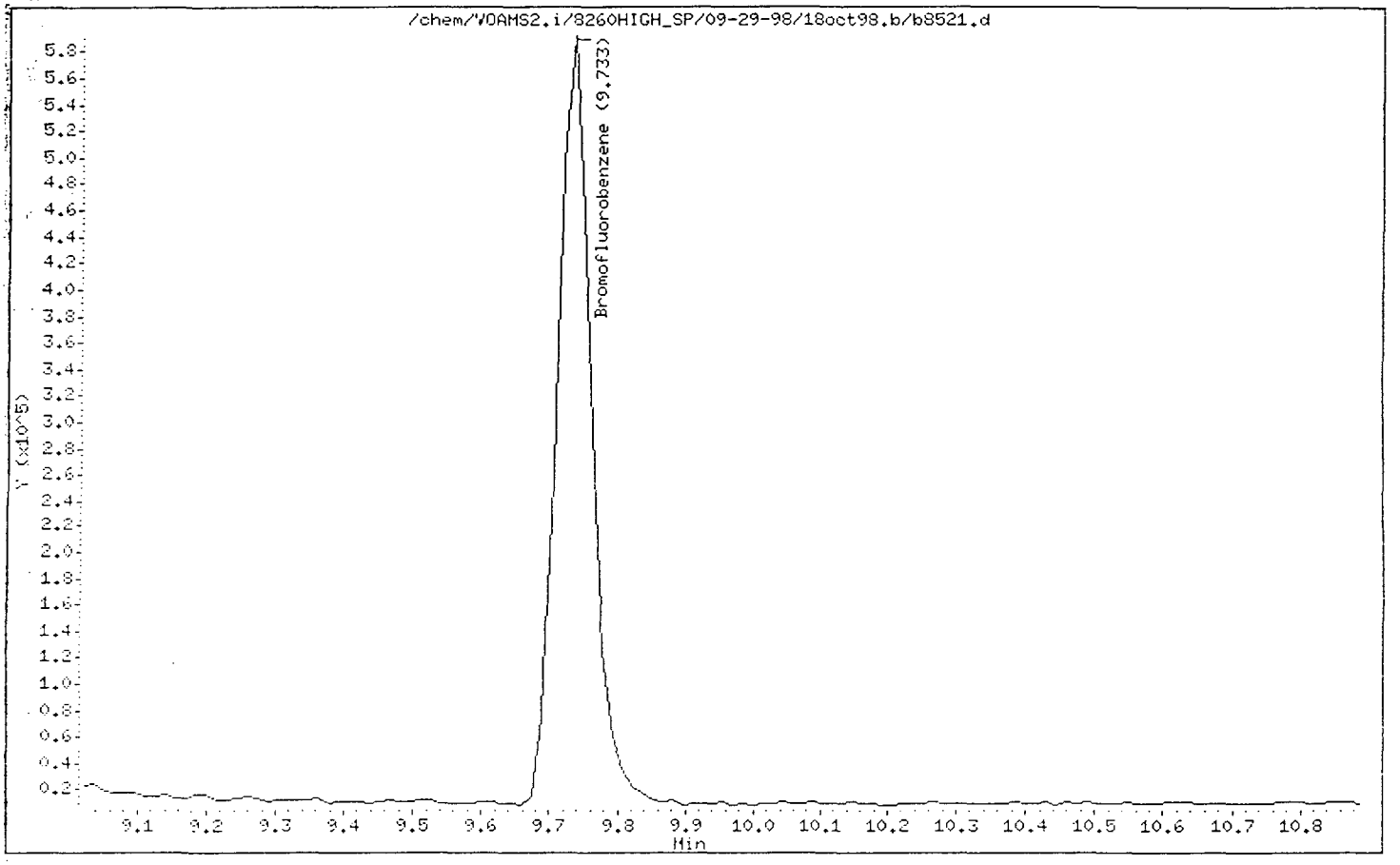
Instrument: VOAMS2.i

Sample Info: BBFB291 50 ng

Operator: VOAMS 1

Column phase: DB-624

Column diameter: 0.53




303748

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 |
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303749

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

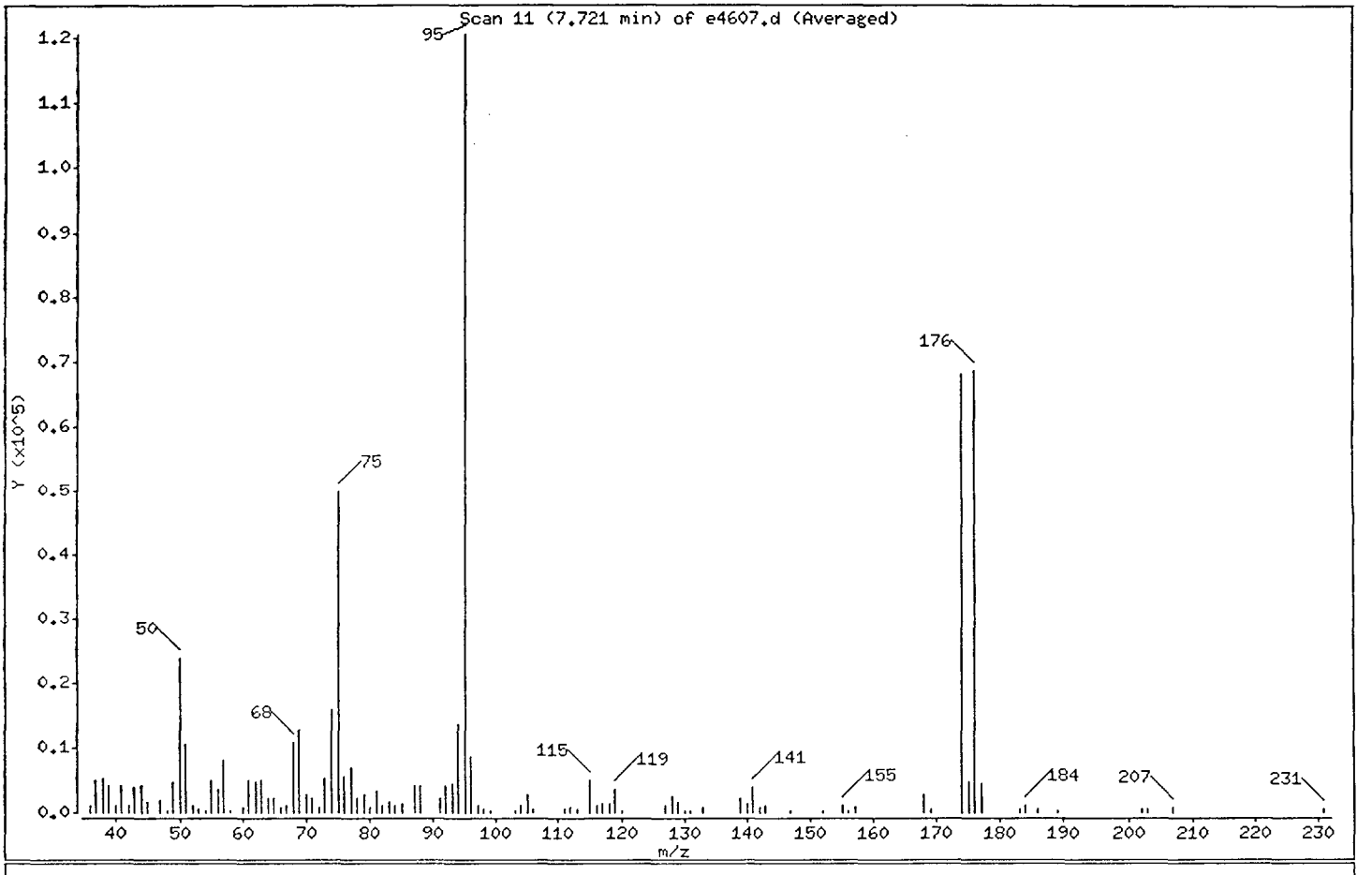
Sample Info: EBFB287 50ng

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) |

303750

Data File: /chem/VOAHS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4607.d

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

Client ID: EBFB287 50ng

Instrument: VOAHS5.i

Sample Info: EBFB287 50ng

Operator: VOAHS 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 | | |

303751

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

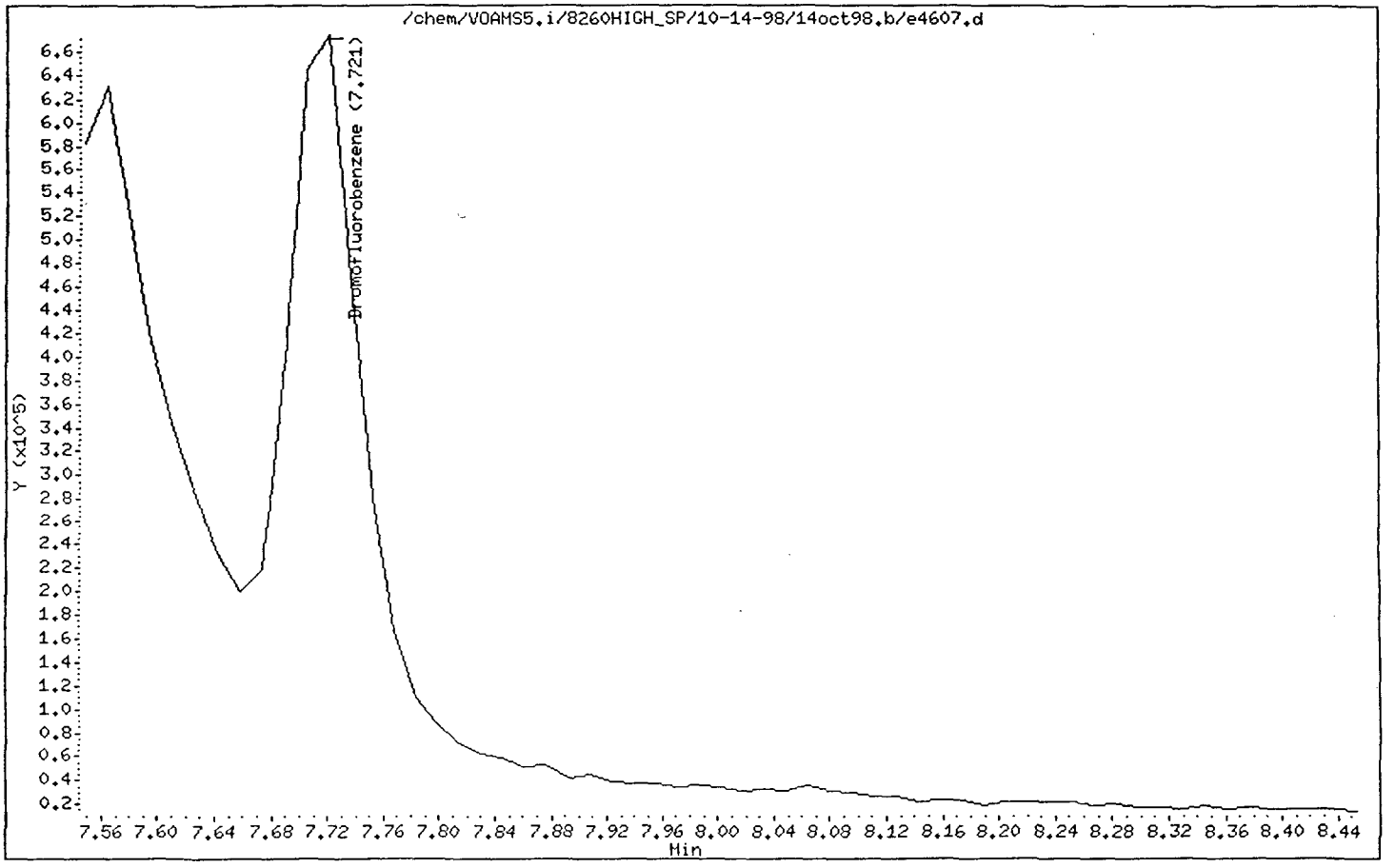
Instrument: VOAMS5.i

Sample Info: EBFB287 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53




303752

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 | SSNDS-2_1.5- | 88557 | E4656 | 10/15/98 | 1652 |
| 04 | | | | | |
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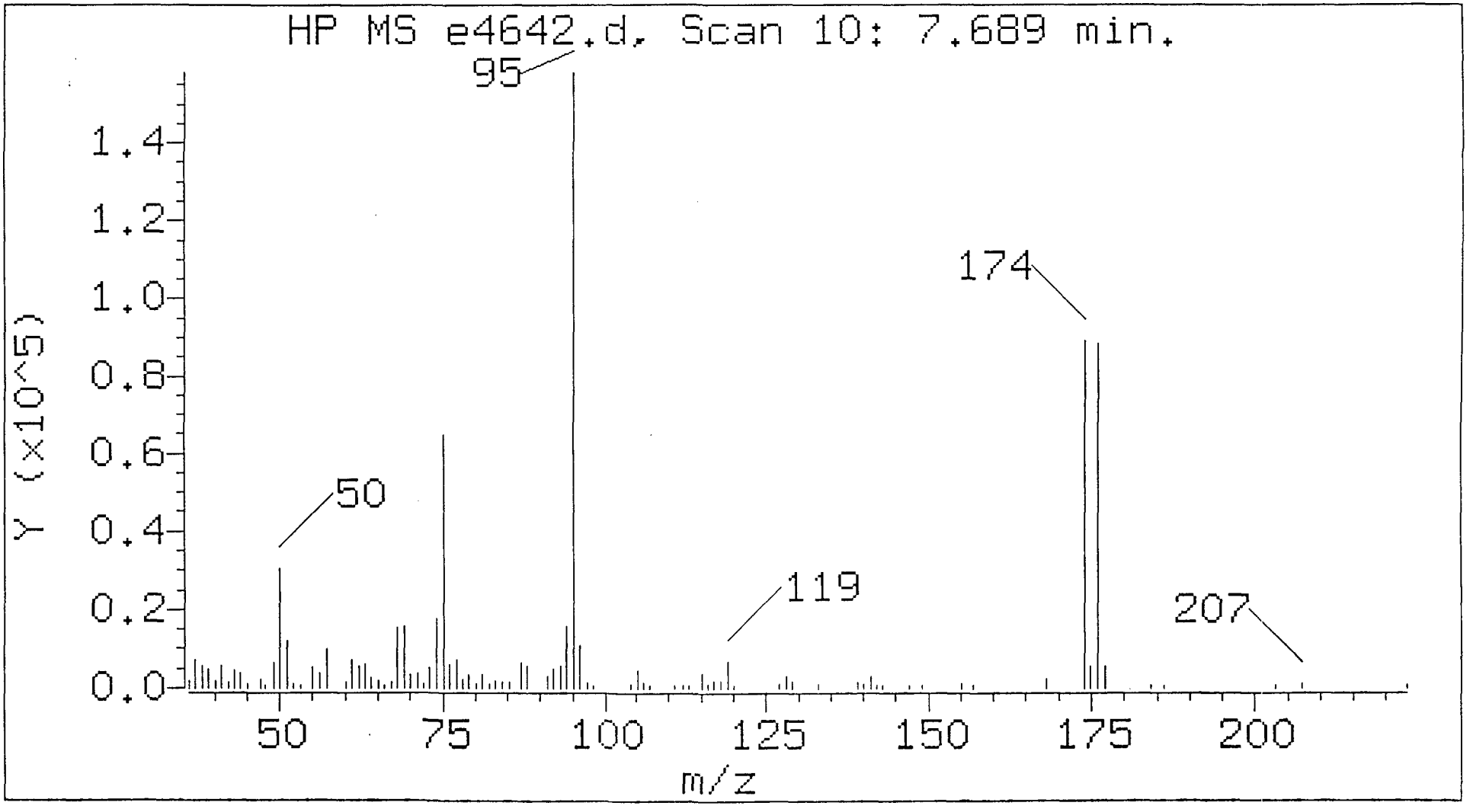
303753

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

303754



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 | | |

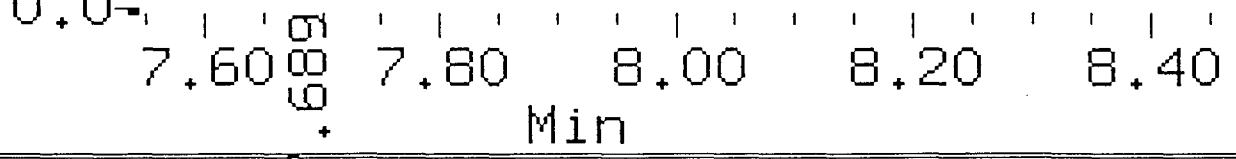
303755

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

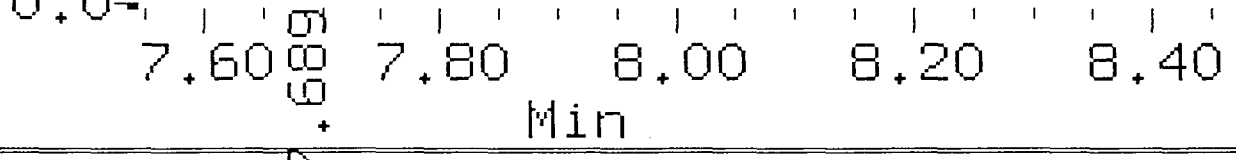
Compound: Bromofluorobenzene
CAS Number: 460-00-4

303756

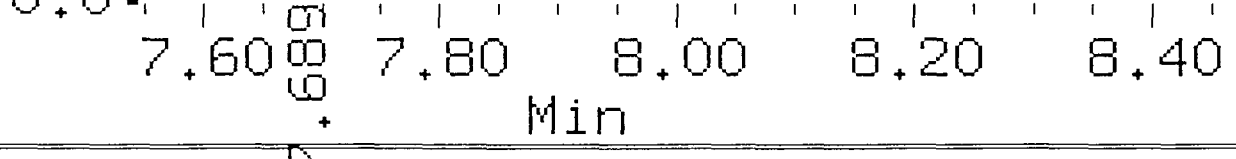
Ion 95.00: Area: 158144 Height: 158144



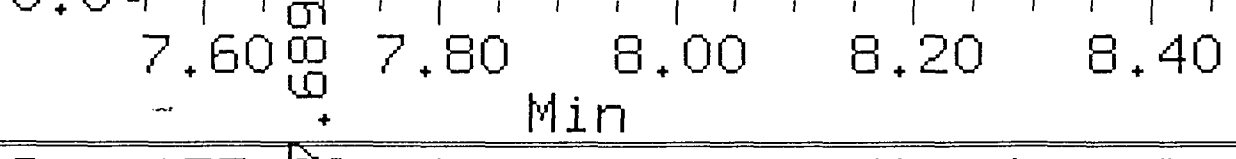

Ion 50.00: Area: 30368 Height: 30368



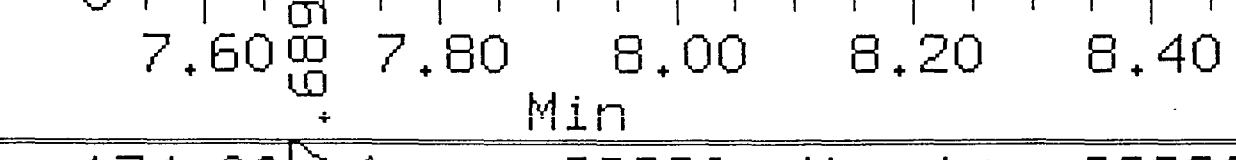

Ion 75.00: Area: 64816 Height: 64816



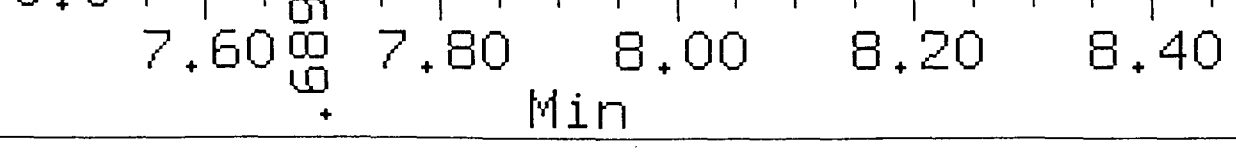

Ion 96.00: Area: 10966 Height: 10966




Ion 173.00: Area: 0 Height: 0

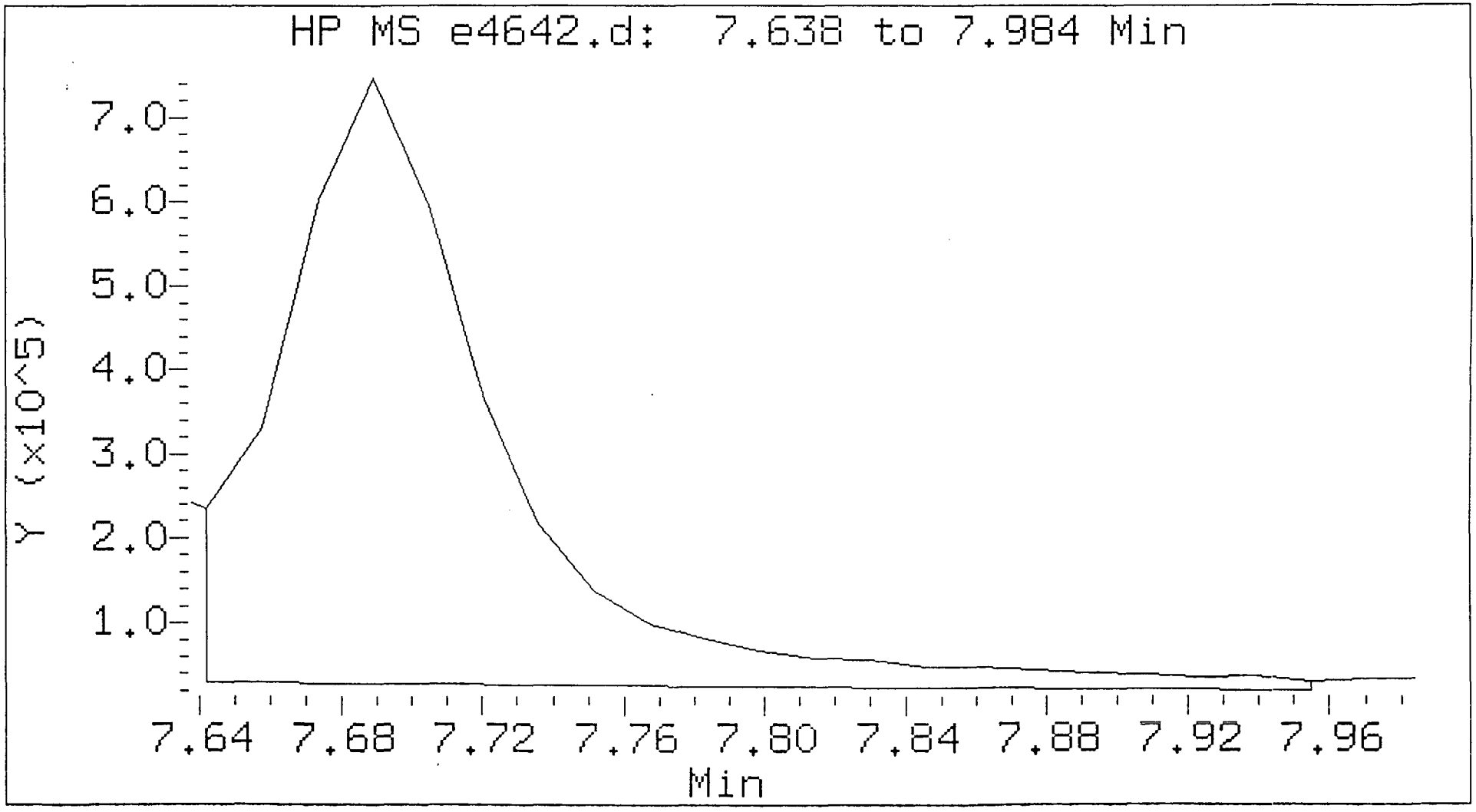



Ion 174.00: Area: 89280 Height: 89280



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

303757



VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab File ID: E4667

BFB Injection Date: 10/16/98

Instrument ID: VOAMS5

BFB Injection Time: 0947

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 20.0 |
| 75 | 30.0 - 60.0% of mass 95 | 39.4 |
| 95 | Base Peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.0 ( 0.0)1 |
| 174 | 50.0 - 100.0% of mass 95 | 56.3 |
| 175 | 5.0 - 9.0% of mass 174 | 4.1 ( 7.2)1 |
| 176 | 95.0 - 101.0% of mass 174 | 56.4 (100.2)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 | ESTD289 | ESTD289 | E4668 | 10/16/98 | 1020 |
| 02 | EV289 | EV289 | E4671 | 10/16/98 | 1153 |
| 03 | SSFS-1_.5-1 | 88560 | E4675 | 10/16/98 | 1350 |
| 04 | | | | | |
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303758

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4667.d



Date : 16-OCT-98 09:47:00

Client ID: EBFB289 50ng

Instrument: VOAMS5.i

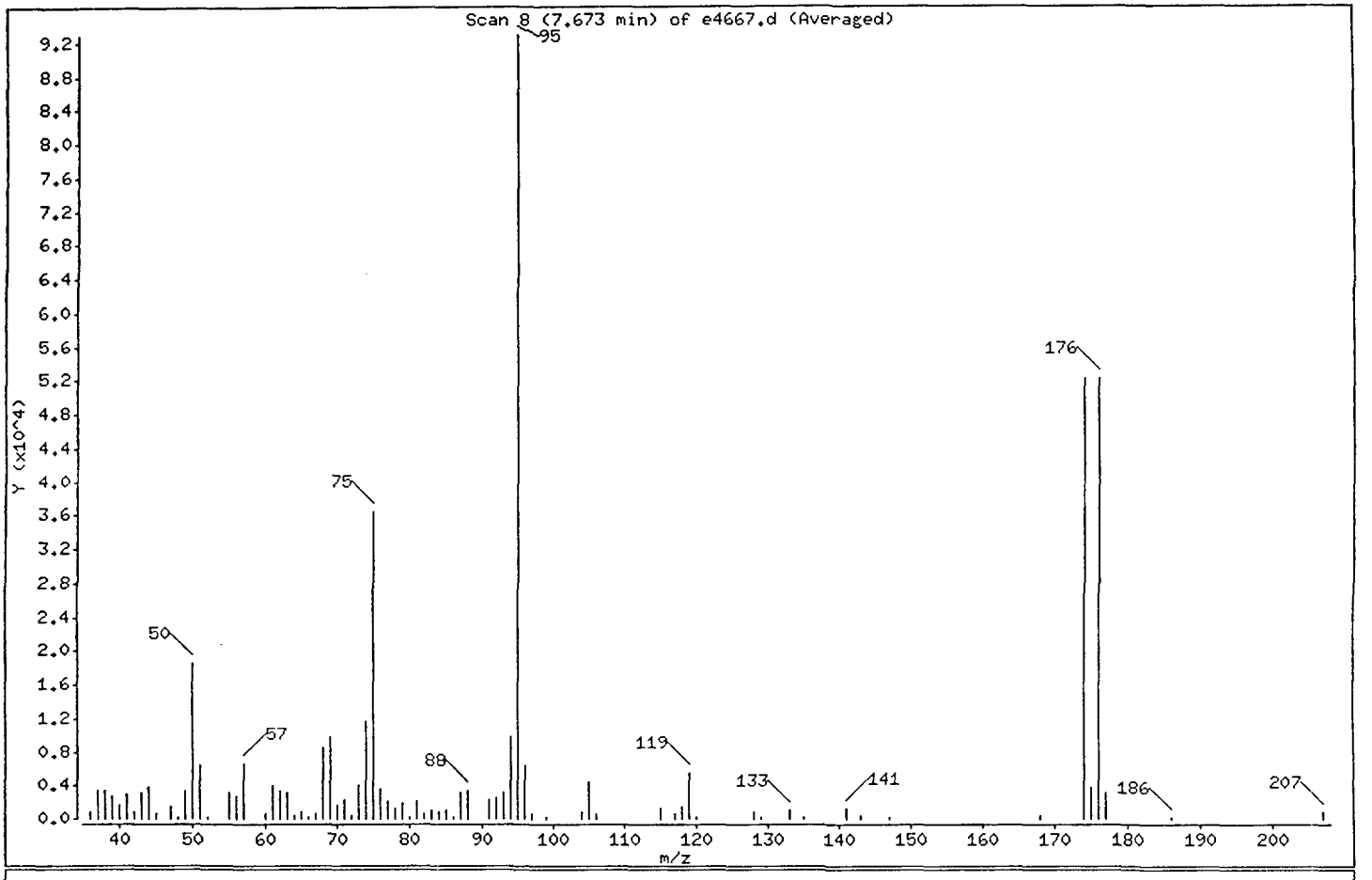
Sample Info: EBFB289 50ng

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 | 20.02 |
| 75 | 30.00 - 60.00% of mass 95 | 39.42 |
| 96 | 5.00 - 9.00% of mass 95 | 6.80 |
| 173 | Less than 2.00% of mass 174 | 0.00 ( 0.00) |
| 174 | 50.00 - 100.00% of mass 95 | 56.25 |
| 175 | 5.00 - 9.00% of mass 174 | 4.06 ( 7.21) |
| 176 | 95.00 - 101.00% of mass 174 | 56.39 (100.25) |
| 177 | 5.00 - 9.00% of mass 176 | 3.53 ( 6.25) |

303759

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4667.d

Date : 16-OCT-98 09:47:00

Client ID: EBFB289 50ng

Instrument: VOAMS5.i

Sample Info: EBFB289 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53

Data File: e4667.d
Spectrum: Scan 9 (7.673 min) of e4667.d (Averaged)
Location of Maximum: 95.00
Number of points: 78

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 792 | 61.00 | 4091 | 81.00 | 2138 | 117.00 | 647 |
| 37.00 | 3444 | 62.00 | 3492 | 82.00 | 557 | 118.00 | 1507 |
| 38.00 | 3451 | 63.00 | 3182 | 83.00 | 998 | 119.00 | 5473 |
| 39.00 | 2711 | 64.00 | 485 | 84.00 | 755 | 120.00 | 243 |
| 40.00 | 1761 | 65.00 | 869 | 85.00 | 1138 | 128.00 | 805 |
| 41.00 | 2964 | 66.00 | 201 | 86.00 | 205 | 129.00 | 282 |
| 42.00 | 922 | 67.00 | 555 | 87.00 | 3297 | 133.00 | 1125 |
| 43.00 | 3223 | 68.00 | 8614 | 88.00 | 3347 | 135.00 | 201 |
| 44.00 | 3764 | 69.00 | 9824 | 91.00 | 2274 | 141.00 | 1228 |
| 45.00 | 729 | 70.00 | 1761 | 92.00 | 2657 | 143.00 | 532 |
| 47.00 | 1562 | 71.00 | 2269 | 93.00 | 3216 | 147.00 | 215 |
| 48.00 | 223 | 72.00 | 511 | 94.00 | 9904 | 168.00 | 406 |
| 49.00 | 3484 | 73.00 | 4046 | 95.00 | 92842 | 174.00 | 52226 |
| 50.00 | 18591 | 74.00 | 11757 | 96.00 | 6316 | 175.00 | 3768 |
| 51.00 | 6458 | 75.00 | 36594 | 97.00 | 708 | 176.00 | 52354 |
| 52.00 | 268 | 76.00 | 3623 | 99.00 | 222 | 177.00 | 3273 |
| 55.00 | 3130 | 77.00 | 2203 | 104.00 | 882 | 186.00 | 208 |
| 56.00 | 2674 | 78.00 | 1381 | 105.00 | 4476 | 207.00 | 924 |
| 57.00 | 6565 | 79.00 | 1993 | 106.00 | 638 | | |
| 60.00 | 585 | 80.00 | 244 | 115.00 | 1311 | | |

303760

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4667.d



Date : 16-OCT-98 09:47:00

Client ID: EBFB289 50ng

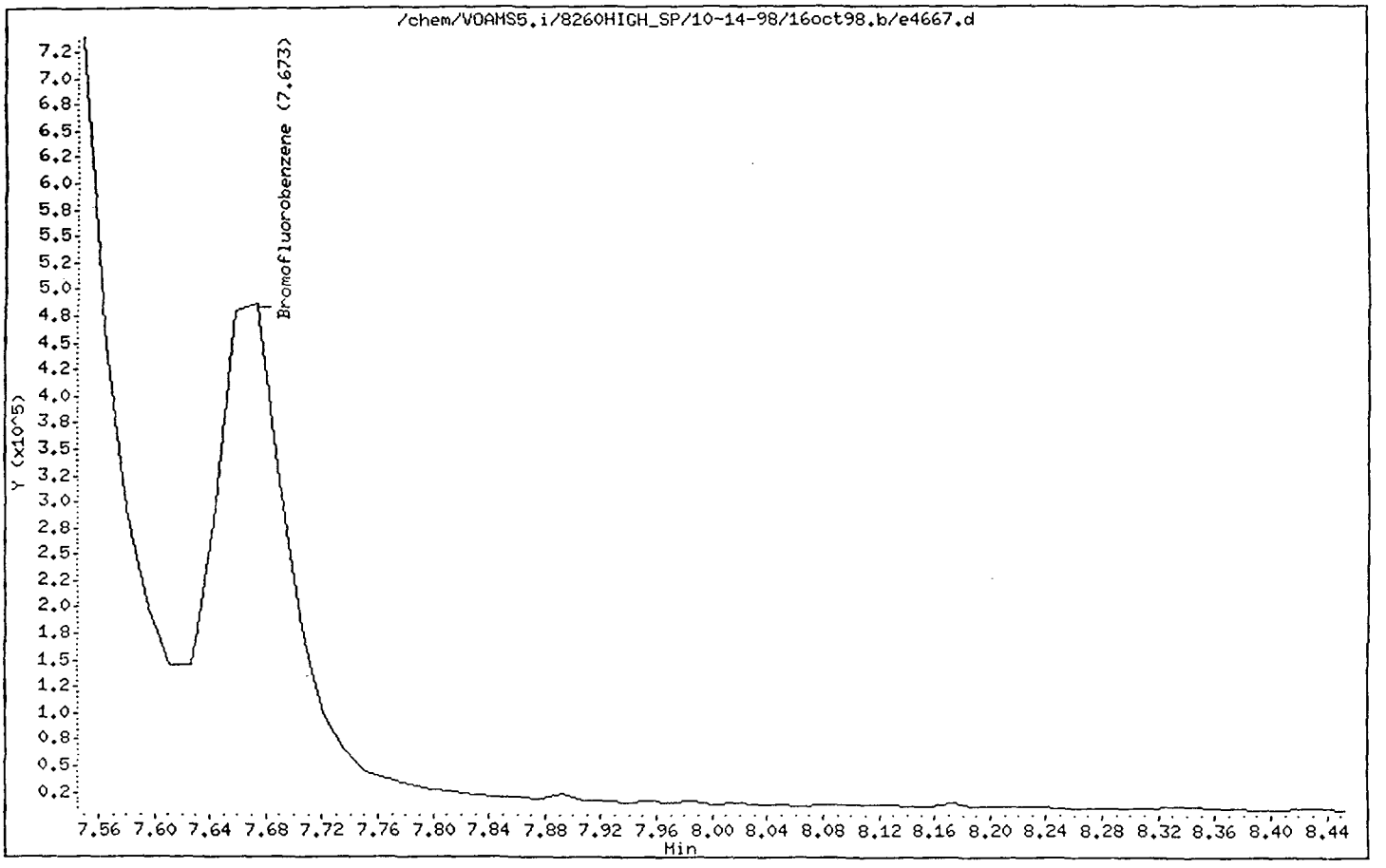
Instrument: VOAMS5.i

Sample Info: EBFB289 50ng

Operator: VOAMS 5

Column phase: DB-624

Column diameter: 0.53




303761

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 |
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303762

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

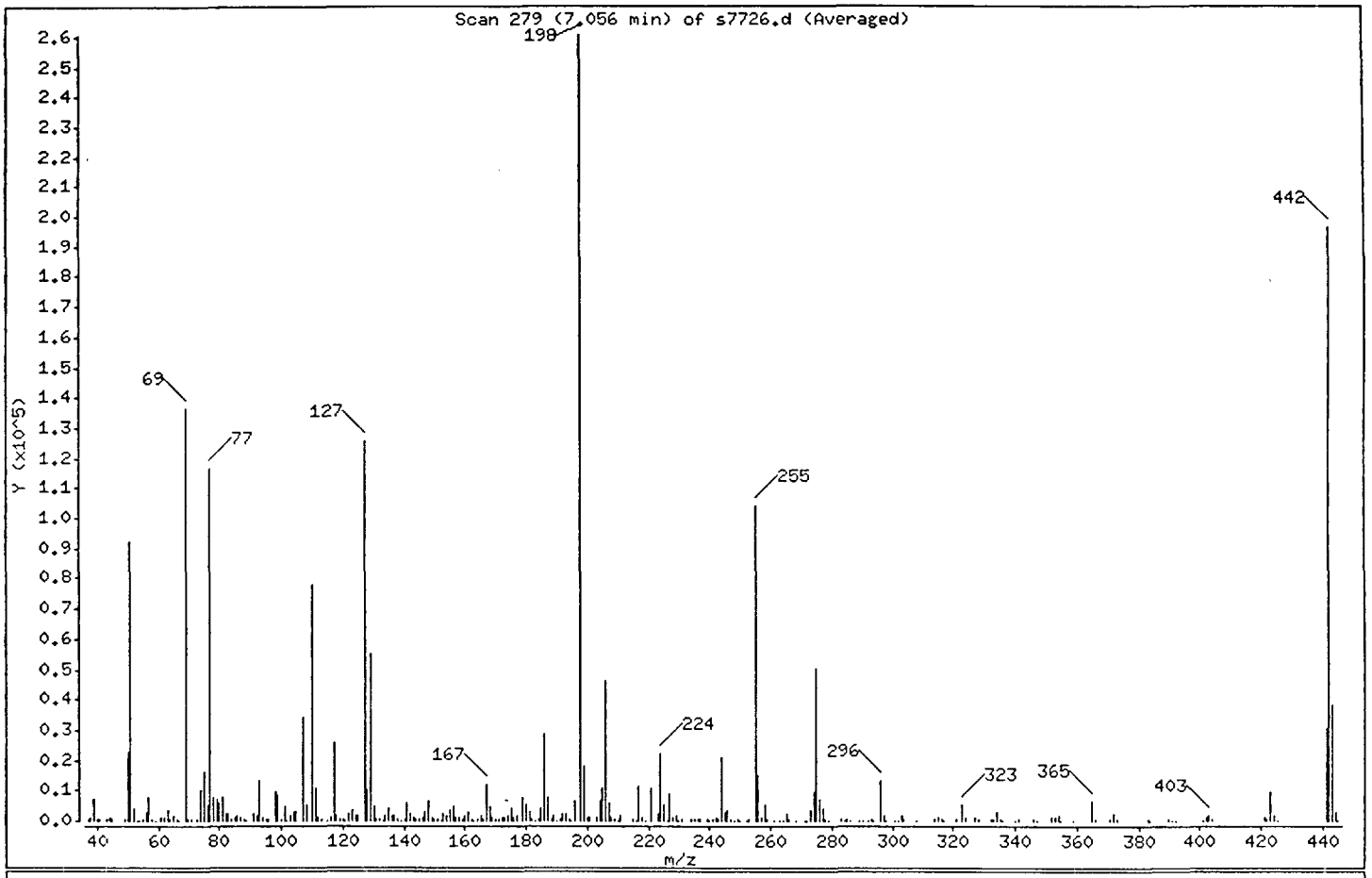
Operator: BNA2

303763

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 | 35.44 |
| 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

303764

Operator: BNA2

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

303765

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

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 |
|---|---|---|---|---|---|---|---|

303766

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

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

Client ID:

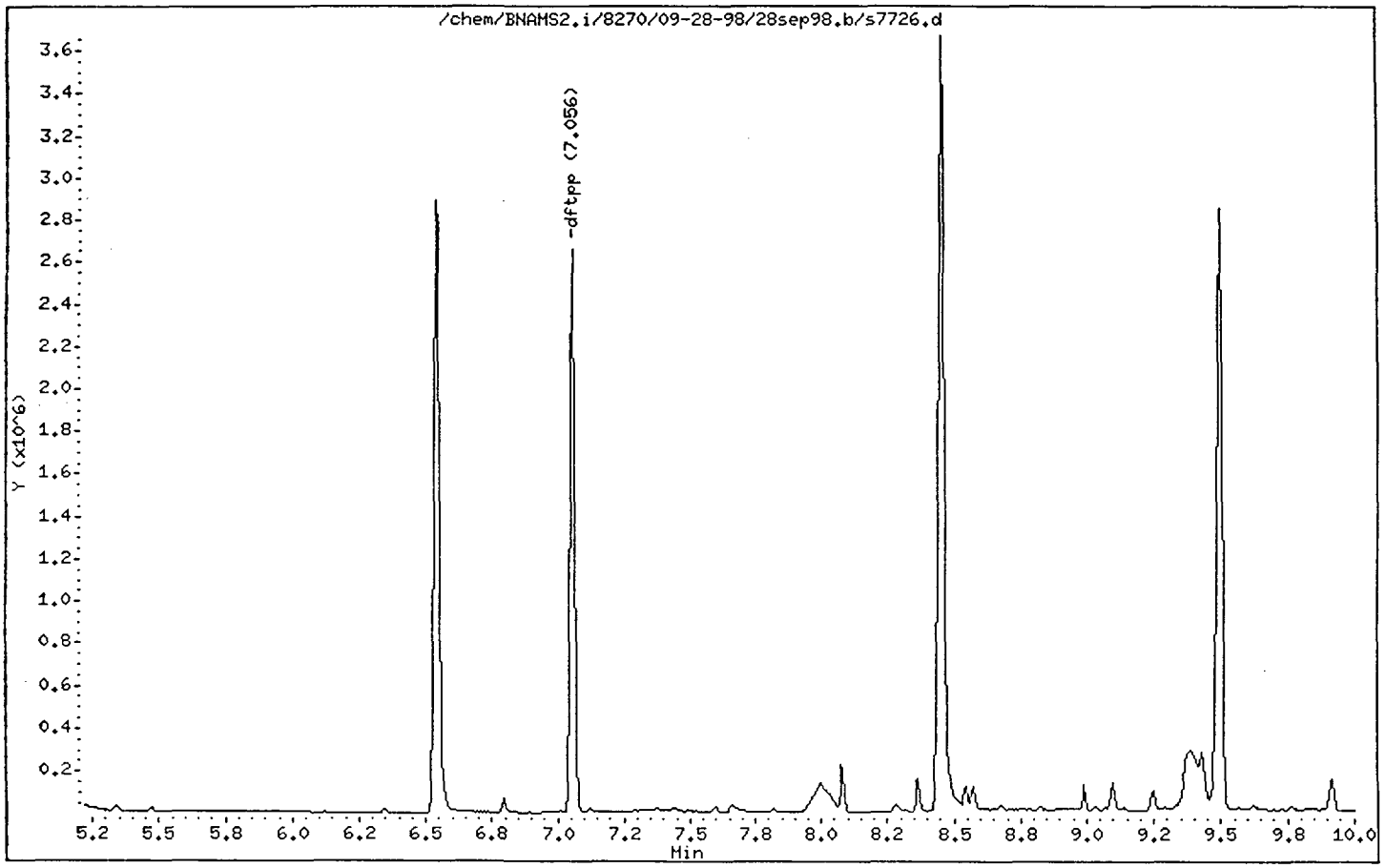
Instrument: BNAMS2.i

Sample Info: SDFT271

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303767

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 | | | | | |
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| 18 | | | | | |

303768

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

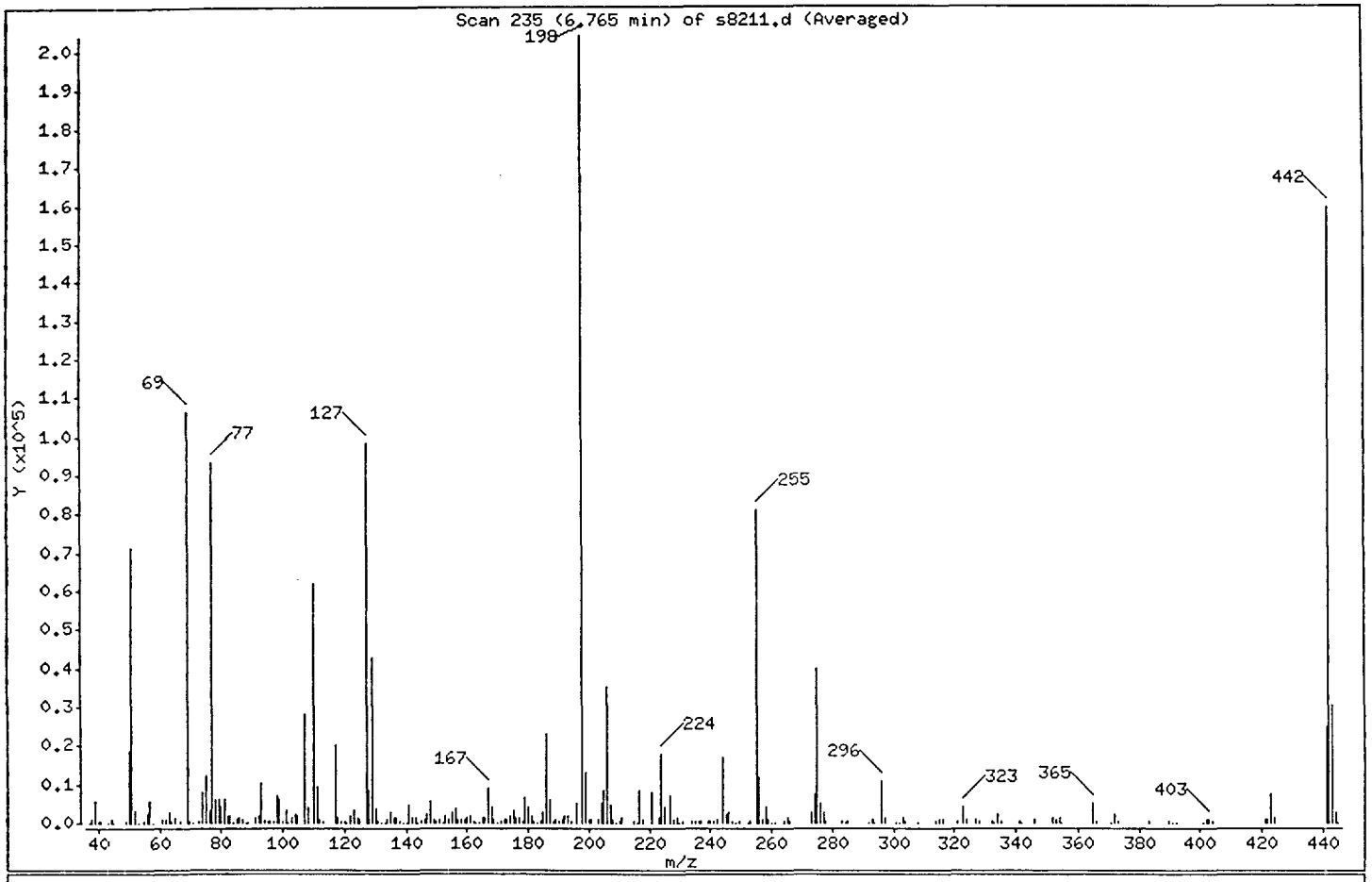
Operator: BNA2

303769

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 303770

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

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 | | |

303771

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

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

Client ID:

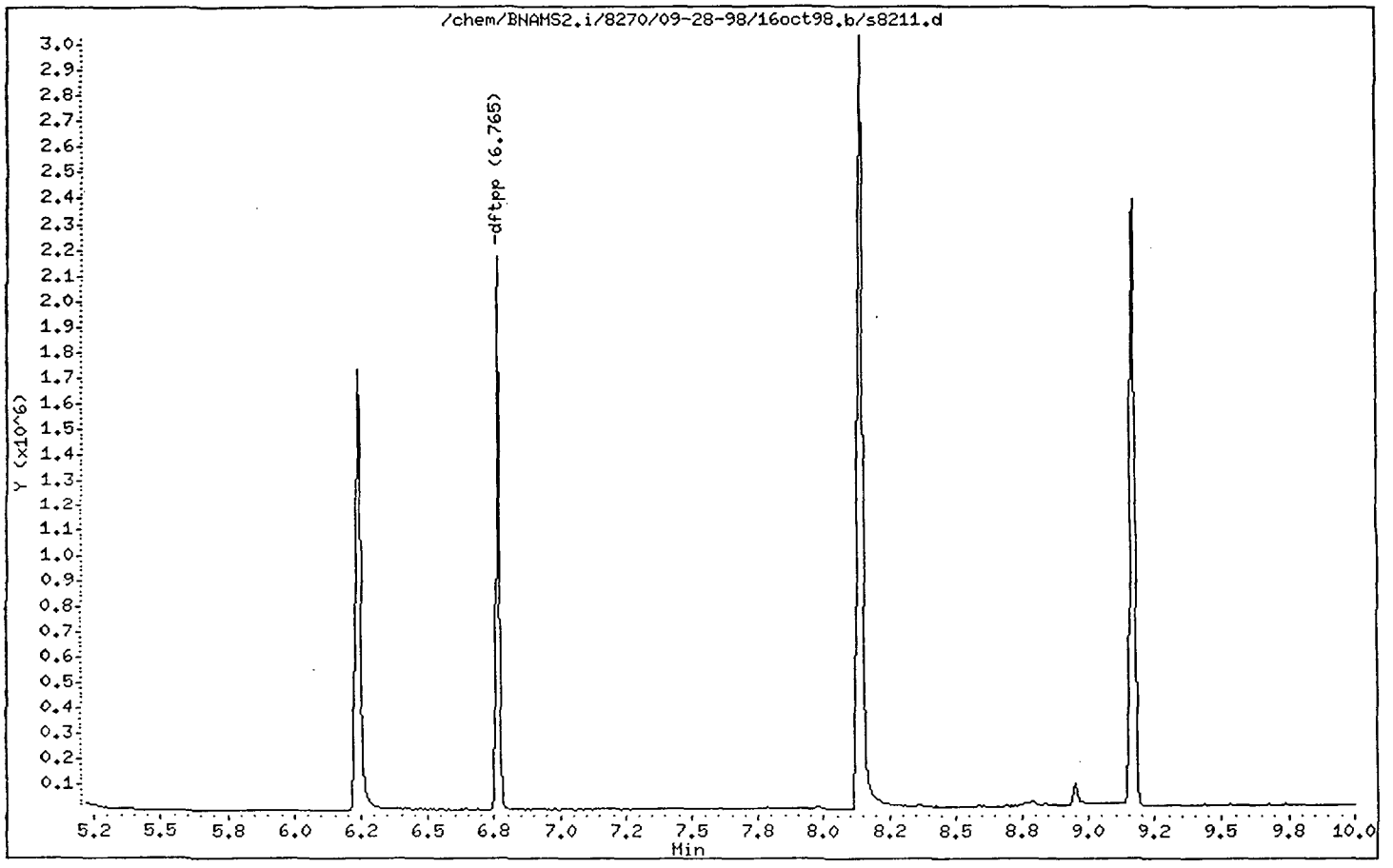
Instrument: BNAMS2.i

Sample Info: SDFT289

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303772

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 | | | | | |
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| 18 | | | | | |



303773

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

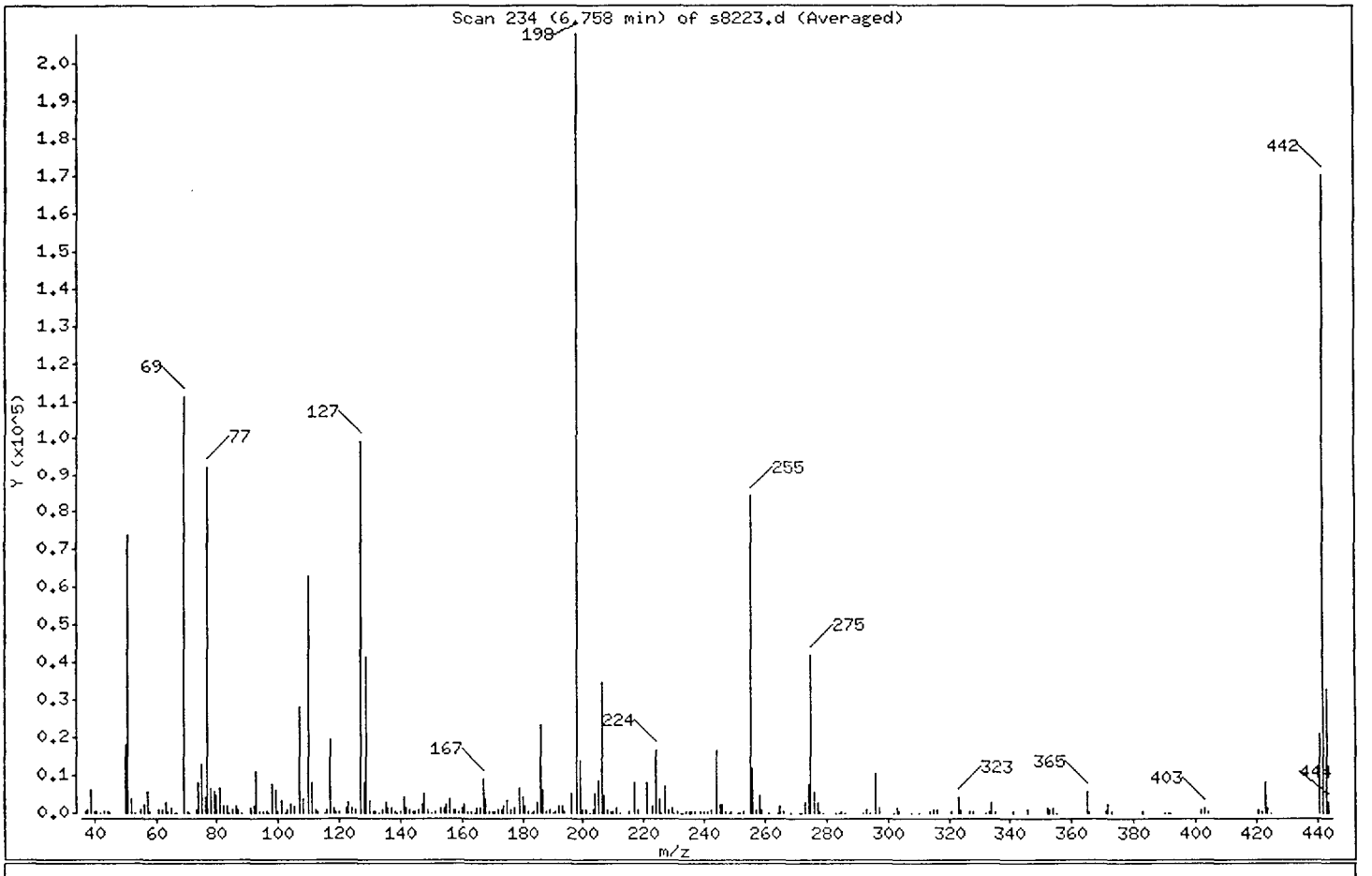
Operator: BNA2

303774

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

303775

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

303776

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:

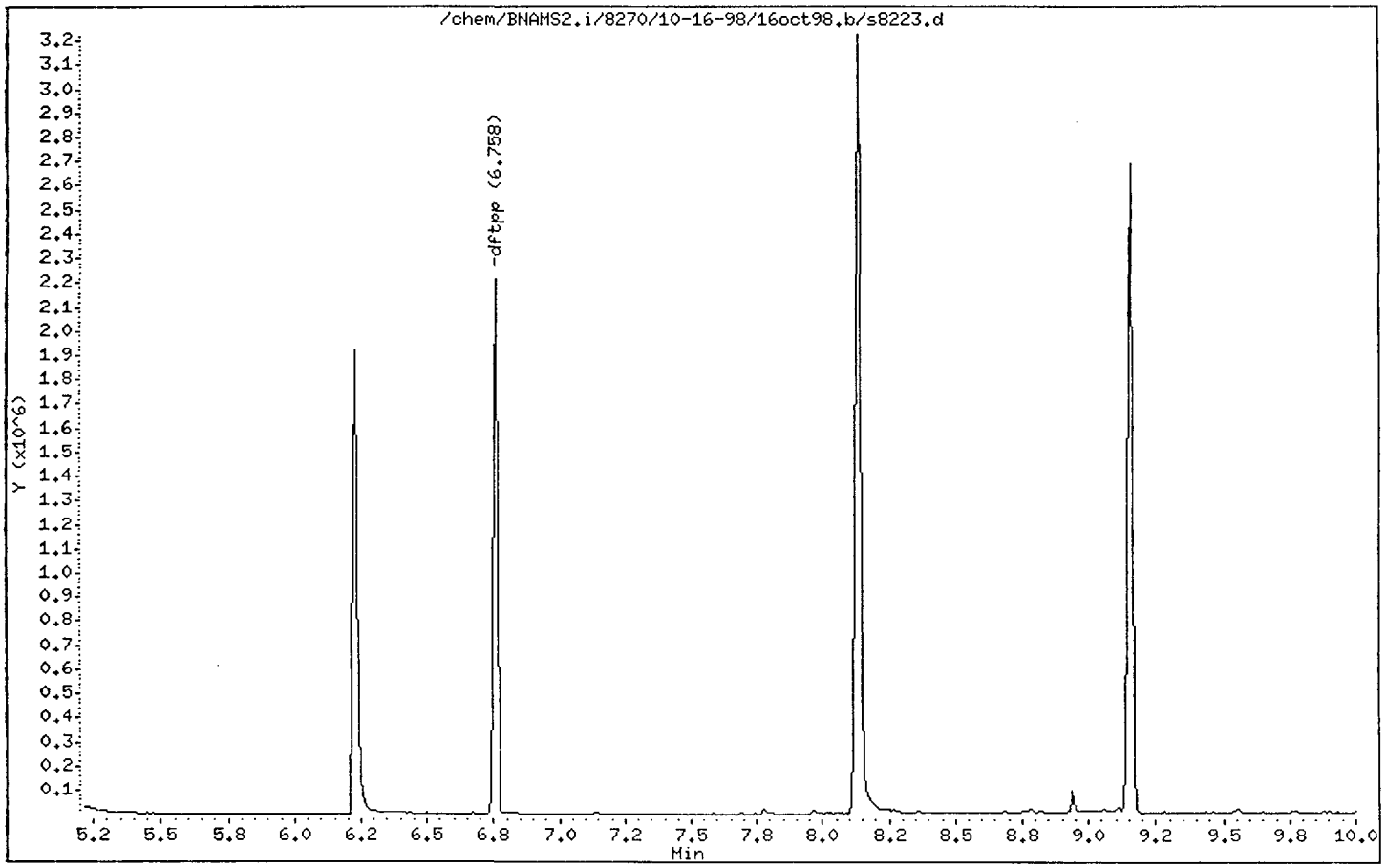
Instrument: BNAMS2.i

Sample Info: SDFT289A

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303777

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: S8289 DFTPP Injection Date: 10/20/98

Instrument ID: BNAMS2 DFTPP Injection Time: 0941

| 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 | 52.8 |
| 70 | Less than 2.0% of mass 69 | 0.3 ( 0.7)1 |
| 127 | 40.0 - 60.0% of mass 198 | 49.0 |
| 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 | 20.2 |
| 365 | Greater than 1.0% of mass 198 | 2.58 |
| 441 | 0.0 - 100.0% of mass 443 | 13.0 ( 77.6)2 |
| 442 | 40.0 - 110.0% of mass 198 | 82.8 |
| 443 | 17.0 - 23.0% of mass 442 | 16.7 ( 20.1)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 | SSTD293 | SSTD293 | S8290 | 10/20/98 | 1004 |
| 02 | SSNDS-1A_0-0 | 88562 | S8301 | 10/20/98 | 1841 |
| 03 | SSNDS-2A_0-0 | 88563 | S8302 | 10/20/98 | 1926 |
| 04 | | | | | |
| 05 | | | | | |
| 06 | | | | | |
| 07 | | | | | |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |

303778

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8289.d

Date : 20-OCT-1998 09:41

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT293

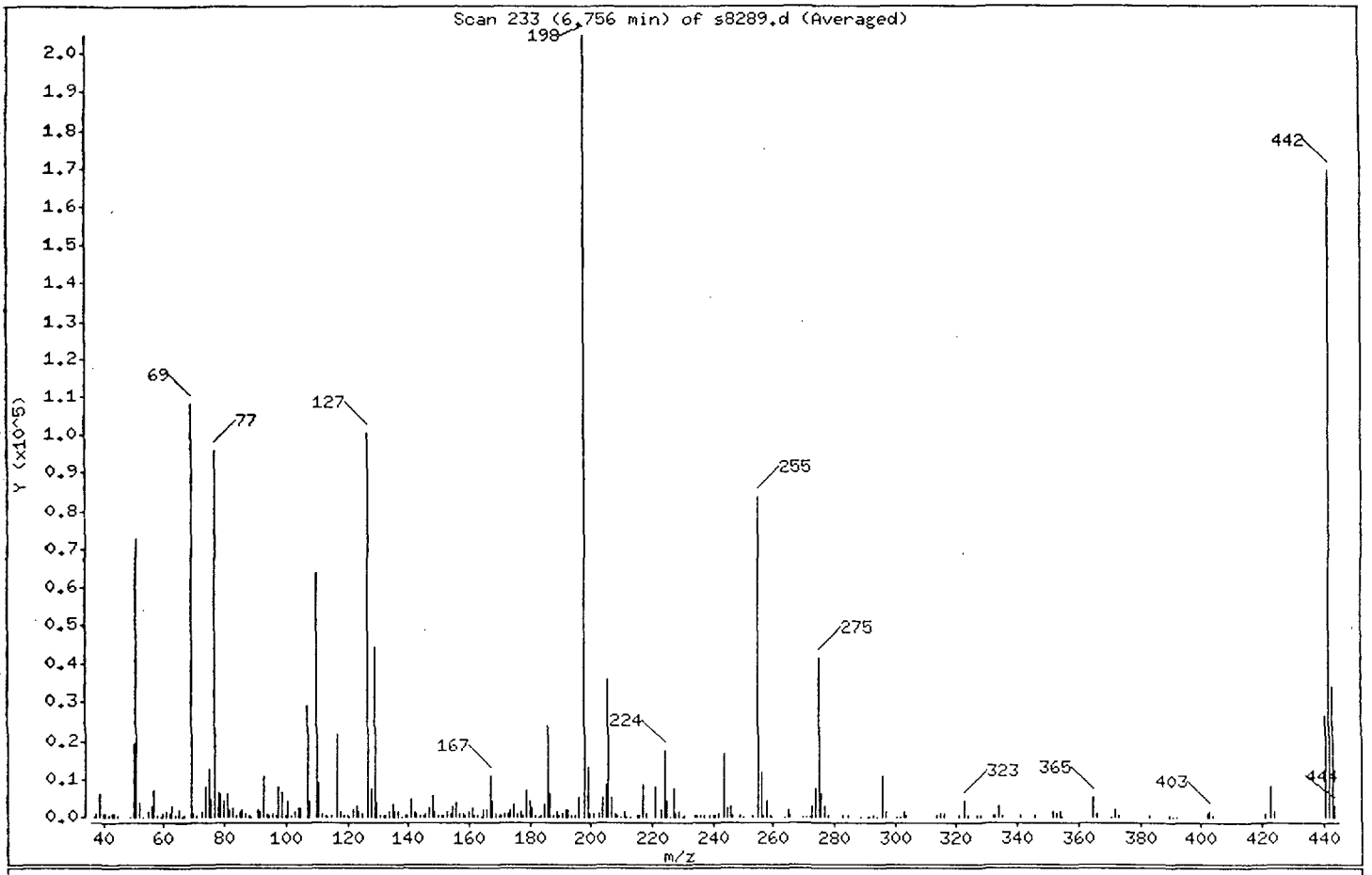
Operator: BNA2

303779

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 | 35.53 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 52.82 |
| 70 | Less than 2.00% of mass 69 | 0.35 ( 0.66) |
| 127 | 40.00 - 60.00% of mass 198 | 49.04 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.56 |
| 275 | 10.00 - 30.00% of mass 198 | 20.20 |
| 365 | Greater than 1.00% of mass 198 | 2.58 |
| 441 | 0.01 - 100.00% of mass 443 | 12.95 ( 77.65) |
| 442 | 40.00 - 110.00% of mass 198 | 82.79 |
| 443 | 17.00 - 23.00% of mass 442 | 16.68 ( 20.15) |

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8289.d

Date : 20-OCT-1998 09:41

Client ID: Instrument: BNAMS2.i

Sample Info: SDFT293

Operator: BNA2 303780

Column phase: DB-5 Column diameter: 0.25

Data File: s8289.d

Spectrum: Scan 234 (6.756 min) of s8289.d (Averaged)

Location of Maximum: 198.00

Number of points: 261

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 37.00 | 222 | 112.00 | 994 | 180.00 | 4296 | 260.00 | 89 |
| 38.00 | 848 | 113.00 | 473 | 181.00 | 2230 | 264.00 | 214 |
| 39.00 | 5963 | 114.00 | 73 | 182.00 | 402 | 265.00 | 1837 |
| 40.00 | 918 | 115.00 | 370 | 183.00 | 226 | 266.00 | 505 |
| 41.00 | 904 | 117.00 | 21683 | 184.00 | 348 | 270.00 | 76 |
| 42.00 | 286 | 118.00 | 1593 | 185.00 | 3178 | 271.00 | 182 |
| 43.00 | 1088 | 119.00 | 285 | 186.00 | 23976 | 272.00 | 220 |
| 44.00 | 851 | 120.00 | 353 | 187.00 | 6219 | 273.00 | 2756 |
| 45.00 | 406 | 121.00 | 220 | 188.00 | 690 | 274.00 | 7698 |
| 49.00 | 202 | 122.00 | 1862 | 189.00 | 1232 | 275.00 | 41389 |
| 50.00 | 19192 | 123.00 | 2686 | 190.00 | 317 | 276.00 | 5933 |
| 51.00 | 72784 | 124.00 | 1326 | 191.00 | 734 | 277.00 | 3041 |
| 52.00 | 3781 | 125.00 | 1172 | 192.00 | 1850 | 278.00 | 517 |
| 53.00 | 214 | 127.00 | 100464 | 193.00 | 1873 | 283.00 | 268 |
| 55.00 | 1249 | 128.00 | 7718 | 194.00 | 398 | 285.00 | 482 |
| 56.00 | 2679 | 129.00 | 44256 | 195.00 | 396 | 289.00 | 75 |
| 57.00 | 7011 | 130.00 | 3610 | 196.00 | 5076 | 291.00 | 73 |
| 58.00 | 299 | 131.00 | 636 | 198.00 | 204864 | 292.00 | 73 |
| 59.00 | 81 | 132.00 | 459 | 199.00 | 13444 | 293.00 | 697 |
| 60.00 | 741 | 133.00 | 388 | 200.00 | 975 | 294.00 | 115 |
| 61.00 | 1203 | 134.00 | 1188 | 201.00 | 985 | 296.00 | 10825 |
| 62.00 | 1048 | 135.00 | 3120 | 203.00 | 1124 | 297.00 | 1407 |
| 63.00 | 3004 | 136.00 | 1303 | 204.00 | 5212 | 301.00 | 139 |
| 64.00 | 464 | 137.00 | 1497 | 205.00 | 8559 | 302.00 | 176 |
| 65.00 | 1657 | 138.00 | 200 | 206.00 | 36080 | 303.00 | 1405 |
| 66.00 | 70 | 139.00 | 419 | 207.00 | 5095 | 304.00 | 311 |
| 67.00 | 478 | 140.00 | 416 | 208.00 | 1140 | 314.00 | 542 |
| 69.00 | 108205 | 141.00 | 4869 | 209.00 | 357 | 315.00 | 1156 |
| 70.00 | 713 | 142.00 | 1638 | 210.00 | 125 | 316.00 | 739 |
| 71.00 | 396 | 143.00 | 1146 | 211.00 | 1351 | 321.00 | 436 |
| 73.00 | 1539 | 144.00 | 280 | 212.00 | 70 | 323.00 | 4390 |
| 74.00 | 7886 | 145.00 | 238 | 213.00 | 79 | 324.00 | 590 |
| 75.00 | 12674 | 146.00 | 832 | 215.00 | 340 | 327.00 | 678 |
| 76.00 | 4549 | 147.00 | 2594 | 216.00 | 338 | 328.00 | 381 |
| 77.00 | 95845 | 148.00 | 5607 | 217.00 | 8387 | 332.00 | 247 |

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8289.d

Date : 20-OCT-1998 09:41

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT293

Operator: BNA2

303781

Column phase: DB-5

Column diameter: 0.25

Data File: s8289.d

Spectrum: Scan 234 (6.756 min) of s8289.d (Averaged)

Location of Maximum: 198.00

Number of points: 261

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 78.00 | 6641 | 149.00 | 1257 | 218.00 | 1012 | 333.00 | 306 |
| 79.00 | 5978 | 150.00 | 276 | 221.00 | 8226 | 334.00 | 2908 |
| 80.00 | 4432 | 151.00 | 647 | 223.00 | 2042 | 335.00 | 602 |
| 81.00 | 6208 | 152.00 | 540 | 224.00 | 17670 | 341.00 | 402 |
| 82.00 | 1886 | 153.00 | 1403 | 225.00 | 4128 | 346.00 | 667 |
| 83.00 | 2242 | 154.00 | 1148 | 226.00 | 183 | 352.00 | 1260 |
| 84.00 | 544 | 155.00 | 2822 | 227.00 | 7467 | 353.00 | 850 |
| 85.00 | 1345 | 156.00 | 3619 | 228.00 | 1083 | 354.00 | 1270 |
| 86.00 | 1870 | 157.00 | 1042 | 229.00 | 1498 | 355.00 | 181 |
| 87.00 | 1025 | 158.00 | 859 | 230.00 | 197 | 365.00 | 5285 |
| 88.00 | 402 | 159.00 | 691 | 231.00 | 669 | 366.00 | 740 |
| 89.00 | 167 | 160.00 | 1566 | 234.00 | 455 | 371.00 | 209 |
| 91.00 | 1783 | 161.00 | 2304 | 235.00 | 441 | 372.00 | 2040 |
| 92.00 | 1584 | 162.00 | 672 | 236.00 | 409 | 373.00 | 515 |
| 93.00 | 10836 | 163.00 | 256 | 237.00 | 505 | 383.00 | 578 |
| 94.00 | 859 | 164.00 | 128 | 239.00 | 322 | 390.00 | 273 |
| 95.00 | 447 | 165.00 | 1722 | 240.00 | 276 | 391.00 | 70 |
| 96.00 | 738 | 166.00 | 1748 | 241.00 | 401 | 392.00 | 74 |
| 97.00 | 687 | 167.00 | 10707 | 242.00 | 923 | 402.00 | 1038 |
| 98.00 | 7942 | 168.00 | 4330 | 244.00 | 16644 | 403.00 | 1269 |
| 99.00 | 6542 | 169.00 | 777 | 245.00 | 2445 | 404.00 | 410 |
| 100.00 | 639 | 170.00 | 273 | 246.00 | 2826 | 421.00 | 979 |
| 101.00 | 4177 | 171.00 | 536 | 247.00 | 404 | 423.00 | 8220 |
| 102.00 | 256 | 172.00 | 911 | 249.00 | 571 | 424.00 | 1506 |
| 103.00 | 1282 | 173.00 | 1029 | 250.00 | 69 | 441.00 | 26530 |
| 104.00 | 2385 | 174.00 | 1777 | 253.00 | 384 | 442.00 | 169597 |
| 105.00 | 2243 | 175.00 | 3185 | 255.00 | 83365 | 443.00 | 34168 |
| 107.00 | 29262 | 176.00 | 1154 | 256.00 | 11925 | 444.00 | 2831 |
| 108.00 | 4149 | 177.00 | 1446 | 257.00 | 488 | | |
| 110.00 | 63837 | 178.00 | 282 | 258.00 | 4105 | | |
| 111.00 | 9146 | 179.00 | 7062 | 259.00 | 548 | | |

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8289.d

Date : 20-OCT-1998 09:41

Client ID:

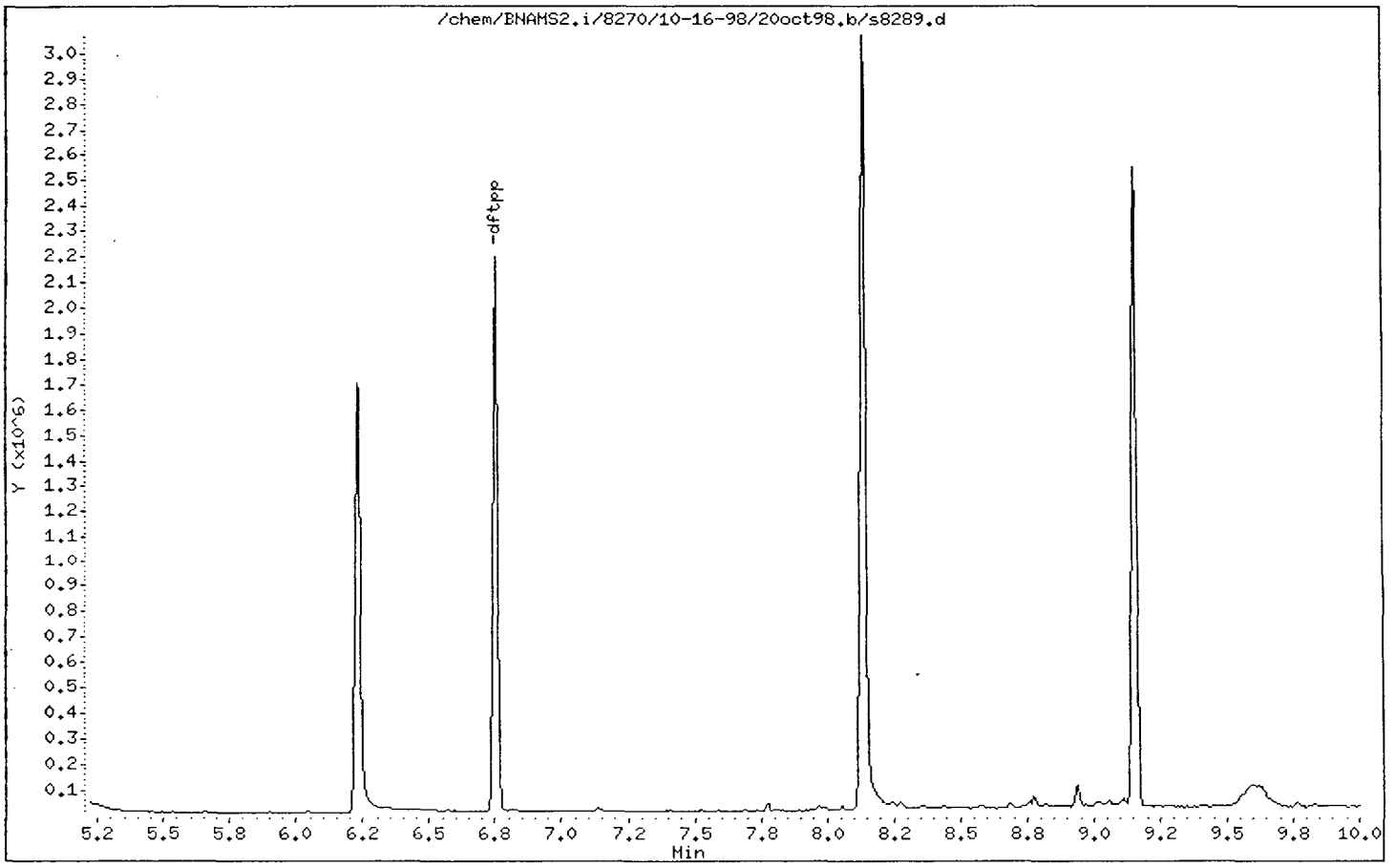
Instrument: BNAMS2.i

Sample Info: SDFT293

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303782

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: S8304 DFTPP Injection Date: 10/20/98

Instrument ID: BNAMS2 DFTPP Injection Time: 2122

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 36.4 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 55.6 |
| 70 | Less than 2.0% of mass 69 | 0.3 ( 0.5)1 |
| 127 | 40.0 - 60.0% of mass 198 | 47.7 |
| 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 | 2.66 |
| 441 | 0.0 - 100.0% of mass 443 | 9.9 ( 66.0)2 |
| 442 | 40.0 - 110.0% of mass 198 | 76.0 |
| 443 | 17.0 - 23.0% of mass 442 | 15.0 ( 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 | SSTD293A | SSTD293A | S8305 | 10/20/98 | 2146 |
| 02 | SSFS-1_0-0.5 | 88565 | S8315 | 10/21/98 | 0512 |
| 03 | SSCB-1_2-2.5 | 88566 | S8316 | 10/21/98 | 0557 |
| 04 | | | | | |
| 05 | | | | | |
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| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |

303783

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8304.d

Date : 20-OCT-98 21:22:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT293A

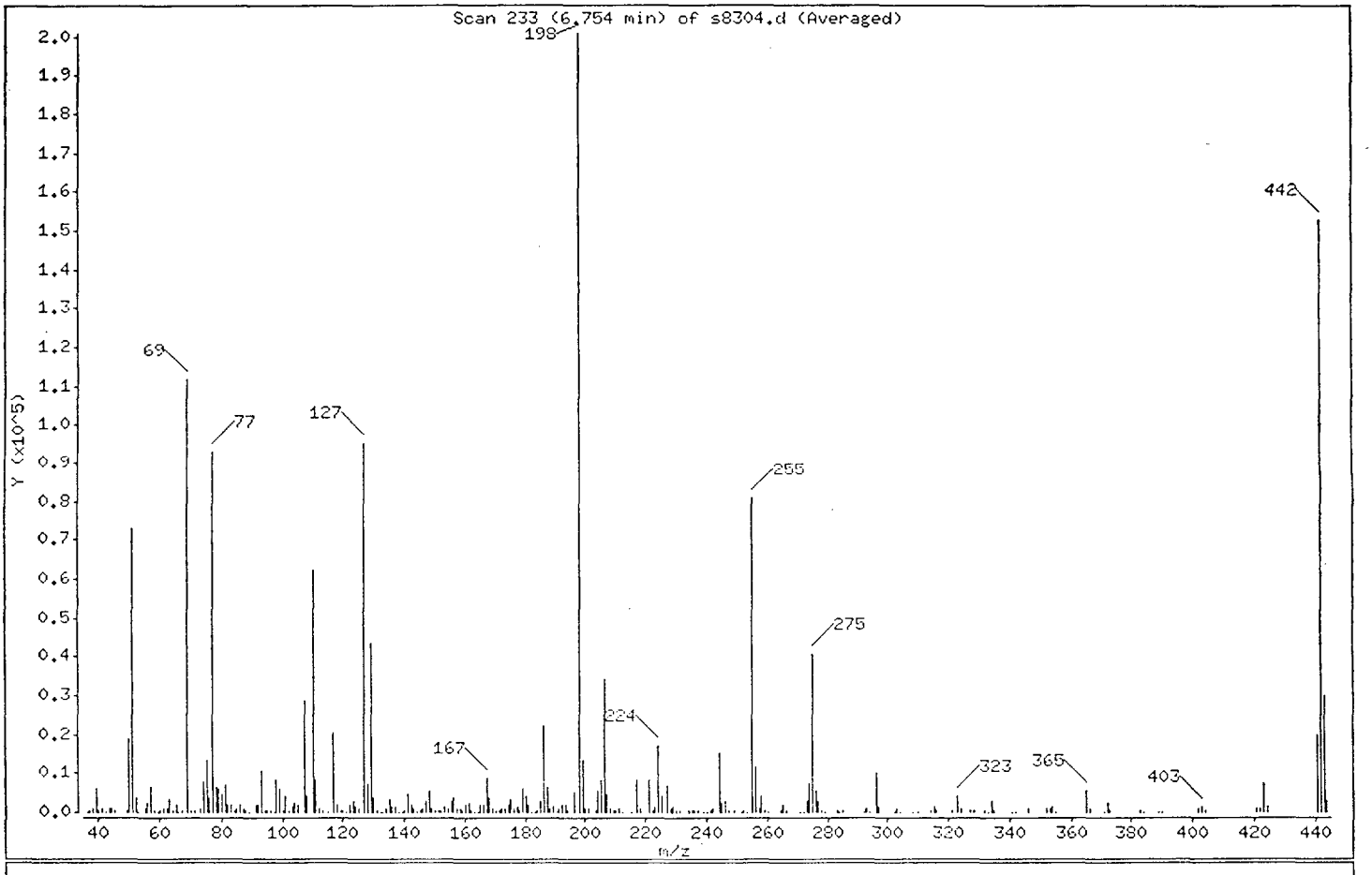
Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

303784

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 | 36.37 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 55.63 |
| 70 | Less than 2.00% of mass 69 | 0.30 ( 0.53) |
| 127 | 40.00 - 60.00% of mass 198 | 47.68 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.63 |
| 275 | 10.00 - 30.00% of mass 198 | 20.32 |
| 365 | Greater than 1.00% of mass 198 | 2.66 |
| 441 | 0.01 - 100.00% of mass 443 | 9.92 ( 65.99) |
| 442 | 40.00 - 110.00% of mass 198 | 75.98 |
| 443 | 17.00 - 23.00% of mass 442 | 15.02 ( 19.77) |

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8304.d

Date : 20-OCT-98 21:22:00

Client ID:

Instrument: BNAMS2.i

Sample Info: SDFT293A

Operator: BNA2

303785

Column phase: DB-5

Column diameter: 0.25

Data File: s8304.d
Spectrum: Scan 234 (6.754 min) of s8304.d (Averaged)
Location of Maximum: 198.00
Number of points: 261

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 70 | 111.00 | 8428 | 180.00 | 4186 | 265.00 | 1725 |
| 37.00 | 245 | 112.00 | 1025 | 181.00 | 1947 | 266.00 | 451 |
| 38.00 | 908 | 113.00 | 328 | 182.00 | 189 | 271.00 | 179 |
| 39.00 | 5973 | 115.00 | 110 | 183.00 | 101 | 272.00 | 88 |
| 40.00 | 689 | 117.00 | 20089 | 184.00 | 444 | 273.00 | 2604 |
| 41.00 | 742 | 118.00 | 1778 | 185.00 | 2960 | 274.00 | 7587 |
| 42.00 | 85 | 119.00 | 278 | 186.00 | 22234 | 275.00 | 40789 |
| 43.00 | 841 | 120.00 | 276 | 187.00 | 6424 | 276.00 | 5709 |
| 44.00 | 787 | 121.00 | 178 | 188.00 | 708 | 277.00 | 2851 |
| 45.00 | 291 | 122.00 | 1912 | 189.00 | 1278 | 278.00 | 476 |
| 49.00 | 233 | 123.00 | 2756 | 190.00 | 78 | 279.00 | 68 |
| 50.00 | 18919 | 124.00 | 1444 | 191.00 | 714 | 283.00 | 391 |
| 51.00 | 73008 | 125.00 | 1127 | 192.00 | 1987 | 284.00 | 196 |
| 52.00 | 3489 | 127.00 | 95725 | 193.00 | 2028 | 285.00 | 442 |
| 53.00 | 160 | 128.00 | 7400 | 194.00 | 413 | 292.00 | 67 |
| 55.00 | 952 | 129.00 | 43328 | 196.00 | 4909 | 293.00 | 750 |
| 56.00 | 2498 | 130.00 | 3546 | 198.00 | 200746 | 294.00 | 118 |
| 57.00 | 6339 | 131.00 | 628 | 199.00 | 13304 | 296.00 | 10362 |
| 58.00 | 360 | 132.00 | 202 | 200.00 | 934 | 297.00 | 1508 |
| 59.00 | 78 | 133.00 | 87 | 201.00 | 855 | 302.00 | 178 |
| 60.00 | 392 | 134.00 | 1121 | 203.00 | 690 | 303.00 | 1141 |
| 61.00 | 1115 | 135.00 | 3424 | 204.00 | 5343 | 304.00 | 157 |
| 62.00 | 968 | 136.00 | 1337 | 205.00 | 8404 | 308.00 | 80 |
| 63.00 | 3013 | 137.00 | 1572 | 206.00 | 33954 | 310.00 | 86 |
| 64.00 | 431 | 138.00 | 198 | 207.00 | 4637 | 314.00 | 522 |
| 65.00 | 1627 | 139.00 | 196 | 208.00 | 1029 | 315.00 | 1179 |
| 66.00 | 169 | 140.00 | 309 | 209.00 | 418 | 316.00 | 614 |
| 67.00 | 280 | 141.00 | 4731 | 210.00 | 348 | 321.00 | 305 |
| 69.00 | 111682 | 142.00 | 1620 | 211.00 | 986 | 323.00 | 4212 |
| 70.00 | 595 | 143.00 | 1066 | 212.00 | 91 | 324.00 | 769 |
| 71.00 | 385 | 144.00 | 205 | 215.00 | 226 | 327.00 | 591 |
| 73.00 | 1137 | 145.00 | 291 | 217.00 | 8198 | 328.00 | 398 |
| 74.00 | 7967 | 146.00 | 909 | 218.00 | 1097 | 332.00 | 232 |
| 75.00 | 13431 | 147.00 | 2588 | 221.00 | 8336 | 333.00 | 184 |
| 76.00 | 3531 | 148.00 | 5520 | 222.00 | 349 | 334.00 | 2601 |

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8304.d

Date : 20-OCT-98 21:22:00

Client ID: Instrument: BNAMS2.i

Sample Info: SDFT293A

Operator: BNA2 303786

Column phase: DB-5 Column diameter: 0.25

Data File: s8304.d
Spectrum: Scan 234 (6.754 min) of s8304.d (Averaged)
Location of Maximum: 198.00
Number of points: 261

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 77.00 | 93053 | 149.00 | 1077 | 223.00 | 1474 | 335.00 | 562 |
| 78.00 | 6572 | 150.00 | 417 | 224.00 | 17300 | 341.00 | 224 |
| 79.00 | 5839 | 151.00 | 664 | 225.00 | 4136 | 342.00 | 70 |
| 80.00 | 4385 | 152.00 | 487 | 227.00 | 7038 | 346.00 | 746 |
| 81.00 | 7087 | 153.00 | 1476 | 228.00 | 1051 | 352.00 | 1123 |
| 82.00 | 1660 | 154.00 | 1091 | 229.00 | 1446 | 353.00 | 816 |
| 83.00 | 1813 | 155.00 | 2684 | 230.00 | 258 | 354.00 | 1170 |
| 84.00 | 245 | 156.00 | 3469 | 231.00 | 685 | 355.00 | 183 |
| 85.00 | 1136 | 157.00 | 946 | 234.00 | 454 | 365.00 | 5344 |
| 86.00 | 1802 | 158.00 | 698 | 235.00 | 537 | 366.00 | 728 |
| 87.00 | 851 | 159.00 | 651 | 236.00 | 377 | 371.00 | 126 |
| 88.00 | 305 | 160.00 | 1622 | 237.00 | 507 | 372.00 | 2105 |
| 89.00 | 102 | 161.00 | 2227 | 239.00 | 172 | 373.00 | 512 |
| 91.00 | 1668 | 162.00 | 559 | 240.00 | 164 | 383.00 | 550 |
| 92.00 | 1656 | 163.00 | 170 | 241.00 | 472 | 384.00 | 69 |
| 93.00 | 10606 | 164.00 | 187 | 242.00 | 995 | 389.00 | 66 |
| 94.00 | 676 | 165.00 | 1644 | 244.00 | 15433 | 390.00 | 229 |
| 95.00 | 457 | 166.00 | 1684 | 245.00 | 2339 | 402.00 | 789 |
| 96.00 | 673 | 167.00 | 8833 | 246.00 | 2682 | 403.00 | 1250 |
| 97.00 | 211 | 168.00 | 3730 | 247.00 | 535 | 404.00 | 435 |
| 98.00 | 8164 | 169.00 | 869 | 249.00 | 446 | 421.00 | 1029 |
| 99.00 | 6225 | 170.00 | 271 | 251.00 | 87 | 422.00 | 888 |
| 100.00 | 497 | 171.00 | 347 | 252.00 | 242 | 423.00 | 7283 |
| 101.00 | 3935 | 172.00 | 838 | 253.00 | 220 | 424.00 | 1360 |
| 102.00 | 270 | 173.00 | 1089 | 255.00 | 80786 | 441.00 | 19904 |
| 103.00 | 1346 | 174.00 | 1720 | 256.00 | 11717 | 442.00 | 152533 |
| 104.00 | 2497 | 175.00 | 3057 | 257.00 | 931 | 443.00 | 30160 |
| 105.00 | 1994 | 176.00 | 1089 | 258.00 | 4315 | 444.00 | 2543 |
| 107.00 | 28477 | 177.00 | 1513 | 259.00 | 636 | | |
| 108.00 | 3950 | 178.00 | 564 | 260.00 | 75 | | |
| 110.00 | 62480 | 179.00 | 6173 | 264.00 | 260 | | |

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8304.d

Date : 20-OCT-98 21:22:00

Client ID:

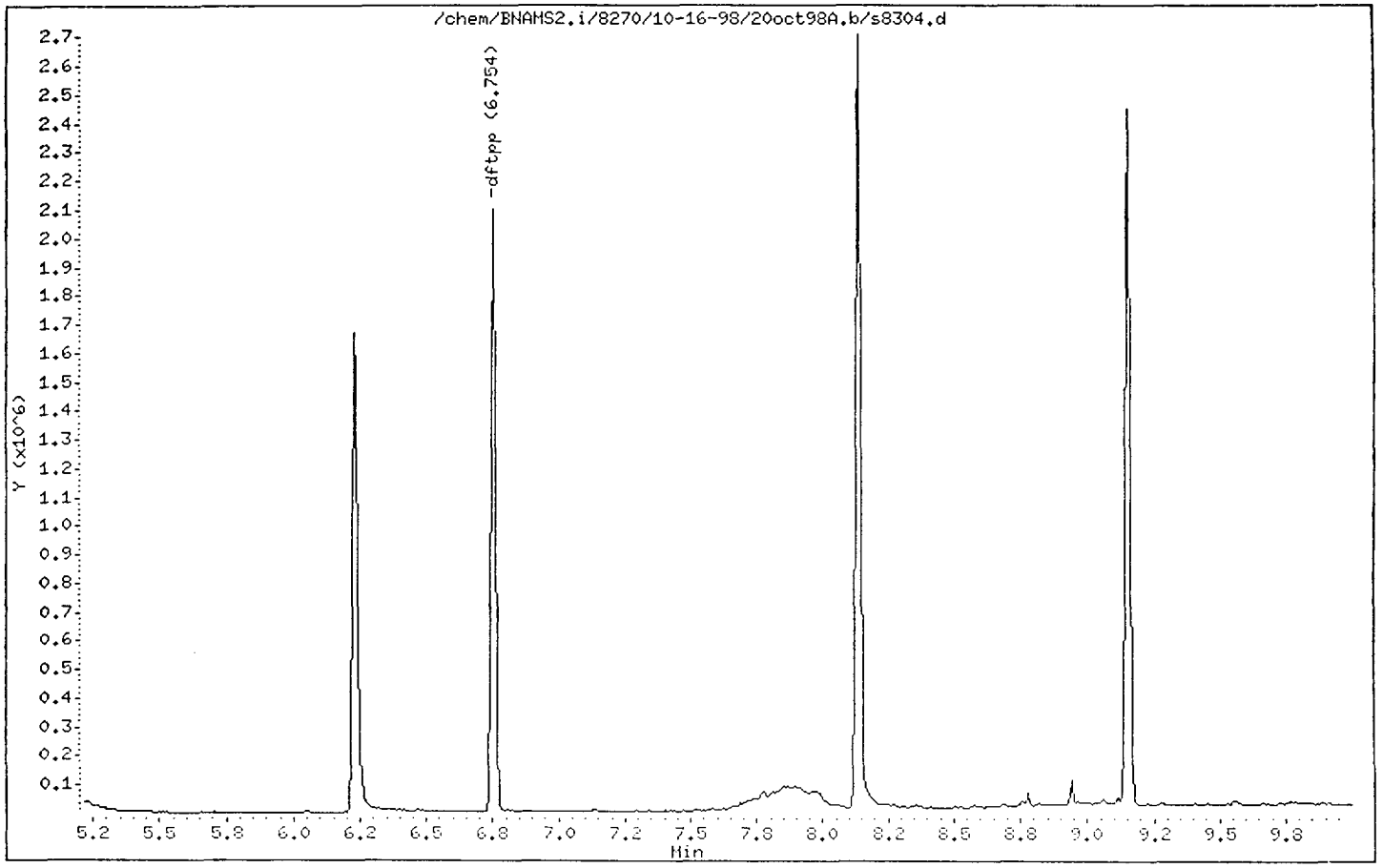
Instrument: BNAMS2.i

Sample Info: SDFT293A

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303787

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: Q7338 DFTPP Injection Date: 10/07/98

Instrument ID: BNAMS5 DFTPP Injection Time: 1400

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 51.8 | |
| 68 | Less than 2.0% of mass 69 | 0.0 | ( 0.0)1 |
| 69 | Mass 69 relative abundance | 49.2 | |
| 70 | Less than 2.0% of mass 69 | 0.2 | ( 0.4)1 |
| 127 | 40.0 - 60.0% of mass 198 | 49.7 | |
| 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 | 6.7 | |
| 275 | 10.0 - 30.0% of mass 198 | 23.8 | |
| 365 | Greater than 1.0% of mass 198 | 2.79 | |
| 441 | 0.0 - 100.0% of mass 443 | 14.3 | ( 83.7)2 |
| 442 | 40.0 - 110.0% of mass 198 | 87.2 | |
| 443 | 17.0 - 23.0% of mass 442 | 17.1 | ( 19.7)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 | QSTD050 | QSTD050 | Q7339 | 10/07/98 | 1421 |
| 02 | QSTD120 | QSTD120 | Q7340 | 10/07/98 | 1508 |
| 03 | QSTD080 | QSTD080 | Q7341 | 10/07/98 | 1554 |
| 04 | QSTD020 | QSTD020 | Q7342 | 10/07/98 | 1641 |
| 05 | QSTD005 | QSTD005 | Q7343 | 10/07/98 | 1728 |
| 06 | | | | | |
| 07 | | | | | |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |

303788

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7338.d

Date : 07-OCT-98 14:00:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT280

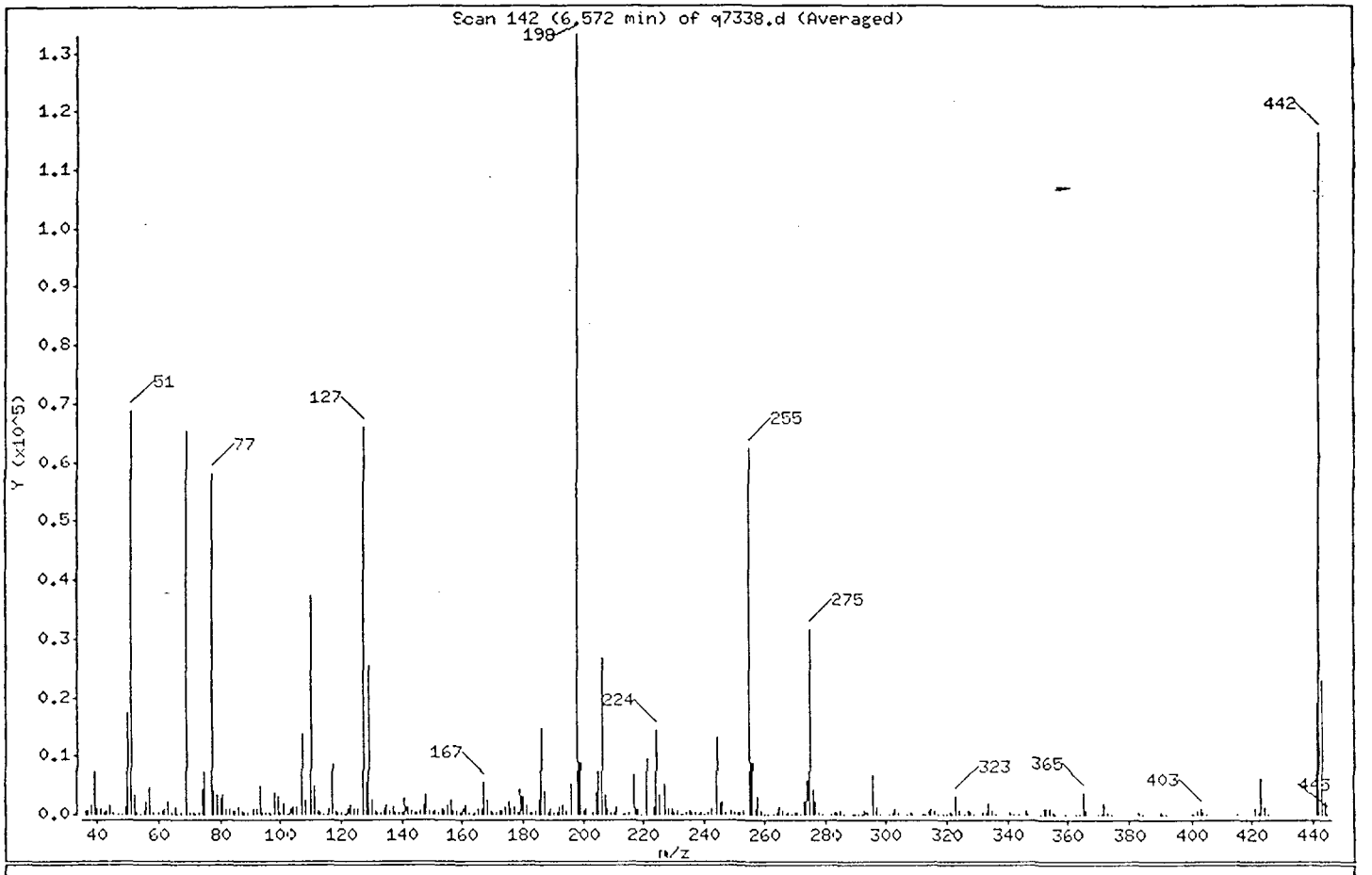
Operator: BNA2

303789

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 | 51.83 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 49.18 |
| 70 | Less than 2.00% of mass 69 | 0.19 ( 0.40) |
| 127 | 40.00 - 60.00% of mass 198 | 49.74 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.70 |
| 275 | 10.00 - 30.00% of mass 198 | 23.79 |
| 365 | Greater than 1.00% of mass 198 | 2.79 |
| 441 | 0.01 - 100.00% of mass 443 | 14.35 ( 83.69) |
| 442 | 40.00 - 110.00% of mass 198 | 87.25 |
| 443 | 17.00 - 23.00% of mass 442 | 17.14 ( 19.65) |

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7338.d

Date : 07-OCT-98 14:00:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT280

Operator: BNA2

303790

Column phase: DB-5

Column diameter: 0.25

Data File: q7338.d
Spectrum: Scan 143 (6.572 min) of q7338.d (Averaged)
Location of Maximum: 198.00
Number of points: 309

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 564 | 121.00 | 100 | 203.00 | 421 | 294.00 | 217 |
| 37.00 | 563 | 122.00 | 1029 | 204.00 | 3801 | 296.00 | 6678 |
| 38.00 | 1537 | 123.00 | 1481 | 205.00 | 7231 | 297.00 | 1226 |
| 39.00 | 7333 | 124.00 | 899 | 206.00 | 26693 | 298.00 | 96 |
| 40.00 | 896 | 125.00 | 1006 | 207.00 | 3513 | 301.00 | 92 |
| 41.00 | 776 | 127.00 | 66109 | 208.00 | 847 | 302.00 | 228 |
| 42.00 | 174 | 128.00 | 5453 | 209.00 | 163 | 303.00 | 909 |
| 43.00 | 534 | 129.00 | 25258 | 210.00 | 160 | 304.00 | 343 |
| 44.00 | 1375 | 130.00 | 2387 | 211.00 | 1138 | 307.00 | 37 |
| 45.00 | 246 | 131.00 | 551 | 213.00 | 59 | 308.00 | 162 |
| 47.00 | 80 | 132.00 | 405 | 214.00 | 79 | 309.00 | 45 |
| 48.00 | 96 | 133.00 | 211 | 215.00 | 363 | 312.00 | 36 |
| 49.00 | 1308 | 134.00 | 873 | 217.00 | 6687 | 313.00 | 125 |
| 50.00 | 17287 | 135.00 | 1566 | 218.00 | 924 | 314.00 | 499 |
| 51.00 | 68885 | 136.00 | 718 | 219.00 | 137 | 315.00 | 907 |
| 52.00 | 3458 | 137.00 | 1091 | 221.00 | 9354 | 316.00 | 513 |
| 53.00 | 317 | 138.00 | 264 | 223.00 | 1345 | 317.00 | 72 |
| 54.00 | 79 | 139.00 | 153 | 224.00 | 14456 | 319.00 | 34 |
| 55.00 | 644 | 140.00 | 357 | 225.00 | 3356 | 320.00 | 81 |
| 56.00 | 2093 | 141.00 | 2901 | 227.00 | 5324 | 321.00 | 339 |
| 57.00 | 4587 | 142.00 | 1218 | 228.00 | 940 | 322.00 | 42 |
| 58.00 | 299 | 143.00 | 716 | 229.00 | 1042 | 323.00 | 3137 |
| 60.00 | 184 | 144.00 | 267 | 230.00 | 301 | 324.00 | 640 |
| 61.00 | 695 | 145.00 | 208 | 231.00 | 561 | 326.00 | 66 |
| 62.00 | 830 | 146.00 | 491 | 232.00 | 96 | 327.00 | 488 |
| 63.00 | 2028 | 147.00 | 1574 | 233.00 | 53 | 328.00 | 346 |
| 64.00 | 420 | 148.00 | 3236 | 234.00 | 324 | 329.00 | 77 |
| 65.00 | 1202 | 149.00 | 652 | 235.00 | 482 | 332.00 | 199 |
| 66.00 | 148 | 150.00 | 254 | 236.00 | 312 | 333.00 | 371 |
| 67.00 | 337 | 151.00 | 491 | 237.00 | 418 | 334.00 | 1722 |
| 69.00 | 65368 | 152.00 | 196 | 238.00 | 38 | 335.00 | 525 |
| 70.00 | 259 | 153.00 | 971 | 239.00 | 276 | 336.00 | 103 |
| 71.00 | 186 | 154.00 | 740 | 240.00 | 147 | 341.00 | 324 |
| 72.00 | 148 | 155.00 | 1468 | 241.00 | 417 | 342.00 | 123 |
| 73.00 | 206 | 156.00 | 2344 | 242.00 | 776 | 344.00 | 43 |

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7338.d

Date : 07-OCT-98 14:00:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT280

Operator: BNA2

303791

Column phase: DB-5

Column diameter: 0.25

Data File: q7338.d
Spectrum: Scan 143 (6.572 min) of q7338.d (Averaged)
Location of Maximum: 198.00
Number of points: 309

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 74.00 | 4301 | 157.00 | 663 | 244.00 | 13091 | 346.00 | 594 |
| 75.00 | 7465 | 158.00 | 559 | 245.00 | 1747 | 347.00 | 56 |
| 77.00 | 57904 | 159.00 | 433 | 246.00 | 2086 | 351.00 | 103 |
| 78.00 | 3878 | 160.00 | 885 | 247.00 | 394 | 352.00 | 847 |
| 79.00 | 3384 | 161.00 | 1381 | 249.00 | 515 | 353.00 | 817 |
| 80.00 | 2655 | 162.00 | 429 | 250.00 | 214 | 354.00 | 1026 |
| 81.00 | 3358 | 163.00 | 152 | 251.00 | 223 | 355.00 | 219 |
| 82.00 | 847 | 164.00 | 285 | 252.00 | 350 | 356.00 | 36 |
| 83.00 | 897 | 165.00 | 998 | 253.00 | 655 | 359.00 | 71 |
| 84.00 | 518 | 166.00 | 943 | 255.00 | 62288 | 363.00 | 86 |
| 85.00 | 622 | 167.00 | 5569 | 256.00 | 9002 | 364.00 | 86 |
| 86.00 | 1198 | 168.00 | 2474 | 257.00 | 812 | 365.00 | 3708 |
| 87.00 | 538 | 169.00 | 466 | 258.00 | 3055 | 366.00 | 539 |
| 88.00 | 199 | 170.00 | 259 | 259.00 | 518 | 370.00 | 82 |
| 89.00 | 206 | 171.00 | 211 | 260.00 | 91 | 371.00 | 84 |
| 91.00 | 958 | 172.00 | 571 | 261.00 | 120 | 372.00 | 1829 |
| 92.00 | 838 | 173.00 | 517 | 263.00 | 34 | 373.00 | 438 |
| 93.00 | 4962 | 174.00 | 1274 | 264.00 | 398 | 374.00 | 77 |
| 94.00 | 352 | 175.00 | 2130 | 265.00 | 1126 | 383.00 | 435 |
| 95.00 | 343 | 176.00 | 841 | 266.00 | 535 | 384.00 | 89 |
| 96.00 | 449 | 177.00 | 1072 | 267.00 | 39 | 390.00 | 256 |
| 97.00 | 73 | 178.00 | 159 | 268.00 | 300 | 391.00 | 142 |
| 98.00 | 3603 | 179.00 | 4296 | 269.00 | 45 | 392.00 | 149 |
| 99.00 | 3158 | 180.00 | 2914 | 270.00 | 197 | 400.00 | 35 |
| 100.00 | 244 | 181.00 | 1405 | 271.00 | 194 | 401.00 | 64 |
| 101.00 | 1890 | 182.00 | 292 | 272.00 | 103 | 402.00 | 758 |
| 102.00 | 136 | 183.00 | 259 | 273.00 | 2232 | 403.00 | 1054 |
| 103.00 | 790 | 184.00 | 504 | 274.00 | 5822 | 404.00 | 324 |
| 104.00 | 1238 | 185.00 | 2432 | 275.00 | 31616 | 405.00 | 44 |
| 105.00 | 1239 | 186.00 | 14572 | 276.00 | 4427 | 415.00 | 89 |
| 107.00 | 13892 | 187.00 | 3914 | 277.00 | 2141 | 421.00 | 906 |
| 108.00 | 2452 | 188.00 | 308 | 278.00 | 384 | 422.00 | 333 |
| 110.00 | 37397 | 189.00 | 829 | 279.00 | 119 | 423.00 | 6257 |
| 111.00 | 5011 | 190.00 | 228 | 282.00 | 85 | 424.00 | 1339 |
| 112.00 | 628 | 191.00 | 444 | 283.00 | 338 | 425.00 | 56 |

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7338.d

Date : 07-OCT-98 14:00:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT280

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7338.d

Spectrum: Scan 143 (6.572 min) of q7338.d (Averaged)

Location of Maximum: 198.00

Number of points: 309

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 113.00 | 304 | 192.00 | 1199 | 284.00 | 221 | 441.00 | 19070 |
| 114.00 | 93 | 193.00 | 1467 | 285.00 | 470 | 442.00 | 115957 |
| 115.00 | 125 | 194.00 | 606 | 286.00 | 70 | 443.00 | 22786 |
| 116.00 | 980 | 196.00 | 5218 | 289.00 | 106 | 444.00 | 2024 |
| 117.00 | 8497 | 198.00 | 132904 | 290.00 | 126 | 445.00 | 38 |
| 118.00 | 675 | 199.00 | 8901 | 291.00 | 63 | | |
| 119.00 | 176 | 200.00 | 678 | 292.00 | 37 | | |
| 120.00 | 316 | 201.00 | 923 | 293.00 | 659 | | |

303792

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7338.d

Date : 07-OCT-98 14:00:00

Client ID:

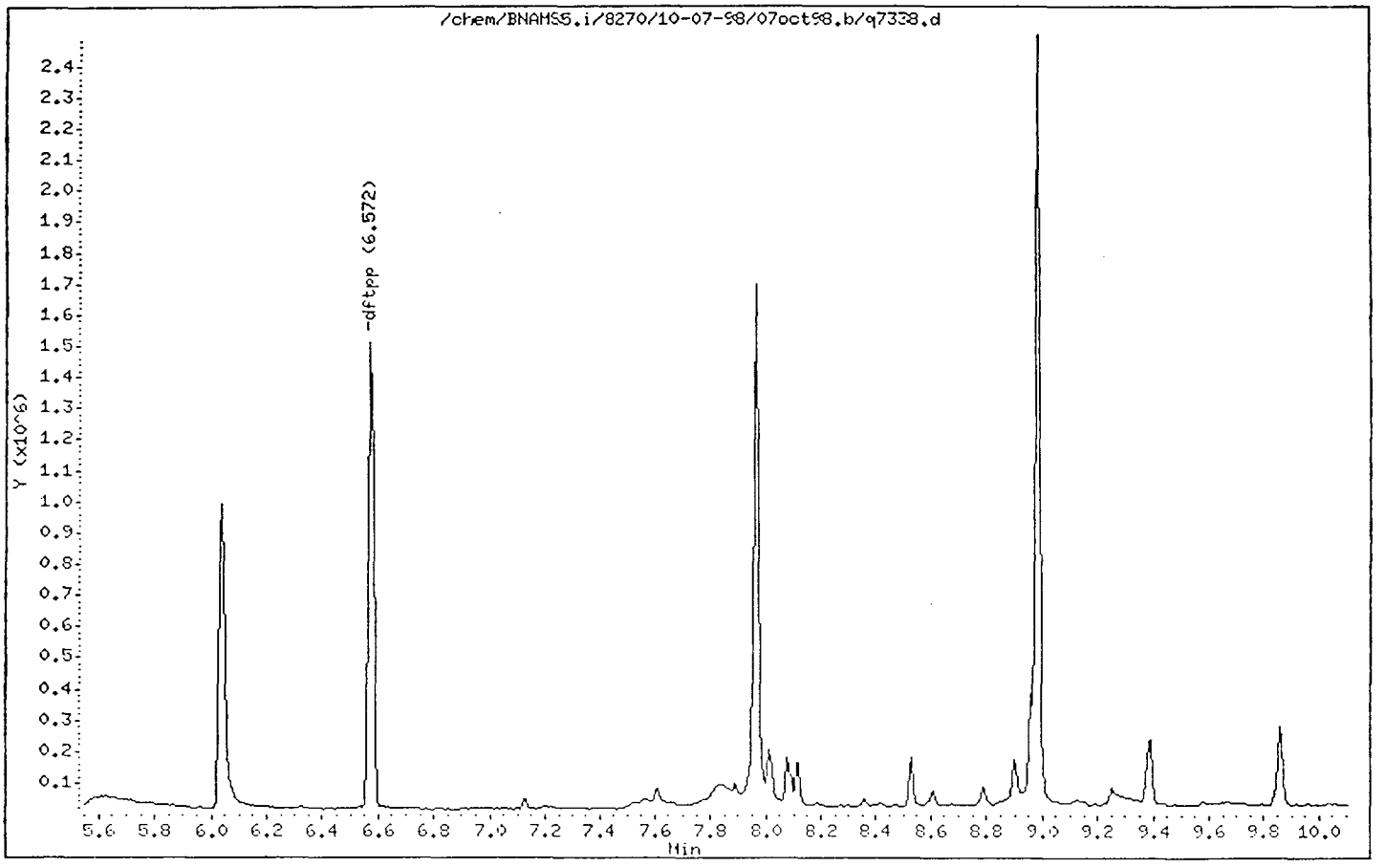
Instrument: BNAMS5.i

Sample Info: QDFT280

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303793

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: Q7509 DFTPP Injection Date: 10/14/98

Instrument ID: BNAMS5 DFTPP Injection Time: 0745

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 48.5 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 45.6 |
| 70 | Less than 2.0% of mass 69 | 0.1 ( 0.3)1 |
| 127 | 40.0 - 60.0% of mass 198 | 49.3 |
| 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 | 6.9 |
| 275 | 10.0 - 30.0% of mass 198 | 23.7 |
| 365 | Greater than 1.0% of mass 198 | 2.64 |
| 441 | 0.0 - 100.0% of mass 443 | 14.7 ( 89.4)2 |
| 442 | 40.0 - 110.0% of mass 198 | 86.2 |
| 443 | 17.0 - 23.0% of mass 442 | 16.4 ( 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 | QSTD287 | QSTD287 | Q7510 | 10/14/98 | 0805 |
| 02 | WB282B | WB282B | Q7518 | 10/14/98 | 1415 |
| 03 | | | | | |
| 04 | | | | | |
| 05 | | | | | |
| 06 | | | | | |
| 07 | | | | | |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |

303794

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7509.d

Date : 14-OCT-98 07:45:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT287

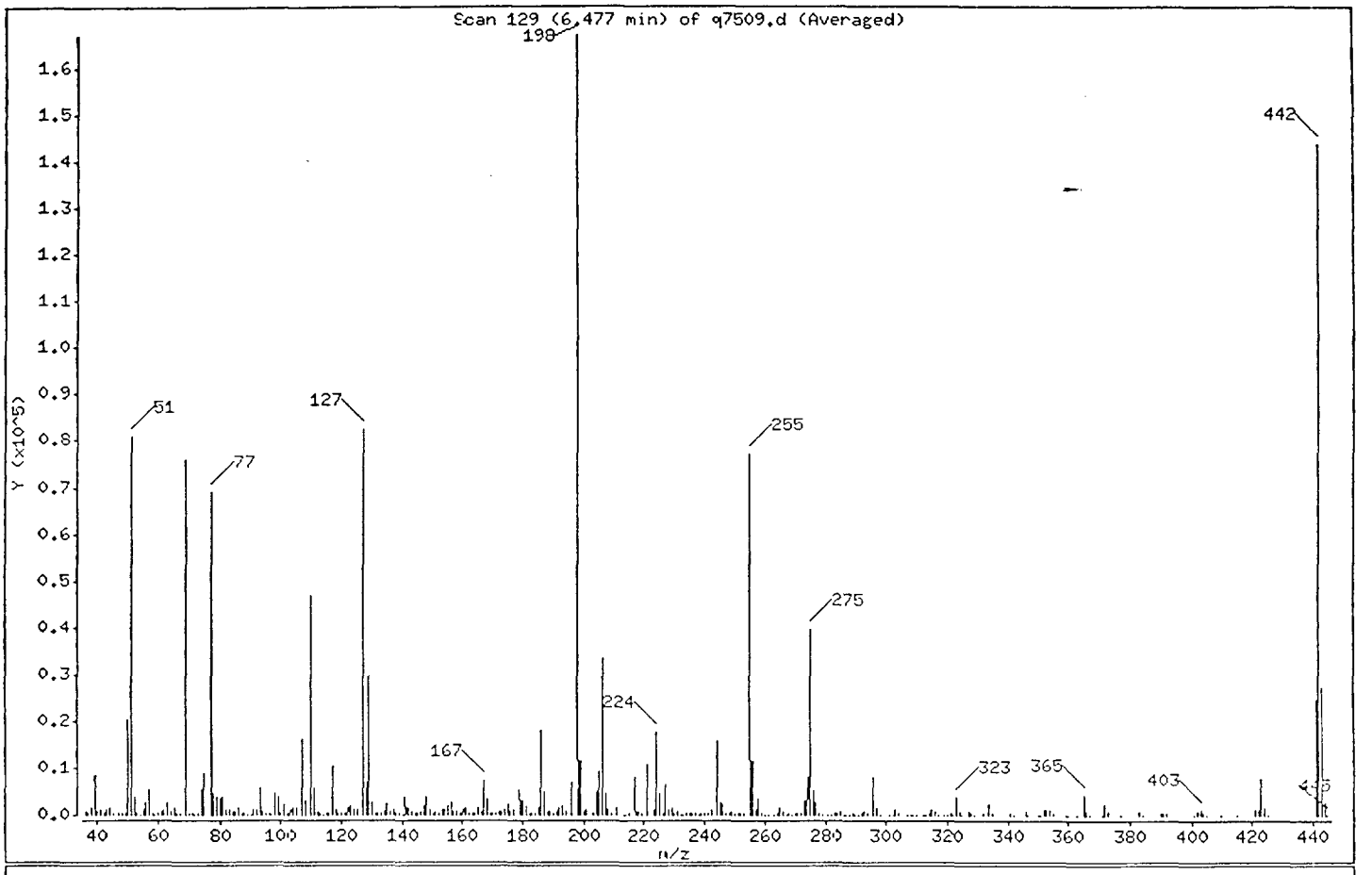
Operator: BNA2

303795

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 | 48.47 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 45.60 |
| 70 | Less than 2.00% of mass 69 | 0.12 ( 0.27) |
| 127 | 40.00 - 60.00% of mass 198 | 49.32 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.95 |
| 275 | 10.00 - 30.00% of mass 198 | 23.66 |
| 365 | Greater than 1.00% of mass 198 | 2.64 |
| 441 | 0.01 - 100.00% of mass 443 | 14.69 ( 89.40) |
| 442 | 40.00 - 110.00% of mass 198 | 86.25 |
| 443 | 17.00 - 23.00% of mass 442 | 16.44 ( 19.06) |

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7509.d

Date : 14-OCT-98 07:45:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT287

Operator: BNA2

303796

Column phase: DB-5

Column diameter: 0.25

Data File: q7509.d
Spectrum: Scan 130 (6.477 min) of q7509.d (Averaged)
Location of Maximum: 198.00
Number of points: 312

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 827 | 120.00 | 350 | 204.00 | 5070 | 292.00 | 200 |
| 37.00 | 488 | 121.00 | 249 | 205.00 | 9131 | 293.00 | 757 |
| 38.00 | 1497 | 122.00 | 1359 | 206.00 | 33266 | 294.00 | 243 |
| 39.00 | 8491 | 123.00 | 2025 | 207.00 | 4717 | 296.00 | 8188 |
| 40.00 | 859 | 124.00 | 1053 | 208.00 | 1023 | 297.00 | 1366 |
| 41.00 | 1166 | 125.00 | 1223 | 209.00 | 383 | 298.00 | 110 |
| 42.00 | 347 | 127.00 | 82298 | 211.00 | 1503 | 301.00 | 94 |
| 43.00 | 1072 | 128.00 | 6783 | 213.00 | 157 | 302.00 | 182 |
| 44.00 | 1453 | 129.00 | 29362 | 214.00 | 85 | 303.00 | 1151 |
| 45.00 | 471 | 130.00 | 2722 | 215.00 | 461 | 304.00 | 426 |
| 47.00 | 230 | 131.00 | 429 | 217.00 | 8063 | 307.00 | 43 |
| 48.00 | 259 | 132.00 | 372 | 218.00 | 904 | 308.00 | 174 |
| 49.00 | 472 | 133.00 | 215 | 219.00 | 305 | 309.00 | 81 |
| 50.00 | 20311 | 134.00 | 885 | 221.00 | 10915 | 310.00 | 105 |
| 51.00 | 80866 | 135.00 | 2281 | 223.00 | 1245 | 312.00 | 80 |
| 52.00 | 3648 | 136.00 | 911 | 224.00 | 17489 | 313.00 | 107 |
| 53.00 | 274 | 137.00 | 1061 | 225.00 | 4684 | 314.00 | 565 |
| 54.00 | 127 | 138.00 | 308 | 226.00 | 276 | 315.00 | 961 |
| 55.00 | 999 | 139.00 | 296 | 227.00 | 6498 | 316.00 | 701 |
| 56.00 | 2530 | 140.00 | 82 | 228.00 | 1285 | 317.00 | 116 |
| 57.00 | 5454 | 141.00 | 3951 | 229.00 | 1610 | 319.00 | 39 |
| 58.00 | 421 | 142.00 | 1406 | 230.00 | 331 | 320.00 | 62 |
| 59.00 | 160 | 143.00 | 953 | 231.00 | 655 | 321.00 | 367 |
| 60.00 | 193 | 144.00 | 254 | 232.00 | 44 | 322.00 | 57 |
| 61.00 | 830 | 145.00 | 278 | 233.00 | 165 | 323.00 | 3663 |
| 62.00 | 1136 | 146.00 | 676 | 234.00 | 529 | 324.00 | 775 |
| 63.00 | 2731 | 147.00 | 1843 | 235.00 | 433 | 325.00 | 102 |
| 64.00 | 628 | 148.00 | 3692 | 236.00 | 496 | 327.00 | 650 |
| 65.00 | 1493 | 149.00 | 1099 | 237.00 | 534 | 328.00 | 391 |
| 66.00 | 238 | 150.00 | 398 | 238.00 | 169 | 329.00 | 34 |
| 67.00 | 197 | 151.00 | 708 | 239.00 | 315 | 332.00 | 383 |
| 69.00 | 76077 | 152.00 | 209 | 240.00 | 243 | 334.00 | 2117 |
| 70.00 | 206 | 153.00 | 1219 | 241.00 | 413 | 335.00 | 499 |
| 71.00 | 367 | 154.00 | 1117 | 242.00 | 1075 | 341.00 | 383 |
| 72.00 | 101 | 155.00 | 1816 | 244.00 | 15862 | 342.00 | 140 |

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7509.d

Date : 14-OCT-98 07:45:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT287

Operator: BNA2

303797

Column phase: DB-5

Column diameter: 0.25

Data File: q7509.d
Spectrum: Scan 130 (6.477 min) of q7509.d (Averaged)
Location of Maximum: 198.00
Number of points: 312

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 73.00 | 411 | 156.00 | 2838 | 245.00 | 2506 | 346.00 | 754 |
| 74.00 | 5239 | 157.00 | 677 | 246.00 | 2129 | 347.00 | 84 |
| 75.00 | 8728 | 158.00 | 772 | 247.00 | 507 | 350.00 | 39 |
| 77.00 | 69114 | 159.00 | 515 | 248.00 | 223 | 351.00 | 124 |
| 78.00 | 4792 | 160.00 | 1121 | 249.00 | 658 | 352.00 | 967 |
| 79.00 | 4017 | 161.00 | 1647 | 250.00 | 229 | 353.00 | 995 |
| 80.00 | 3275 | 162.00 | 299 | 251.00 | 256 | 354.00 | 1177 |
| 81.00 | 3709 | 163.00 | 211 | 252.00 | 417 | 355.00 | 242 |
| 82.00 | 1216 | 164.00 | 273 | 253.00 | 275 | 359.00 | 51 |
| 83.00 | 1153 | 165.00 | 1421 | 255.00 | 77066 | 360.00 | 34 |
| 84.00 | 848 | 166.00 | 861 | 256.00 | 11536 | 363.00 | 45 |
| 85.00 | 892 | 167.00 | 7360 | 257.00 | 988 | 365.00 | 4400 |
| 86.00 | 1371 | 168.00 | 3455 | 258.00 | 3591 | 366.00 | 743 |
| 87.00 | 573 | 169.00 | 395 | 259.00 | 508 | 367.00 | 44 |
| 88.00 | 310 | 170.00 | 402 | 260.00 | 131 | 371.00 | 147 |
| 89.00 | 191 | 171.00 | 370 | 261.00 | 155 | 372.00 | 2142 |
| 90.00 | 52 | 172.00 | 669 | 263.00 | 174 | 373.00 | 631 |
| 91.00 | 1159 | 173.00 | 887 | 264.00 | 239 | 377.00 | 61 |
| 92.00 | 1339 | 174.00 | 1278 | 265.00 | 1490 | 383.00 | 668 |
| 93.00 | 5793 | 175.00 | 2479 | 266.00 | 673 | 384.00 | 136 |
| 94.00 | 596 | 176.00 | 951 | 267.00 | 169 | 390.00 | 228 |
| 95.00 | 393 | 177.00 | 1061 | 268.00 | 334 | 391.00 | 241 |
| 96.00 | 429 | 179.00 | 5347 | 269.00 | 78 | 392.00 | 199 |
| 97.00 | 153 | 180.00 | 3255 | 270.00 | 275 | 401.00 | 98 |
| 98.00 | 4677 | 181.00 | 1938 | 271.00 | 270 | 402.00 | 904 |
| 99.00 | 3676 | 182.00 | 472 | 272.00 | 326 | 403.00 | 1216 |
| 100.00 | 472 | 183.00 | 275 | 273.00 | 2938 | 404.00 | 471 |
| 101.00 | 2354 | 184.00 | 388 | 274.00 | 8096 | 405.00 | 46 |
| 102.00 | 252 | 185.00 | 1358 | 275.00 | 39480 | 410.00 | 39 |
| 103.00 | 1071 | 186.00 | 17885 | 276.00 | 5370 | 415.00 | 55 |
| 104.00 | 1550 | 187.00 | 4927 | 277.00 | 2540 | 421.00 | 1084 |
| 105.00 | 1523 | 188.00 | 672 | 278.00 | 480 | 422.00 | 1129 |
| 107.00 | 16274 | 189.00 | 911 | 279.00 | 123 | 423.00 | 7781 |
| 108.00 | 3039 | 190.00 | 210 | 281.00 | 75 | 424.00 | 1477 |
| 110.00 | 46634 | 191.00 | 756 | 282.00 | 83 | 425.00 | 101 |

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7509.d

Date : 14-OCT-98 07:45:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT287

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7509.d
Spectrum: Scan 130 (6.477 min) of q7509.d (Averaged)
Location of Maximum: 198.00
Number of Points: 312

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 111.00 | 5770 | 192.00 | 1638 | 283.00 | 316 | 441.00 | 24515 |
| 112.00 | 844 | 193.00 | 1782 | 284.00 | 265 | 442.00 | 143906 |
| 113.00 | 264 | 194.00 | 600 | 285.00 | 601 | 443.00 | 27422 |
| 114.00 | 90 | 196.00 | 7022 | 286.00 | 132 | 444.00 | 2851 |
| 115.00 | 216 | 198.00 | 166850 | 287.00 | 43 | 445.00 | 153 |
| 116.00 | 470 | 199.00 | 11592 | 288.00 | 43 | | |
| 117.00 | 10443 | 200.00 | 859 | 289.00 | 239 | | |
| 118.00 | 1213 | 201.00 | 1141 | 290.00 | 36 | | |
| 119.00 | 254 | 203.00 | 293 | 291.00 | 154 | | |

303798

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7509.d

Date : 14-OCT-98 07:45:00

Client ID:

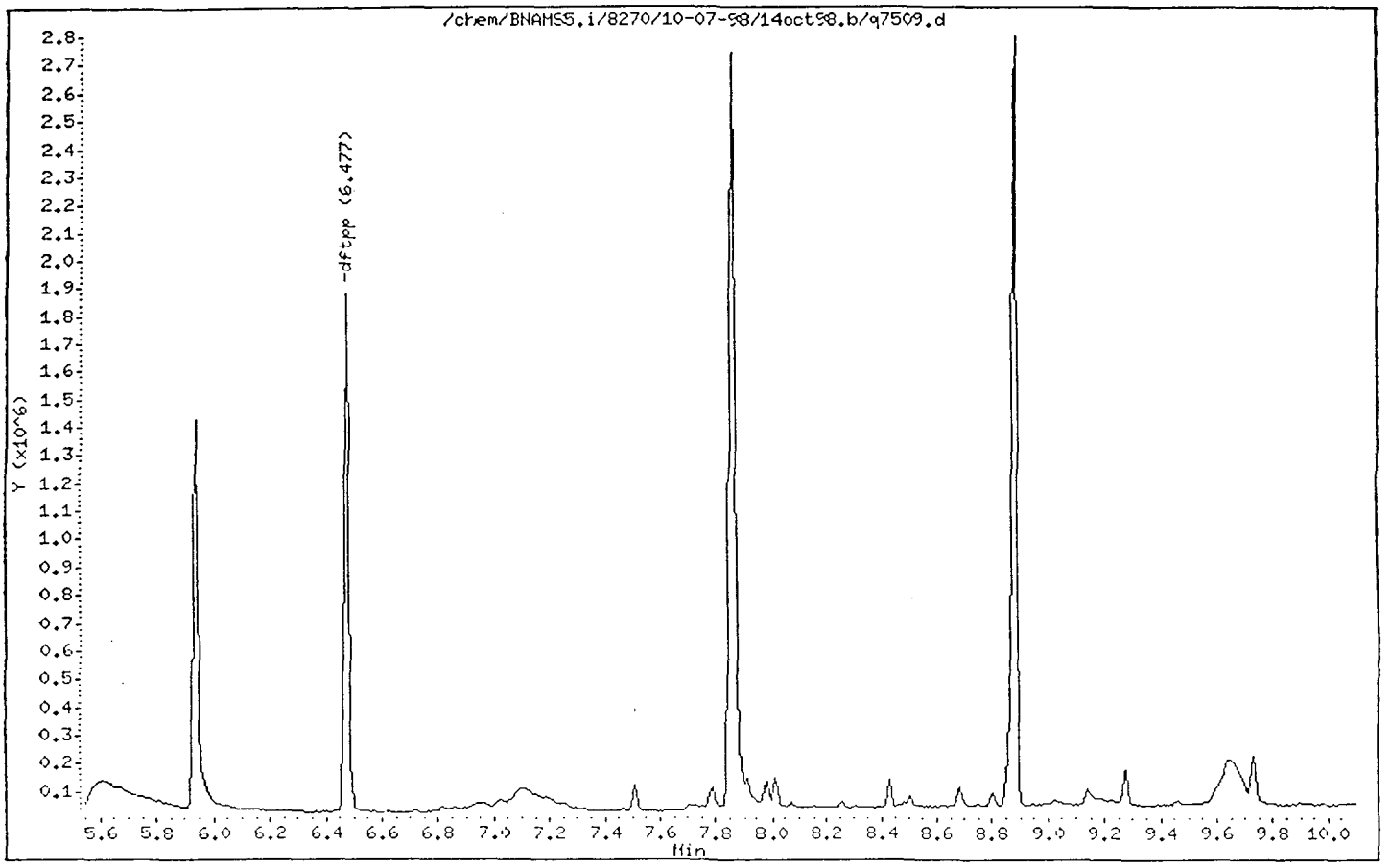
Instrument: BNAMS5.i

Sample Info: QDFT287

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303799

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: Q7540 DFTPP Injection Date: 10/15/98

Instrument ID: BNAMS5 DFTPP Injection Time: 0821

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 50.3 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 47.6 |
| 70 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 127 | 40.0 - 60.0% of mass 198 | 50.5 |
| 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 | 7.3 |
| 275 | 10.0 - 30.0% of mass 198 | 23.3 |
| 365 | Greater than 1.0% of mass 198 | 2.90 |
| 441 | 0.0 - 100.0% of mass 443 | 15.4 ( 87.5)2 |
| 442 | 40.0 - 110.0% of mass 198 | 91.3 |
| 443 | 17.0 - 23.0% of mass 442 | 17.6 ( 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 | QSTD288 | QSTD288 | Q7541 | 10/15/98 | 0841 |
| 02 | FB-1 | 88548 | Q7549 | 10/15/98 | 1454 |
| 03 | | | | | |
| 04 | | | | | |
| 05 | | | | | |
| 06 | | | | | |
| 07 | | | | | |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |

303800

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7540.d

Date : 15-OCT-98 08:21:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT288

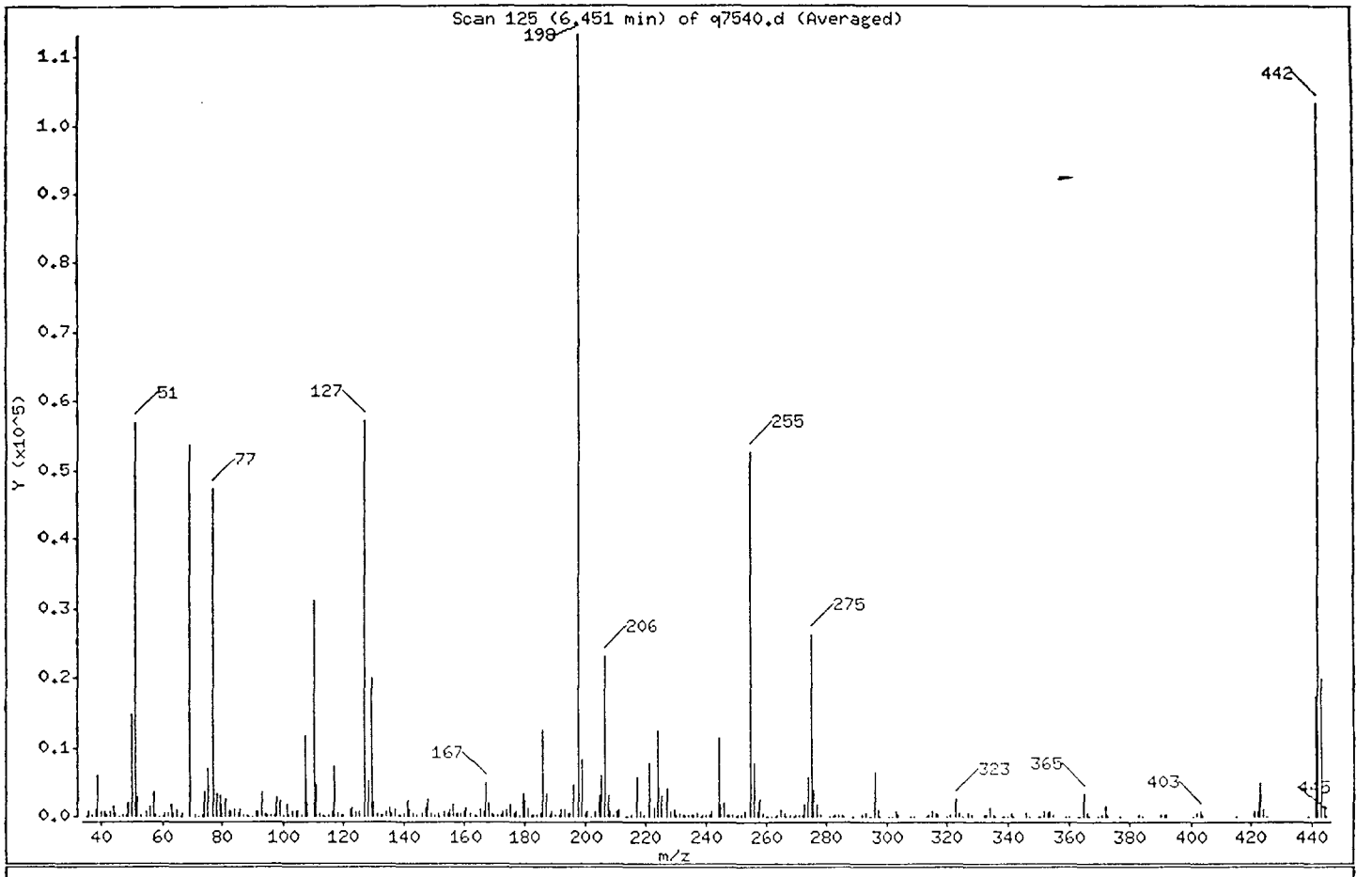
Operator: BNA2

303801

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 | 50.28 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 47.59 |
| 70 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 127 | 40.00 - 60.00% of mass 198 | 50.52 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 7.28 |
| 275 | 10.00 - 30.00% of mass 198 | 23.33 |
| 365 | Greater than 1.00% of mass 198 | 2.90 |
| 441 | 0.01 - 100.00% of mass 443 | 15.44 ( 87.54) |
| 442 | 40.00 - 110.00% of mass 198 | 91.27 |
| 443 | 17.00 - 23.00% of mass 442 | 17.63 ( 19.32) |

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7540.d

Date : 15-OCT-98 08:21:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT288

Operator: BNA2

303802

Column phase: DB-5

Column diameter: 0.25

Data File: q7540.d

Spectrum: Scan 126 (6.451 min) of q7540.d (Averaged)

Location of Maximum: 198.00

Number of points: 311

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.00 | 45 | 118.00 | 486 | 200.00 | 577 | 289.00 | 45 |
| 36.00 | 663 | 119.00 | 302 | 201.00 | 803 | 292.00 | 187 |
| 37.00 | 297 | 120.00 | 233 | 202.00 | 111 | 293.00 | 568 |
| 38.00 | 1134 | 122.00 | 938 | 203.00 | 667 | 294.00 | 53 |
| 39.00 | 6046 | 123.00 | 1365 | 204.00 | 3120 | 295.00 | 82 |
| 40.00 | 693 | 124.00 | 738 | 205.00 | 6009 | 296.00 | 6425 |
| 41.00 | 746 | 125.00 | 879 | 206.00 | 23130 | 297.00 | 929 |
| 42.00 | 239 | 127.00 | 57165 | 207.00 | 3189 | 298.00 | 107 |
| 43.00 | 770 | 128.00 | 5121 | 208.00 | 697 | 301.00 | 126 |
| 44.00 | 1541 | 129.00 | 20102 | 209.00 | 209 | 302.00 | 93 |
| 45.00 | 446 | 130.00 | 1952 | 210.00 | 694 | 303.00 | 697 |
| 46.00 | 52 | 131.00 | 433 | 211.00 | 1007 | 304.00 | 343 |
| 47.00 | 271 | 132.00 | 243 | 213.00 | 101 | 308.00 | 55 |
| 48.00 | 273 | 133.00 | 191 | 214.00 | 81 | 309.00 | 84 |
| 49.00 | 2188 | 134.00 | 671 | 215.00 | 238 | 313.00 | 38 |
| 50.00 | 14854 | 135.00 | 1338 | 217.00 | 5722 | 314.00 | 320 |
| 51.00 | 56896 | 136.00 | 621 | 218.00 | 744 | 315.00 | 680 |
| 52.00 | 2869 | 137.00 | 937 | 219.00 | 185 | 316.00 | 486 |
| 53.00 | 291 | 138.00 | 205 | 221.00 | 7736 | 317.00 | 144 |
| 55.00 | 779 | 139.00 | 145 | 223.00 | 1240 | 320.00 | 35 |
| 56.00 | 1620 | 140.00 | 400 | 224.00 | 12501 | 321.00 | 331 |
| 57.00 | 3560 | 141.00 | 2446 | 225.00 | 3185 | 323.00 | 2664 |
| 58.00 | 270 | 142.00 | 985 | 227.00 | 4225 | 324.00 | 479 |
| 59.00 | 89 | 143.00 | 533 | 228.00 | 799 | 325.00 | 108 |
| 60.00 | 111 | 144.00 | 190 | 229.00 | 1060 | 327.00 | 458 |
| 61.00 | 494 | 146.00 | 547 | 230.00 | 289 | 328.00 | 193 |
| 62.00 | 624 | 147.00 | 1216 | 231.00 | 485 | 332.00 | 212 |
| 63.00 | 1695 | 148.00 | 2676 | 232.00 | 135 | 333.00 | 380 |
| 64.00 | 416 | 149.00 | 585 | 233.00 | 206 | 334.00 | 1426 |
| 65.00 | 1119 | 150.00 | 238 | 234.00 | 387 | 335.00 | 385 |
| 66.00 | 88 | 151.00 | 406 | 235.00 | 377 | 336.00 | 35 |
| 67.00 | 395 | 152.00 | 92 | 236.00 | 179 | 338.00 | 55 |
| 69.00 | 53848 | 153.00 | 850 | 237.00 | 483 | 339.00 | 35 |
| 71.00 | 199 | 154.00 | 573 | 238.00 | 37 | 340.00 | 55 |
| 72.00 | 38 | 155.00 | 1150 | 239.00 | 228 | 341.00 | 435 |

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7540.d

Date : 15-OCT-98 08:21:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT288

Operator: BNA2

303803

Column phase: DB-5

Column diameter: 0.25

Data File: q7540.d
Spectrum: Scan 126 (6.451 min) of q7540.d (Averaged)
Location of Maximum: 198.00
Number of points: 311

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 73.00 | 322 | 156.00 | 1864 | 240.00 | 251 | 342.00 | 50 |
| 74.00 | 3589 | 157.00 | 617 | 241.00 | 364 | 346.00 | 575 |
| 75.00 | 6987 | 158.00 | 571 | 242.00 | 865 | 347.00 | 47 |
| 77.00 | 47298 | 159.00 | 486 | 244.00 | 11478 | 350.00 | 34 |
| 78.00 | 3480 | 160.00 | 766 | 245.00 | 1745 | 351.00 | 87 |
| 79.00 | 3063 | 161.00 | 1290 | 246.00 | 1995 | 352.00 | 690 |
| 80.00 | 1938 | 162.00 | 453 | 247.00 | 250 | 353.00 | 608 |
| 81.00 | 2503 | 163.00 | 140 | 248.00 | 218 | 354.00 | 838 |
| 82.00 | 924 | 164.00 | 35 | 249.00 | 326 | 355.00 | 234 |
| 83.00 | 825 | 165.00 | 992 | 250.00 | 89 | 359.00 | 36 |
| 84.00 | 1028 | 166.00 | 707 | 251.00 | 195 | 360.00 | 35 |
| 85.00 | 608 | 167.00 | 4977 | 252.00 | 348 | 363.00 | 35 |
| 86.00 | 1167 | 168.00 | 2165 | 253.00 | 676 | 364.00 | 33 |
| 87.00 | 322 | 169.00 | 440 | 255.00 | 52688 | 365.00 | 3281 |
| 88.00 | 245 | 170.00 | 233 | 256.00 | 7804 | 366.00 | 575 |
| 89.00 | 116 | 171.00 | 271 | 257.00 | 723 | 367.00 | 70 |
| 90.00 | 93 | 172.00 | 276 | 258.00 | 2503 | 370.00 | 91 |
| 91.00 | 790 | 173.00 | 745 | 259.00 | 497 | 371.00 | 186 |
| 92.00 | 764 | 174.00 | 1039 | 260.00 | 55 | 372.00 | 1660 |
| 93.00 | 3763 | 175.00 | 1731 | 261.00 | 106 | 373.00 | 368 |
| 94.00 | 547 | 176.00 | 630 | 262.00 | 34 | 377.00 | 34 |
| 95.00 | 227 | 177.00 | 879 | 263.00 | 68 | 383.00 | 343 |
| 96.00 | 240 | 178.00 | 220 | 264.00 | 276 | 384.00 | 111 |
| 97.00 | 273 | 179.00 | 3400 | 265.00 | 1005 | 390.00 | 235 |
| 98.00 | 2812 | 180.00 | 2268 | 266.00 | 447 | 391.00 | 176 |
| 99.00 | 2293 | 181.00 | 1324 | 267.00 | 81 | 392.00 | 160 |
| 100.00 | 320 | 182.00 | 258 | 268.00 | 259 | 401.00 | 91 |
| 101.00 | 1869 | 183.00 | 183 | 269.00 | 34 | 402.00 | 563 |
| 102.00 | 200 | 184.00 | 382 | 270.00 | 154 | 403.00 | 845 |
| 103.00 | 727 | 185.00 | 459 | 271.00 | 210 | 404.00 | 251 |
| 104.00 | 875 | 186.00 | 12376 | 272.00 | 187 | 415.00 | 72 |
| 105.00 | 850 | 187.00 | 3338 | 273.00 | 1793 | 421.00 | 720 |
| 106.00 | 173 | 188.00 | 279 | 274.00 | 5604 | 422.00 | 849 |
| 107.00 | 11657 | 189.00 | 667 | 275.00 | 26400 | 423.00 | 5028 |
| 108.00 | 2036 | 190.00 | 252 | 276.00 | 3994 | 424.00 | 1092 |

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7540.d

Date : 15-OCT-98 08:21:00

Client ID:

Instrument: BNAMS5.i

Sample Info: QDFT288

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: q7540.d
Spectrum: Scan 126 (6.451 min) of q7540.d (Averaged)
Location of Maximum: 198.00
Number of points: 311

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 110.00 | 31248 | 191.00 | 252 | 277.00 | 1863 | 425.00 | 41 |
| 111.00 | 4671 | 192.00 | 1003 | 278.00 | 381 | 439.00 | 45 |
| 112.00 | 580 | 193.00 | 1037 | 281.00 | 34 | 441.00 | 17465 |
| 113.00 | 198 | 194.00 | 438 | 282.00 | 34 | 442.00 | 103274 |
| 114.00 | 73 | 195.00 | 455 | 283.00 | 179 | 443.00 | 19952 |
| 115.00 | 200 | 196.00 | 4755 | 284.00 | 192 | 444.00 | 1687 |
| 116.00 | 700 | 198.00 | 113149 | 285.00 | 308 | 445.00 | 85 |
| 117.00 | 7333 | 199.00 | 8240 | 286.00 | 105 | | |

303804

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7540.d

Date : 15-OCT-98 08:21:00

Client ID:

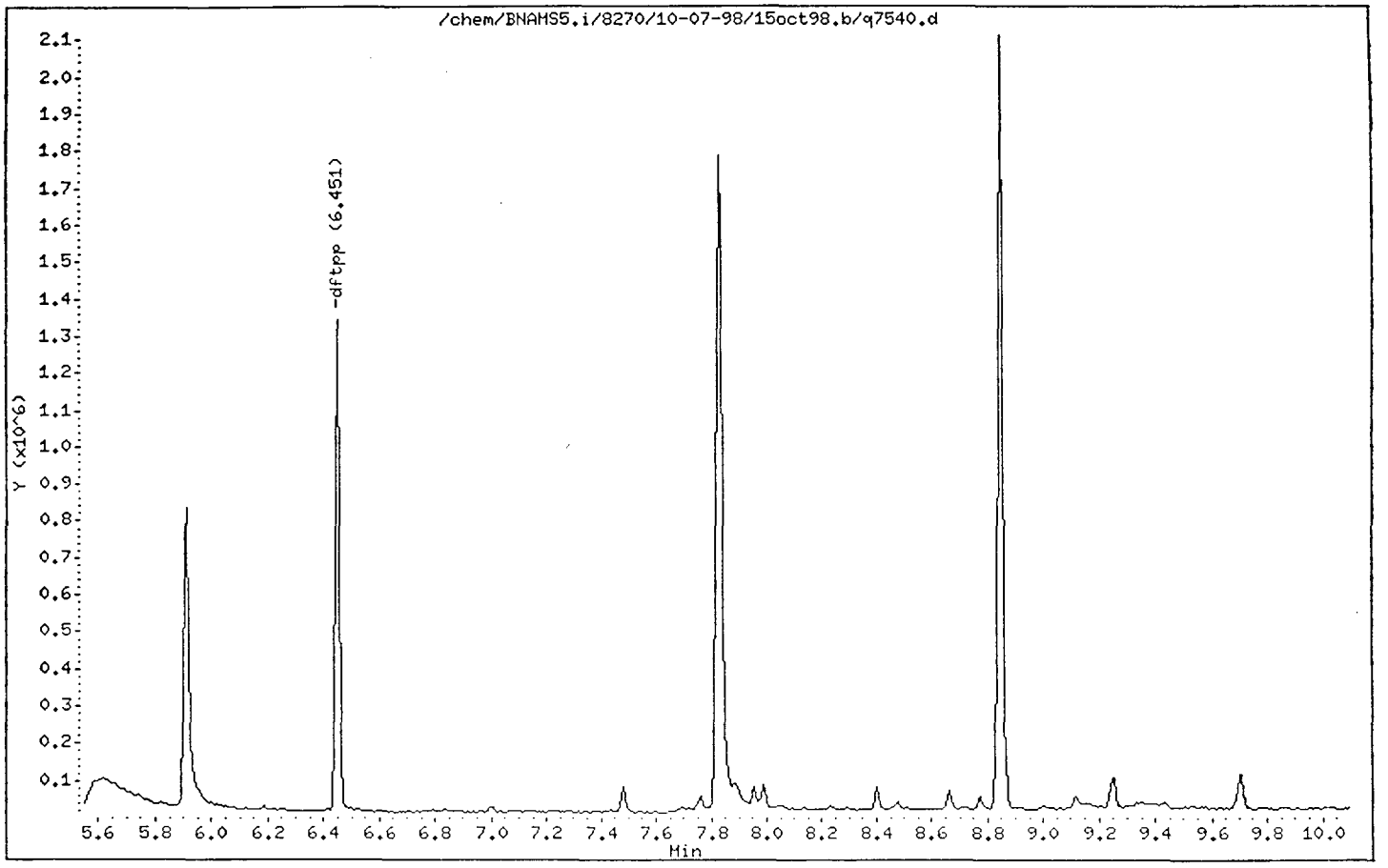
Instrument: BNAMS5.i

Sample Info: QDFT288

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303805

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: M2723 DFTPP Injection Date: 10/12/98

Instrument ID: BNAMS6 DFTPP Injection Time: 1016

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 51.9 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 77.6 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.3)1 |
| 127 | 40.0 - 60.0% of mass 198 | 45.4 |
| 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 | 7.0 |
| 275 | 10.0 - 30.0% of mass 198 | 22.6 |
| 365 | Greater than 1.0% of mass 198 | 2.85 |
| 441 | 0.0 - 100.0% of mass 443 | 12.4 ( 79.8)2 |
| 442 | 40.0 - 110.0% of mass 198 | 75.5 |
| 443 | 17.0 - 23.0% of mass 442 | 15.5 ( 20.5)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 | MSTD050 | MSTD050 | M2724 | 10/12/98 | 1037 |
| 02 | MSTD05-SOIL | MSTD05-SOIL | M2725 | 10/12/98 | 1135 |
| 03 | MSTD120 | MSTD120 | M2726 | 10/12/98 | 1229 |
| 04 | MSTD080 | MSTD080 | M2727 | 10/12/98 | 1315 |
| 05 | MSTD020 | MSTD020 | M2728 | 10/12/98 | 1400 |
| 06 | | | | | |
| 07 | | | | | |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |

303806

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2723.d

Date : 12-OCT-98 10:16:00

Client ID:

Instrument: BNAMS6.i

Sample Info: MDFT285

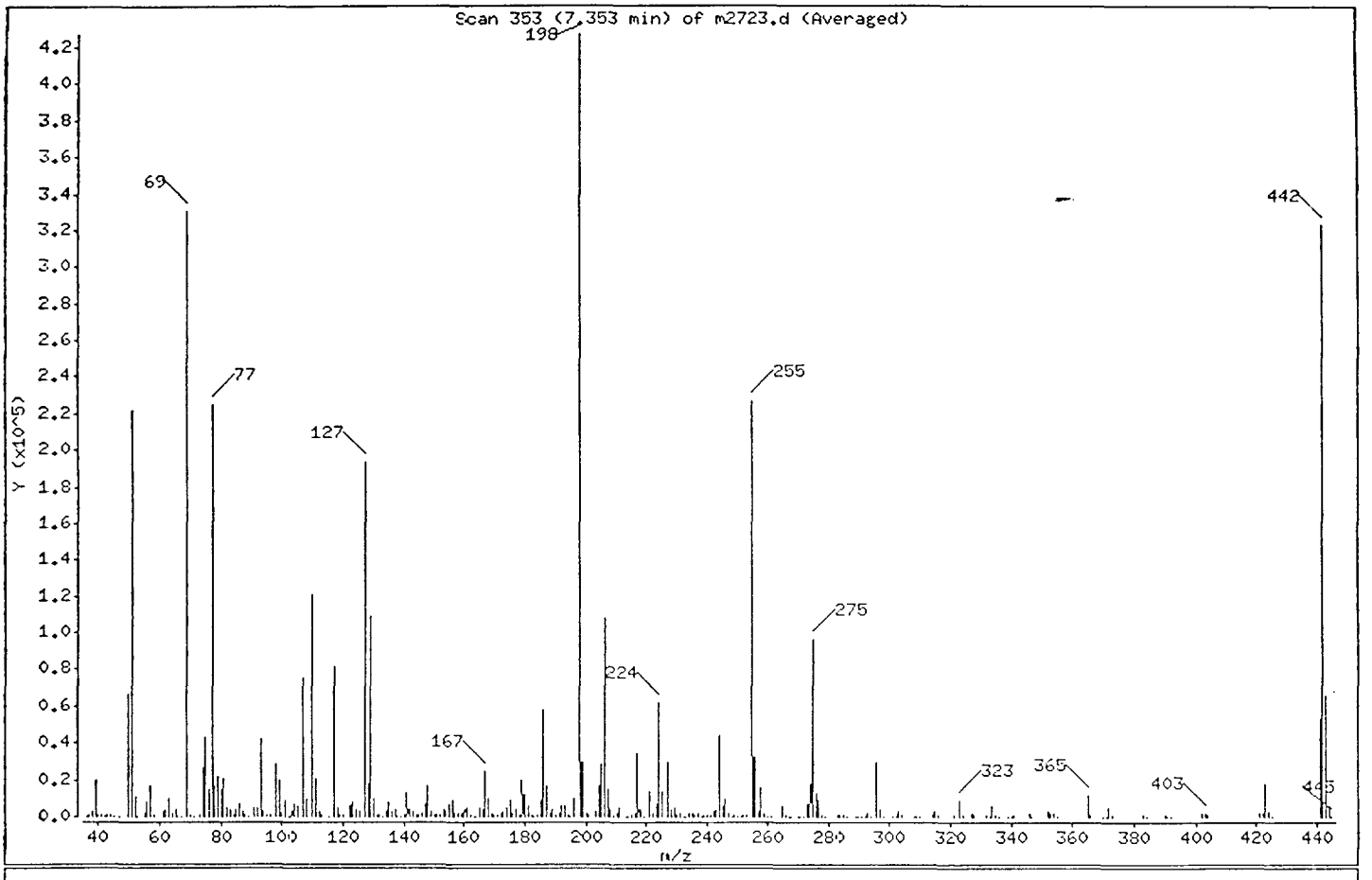
Operator: BNA2

303807

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 | 51.95 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 77.56 |
| 70 | Less than 2.00% of mass 69 | 0.23 ( 0.30) |
| 127 | 40.00 - 60.00% of mass 198 | 45.37 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.95 |
| 275 | 10.00 - 30.00% of mass 198 | 22.58 |
| 365 | Greater than 1.00% of mass 198 | 2.85 |
| 441 | 0.01 - 100.00% of mass 443 | 12.36 ( 79.79) |
| 442 | 40.00 - 110.00% of mass 198 | 75.54 |
| 443 | 17.00 - 23.00% of mass 442 | 15.49 ( 20.50) |

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2723.d

Date : 12-OCT-98 10:16:00

Client ID:

Instrument: BNAMS6.i

Sample Info: MDFT285

Operator: BNA2

303808

Column phase: DB-5

Column diameter: 0.25

Data File: m2723.d

Spectrum: Scan 354 (7.353 min) of m2723.d (Averaged)

Location of Maximum: 198.00

Number of points: 284

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 89 | 123.00 | 8064 | 196.00 | 9433 | 278.00 | 1233 |
| 37.00 | 1217 | 124.00 | 3906 | 198.00 | 426858 | 279.00 | 82 |
| 38.00 | 3398 | 125.00 | 2842 | 199.00 | 29672 | 283.00 | 852 |
| 39.00 | 19208 | 127.00 | 193666 | 200.00 | 1930 | 284.00 | 678 |
| 40.00 | 849 | 128.00 | 17431 | 201.00 | 1041 | 285.00 | 1291 |
| 41.00 | 1156 | 129.00 | 109122 | 203.00 | 3196 | 286.00 | 86 |
| 42.00 | 261 | 130.00 | 9748 | 204.00 | 17080 | 289.00 | 247 |
| 43.00 | 1049 | 131.00 | 1381 | 205.00 | 28021 | 290.00 | 189 |
| 44.00 | 1076 | 132.00 | 680 | 206.00 | 107520 | 291.00 | 293 |
| 45.00 | 291 | 133.00 | 231 | 207.00 | 14270 | 292.00 | 203 |
| 47.00 | 72 | 134.00 | 2706 | 208.00 | 4166 | 293.00 | 1676 |
| 50.00 | 66248 | 135.00 | 7471 | 209.00 | 1378 | 294.00 | 407 |
| 51.00 | 221752 | 136.00 | 3431 | 210.00 | 1883 | 296.00 | 28989 |
| 52.00 | 11278 | 137.00 | 3841 | 211.00 | 4511 | 297.00 | 4062 |
| 53.00 | 413 | 138.00 | 159 | 213.00 | 282 | 298.00 | 145 |
| 55.00 | 2264 | 139.00 | 188 | 214.00 | 76 | 301.00 | 118 |
| 56.00 | 7924 | 140.00 | 1033 | 215.00 | 1402 | 302.00 | 187 |
| 57.00 | 16686 | 141.00 | 13202 | 216.00 | 2279 | 303.00 | 3347 |
| 58.00 | 554 | 142.00 | 3799 | 217.00 | 34376 | 304.00 | 652 |
| 61.00 | 2842 | 143.00 | 2788 | 218.00 | 3959 | 308.00 | 377 |
| 62.00 | 4037 | 144.00 | 666 | 219.00 | 207 | 309.00 | 213 |
| 63.00 | 9412 | 145.00 | 492 | 221.00 | 13547 | 310.00 | 204 |
| 64.00 | 1503 | 146.00 | 2329 | 222.00 | 2207 | 314.00 | 1354 |
| 65.00 | 4068 | 147.00 | 6513 | 223.00 | 7102 | 315.00 | 2930 |
| 66.00 | 278 | 148.00 | 17046 | 224.00 | 62165 | 316.00 | 1370 |
| 67.00 | 335 | 149.00 | 2761 | 225.00 | 13991 | 321.00 | 847 |
| 69.00 | 331050 | 150.00 | 689 | 227.00 | 28984 | 323.00 | 9235 |
| 70.00 | 997 | 151.00 | 1362 | 228.00 | 4413 | 324.00 | 1177 |
| 71.00 | 309 | 152.00 | 750 | 229.00 | 4879 | 327.00 | 1671 |
| 73.00 | 1371 | 153.00 | 4229 | 230.00 | 895 | 328.00 | 625 |
| 74.00 | 26332 | 154.00 | 2835 | 231.00 | 2134 | 332.00 | 628 |
| 75.00 | 43434 | 155.00 | 6587 | 232.00 | 369 | 333.00 | 335 |
| 76.00 | 14606 | 156.00 | 8854 | 233.00 | 241 | 334.00 | 5803 |
| 77.00 | 224365 | 157.00 | 1694 | 234.00 | 1762 | 335.00 | 1348 |
| 78.00 | 16665 | 158.00 | 2352 | 235.00 | 1782 | 336.00 | 82 |

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2723.d

Date : 12-OCT-98 10:16:00

Client ID:

Instrument: BNAMS6.i

Sample Info: MDFT285

Operator: BNA2

303809

Column phase: DB-5

Column diameter: 0.25

Data File: m2723.d

Spectrum: Scan 354 (7.353 min) of m2723.d (Averaged)

Location of Maximum: 198.00

Number of points: 284

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 79.00 | 21900 | 159.00 | 1819 | 236.00 | 1133 | 339.00 | 71 |
| 80.00 | 14783 | 160.00 | 4317 | 237.00 | 1703 | 340.00 | 103 |
| 81.00 | 20380 | 161.00 | 5208 | 238.00 | 134 | 341.00 | 742 |
| 82.00 | 4815 | 162.00 | 1354 | 239.00 | 1053 | 346.00 | 1805 |
| 83.00 | 3929 | 163.00 | 360 | 240.00 | 841 | 347.00 | 211 |
| 84.00 | 661 | 164.00 | 191 | 241.00 | 1438 | 352.00 | 2595 |
| 85.00 | 3476 | 165.00 | 4785 | 242.00 | 3101 | 353.00 | 1815 |
| 86.00 | 6587 | 166.00 | 3611 | 243.00 | 3797 | 354.00 | 2206 |
| 87.00 | 2461 | 167.00 | 24548 | 244.00 | 44600 | 355.00 | 88 |
| 88.00 | 891 | 168.00 | 10176 | 245.00 | 6037 | 365.00 | 12148 |
| 89.00 | 337 | 169.00 | 1722 | 246.00 | 9912 | 366.00 | 1348 |
| 91.00 | 4863 | 170.00 | 751 | 247.00 | 1693 | 370.00 | 200 |
| 92.00 | 5334 | 171.00 | 987 | 248.00 | 306 | 371.00 | 313 |
| 93.00 | 41728 | 172.00 | 2120 | 249.00 | 1322 | 372.00 | 4636 |
| 94.00 | 2471 | 173.00 | 2656 | 250.00 | 439 | 373.00 | 896 |
| 95.00 | 615 | 174.00 | 4704 | 251.00 | 339 | 383.00 | 1041 |
| 96.00 | 1201 | 175.00 | 8606 | 252.00 | 559 | 384.00 | 197 |
| 98.00 | 28427 | 176.00 | 1843 | 253.00 | 856 | 390.00 | 549 |
| 99.00 | 19491 | 177.00 | 4369 | 255.00 | 226218 | 391.00 | 375 |
| 100.00 | 1857 | 178.00 | 1414 | 256.00 | 32464 | 392.00 | 203 |
| 101.00 | 8780 | 179.00 | 19733 | 257.00 | 2463 | 402.00 | 1802 |
| 102.00 | 383 | 180.00 | 11976 | 258.00 | 15298 | 403.00 | 2358 |
| 103.00 | 2855 | 181.00 | 5481 | 259.00 | 1905 | 404.00 | 596 |
| 104.00 | 7186 | 182.00 | 939 | 260.00 | 315 | 421.00 | 2242 |
| 105.00 | 5804 | 183.00 | 338 | 261.00 | 115 | 422.00 | 2242 |
| 107.00 | 75880 | 184.00 | 1122 | 265.00 | 5671 | 423.00 | 17550 |
| 108.00 | 10034 | 185.00 | 8918 | 266.00 | 882 | 424.00 | 3195 |
| 110.00 | 121093 | 186.00 | 57813 | 267.00 | 72 | 425.00 | 67 |
| 111.00 | 20687 | 187.00 | 16770 | 268.00 | 81 | 441.00 | 52754 |
| 112.00 | 2698 | 188.00 | 1730 | 270.00 | 369 | 442.00 | 322432 |
| 113.00 | 627 | 189.00 | 4121 | 271.00 | 458 | 443.00 | 66114 |
| 115.00 | 243 | 190.00 | 795 | 272.00 | 315 | 444.00 | 5842 |
| 117.00 | 81821 | 191.00 | 2009 | 273.00 | 6918 | 445.00 | 137 |
| 118.00 | 5296 | 192.00 | 5961 | 274.00 | 17560 | | |
| 119.00 | 529 | 193.00 | 5906 | 275.00 | 96376 | | |

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2723.d

Date : 12-OCT-98 10:16:00

Client ID:

Instrument: BNAMS6.i

Sample Info: MDFT285

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: m2723.d

Spectrum: Scan 354 (7.353 min) of m2723.d (Averaged)

Location of Maximum: 198.00

Number of points: 284

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 120.00 | 627 | 194.00 | 1083 | 276.00 | 13080 | | |
| 122.00 | 5720 | 195.00 | 283 | 277.00 | 8646 | | |

303810

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2723.d

Date : 12-OCT-98 10:16:00

Client ID:

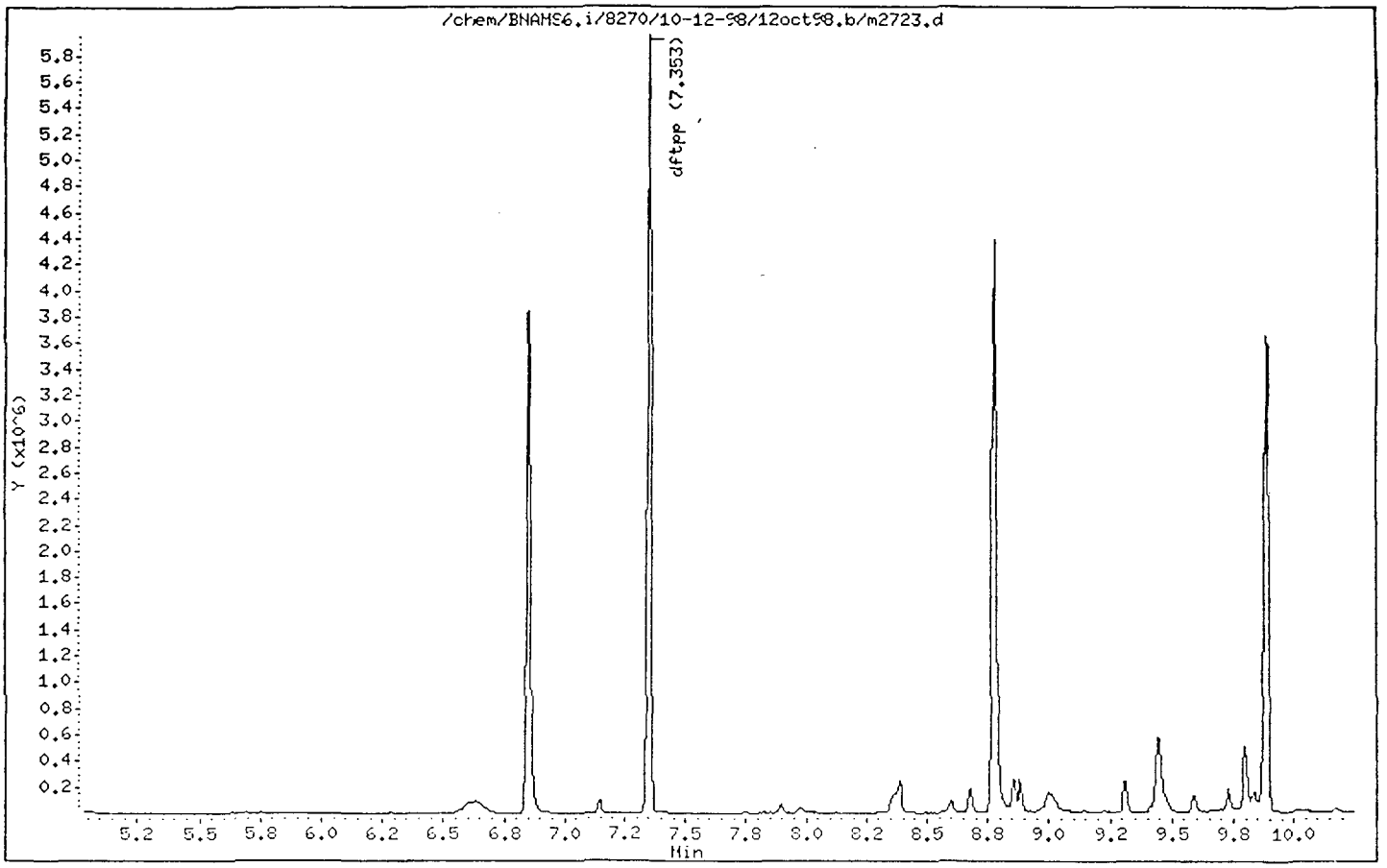
Instrument: BNAMS6.i

Sample Info: MDFT285

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303811

SEMI-VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab File ID: M2808 DFTPP Injection Date: 10/15/98

Instrument ID: BNAMS6 DFTPP Injection Time: 1023

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 58.2 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 84.5 |
| 70 | Less than 2.0% of mass 69 | 0.3 ( 0.3)1 |
| 127 | 40.0 - 60.0% of mass 198 | 48.9 |
| 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 | 22.5 |
| 365 | Greater than 1.0% of mass 198 | 3.11 |
| 441 | 0.0 - 100.0% of mass 443 | 11.6 ( 79.7)2 |
| 442 | 40.0 - 110.0% of mass 198 | 73.1 |
| 443 | 17.0 - 23.0% of mass 442 | 14.5 ( 19.9)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 | MSTD288 | MSTD288 | M2809 | 10/15/98 | 1055 |
| 02 | SB287B | SB287B | M2811 | 10/15/98 | 1233 |
| 03 | | | | | |
| 04 | | | | | |
| 05 | | | | | |
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303812

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2808.d

Date : 15-OCT-98 10:23:00

Client ID:

Instrument: BNAMS6.i

Sample Info: MDFT288

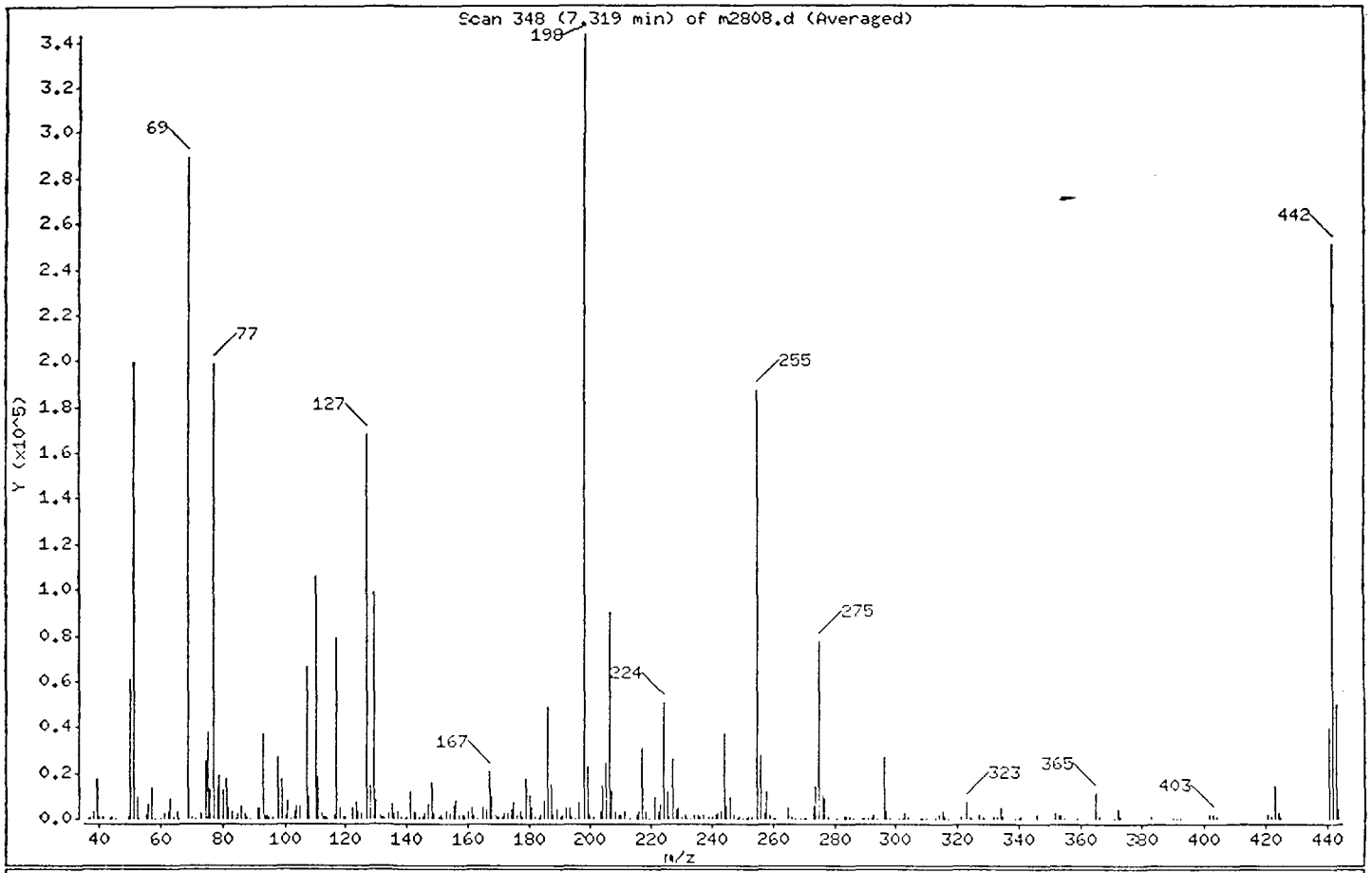
Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

303813

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 | 58.23 |
| 68 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 69 | Mass 69 relative abundance | 84.46 |
| 70 | Less than 2.00% of mass 69 | 0.29 ( 0.34) |
| 127 | 40.00 - 60.00% of mass 198 | 48.88 |
| 197 | Less than 1.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.77 |
| 275 | 10.00 - 30.00% of mass 198 | 22.53 |
| 365 | Greater than 1.00% of mass 198 | 3.11 |
| 441 | 0.01 - 100.00% of mass 443 | 11.57 ( 79.66) |
| 442 | 40.00 - 110.00% of mass 198 | 73.13 |
| 443 | 17.00 - 23.00% of mass 442 | 14.52 ( 19.85) |

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2808.d

Date : 15-OCT-98 10:23:00

Client ID:

Instrument: BNAMS6.i

Sample Info: MDFT288

Operator: BNA2

303814

Column phase: DB-5

Column diameter: 0.25

Data File: m2808.d
Spectrum: Scan 349 (7.319 min) of m2808.d (Averaged)
Location of Maximum: 198.00
Number of points: 281

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 210 | 122.00 | 4489 | 195.00 | 211 | 278.00 | 992 |
| 37.00 | 1149 | 123.00 | 6753 | 196.00 | 7482 | 281.00 | 80 |
| 38.00 | 3394 | 124.00 | 3103 | 198.00 | 342869 | 283.00 | 704 |
| 39.00 | 16979 | 125.00 | 2400 | 199.00 | 23219 | 284.00 | 592 |
| 40.00 | 731 | 127.00 | 167600 | 200.00 | 1896 | 285.00 | 1021 |
| 41.00 | 447 | 128.00 | 13830 | 201.00 | 976 | 286.00 | 71 |
| 43.00 | 305 | 129.00 | 98493 | 203.00 | 3290 | 289.00 | 220 |
| 44.00 | 535 | 130.00 | 8126 | 204.00 | 14376 | 290.00 | 144 |
| 45.00 | 104 | 131.00 | 1297 | 205.00 | 24334 | 291.00 | 87 |
| 49.00 | 713 | 132.00 | 661 | 206.00 | 89658 | 292.00 | 350 |
| 50.00 | 60890 | 133.00 | 169 | 207.00 | 12132 | 293.00 | 1634 |
| 51.00 | 199658 | 134.00 | 2524 | 208.00 | 3526 | 294.00 | 358 |
| 52.00 | 9801 | 135.00 | 6228 | 209.00 | 1382 | 296.00 | 26968 |
| 53.00 | 215 | 136.00 | 2702 | 210.00 | 1773 | 297.00 | 3432 |
| 55.00 | 1563 | 137.00 | 3137 | 211.00 | 3393 | 298.00 | 85 |
| 56.00 | 6615 | 138.00 | 439 | 213.00 | 204 | 301.00 | 199 |
| 57.00 | 13480 | 139.00 | 114 | 215.00 | 1228 | 302.00 | 143 |
| 58.00 | 199 | 140.00 | 798 | 216.00 | 2885 | 303.00 | 2533 |
| 60.00 | 129 | 141.00 | 11526 | 217.00 | 31120 | 304.00 | 454 |
| 61.00 | 2505 | 142.00 | 3406 | 218.00 | 3502 | 308.00 | 232 |
| 62.00 | 3384 | 143.00 | 2385 | 219.00 | 244 | 309.00 | 102 |
| 63.00 | 9052 | 144.00 | 637 | 221.00 | 9621 | 310.00 | 211 |
| 64.00 | 1035 | 145.00 | 517 | 222.00 | 3429 | 313.00 | 116 |
| 65.00 | 3161 | 146.00 | 2013 | 223.00 | 6255 | 314.00 | 1215 |
| 66.00 | 362 | 147.00 | 6088 | 224.00 | 50797 | 315.00 | 3328 |
| 69.00 | 289578 | 148.00 | 15555 | 225.00 | 11802 | 316.00 | 1171 |
| 70.00 | 992 | 149.00 | 2272 | 226.00 | 656 | 317.00 | 109 |
| 71.00 | 201 | 150.00 | 621 | 227.00 | 25753 | 321.00 | 749 |
| 73.00 | 2388 | 151.00 | 1290 | 228.00 | 3783 | 323.00 | 7144 |
| 74.00 | 25477 | 152.00 | 366 | 229.00 | 4767 | 324.00 | 977 |
| 75.00 | 37786 | 153.00 | 3299 | 230.00 | 639 | 325.00 | 76 |
| 76.00 | 12820 | 154.00 | 2426 | 231.00 | 1719 | 327.00 | 1422 |
| 77.00 | 198250 | 155.00 | 5497 | 232.00 | 216 | 328.00 | 665 |
| 78.00 | 13662 | 156.00 | 7742 | 233.00 | 181 | 329.00 | 80 |
| 79.00 | 18605 | 157.00 | 1408 | 234.00 | 1613 | 332.00 | 558 |

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2808.d

Date : 15-OCT-98 10:23:00

Client ID:

Instrument: BNAMS6.i

Sample Info: MDFT288

Operator: BNA2

303815

Column phase: DB-5

Column diameter: 0.25

Data File: m2808.d
Spectrum: Scan 349 (7.319 min) of m2808.d (Averaged)
Location of Maximum: 198.00
Number of points: 281

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 80.00 | 12487 | 158.00 | 1841 | 235.00 | 1511 | 333.00 | 544 |
| 81.00 | 17690 | 159.00 | 1434 | 236.00 | 1110 | 334.00 | 4708 |
| 82.00 | 4478 | 160.00 | 3398 | 237.00 | 1368 | 335.00 | 814 |
| 83.00 | 3053 | 161.00 | 4939 | 239.00 | 948 | 339.00 | 67 |
| 84.00 | 213 | 162.00 | 1213 | 240.00 | 968 | 340.00 | 96 |
| 85.00 | 2669 | 163.00 | 385 | 241.00 | 1311 | 341.00 | 602 |
| 86.00 | 5576 | 165.00 | 4625 | 242.00 | 2528 | 346.00 | 1377 |
| 87.00 | 2255 | 166.00 | 3560 | 243.00 | 2893 | 352.00 | 1997 |
| 88.00 | 707 | 167.00 | 20819 | 244.00 | 36912 | 353.00 | 1299 |
| 89.00 | 217 | 168.00 | 9271 | 245.00 | 5125 | 354.00 | 1956 |
| 91.00 | 4517 | 169.00 | 1427 | 246.00 | 9106 | 355.00 | 122 |
| 92.00 | 5091 | 170.00 | 615 | 247.00 | 1588 | 359.00 | 88 |
| 93.00 | 37034 | 171.00 | 840 | 248.00 | 323 | 365.00 | 10655 |
| 94.00 | 1919 | 172.00 | 1982 | 249.00 | 1080 | 366.00 | 1078 |
| 95.00 | 561 | 173.00 | 2359 | 250.00 | 171 | 371.00 | 262 |
| 96.00 | 841 | 174.00 | 4238 | 251.00 | 341 | 372.00 | 3917 |
| 98.00 | 26986 | 175.00 | 7191 | 252.00 | 410 | 373.00 | 542 |
| 99.00 | 17335 | 176.00 | 1683 | 253.00 | 699 | 383.00 | 549 |
| 100.00 | 1723 | 177.00 | 3380 | 255.00 | 186584 | 390.00 | 351 |
| 101.00 | 7989 | 178.00 | 591 | 256.00 | 27575 | 391.00 | 165 |
| 102.00 | 247 | 179.00 | 17303 | 257.00 | 2129 | 392.00 | 97 |
| 103.00 | 3233 | 180.00 | 9860 | 258.00 | 12085 | 402.00 | 1346 |
| 104.00 | 5744 | 181.00 | 4357 | 259.00 | 1688 | 403.00 | 1834 |
| 105.00 | 5671 | 182.00 | 600 | 260.00 | 204 | 404.00 | 536 |
| 107.00 | 65909 | 183.00 | 156 | 261.00 | 88 | 421.00 | 1674 |
| 108.00 | 9086 | 184.00 | 1305 | 265.00 | 4752 | 422.00 | 789 |
| 110.00 | 105634 | 185.00 | 7695 | 266.00 | 475 | 423.00 | 14009 |
| 111.00 | 18321 | 186.00 | 48765 | 267.00 | 71 | 424.00 | 2336 |
| 112.00 | 2009 | 187.00 | 14646 | 269.00 | 75 | 425.00 | 86 |
| 113.00 | 761 | 188.00 | 1563 | 270.00 | 182 | 441.00 | 39654 |
| 114.00 | 70 | 189.00 | 3921 | 271.00 | 310 | 442.00 | 250728 |
| 116.00 | 1198 | 190.00 | 615 | 273.00 | 5891 | 443.00 | 49778 |
| 117.00 | 78808 | 191.00 | 1753 | 274.00 | 14319 | 444.00 | 3649 |
| 118.00 | 5034 | 192.00 | 4827 | 275.00 | 77250 | | |
| 119.00 | 562 | 193.00 | 4997 | 276.00 | 10503 | | |

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2808.d

Date : 15-OCT-98 10:23:00

Client ID:

Instrument: BNAMS6.i

Sample Info: MDFT288

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25

Data File: m2808.d

Spectrum: Scan 349 (7.319 min) of m2808.d (Averaged)

Location of Maximum: 198.00

Number of points: 281

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 120.00 | 661 | 194.00 | 916 | 277.00 | 8429 | | |

303816

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m28C8.d

Date : 15-OCT-98 10:23:00

Client ID:

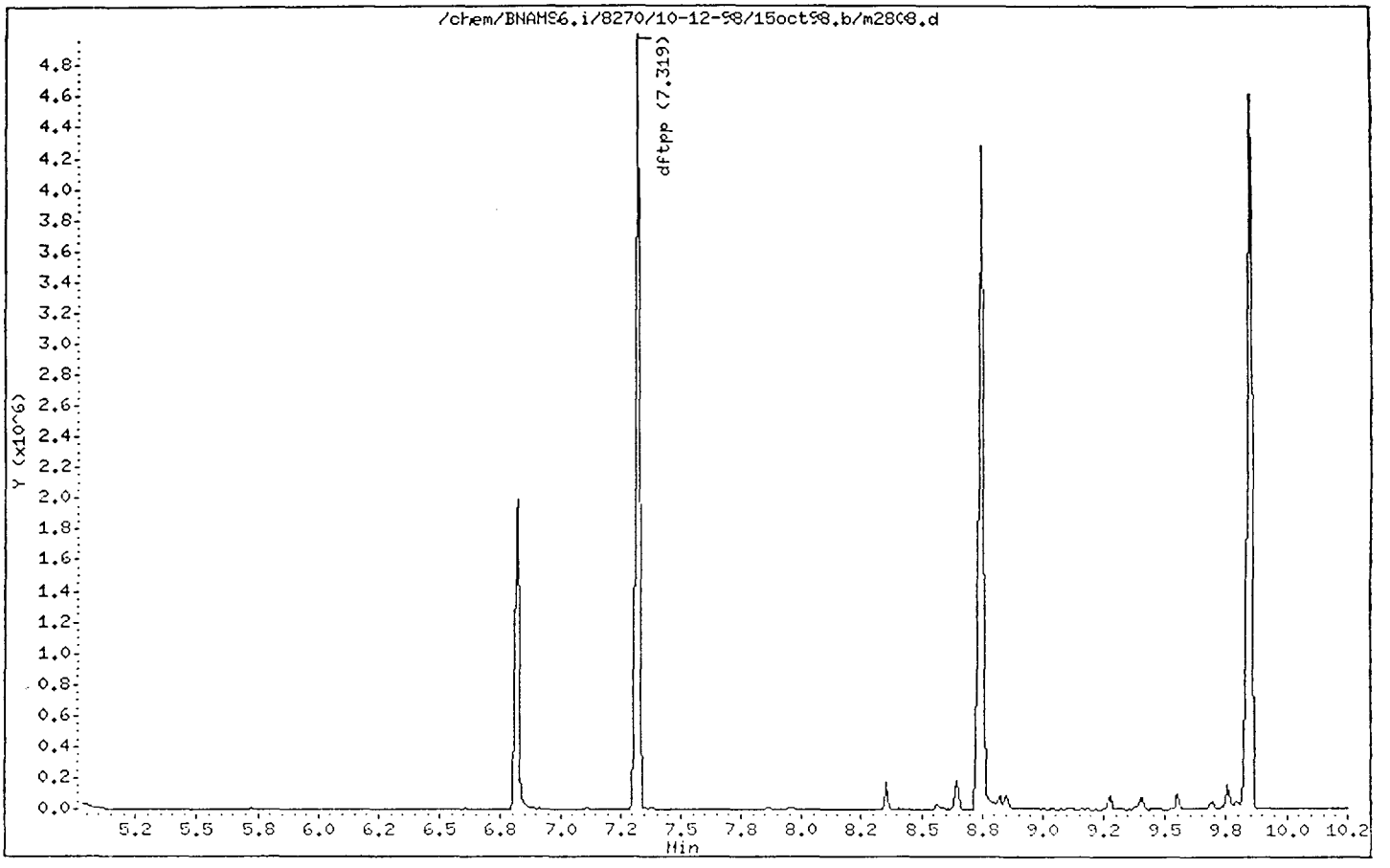
Instrument: BNAMS6.i

Sample Info: MDFT288

Operator: BNA2

Column phase: DB-5

Column diameter: 0.25




303817

LAB SAMPLE NO.

# VOLATILE METHOD BLANK SUMMARY

AV293

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 | SSNDS-1A_1-1.5 | 88559 | A6473 | 1355 |
| 02 | | | | |
| 03 | | | | |
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COMMENTS:



303818

Client ID: **AV293**
Site:

Lab Sample No: **AV293**
Lab Job No: H941

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 |

303819

Client ID: **AV293**
Site:

Lab Sample No: **AV293**
Lab Job No: H941

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 |

303820

Client ID: **AV293**
Site:

Lab Sample No: **AV293**
Lab Job No: H941

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 |

Client ID: **AV293**
Site:

Lab Sample No: **AV293**
Lab Job No: H941

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. | | | |
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| 29. | | | |
| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 0.0

303822

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) | 36601 | 5.8 | 580(H) |
| 6 Methylene Chloride | 84 | 7.190 | 7.162 | (0.687) | 30622 | 1.1 | 110(a) |
| $ 16 1,2-Dichloroethane-d4 SUR | 65 | 10.130 | 10.087 | (0.958) | 1349660 | 49 | 4900 |
| * 13 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) | 1608537 | 50 | |

QC Flag Legend

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

303823

Data File: /chem/VOAHS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6472.d
Date : 20-OCT-98 12:58:00
Client ID:
Sample Info: AV293

Column phase: DB624

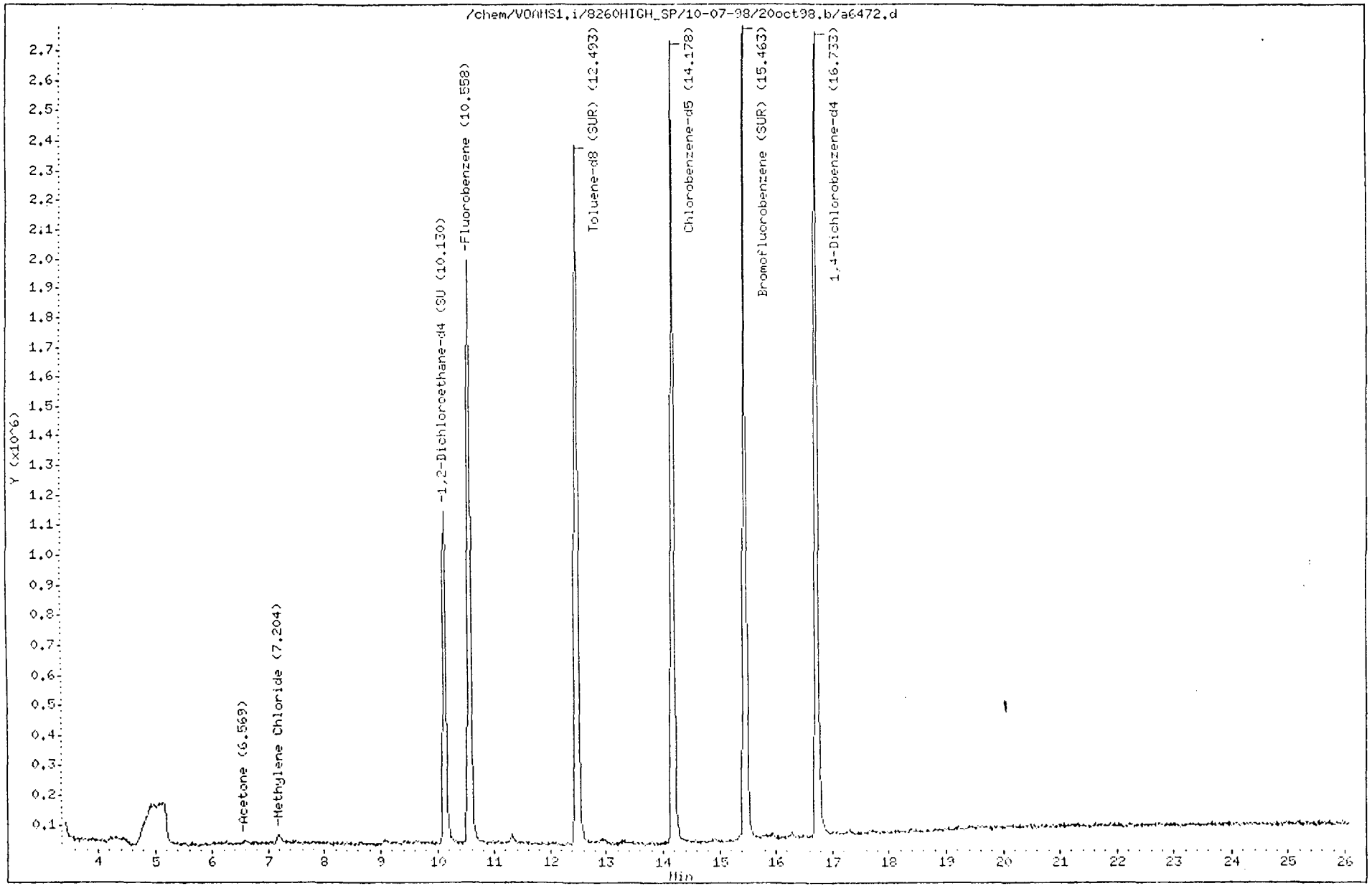
Instrument: VOAHS1.i

Operator: VOAHS 3

Column diameter: 0.53

303824





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

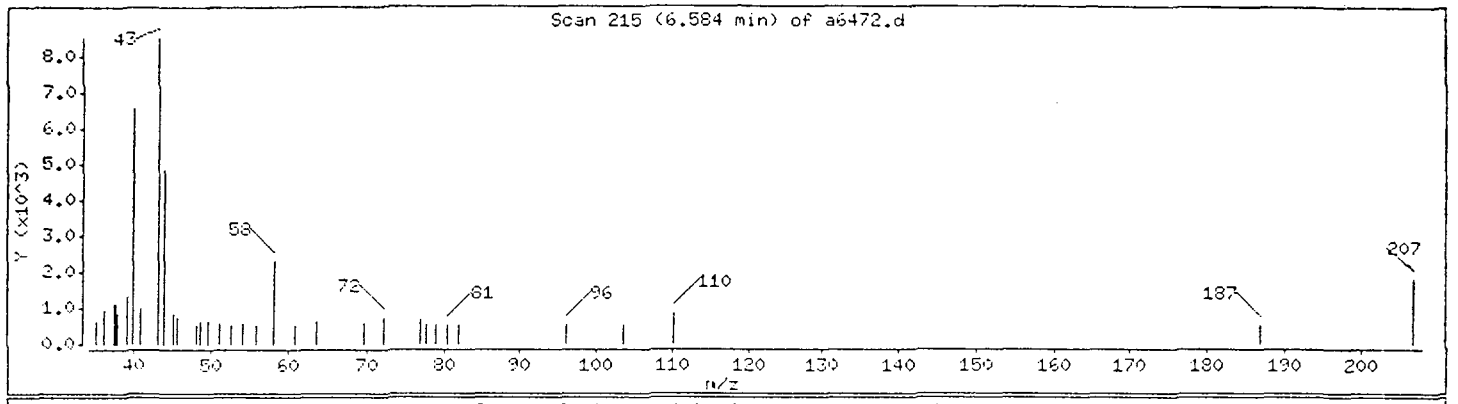
Operator: VOAMS 3

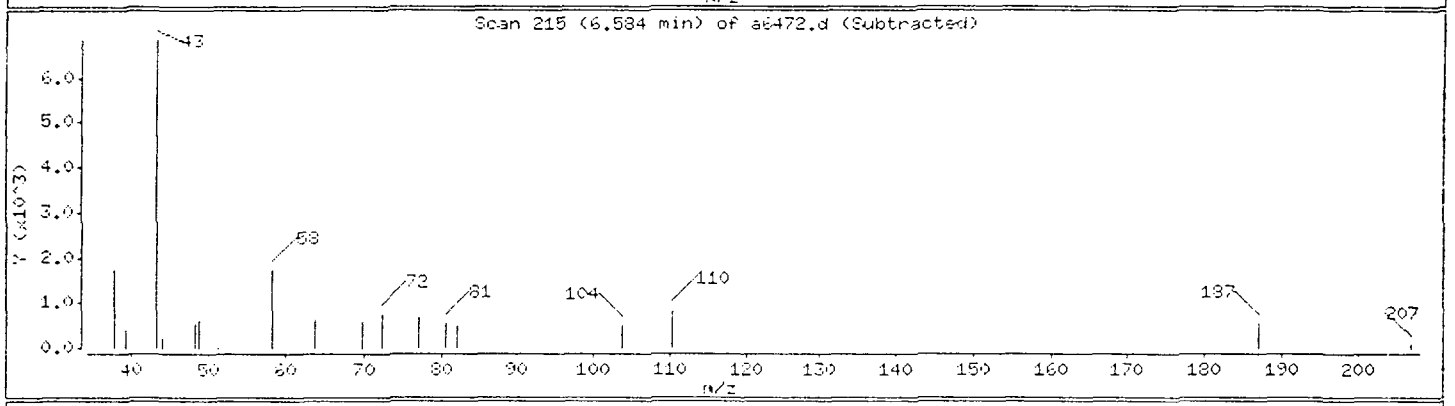
Column phase: DB624

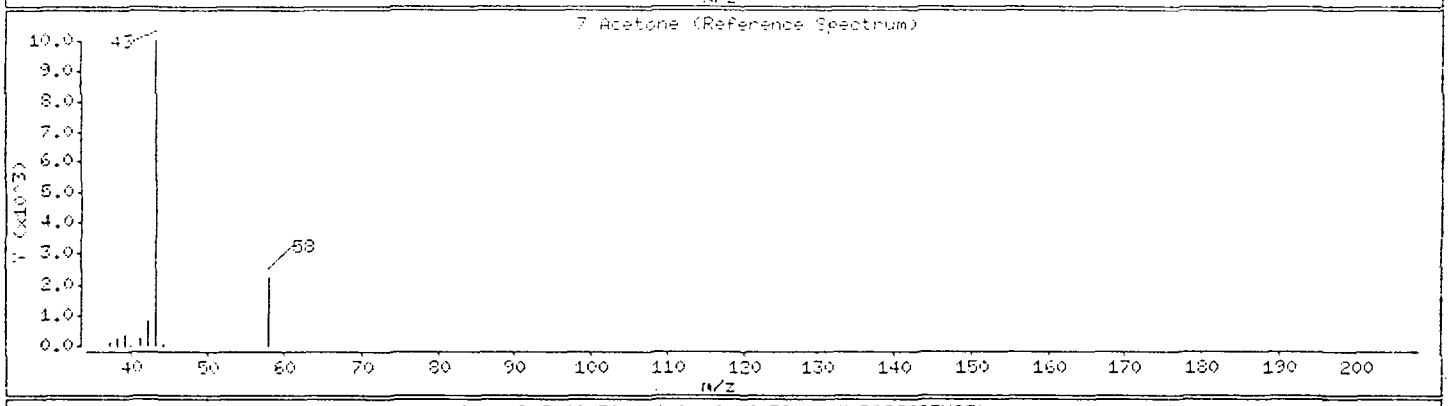
Column diameter: 0.53

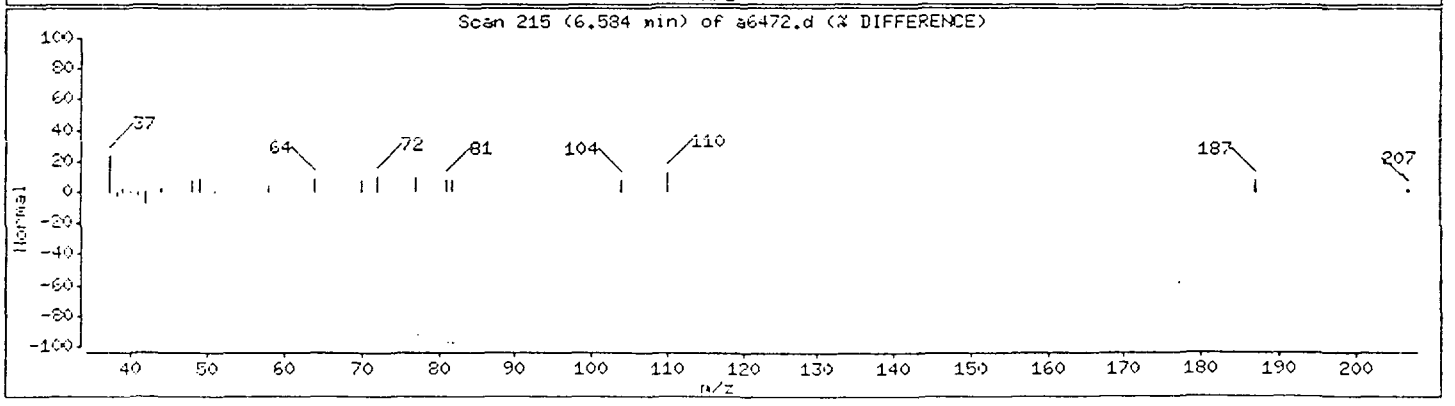
**303825**

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

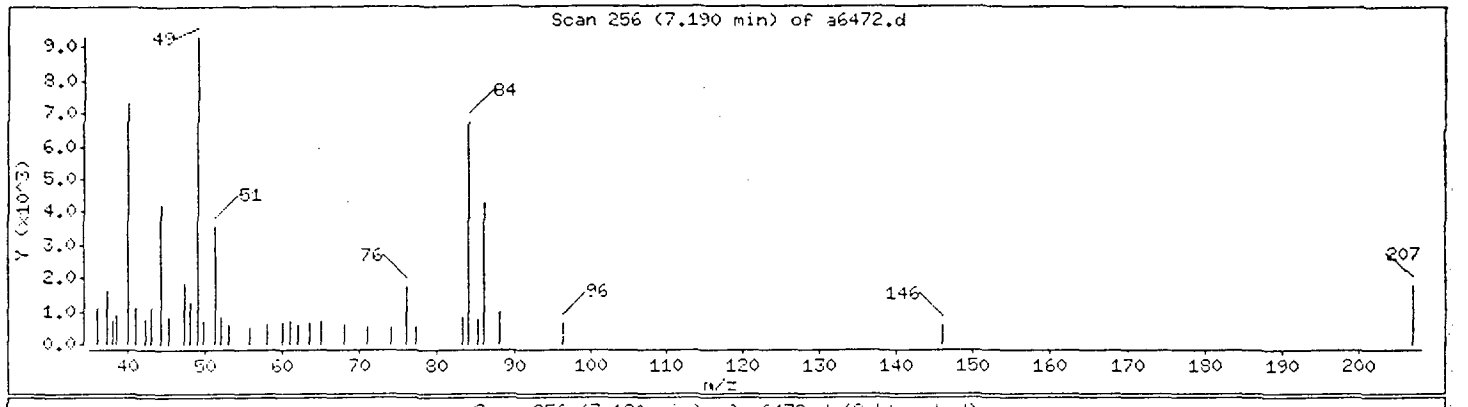
Operator: VOAMS 3

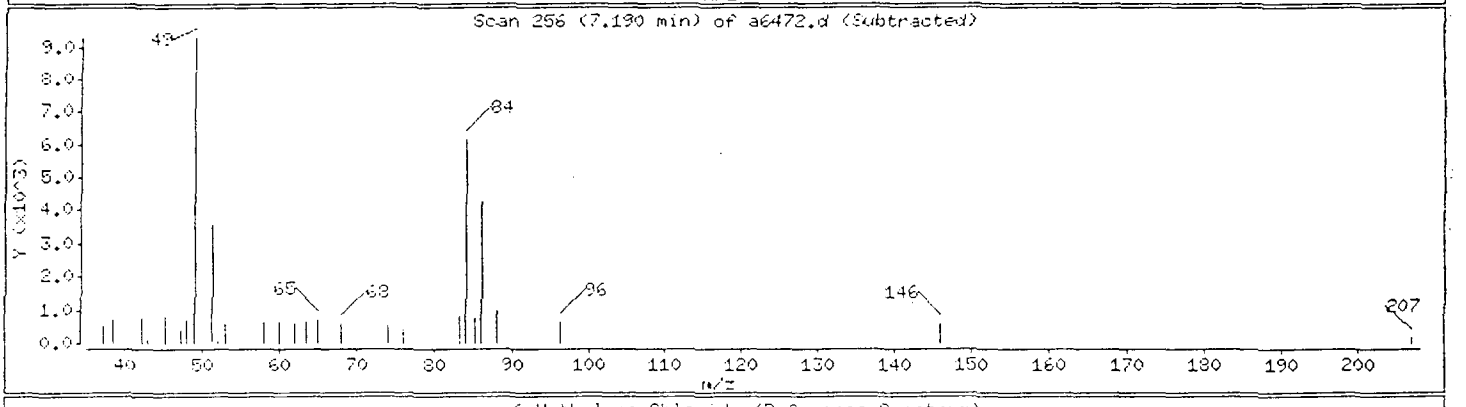
Column phase: DB624

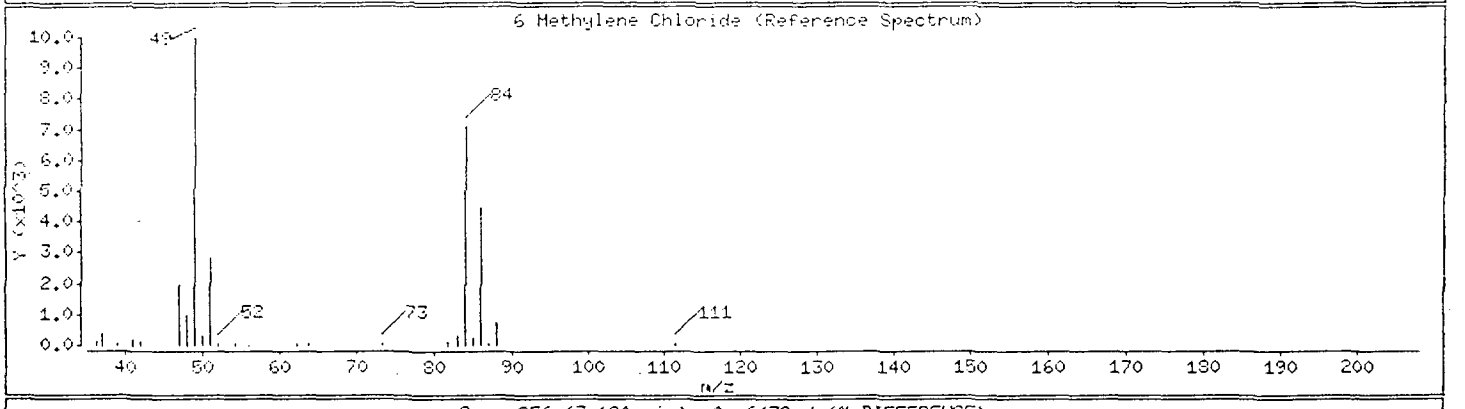
Column diameter: 0.53

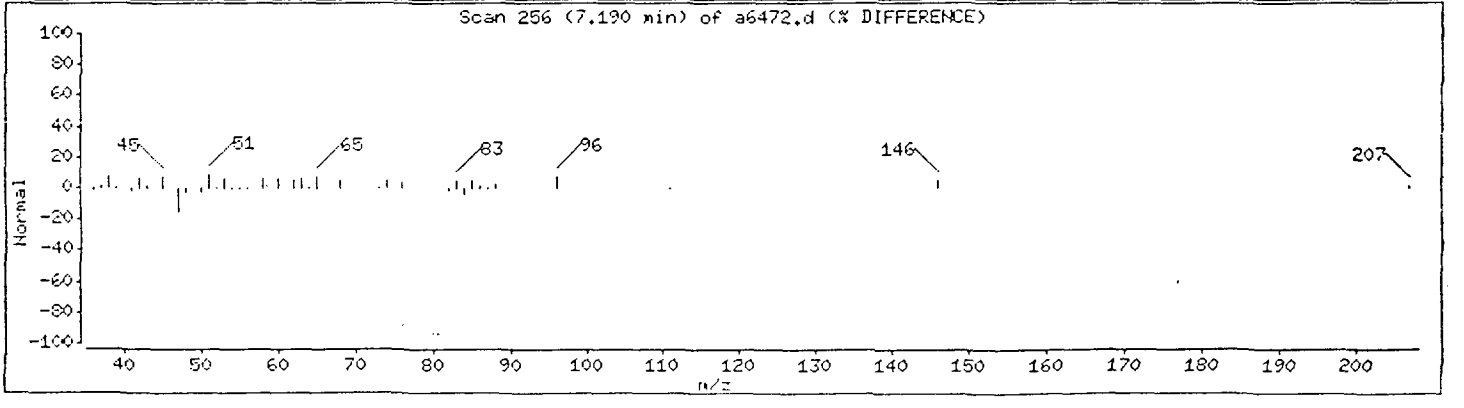
303826

6 Methylene Chloride



LAB SAMPLE NO.

# VOLATILE METHOD BLANK SUMMARY

BV291

Matrix: WATER

Date Analyzed: 10/18/98

Level: LOW

Time Analyzed: 1322

Lab File ID: B8524

Heated Purge (Y/N) N

Instrument ID: VOAMS2

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

| | CLIENT ID. | LAB SAMPLE NO | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | TB-1 | 88550 | B8532 | 1806 |
| 02 | | | | |
| 03 | | | | |
| 04 | | | | |
| 05 | | | | |
| 06 | | | | |
| 07 | | | | |
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| 30 | | | | |

COMMENTS:



303827

Client ID: **BV291**
Site:

Lab Sample No: **BV291**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/18/98
GC Column: DB624
Instrument ID: VOAMS2.i
Lab File ID: b8524.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 |

303828

Client ID: **BV291**
Site:

Lab Sample No: **BV291**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/18/98
GC Column: DB624
Instrument ID: VOAMS2.i
Lab File ID: b8524.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 |

303829

Client ID: **BV291**
Site:

Lab Sample No: **BV291**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/18/98
GC Column: DB624
Instrument ID: VOAMS2.i
Lab File ID: b8524.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 |

303830

Client ID: BV291
Site:

Lab Sample No: BV291
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/18/98
GC Column: DB624
Instrument ID: VOAMS2.i
Lab File ID: b8524.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. | | | |
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TOTAL ESTIMATED CONCENTRATION 0.0

303831

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8524.d
Report Date: 18-Oct-98 14:09:44

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8524.d
Lab Smp Id: BV291
Inj Date : 18-OCT-98 13:22:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : BV291
Misc Info :
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 12:31:29 Quant Type: ISTD
Cal Date : 29-SEP-98 21:16:00 Cal File: b8238.d
Als bottle: 4 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 | 10.579 | 10.685 | (0.961) | 1704114 | 56 | 56 |
| * 19 Fluorobenzene | 96 | 11.008 | 11.099 | (1.000) | 4588018 | 50 | |
| $ 37 Toluene-d8 (SUR) | 98 | 12.902 | 12.993 | (0.884) | 4574728 | 59 | 59 |
| * 32 Chlorobenzene-d5 | 117 | 14.589 | 14.665 | (1.000) | 3010842 | 50 | |
| $ 41 Bromofluorobenzene (SUR) | 174 | 15.862 | 15.923 | (0.925) | 1537689 | 57 | 57 |
| * 91 1,4-Dichlorobenzene-d4 | 152 | 17.149 | 17.210 | (1.000) | 1360095 | 50 | |

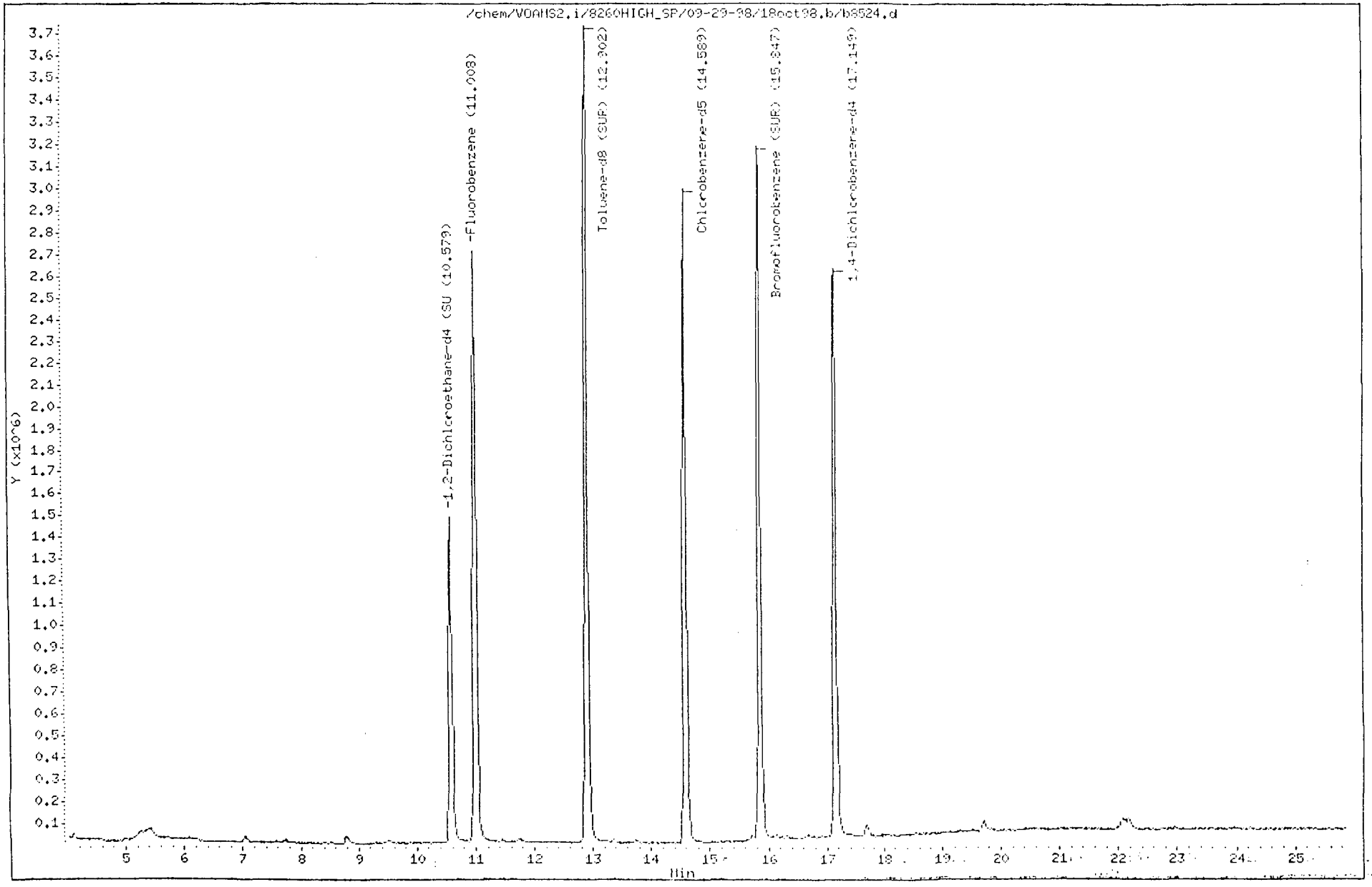
303832

Data File: /chem/VOAHS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8524.d
Date : 18-OCT-98 13:22:00
Client ID:
Sample Info: BV291
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAHS2.i
Operator: VOAHS 3
Column diameter: 0.53

303833

298



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 | SSNDS-2_1.5-2 | 88557 | E4656 | 1652 |
| 02 | | | | |
| 03 | | | | |
| 04 | | | | |
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COMMENTS:



303834

Client ID: **EV288B**
Site:

Lab Sample No: **EV288B**
Lab Job No: H941

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 |

303835

Client ID: **EV288B**
Site:

Lab Sample No: **EV288B**
Lab Job No: H941

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 |

303836

Client ID: **EV288B**
Site:

Lab Sample No: **EV288B**
Lab Job No: H941

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 |

303837

Client ID: **EV288B**
Site:

Lab Sample No: **EV288B**
Lab Job No: H941

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. | | | |
| 3. | | | |
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TOTAL ESTIMATED CONCENTRATION 0.0

303838

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 | |

303839

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

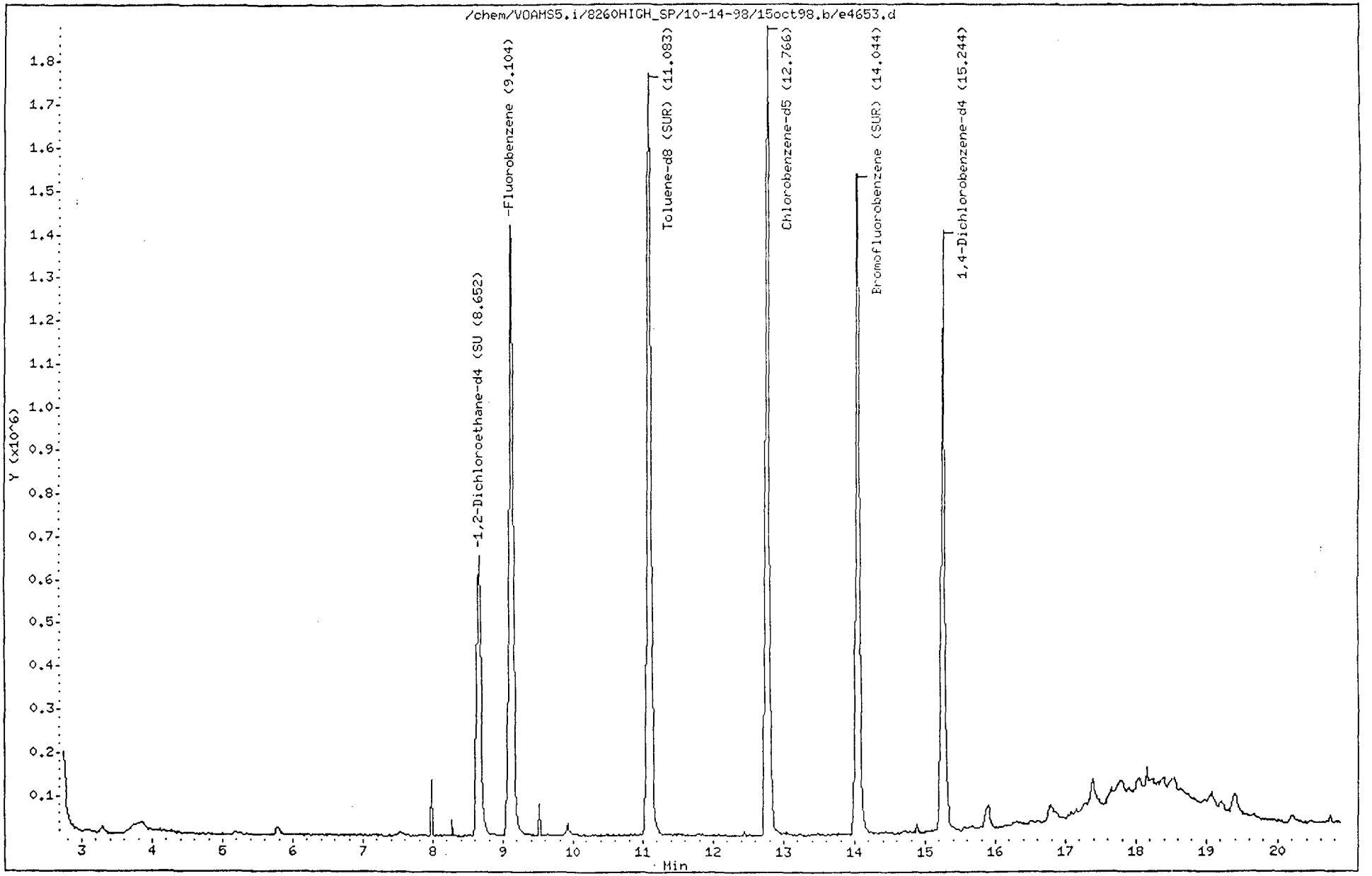
Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

303840

305



LAB SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

EV289

Matrix: SOIL

Date Analyzed: 10/16/98

Level: HIGH

Time Analyzed: 1153

Lab File ID: E4671

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 | SSFS-1_.5-1 | 88560 | E4675 | 1350 |
| 02 | | | | |
| 03 | | | | |
| 04 | | | | |
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COMMENTS:



303841

Client ID: **EV289**
Site:

Lab Sample No: **EV289**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4671.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 |

303842

Client ID: **EV289**
Site:

Lab Sample No: **EV289**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4671.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 |

303843

Client ID: **EV289**
Site:

Lab Sample No: **EV289**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4671.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 |

Client ID: **EV289**
Site:

Lab Sample No: **EV289**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Analyzed: 10/16/98
GC Column: DB624
Instrument ID: VOAMS5.i
Lab File ID: e4671.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. | | | |
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TOTAL ESTIMATED CONCENTRATION 0.0

**303845**

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4671.d
Report Date: 18-Oct-98 18:33:57

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4671.d
Lab Smp Id: EV289 Client Smp ID: EV289
Inj Date : 16-OCT-98 11:53:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : EV289
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/8260newHIGH.m
Meth Date : 16-Oct-98 10:58:35 Quant Type: ISTD
Cal Date : 14-OCT-98 12:21:00 Cal File: e4614.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) |
|---|---|---|---|---|---|---|---|
| $ 16 1,2-Dichloroethane-d4 (SUR) | 65 | 8.619 | 8.680 | (0.949) | 816110 | 46 | 4600 |
| * 19 Fluorobenzene | 96 | 9.086 | 9.149 | (1.000) | 2860235 | 50 | |
| $ 37 Toluene-d8 (SUR) | 98 | 11.064 | 11.117 | (0.868) | 2490689 | 52 | 5200 |
| * 32 Chlorobenzene-d5 | 117 | 12.746 | 12.804 | (1.000) | 2270549 | 50 | |
| $ 41 Bromofluorobenzene (SUR) | 174 | 14.024 | 14.071 | (0.921) | 747857 | 53 | 5300 |
| * 91 1,4-Dichlorobenzene-d4 | 152 | 15.223 | 15.276 | (1.000) | 686386 | 50 | |

303846

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4671.d
Date : 16-OCT-98 11:53:00
Client ID: EV289
Sample Info: EV289

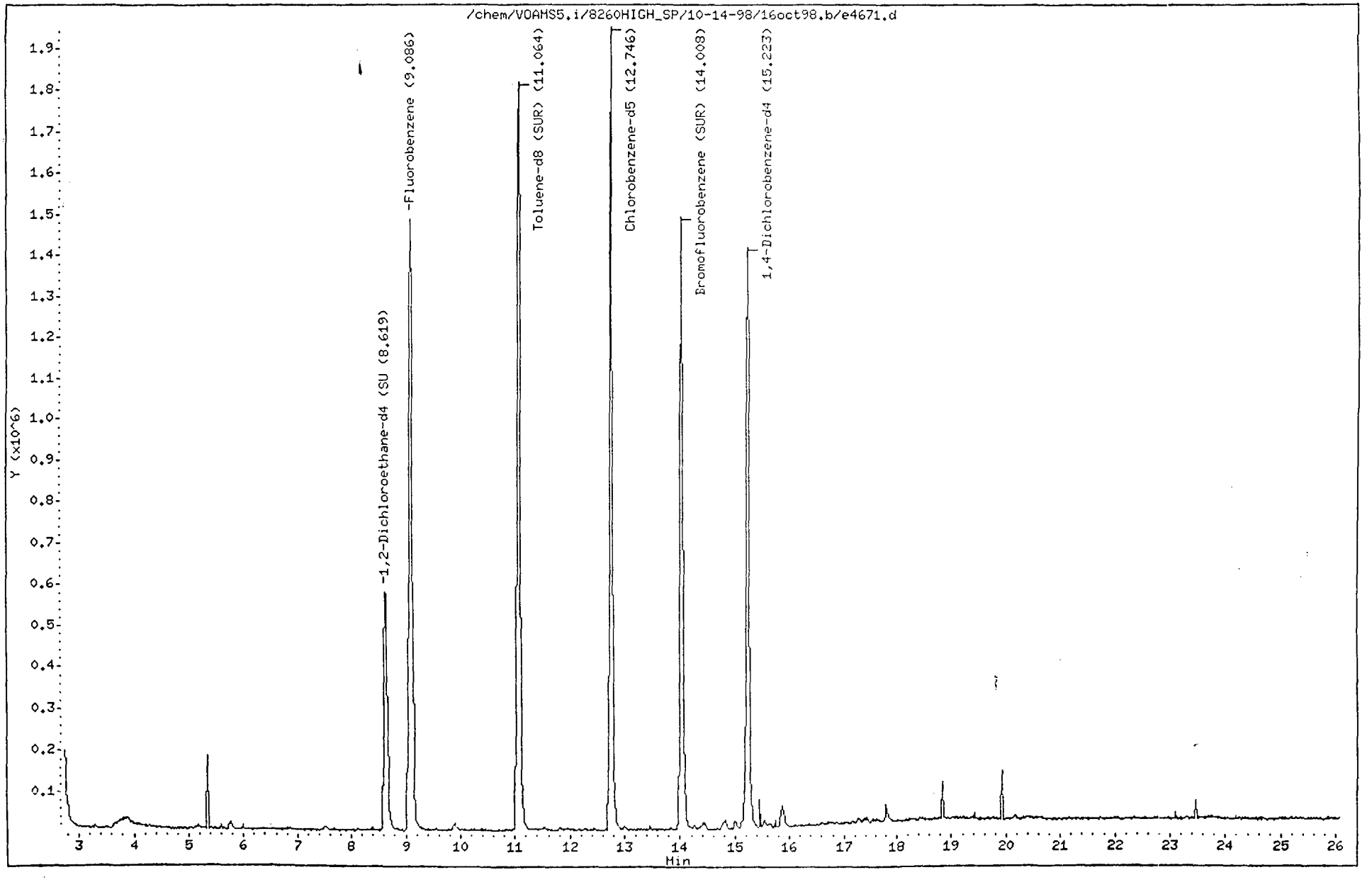
Instrument: VOAMS5.i

Operator: VOAMS 5

303847

Column phase: DB624

Column diameter: 0.53

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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 | SSNDS-1A_0-0.5 | 88562 | S8301 | 10/20/98 |
| 02 | SSNDS-2A_0-0.5 | 88563 | S8302 | 10/20/98 |
| 03 | SSFS-1_0-0.5 | 88565 | S8315 | 10/21/98 |
| 04 | | | | |
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COMMENTS:



303848

Client ID: SB288A
Site:

Lab Sample No: SB288A
Lab Job No: H941

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 |

303849

Client ID: **SB288A**
Site:

Lab Sample No: **SB288A**
Lab Job No: H941

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 |

303850

Client ID: **SB288A**
Site:

Lab Sample No: **SB288A**
Lab Job No: H941

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 |

303851

Client ID: **SB288A**
Site:

Lab Sample No: **SB288A**
Lab Job No: H941

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. | | | |
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| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 100840

303852

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 | |

303853

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;;

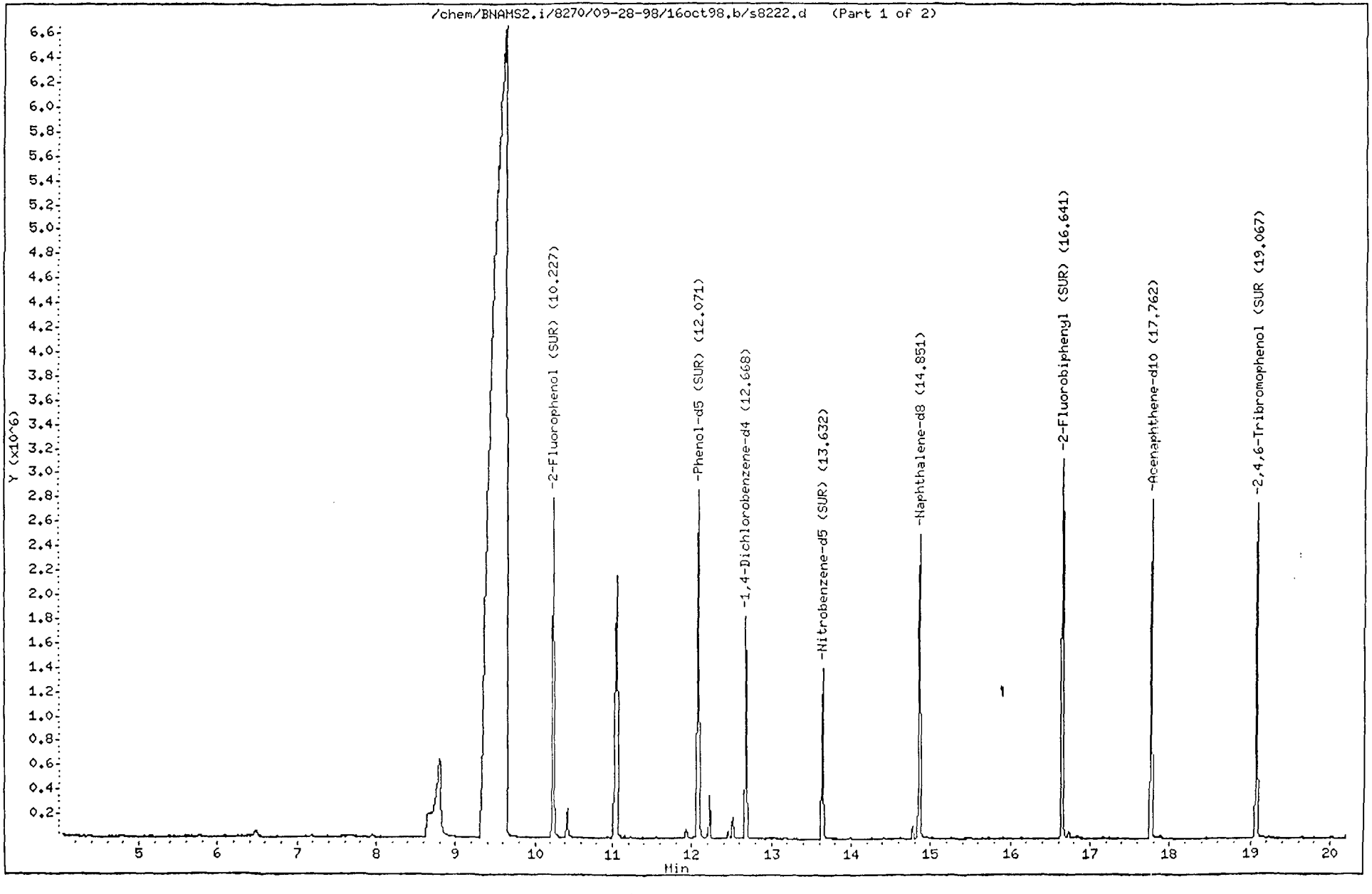
Column phase: DB-5

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

303854

319



Data File: /chem/BNAHS2.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;;

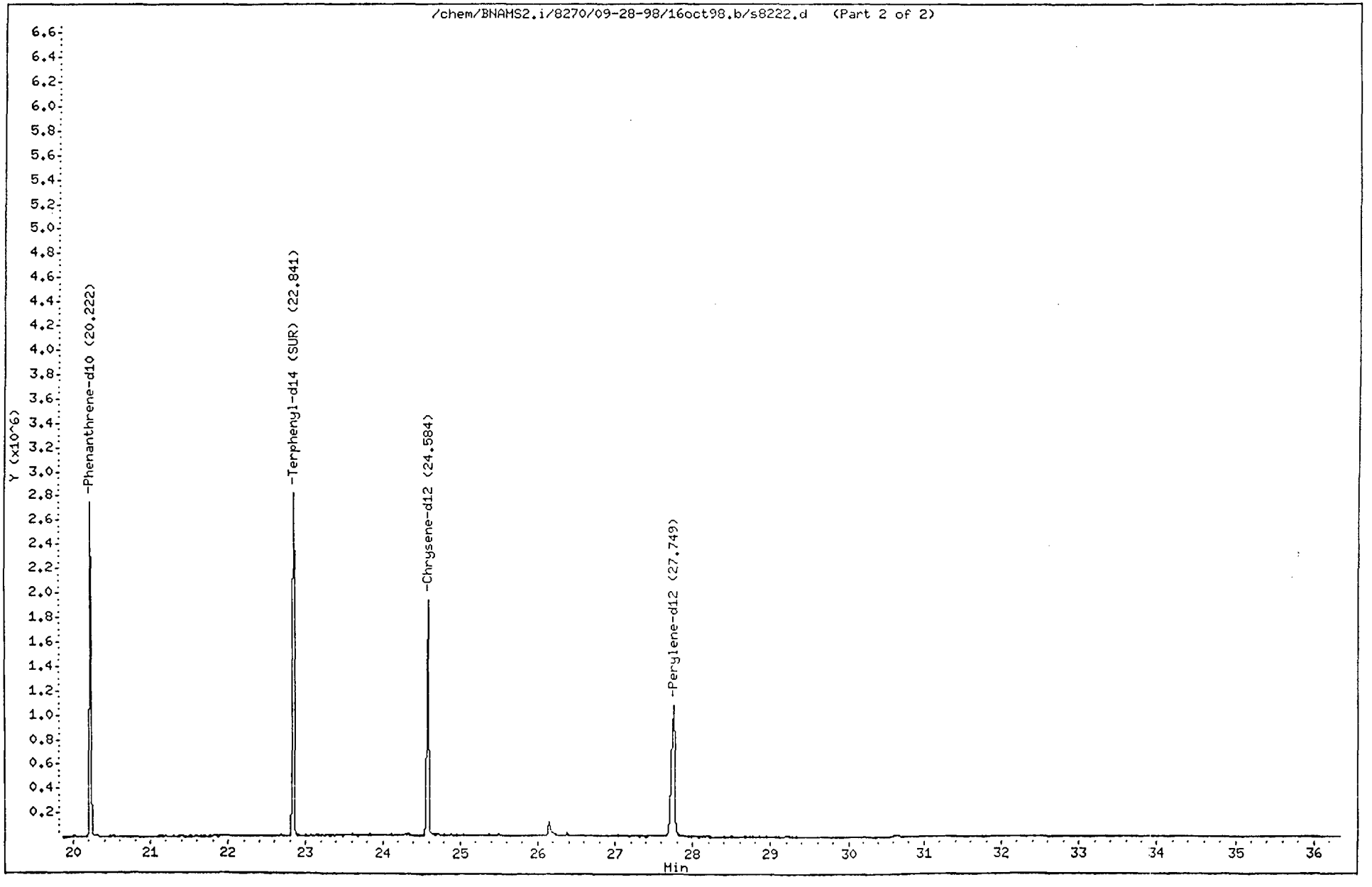
Column phase: DB-5

Instrument: BNAHS2.i

Operator: BNAHS 2
Column diameter: 0.25

303855

320



LAB SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

WB282B

Matrix: WATER

Date Analyzed: 10/14/98

Level: LOW

Time Analyzed: 1415

Instrument ID: BNAMS5

Lab File ID: Q7518

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

| | CLIENT ID. | LAB SAMPLE NO | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | FB-1 | 88548 | Q7549 | 10/15/98 |
| 02 | | | | |
| 03 | | | | |
| 04 | | | | |
| 05 | | | | |
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| 30 | | | | |

COMMENTS:



303856

Client ID: **WB282B**
Site:

Lab Sample No: **WB282B**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Extracted: 10/09/98
Date Analyzed: 10/14/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7518.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Result Units: ug/l | Quantitation Limit Units: ug/l |
|---|---|---|
| Phenol | ND | 10 |
| 2-Chlorophenol | ND | 10 |
| 2-Methylphenol | ND | 10 |
| 4-Methylphenol | ND | 10 |
| 2-Nitrophenol | ND | 10 |
| 2,4-Dimethylphenol | ND | 10 |
| 2,4-Dichlorophenol | ND | 10 |
| 4-Chloro-3-methylphenol | ND | 10 |
| 2,4,6-Trichlorophenol | ND | 10 |
| 2,4,5-Trichlorophenol | ND | 10 |
| 2,4-Dinitrophenol | ND | 40 |
| 4-Nitrophenol | ND | 40 |
| 4,6-Dinitro-2-methylphenol | ND | 40 |
| Pentachlorophenol | ND | 40 |
| Benzoic Acid | ND | 10 |
| N-Nitrosodimethylamine | ND | 10 |
| bis(2-Chloroethyl)ether | ND | 1.0 |
| 1,3-Dichlorobenzene | ND | 10 |
| 1,4-Dichlorobenzene | ND | 10 |
| 1,2-Dichlorobenzene | ND | 10 |
| bis(2-chloroisopropyl)ether | ND | 10 |
| N-Nitroso-di-n-propylamine | ND | 1.0 |
| Hexachloroethane | ND | 1.0 |
| Nitrobenzene | ND | 1.0 |
| Isophorone | ND | 10 |
| bis(2-Chloroethoxy)methane | ND | 10 |
| 1,2,4-Trichlorobenzene | ND | 1.0 |
| Naphthalene | ND | 10 |
| 4-Chloroaniline | ND | 10 |
| Hexachlorobutadiene | ND | 2.0 |
| 2-Methylnaphthalene | ND | 10 |
| Hexachlorocyclopentadiene | ND | 10 |
| 2-Chloronaphthalene | ND | 10 |
| 2-Nitroaniline | ND | 20 |

303857

Client ID: **WB282B**
Site:

Lab Sample No: **WB282B**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Extracted: 10/09/98
Date Analyzed: 10/14/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7518.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Result Units: ug/l | Quantitation Limit Units: ug/l |
|---|---|---|
| Dimethylphthalate | ND | 10 |
| Acenaphthylene | ND | 10 |
| 2,6-Dinitrotoluene | ND | 2.0 |
| 3-Nitroaniline | ND | 20 |
| Acenaphthene | ND | 10 |
| Dibenzofuran | ND | 10 |
| 2,4-Dinitrotoluene | ND | 2.0 |
| Diethylphthalate | ND | 10 |
| 4-Chlorophenyl-phenylether | ND | 10 |
| Fluorene | ND | 10 |
| 4-Nitroaniline | ND | 20 |
| N-Nitrosodiphenylamine | ND | 10 |
| 4-Bromophenyl-phenylether | ND | 10 |
| Hexachlorobenzene | ND | 1.0 |
| Phenanthrene | ND | 10 |
| Anthracene | ND | 10 |
| Carbazole | ND | 10 |
| Di-n-butylphthalate | ND | 10 |
| Fluoranthene | ND | 10 |
| Pyrene | ND | 10 |
| Benzidine | ND | 40 |
| Butylbenzylphthalate | ND | 10 |
| 3,3'-Dichlorobenzidine | ND | 20 |
| Benzo(a)anthracene | ND | 1.0 |
| Chrysene | ND | 10 |
| bis(2-Ethylhexyl)phthalate | ND | 10 |
| Di-n-octylphthalate | ND | 10 |
| Benzo(b)fluoranthene | ND | 1.0 |
| Benzo(k)fluoranthene | ND | 1.0 |
| Benzo(a)pyrene | ND | 1.0 |
| Indeno(1,2,3-cd)pyrene | ND | 1.0 |
| Dibenz(a,h)anthracene | ND | 1.0 |
| Benzo(g,h,i)perylene | ND | 10 |
| Pyridine | ND | 10 |

303858

Client ID: **WB282B**
Site:

Lab Sample No: **WB282B**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Extracted: 10/09/98
Date Analyzed: 10/14/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7518.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

**SEMI-VOLATILE ORGANICS - GC/MS**
**METHOD 8270C**

| Parameter | Analytical Result Units: ug/l | Quantitation Limit Units: ug/l |
|---|---|---|
| Aniline | ND | 10 |
| Benzyl Alcohol | ND | 10 |
| 1,2-Diphenylhydrazine | ND | 10 |
| Diphenyl | ND | 10 |
| Diphenyl Ether | ND | 10 |
| Acetophenone | ND | 10 |
| 1,4-Dioxane | ND | 10 |
| N,N-Dimethylaniline | ND | 1.0 |

303859

Client ID: **WB282B**
Site:

Lab Sample No: **WB282B**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Extracted: 10/09/98
Date Analyzed: 10/14/98
GC Column: DB-5
Instrument ID: BNAMS5.i
Lab File ID: q7518.d

Matrix: WATER
Level: LOW
Sample Volume: 1000 ml
Extract Final Volume: 2.0 ml
Dilution Factor: 1.0

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

| COMPOUND NAME | RT | EST. CONC. ug/l | Q |
|---|---|---|---|
| 1. NO SEMI-VOLATILE ORGANIC COMPOUNDS FOUND | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
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| 28. | | | |
| 29. | | | |
| 30. | | | |

TOTAL ESTIMATED CONCENTRATION 0.0

303860

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7518.d
Report Date: 14-Oct-98 17:25:18

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7518.d
Lab Smp Id: WB282B  Client Smp ID: BNA
Inj Date : 14-OCT-98 14:15:00
Operator : BNAMS3  Inst ID: BNAMS5.i
Smp Info : WB282B;1000;2;1;;
Misc Info : ;BNA;;
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/14oct98.b/8270C-REV..m
Meth Date : 14-Oct-98 08:44:40  Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00  Cal File: q7343.d
Als bottle: 9  QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: 1000*Vt/Vo

| Name | Value | Description |
|---|---|---|
| Vt | 2.000 | Volume of final extract (uL) |
| Vo | 1000.000 | Volume of sample extracted (mL) |

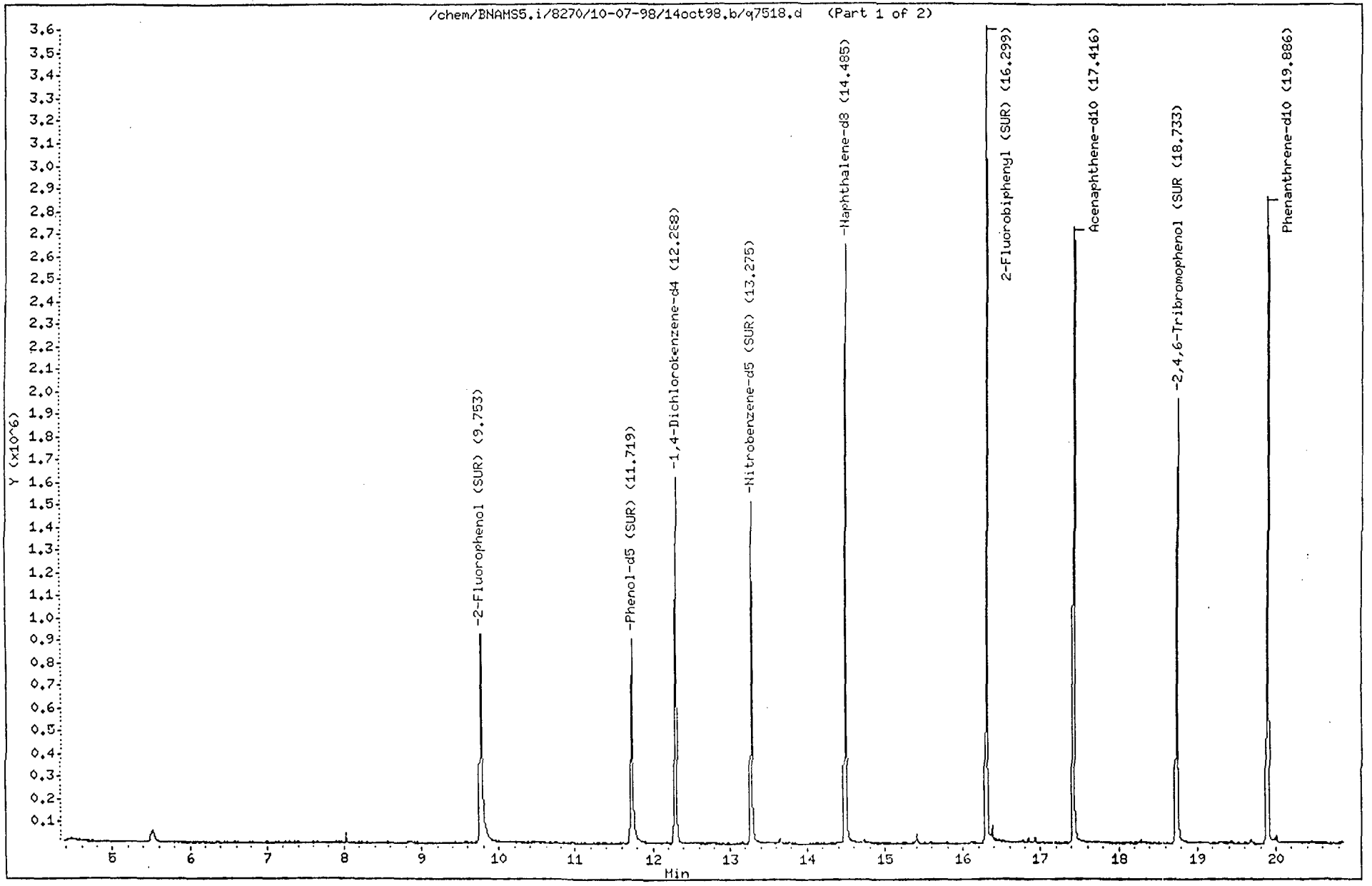
| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/ml) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 16 2-Fluorophenol (SUR) | 112 | 9.761 | 9.768 | (0.794) | 647418 | 44 | 88 |
| $ 17 Phenol-d5 (SUR) | 99 | 11.719 | 11.734 | (0.954) | 598966 | 29 | 58 |
| * 79 1,4-Dichlorobenzene-d4 | 152 | 12.288 | 12.288 | (1.000) | 418247 | 40 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 13.275 | 13.282 | (0.916) | 689357 | 46 | 91 |
| * 80 Naphthalene-d8 | 136 | 14.485 | 14.492 | (1.000) | 1758399 | 40 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 16.299 | 16.307 | (0.936) | 1600136 | 48 | 96 |
| * 82 Acenaphthene-d10 | 164 | 17.416 | 17.423 | (1.000) | 1027523 | 40 | |
| $ 18 2,4,6-Tribromophenol (SUR) | 330 | 18.733 | 18.741 | (1.076) | 385132 | 76 | 150 |
| * 83 Phenanthrene-d10 | 188 | 19.886 | 19.893 | (1.000) | 1556238 | 40 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 22.536 | 22.536 | (0.928) | 1754912 | 53 | 110 |
| * 81 Chrysene-d12 | 240 | 24.271 | 24.293 | (1.000) | 1256311 | 40 | |
| * 84 Perylene-d12 | 264 | 27.238 | 27.253 | (1.000) | 1309489 | 40 | |

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7518.d
Date : 14-OCT-98 14:15:00
Client ID: BNA
Sample Info: WB282B;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

303862

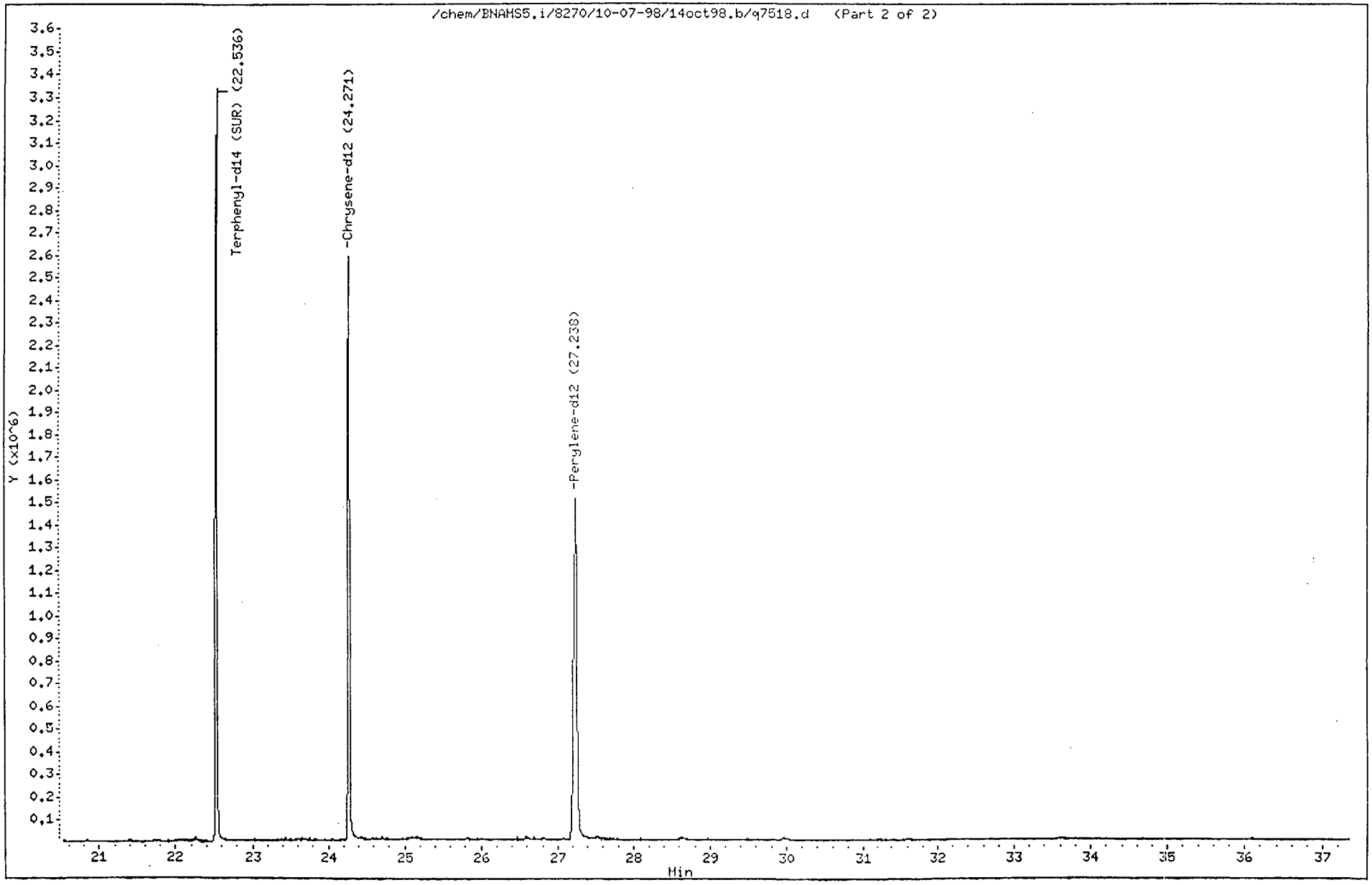




Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7518.d
Date : 14-OCT-98 14:15:00
Client ID: BNA
Sample Info: WB282B;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

303863



LAB SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

SB287B

Matrix: SOIL

Date Analyzed: 10/15/98

Level: LOW

Time Analyzed: 1233

Instrument ID: BNAMS6

Lab File ID: M2811

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

| | CLIENT ID. | LAB SAMPLE NO | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | SSCB-1_2-2.5 | 88566 | S8316 | 10/21/98 |
| 02 | | | | |
| 03 | | | | |
| 04 | | | | |
| 05 | | | | |
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| 28 | | | | |
| 29 | | | | |
| 30 | | | | |

COMMENTS:

page 1 of 1

303864

Client ID: SB287B
Site:

Lab Sample No: SB287B
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Extracted: 10/14/98
Date Analyzed: 10/15/98
GC Column: DB-5
Instrument ID: BNAMS6.i
Lab File ID: m2811.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 |
|---|---|---|
| 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 |
| 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 |

303865

Client ID: **SB287B**
Site:

Lab Sample No: **SB287B**
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Extracted: 10/14/98
Date Analyzed: 10/15/98
GC Column: DB-5
Instrument ID: BNAMS6.i
Lab File ID: m2811.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 |
|---|---|---|
| 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 |
| Aniline | ND | 330 |
| Benzyl Alcohol | ND | 330 |
| 1,2-Diphenylhydrazine | ND | 330 |

303866

Client ID: SB287B
Site:

Lab Sample No: SB287B
Lab Job No: H941

Date Sampled: _____
Date Received: _____
Date Extracted: 10/14/98
Date Analyzed: 10/15/98
GC Column: DB-5
Instrument ID: BNAMS6.i
Lab File ID: m2811.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 | 9.57 | 5100 | |
| 2. Unknown Aldol Condensate | 10.31 | 160000 | |
| 3. Unknown Aldol Condensate | 11.06 | 420 | |
| 4. Unknown Aldol Condensate | 11.66 | 5400 | |
| 5. Unknown Aldol Condensate | 12.75 | 400 | |
| 6. Unknown Aldol Condensate | 13.06 | 360 | |
| 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 171680

303867

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2811.d
Report Date: 16-Oct-98 10:25:42

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2811.d
Lab Smp Id: SB287B  Client Smp ID: BNA
Inj Date : 15-OCT-98 12:33:00
Operator : BNAMS3  Inst ID: BNAMS6.i
Smp Info : SB287B;30;2;1;
Misc Info : SB287B;BNA;4736;;
Comment :
Method : /chem/BNAMS6.i/8270/10-12-98/15oct98.b/8270C-REV..m
Meth Date : 15-Oct-98 11:24:59  Quant Type: ISTD
Cal Date : 12-OCT-98 14:00:00  Cal File: m2728.d
Als bottle: 3  QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: allBNb.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) |
|---|---|---|---|---|---|---|---|
| * 79 1,4-Dichlorobenzene-d4 | 152 | 13.252 | 13.252 | (1.000) | 257696 | 40 | |
| $ 76 Nitrobenzene-d5 (SUR) | 82 | 14.202 | 14.219 | (0.920) | 772960 | 44 | 2900 |
| * 80 Naphthalene-d8 | 136 | 15.434 | 15.437 | (1.000) | 975217 | 40 | |
| $ 77 2-Fluorobiphenyl (SUR) | 172 | 17.229 | 17.232 | (0.938) | 1186047 | 43 | 2900 |
| * 82 Acenaphthene-d10 | 164 | 18.376 | 18.385 | (1.000) | 696855 | 40 | |
| * 83 Phenanthrene-d10 | 188 | 20.865 | 20.872 | (1.000) | 1451500 | 40 | |
| $ 78 Terphenyl-d14 (SUR) | 244 | 23.498 | 23.503 | (0.927) | 2939281 | 58 | 3900 |
| * 81 Chrysene-d12 | 240 | 25.359 | 25.379 | (1.000) | 1875023 | 40 | |
| * 84 Perylene-d12 | 264 | 29.252 | 29.278 | (1.000) | 1572589 | 40 | |

303868

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2811.d
Date : 15-OCT-98 12:33:00
Client ID: BNA
Sample Info: SB287B;30;2;1;

Column phase: DB-5

Instrument: BNAMS6.i

Operator: BNAMS3
Column diameter: 0.25

303869

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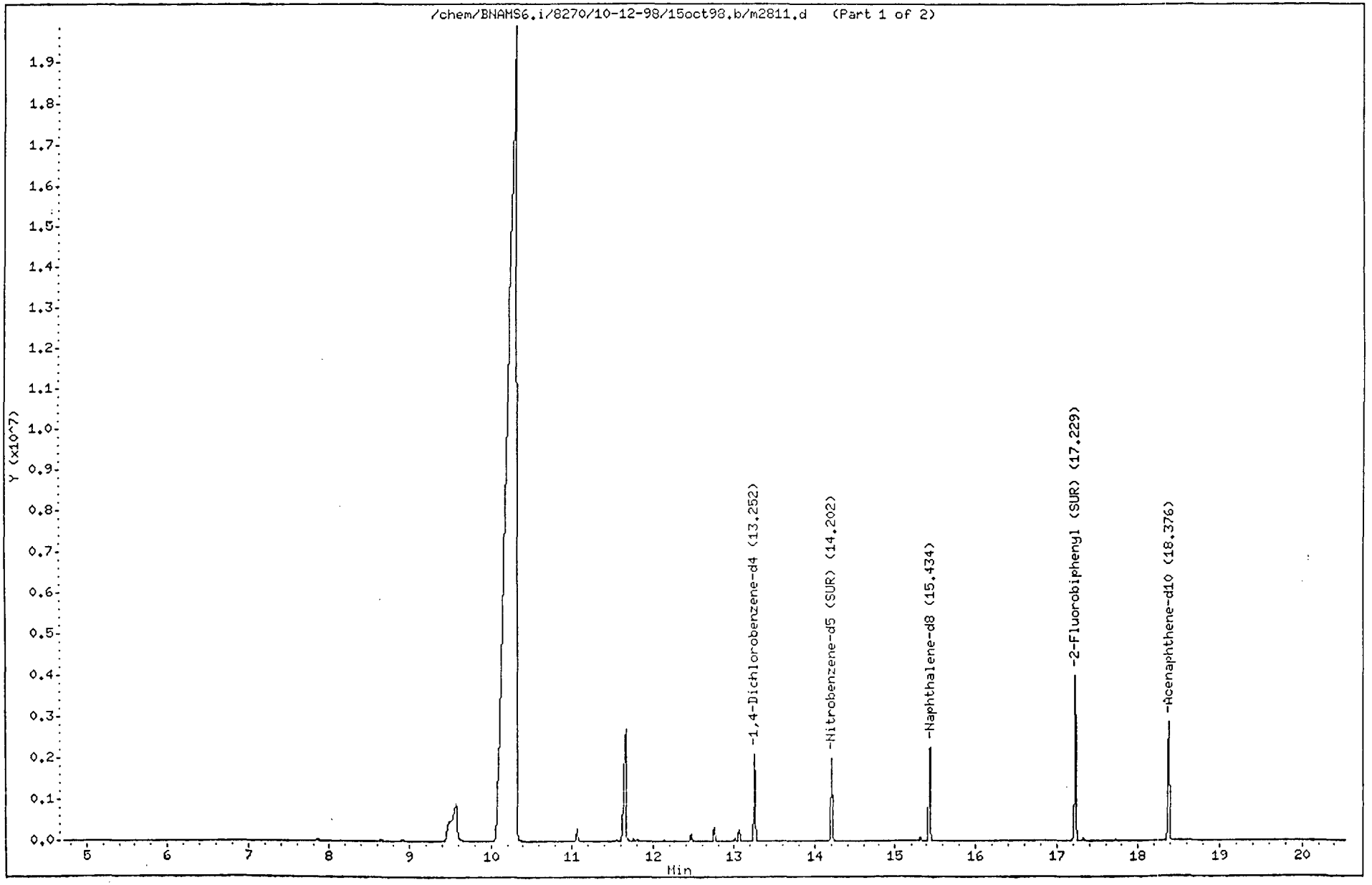
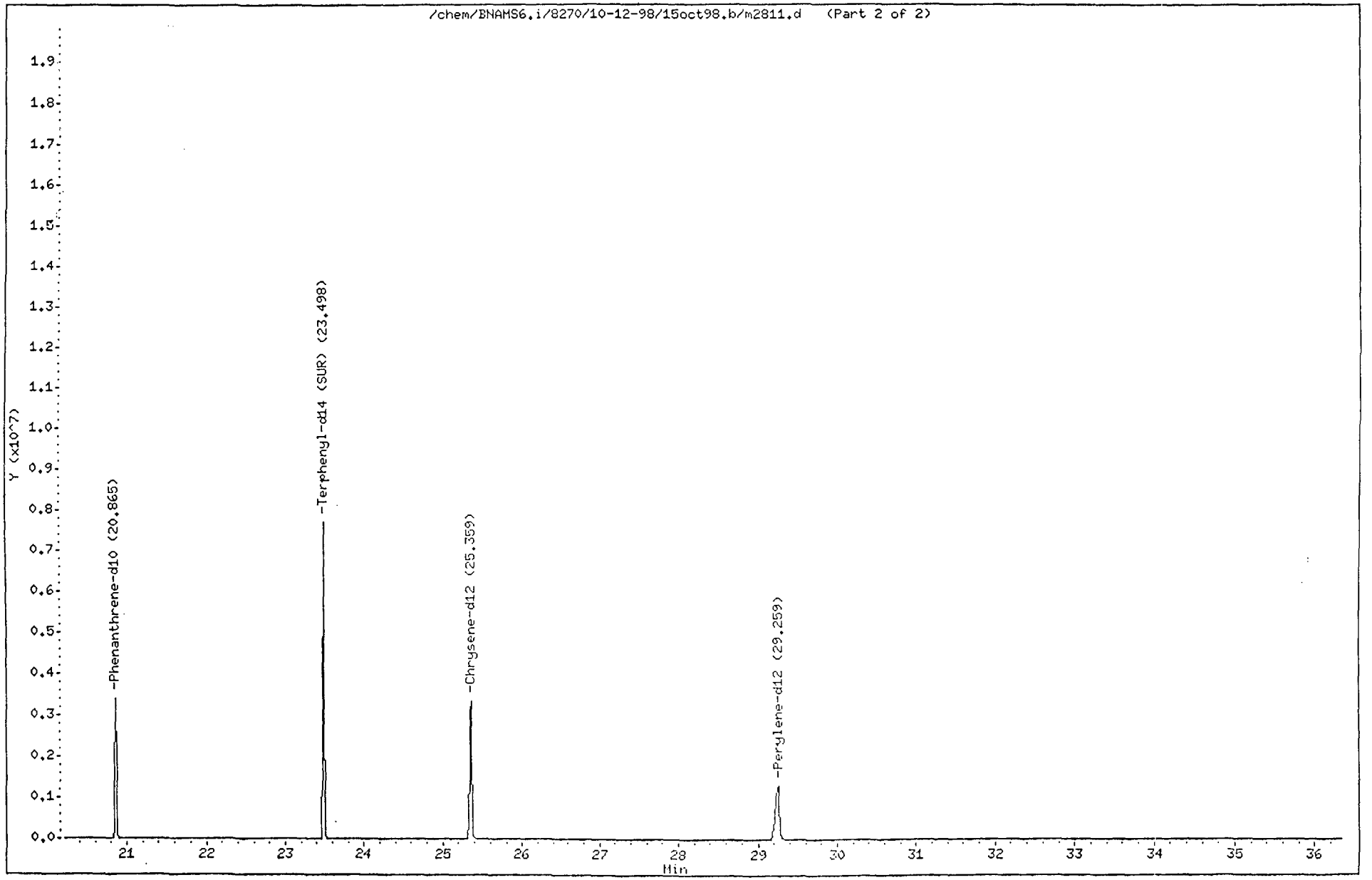


Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2811.d
Date : 15-OCT-98 12:33:00
Client ID: BNA
Sample Info: SB287B;30;2;1;

Column phase: DB-5

Instrument: BNAMS6.i

Operator: BNAMS3

Column diameter: 0.25

303870