143884

TTI ENVIRONMENTAL, INC.

Corporate Office
9 East Stow Road • Marlton, New Jersey 08053-3159
TEL (856) 985-8800 • FAX (856) 985-9200

SITE INVESTIGATION

of:

BARRY BRONZE BEARING COMPANY, INC.
Block 604, Lot 1
2204 South 7th Street
Camden, Camden County, New Jersey

ISRA Case No. E97573

for:

BARRY BRONZE BEARING COMPANY, INC.
2204 South 7th Street
PO Box 1506
Camden, New Jersey 08104-1506

Attention: Mr. Paul J. DeCoursey, Jr.
Vice President

TTI Project No. 01-479

December 17, 2001

Prepared by:

R. Timothy Ropp
Sr. Environmental Project Manager
NJDEP License No. 0015213

TTI

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1.0 BACKGROUND

Barry Bronze Bearing Company, Inc. (Barry Bronze) ceased operations in August, 1997 at their facility located at 2204 South 7th Street in Camden, Camden County, New Jersey. The cessation of operations triggered the Industrial Site Recovery Act (ISRA) since the Barry Bronze operations conducted at the subject site are applicable to the provisions of ISRA. As such, Barry Bronze was required to complete a Preliminary Assessment (PA) of their property in accordance with N.J.A.C. 7:26E - Technical Requirements for Site Remediation (7:26E). TTI Environmental, Inc. (TTI) was commissioned by Barry Bronze to conduct the PA of the Barry Bronze property. The PA was submitted to Mr. Ronald J. Wienckoski, Jr. of the New Jersey Department of Environmental Protection (NJDEP) on March 11, 1998. Based on the areas of concern identified in the PA, TTI conducted a site investigation that included the investigation of eight (8) areas of concern. The Site Investigation (SI) Report was submitted to Mr. Wienckoski on February 4, 1999. Following the submission of the SI, a site inspection was conducted by Ms. Grace Jacobs of the NJDEP on April 19, 1999. On May 7, 1999, TTI received a response from the NJDEP on the site inspection results. On July 6, 1999, TTI submitted a letter response to Ms. Jacobs site inspection report.

TTI conducted a Site Investigation (SI) and Remedial Action (RA) in order to address the areas identified in the NJDEP inspection letter. Following the initial SI/RA and based on its results, additional SI/RA was required. On July 3, 2001, TTI submitted a letter of the anticipated schedule. On September 11, 2001, TTI conducted an additional investigation of the air compressors and furnace pit areas of concern.

The purpose of this SI Report is to summarize activities conducted in association with the additional investigation conducted at the site as well as to present recommended courses of action to address specific areas.

2.0 SITE INFORMATION

2.1 Site Location

The subject site is located at 2204 South 7th Street in Camden, Camden County, New Jersey. The site was listed in the Camden City Tax Assessor's Office as Block 604, Lot 1.

The general location of the site is depicted in Figure 1.0 - Regional Site Location Map (United States Department of the Interior Geological Survey, 7.5 Minute Series Topographic Map, Camden, New Jersey Quadrangle). A site diagram depicting the subject property and various features is included as Figure 2.0.

2.2 Physical Characteristics

The subject site encompasses one (1) parcel that is located at the southeast corner of 7th Street and Bulson Street, Block 604, Lot 1. The subject site is located in an area of mixed residential/commercial/industrial use. Access to the subject property is gained via 7th Street and a bay door is located along Bulson Street. Bulson Street is an unimproved roadway.

The subject property is improved with one (1) building structure that occupies approximately 65% of the subject property and totals approximately one (1) acre. The subject building is one (1) story constructed of concrete block and steel with a concrete foundation.

The building footprint occupies approximately 19,000 square feet of land area. An asphalt parking lot extends from the western section of the property to the south/southeast portion of the property. The northern portion of the property is occupied by the building structure and a bag house. The northern property line abuts an abandoned rail road line to the north along Bulson Street.

2.3 Current/Former Operations

No active operations are being conducted at the subject site and the building is currently vacant. Barry Bronze's former operations consisted of the casting of bronze metal into various molds (see Item 2B of the Preliminary Assessment).

2.0 SITE INFORMATION (CONTINUED)

2.4 Environmental Setting

Topography

Site Elevation (ft AMSL):	10 to 20 feet
Primary Site Drainage:	To the south/southwest toward Newton Creek and Delaware River
Major Watershed:	Delaware River
Nearest Surface Water Body(s):	North Branch of Newton Creek 2700 feet to the southwest

Geology

Age:	Cretaceous
Formation Type:	Merchantville Clay
Rock/Sediment Type(s):	Sand/Silt/Clay

Hydrogeology

Aquifer:	Aquitard
Characteristics:	Unconsolidated
Site Specific Flow Direction:	Estimated to be toward east, southeast

3.0 SITE HISTORY

TTI performed an aerial photograph review of the area of the subject site as a means to document land use changes to the site and to possibly identify any areas of environmental concern. A summary of the aerial photography review is provided in Attachment 9 of the PA Report.

Based on the review of aerial photographs, the subject property consisted of a commercial/industrial building structure from the 1940 aerial photograph to the present.

The historic operations of Barry Bronze, which date back to the 1950s, have been consistent with the most recent operations described in Section 2.3 of this report.

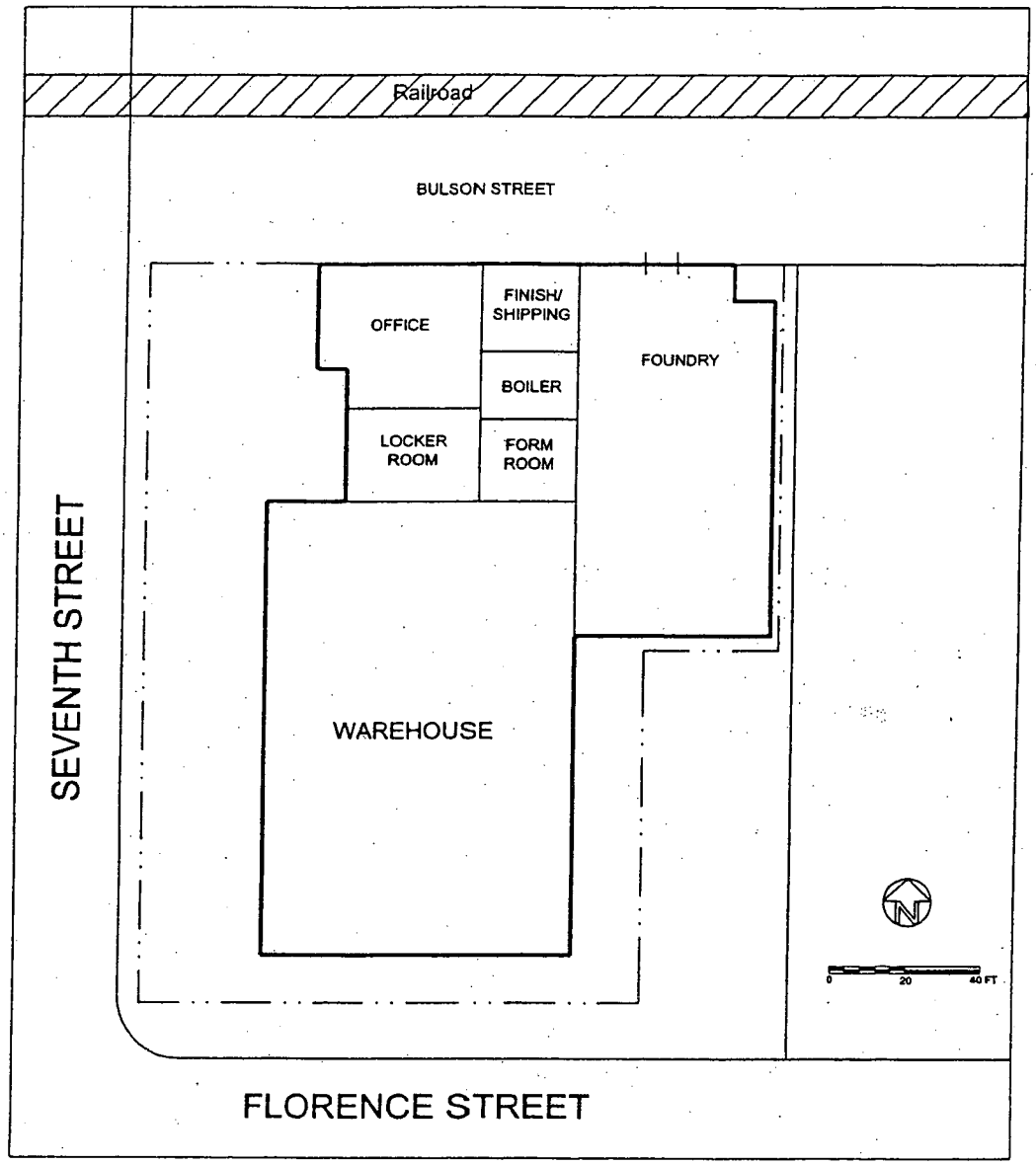

FIGURE 2.0:

Barry Bronze Bearing Company, Inc.
2204 South 7th Street

ENVIRONMENTAL, INC.
9 East Stow Road
Marlton, New Jersey 08053
856/985-8800 www.ttienv.com

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As Shown	LD	12/01
PROJECT	APP'D BY	DRAWING NO.
01-479	RTP	2.0

4.0 TECHNICAL OVERVIEW

The purpose of the site investigation was to address the areas identified in the January 8, 2001 NJDEP letter and TTI's SI/RA schedule letter dated July 3, 2001. The following areas are discussed:

- Exterior Used Sand Deposition Areas along Bulson Street
- Foundry Compressor Rooms
- Furnace Pit
- Site Remediation Program (SRP) Electronic Data Interchange (EDI)

Collection of soil samples was conducted by Mr. R. Timothy Popp, Sr. Project Manager for TTI.

This section provides an overview of the sampling and analytical approach utilized to investigate the areas of concern.

4.1 Sampling Methodology

Soil borings were installed and samples were collected using a properly decontaminated, stainless steel hand auger for the air compressor rooms. The Furnace Pit investigation was conducted utilizing direct push technology (GeoProbe®). All locations were screened using a calibrated Photoionization Detector (PID) field instrument. Soil samples were transferred into the appropriate sample containers.

Collection of soil samples for possible Volatile Organic analysis included the Methanol Field Preservation Technique. Using dedicated modified medical syringes, TTI obtained a sample from each soil core. The sample weights were recorded and the samples were transferred directly into laboratory supplied containers containing methanol.

All sampling equipment was either dedicated or decontaminated in accordance with the procedure outlined in the NJDEP Field Sampling Procedures Manual, May 1992.

Samples were shipped to the designated laboratory in ice packed coolers under chain-of-custody documentation.

4.0 TECHNICAL OVERVIEW (CONTINUED)

4.2 Analytical Methodology

All soil samples were submitted to Val Associates, Inc. of Cherry Hill, New Jersey (New Jersey Certification No. 04174).

The following analyses were utilized in this investigation in accordance with N.J.A.C. 7:26E:

- Total Petroleum Hydrocarbons (TPH) by EPA Method 8015B.
- Priority Pollutant Metals (PP Metals) by EPA Method 7471 and 6010
- Semi-Volatile Organics + Library Search (B/N+15) by EPA Method 8270
- Polychlorinated Biphenyls (PCB) by Method 8080
- Volatile Organics + Library Search (VO+10) by EPA Method 8260

The analytical results are provided in Val Test Report No. 0109076, enclosed as Appendix A. There were no conformance/non-conformance issues reported by the laboratory that would reduce the reliability of the analytical data.

5.0 FINDINGS

This section provides a description of the activities performed at the subject site to address the areas identified in the NJDEP inspection letter and the original SI Report conducted by TTI.

5.1 Exterior Used Sand Deposition, Roof Drain Leaders & Bay Door

The Exterior Used Sand Deposition, Roof Drain Leader and Bay Door area of concern is located along the northern portion of the subject building. This area is located on the City of Camden property (Bulson Street) and Conrail rail road property. TTI, along with Mr. Anthony Drollas, Jr., attorney for Barry Bronze with the firm of Capehardt & Scatchard, have been in contact with the City of Camden and Conrail to provide access agreements. The City of Camden has recently granted access, but Conrail is requiring extensive insurance requirements. Barry Bronze is currently in negotiation with Conrail.

5.2 Air Compressors

The PA identified two (2) air compressor rooms associated with the subject building. One (1) air compressor room (ACR 1) is located along the north-central section of the building and is located in the cleaning room just off the foundry (Figure 3.0). The inspection of this area around the compressor revealed minor surface staining on the concrete floor. The seams of the concrete floor were impacted by the surface stain.

The second air compressor room (ACR 2) is located along the southeastern portion of the subject building (Figure 4.0). The inspection of this unit did reveal surface staining on the concrete floor. No cracks were noted within the floor around the unit, but seams of the concrete floor were impacted by the surface stain.

In order to investigate the potential for impact to subsurface soils from the two (2) compressor rooms, TTI placed a total of four (4) probeholes within each compressor room in the area of the surface stains. A one (1) foot soil column was collected from each probehole and screened with a PID for positive biased soil sample collection. Table 1.0 summarizes the field screening and analytical results. Sample location diagrams are enclosed as Figures 3.0 and 4.0.

Table 1.0: Field Screening & Analytical Results – Air Compressor

Location	Sample ID	Sample Depth (in)	PID Readings	TPH Results (ppm)
ACR 1	BH-1		ND	400.6
ACR 1	BH-2		ND	271.3
ACR 1	BH-3		ND	258.3
ACR 2	BH-5		1.5	1,057.0
ACR 2	BH-6		ND	585
ACR 2	BH-7		1	3,970
ACR 2	BH-8		2	3,918

ppm: parts per million ACR: Air Compressor Room ND: Not Detected
Source: Val Test Report No. 0109076

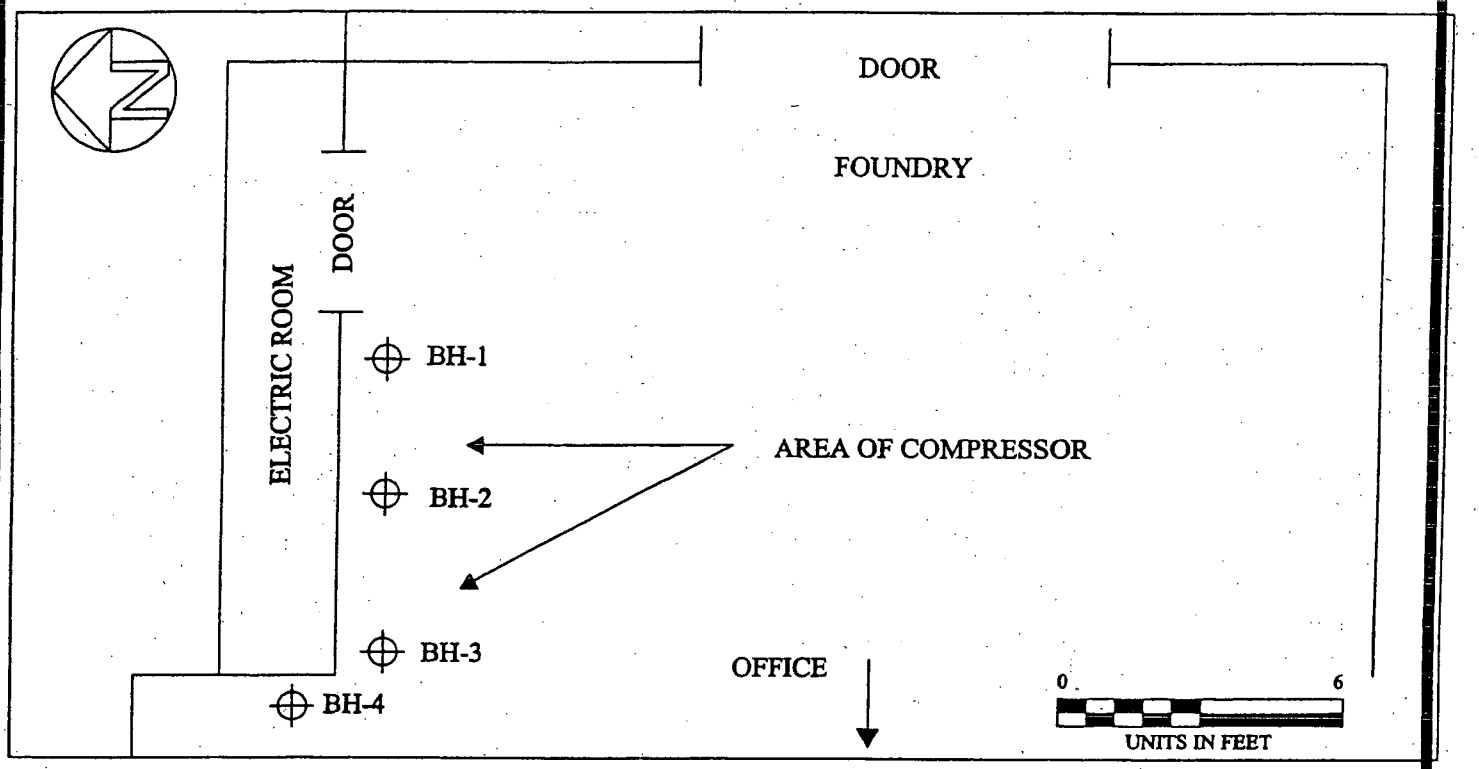

FIGURE 3.0:

Barry Bronze Bearing Company, Inc.
2204 South 7th Street

COMPRESSOR ROOM 1

TTI ENVIRONMENTAL, INC.
3 East Stow Road
Marlton, New Jersey 08053
856/985-8800 www.ttienv.com

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01-479	RTP	3.0

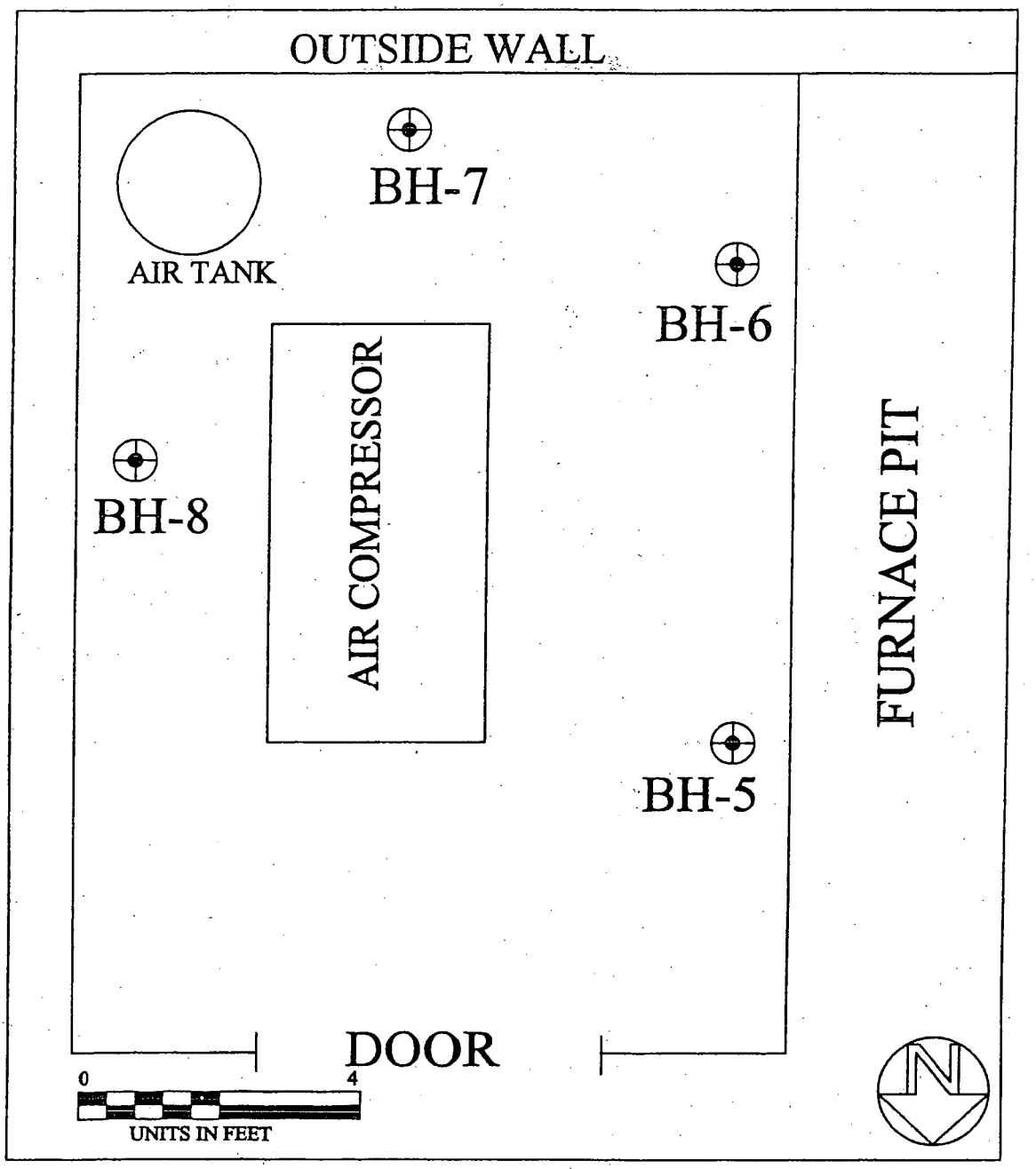

FIGURE 4.0:

Barry Bronze Bearing Company, Inc.
2204 South 7th Street

SOIL SAMPLE LOCATION DIAGRAM

COMPRESSOR ROOM 2

TTI ENVIRONMENTAL, INC.
9 East Stow Road
Marlton, New Jersey 08053
856/985-8800 www.ttienv.com

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PROJECT	APP'D BY	DRAWING NO.
01-479	RTP	4.0

5.0 FINDINGS (CONTINUED)

5.2 Air Compressors - Continued

Based on the analytical results from the ACR soil samples, TTI selected two (2) soil samples, BH-4 and BH-7, for expanded parameter analysis.

The analytical results are summarized below in Table 2.0 and only those compounds that were detected above the laboratory detection limit are summarized.

Table 2.0: Expanded Parameter Analytical Results – Air Compressor

Parameter (mg/kg)	BH-4	BH-7	NJDEP MSSCC
TPH	1,223	3,970	10,000
Volatile Organics	ND	ND	NA
Total Non-Target Volatile Organics	ND	ND	NA
Target Semi-Volatile Organics			
DinbutylphthalatePhthalate	0.731	1.091	100
Pyrene	0.133[J]	0.209[J]	100
Bis(2-Ethylhexyl)Phthalate	ND	0.204[J]	49
Fluoranthene	ND	0.179[J]	100
Total Non-Target Semi-Volatile Organics	31.094[J]	11.463[J]	NA
Metals			
Arsenic	1.92	1.90	20
Cadmium	0.704	0.744	39
Antimony	0.416	1.04	14
Mercury	ND	0.023	14
Beryllium	**2.84**	**5.77**	2
Chromium	5.12	7.97	20
Copper	**2,600**	**2,760**	600
Nickel	9.14	24.3	250
Lead	**1,010**	**1,370**	400
Zinc	66.6	83.1	1,500
PCBs	ND	ND	0.49

mg/kg: milligrams per kilogram
ND: Not Detected
B: detected in blank
NA: Not Applicable
Source: Val Test Report No. 0109076

MSSCC: Most Stringent Soil Clean-Up Criteria
J: Estimated Concentration
N: Presumptive Evidence

5.0 FINDINGS (CONTINUED)

5.2 Air Compressors - Continued

Based on the findings of the soil investigation, TPH concentrations were detected in all of the soil samples collected. BH-4 exhibited the highest concentration of TPH within ACR 1 at 1,223 mg/kg and was selected to be submitted for expanded parameter analysis. BH-7 exhibited the greatest concentration of TPH associated with ACR 2 at 3,970 mg/kg and was also selected to be submitted for expanded parameter analysis. The analytical results of the expanded parameter analysis revealed three (3) individual compounds that exceeded the NJDEP Most Stringent Soil CleanUp Criteria in both samples. The three (3) compounds that were detected are related to the used foundry sand and appear to be cross contaminated during the sampling effort. It should be noted that the sample areas contained heavy amounts of dust from the former foundry operations.

5.3 Furnace Pit

The original site investigation of the furnace pit revealed the presence of Petroleum Hydrocarbon, Lead, Copper, Zinc and Antimony impacted soils. The week of November 15, 1999, TTI personnel conducted a remediation of the impacted soil within the furnace pit.

Following the remediation activities, a total of eight (8) post excavation soil samples were collected and consisted of two (2) bottom samples (P-1 & P-2) and six (6) sidewall samples (P-3 *thru* P-8). The analytical results revealed remaining levels of petroleum hydrocarbons at concentrations above 10,000 mg/kg.

On September 11, 2001, TTI arrived on-site to perform delineation activities along the outside of the building. A total of five (5) probeholes were conducted along the southern portion of the subject building. BH-9 was conducted to a depth of 16 feet below grade before refusal. BH-11 was conducted to a depth of six (6) feet below grade before refusal; therefore, no soil samples were submitted for analysis from this probehole. BH-10 was conducted to 19 feet, BH-12 to 17 feet and BH-13 to 14 feet below grade before refusal. No suspected groundwater was encountered during the probehole investigation. BH-10 was converted into a two (2) inch temporary well point and was left to site overnight. TTI returned and no water was detected in the BH-10 well point. Therefore, the 2-inch PVC casing was removed and the probehole was filled with bentonite. The sample locations are depicted in Figure 5.0 and the analytical

TTI selected BH-10 at 18 to 19 feet for expanded VO+10 analysis, which is summarized in Table 4.0. Only those compounds that were detected above the laboratory detection limit are summarized.

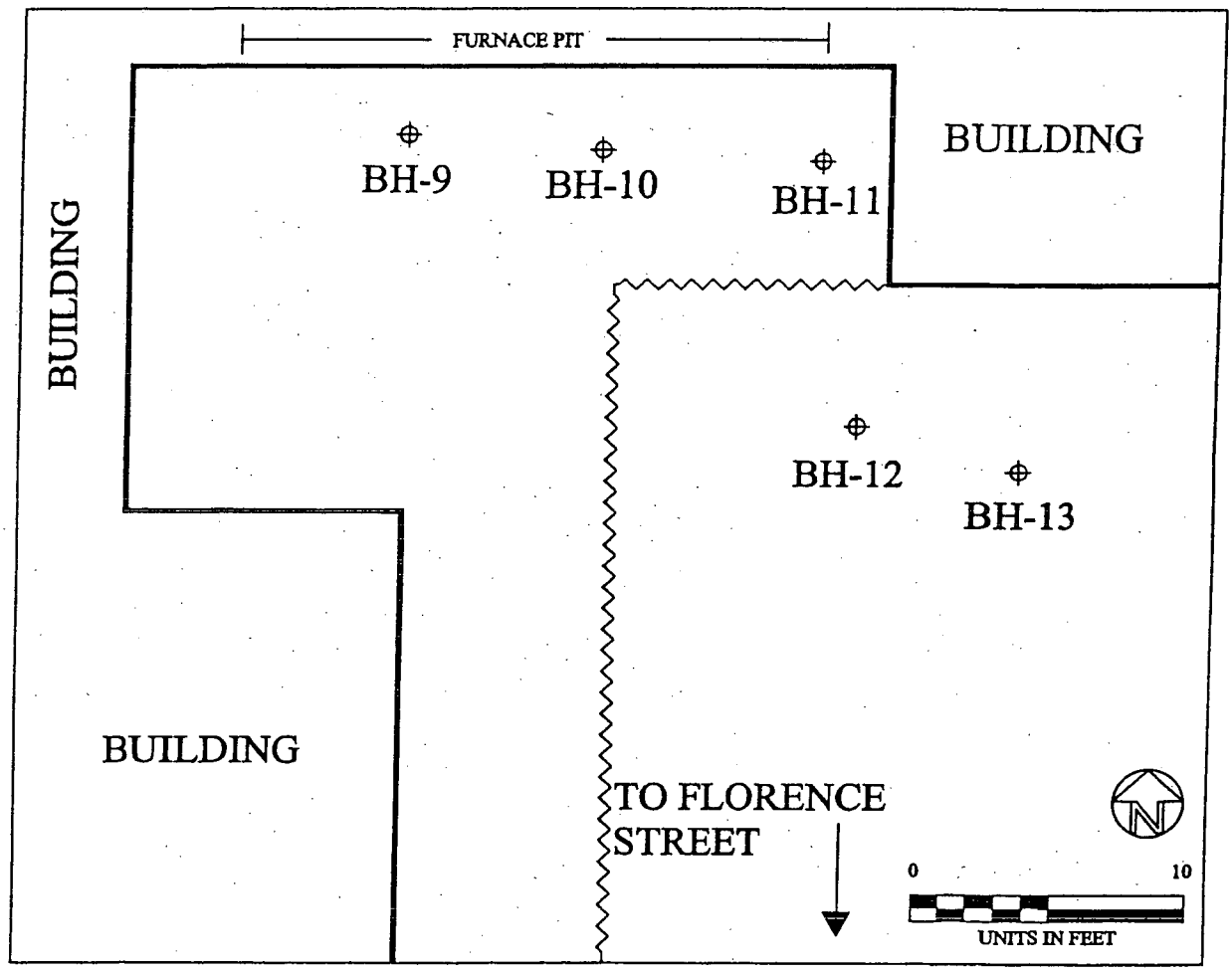

FIGURE 5.0:

Barry Bronze Bearing Company, Inc.
2204 South 7th Street

FURNACE PIT

ENVIRONMENTAL, INC.
3 East Stow Road
Marlton, New Jersey 08053
856/985-8800 www.ttienv.com

SCALE	DRAWN BY	DATE
As Shown	LD	12/01
PROJECT	APP'D BY	DRAWING NO.
01-479	RTP	5.0

5.0 FINDINGS (CONTINUED)

5.3 Furnace Pit - Continued

Table 3.0: Analytical Results – Furnace Pit			
Sample ID	Depth Below Grade (ft)	PID Results	TPH (mg/kg)
BH-9	15-16	0.5	132.7
BH-10	3-4	ND	ND
BH-10	10-11	0.5	513
BH-10	13-14	3	4,854
BH-10	16-17	6	4,977
BH-10	18-19	50+	**25,730**
BH-12	11-14	ND	101.7
BH-12	14-15	3	1,750
BH-12	16-17	50+	**19,110**
BH-13	13-14	1.5	431.9
NJDEP Remedial Action Level			10,000
mg/kg: milligrams per kilogram		Source: Val Test Report No. 0109076	

Table 4.0: Additional Analytical Results – Furnace Pit		
Parameter (mg/kg)	BH-10 / 18'-19'	NJDEP MSCC
Target VOs		
1,1,2,2-Tetrachloroethane	**4.410**	1
1,1,2-Trichloroethane	**2.810**	1
1,2,4-Trimethylbenzene	26.500	NC
1,3,5-Trimethylbenzene	11.900	NC
1-Methylnaphthalene	25.400	NC
2-Hexanone	4.260	NC
4-Methyl-2-pentanone	9.250	50
Ethylbenzene	1.300[J]	100
Isopropylbenzene	0.710[J]	NC
Total Xylene	9.96	10
n-Propylbenzene	1.640	NC
Naphthalene	3.240	100
sec-Butylbenzene	2.790	NC
Toluene	0.480[J]	500
Vinyl Acetate	3.130	NC
Non-Target VOs	223.60[J,N]	NA
mg/kg: milligrams per kilogram	MSCC: Most Stringent Cleanup Criteria	
NA: Not Applicable	Source: Val Test Report No. 0109076	

The analytical results revealed high concentrations of TPH and Volatile Organics. Additional delineation is proposed along with the installation of one (1) groundwater monitoring well in the area of BH-10 and BH-12.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Exterior Used Sand Deposition, Roof Drain Leader & Bay Door

Barry Bronze is currently in negotiation with Conrail to gain access to the rail road along Bulson Street. In the interim, TTI will conduct a soil delineation and background sampling effort in the area of the City of Camden property.

6.2 Foundry Compressor Room

The soil probeholes analytical results from the air compressor discharge investigation revealed three (3) metal compounds; Beryllium, Copper and Lead, to be above the NJDEP MSSCC. It is suspected that the three (3) metals detected in the soil samples were a result of cross contamination from the surrounding dust. The results were detected at the approximate same level for both samples, which were taken over 60 feet away from each other. TTI recommends that there is no need for further investigation of this area of concern.

6.3 Furnace Pit

The soil probehole analytical results revealed concentrations of high levels of Total Petroleum Hydrocarbons and Volatile Organics. TTI proposes to conduct additional soil delineation and the installation of one (1) groundwater monitoring well. The groundwater monitoring well shall be installed to determine the depth to first groundwater and TTI will also collect one (1) sample for laboratory analysis.

TTI

APPENDIX A:

Val. Test Report No. 0109076

(856) 354-1337

VAL ASSOCIATES LABORATORY INC.

FAX: (856)354-1586

Water,Air & Soil Analysis

PHILIP V. DATZ, JR.
Chemist

N.J. Cert. # 04174

Seven Deer Tree
Professional Center
600 Deer Road
Cherry Hill, NJ 08034

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VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT: TTI
Project: 01-479 Barry Bronze Camden, N.J.
Lab Order: 0109076

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0109076-001A	BH-1 0-6"	SK7362	9/11/01	9/13/01
0109076-002A	BH-2 0-6"	SK7363	9/11/01	9/13/01
0109076-003A	BH-3 0-6"	SK7364	9/11/01	9/13/01
0109076-004A	BH-4 0-6"	SK7365	9/11/01	9/13/01
0109076-005A	BH-5 0-6"	SK7366	9/11/01	9/13/01
0109076-006A	BH-6 0-6"	SK7367	9/11/01	9/13/01
0109076-007A	BH-7 0-6"	SK7368	9/11/01	9/13/01
0109076-008A	BH-8 0-6"	SK7369	9/11/01	9/13/01
0109076-009A	BH-9 15-16'		9/11/01	9/13/01
0109076-010A	BH-10 3-4'		9/11/01	9/13/01
0109076-011A	BH-10 10-11'		9/11/01	9/13/01
0109076-012A	BH-10 13-14'		9/11/01	9/13/01
0109076-013A	BH-10 16-17'	SK7370	9/11/01	9/13/01
0109076-014A	BH-10 18-19'	SK7371	9/11/01	9/13/01
0109076-015A	BH-12 11-14'		9/11/01	9/13/01
0109076-016A	BH-12 14-15'		9/11/01	9/13/01
0109076-017A	BH-12 16-17'	SK7372	9/11/01	9/13/01
0109076-018A	BH-13 13-14'		9/11/01	9/13/01
0109076-019A	Trip Blank	SK 7373	9/11/01	9/13/01

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-2 0-6"
Lab Order:	0109076	**Tag Number:**	SK7363
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-002A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PETROLEUM HYDROCARBONS, T/R		**E418.1**				Analyst: BVS
Petroleum Hydrocarbons, TR	271.3	10.69		mg/Kg-dry	1	9/14/01
PERCENT MOISTURE		**D2216**				Analyst: BVS
Percent Moisture	6.48	1.00		wt%	1	9/13/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-4 0-6"
Lab Order:	0109076	**Tag Number:**	SK7365
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-004A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PCB IN SOIL		**SW8082**				Analyst: BVS
Aroclor 1016	ND	86.3		µg/Kg-dry	5	9/19/01 10:46:00 PM
Aroclor 1016/1260	ND	86.3		µg/Kg-dry	5	9/19/01 10:46:00 PM
Aroclor 1221	ND	86.3		µg/Kg-dry	5	9/19/01 10:46:00 PM
Aroclor 1232	ND	86.3		µg/Kg-dry	5	9/19/01 10:46:00 PM
Aroclor 1242	ND	86.3		µg/Kg-dry	5	9/19/01 10:46:00 PM
Aroclor 1248	ND	86.3		µg/Kg-dry	5	9/19/01 10:46:00 PM
Aroclor 1254	ND	86.3		µg/Kg-dry	5	9/19/01 10:46:00 PM
Aroclor 1260	ND	86.3		µg/Kg-dry	5	9/19/01 10:46:00 PM
ARSENIC, TOTAL		**SW7060A**				Analyst: TPA
Arsenic	1.92	0.517		mg/Kg-dry	1	9/19/01
MERCURY, TOTAL BY COLD VAPOR		**SW7471**				Analyst: TPA
Mercury	ND	0.0259		mg/Kg-dry	1	9/20/01
ICP METALS, TOTAL		**SW6010A**				Analyst: TPA
Beryllium	2.84	0.114	*	mg/Kg-dry	1	9/18/01
Cadmium	0.704	0.668		mg/Kg-dry	1	9/18/01
Chromium	5.12	1.58		mg/Kg-dry	1	9/18/01
Copper	2600	5.23	*	mg/Kg-dry	10	9/18/01
Lead	1010	86.9	*	mg/Kg-dry	10	9/18/01
Nickel	9.14	4.40		mg/Kg-dry	1	9/18/01
Silver	ND	0.554		mg/Kg-dry	1	9/18/01
Zinc	66.6	0.569		mg/Kg-dry	1	9/18/01
ANTIMONY BY GFAA IN SOLIDS		**SW7041**				Analyst: TPA
Antimony	0.416	0.259		mg/Kg-dry	1	9/18/01
SELENIUM, TOTAL		**SW7740**				Analyst: TPA
Selenium	ND	0.259		mg/Kg-dry	1	9/19/01
THALLIUM, TOTAL		**SW7841**				Analyst: TPA
Thallium	ND	0.259		mg/Kg-dry	1	9/18/01
BASE NEUTRALS		**SW8270B**				Analyst: DBD
1,2,4-Trichlorobenzene	ND	344.6		µg/Kg-dry	1	9/19/01
1,2-Dichlorobenzene	ND	344.6		µg/Kg-dry	1	9/19/01
1,2-Dimethynaphthalene	ND	344.6		µg/Kg-dry	1	9/19/01
1,3-Dichlorobenzene	ND	344.6		µg/Kg-dry	1	9/19/01
1,4-Dichlorobenzene	ND	344.6		µg/Kg-dry	1	9/19/01
2,4-Dinitrotoluene	ND	344.6		µg/Kg-dry	1	9/19/01
2,6-Dinitrotoluene	ND	344.6		µg/Kg-dry	1	9/19/01
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
2-Methylnaphthalene	ND	344.6		µg/Kg-dry	1	9/19/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

000007

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-4 0-6"
Lab Order:	0109076	**Tag Number:**	SK7365
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-004A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BASE NEUTRALS		**SW8270B**				Analyst: DBD
Indeno(1,2,3-cd)pyrene	ND	344.6		µg/Kg-dry	1	9/19/01
Isophorone	ND	344.6		µg/Kg-dry	1	9/19/01
N-Nitrosodi-n-propylamine	ND	344.6		µg/Kg-dry	1	9/19/01
N-Nitrosodimethylamine	ND	344.6		µg/Kg-dry	1	9/19/01
N-Nitrosodiphenylamine	ND	344.6		µg/Kg-dry	1	9/19/01
Naphthalene	ND	344.6		µg/Kg-dry	1	9/19/01
Nitrobenzene	ND	344.6		µg/Kg-dry	1	9/19/01
o-Toluidine	ND	344.6		µg/Kg-dry	1	9/19/01
Phenanthrene	ND	344.6		µg/Kg-dry	1	9/19/01
Pyrene	133	344.6	J	µg/Kg-dry	1	9/19/01
Pyridine	ND	344.6		µg/Kg-dry	1	9/19/01
VOLATILE ORGANICS EPA METHOD 8260B		**SW8260A**				Analyst: DBD
1,1,1,2-Tetrachloroethane	ND	646		µg/Kg-dry	50	9/20/01
1,1,1-Trichloroethane	ND	646		µg/Kg-dry	50	9/20/01
1,1,2,2-Tetrachloroethane	ND	646		µg/Kg-dry	50	9/20/01
1,1,2-Trichloroethane	ND	646		µg/Kg-dry	50	9/20/01
1,1-Dichloroethane	ND	646		µg/Kg-dry	50	9/20/01
1,1-Dichloroethene	ND	646		µg/Kg-dry	50	9/20/01
1,1-Dichloropropene	ND	646		µg/Kg-dry	50	9/20/01
1,2,3-Trichlorobenzene	ND	646		µg/Kg-dry	50	9/20/01
1,2,3-Trichloropropane	ND	646		µg/Kg-dry	50	9/20/01
1,2,4-Trichlorobenzene	ND	646		µg/Kg-dry	50	9/20/01
1,2,4-Trimethylbenzene	ND	646		µg/Kg-dry	50	9/20/01
1,2-Dibromo-3-chloropropane	ND	646		µg/Kg-dry	50	9/20/01
1,2-Dibromoethane	ND	646		µg/Kg-dry	50	9/20/01
1,2-Dichlorobenzene	ND	646		µg/Kg-dry	50	9/20/01
1,2-Dichloroethane	ND	646		µg/Kg-dry	50	9/20/01
1,2-Dichloropropane	ND	646		µg/Kg-dry	50	9/20/01
1,2-Dimethylnaphthalene	ND	646		µg/Kg-dry	50	9/20/01
1,3,5-Trimethylbenzene	ND	646		µg/Kg-dry	50	9/20/01
1,3-Dichlorobenzene	ND	646		µg/Kg-dry	50	9/20/01
1,3-Dichloropropane	ND	646		µg/Kg-dry	50	9/20/01
1,4-Dichlorobenzene	ND	646		µg/Kg-dry	50	9/20/01
1-Methylnaphthalene	ND	646		µg/Kg-dry	50	9/20/01
2,2-Dichloropropane	ND	646		µg/Kg-dry	50	9/20/01
2-Butanone	ND	646		µg/Kg-dry	50	9/20/01
2-Chloroethyl vinyl ether	ND	646		µg/Kg-dry	50	9/20/01
2-Chlorotoluene	ND	646		µg/Kg-dry	50	9/20/01
2-Hexanone	ND	646		µg/Kg-dry	50	9/20/01
4-Chlorotoluene	ND	646		µg/Kg-dry	50	9/20/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-4 0-6"
Lab Order:	0109076	**Tag Number:**	SK7365
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-004A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS EPA METHOD 8260B		SW8260A				Analyst: DBD
trans-1,3-Dichloropropene	ND	646		µg/Kg-dry	50	9/20/01
trans-1,4-Dichloro-2-butene	ND	646		µg/Kg-dry	50	9/20/01
Trichloroethene	ND	646		µg/Kg-dry	50	9/20/01
Trichlorofluoromethane	ND	646		µg/Kg-dry	50	9/20/01
Vinyl acetate	ND	646		µg/Kg-dry	50	9/20/01
Vinyl chloride	ND	646		µg/Kg-dry	50	9/20/01
PETROLEUM HYDROCARBONS, T/R		E418.1				Analyst: BVS
Petroleum Hydrocarbons, TR	1223	31.05		mg/Kg-dry	1	9/14/01
PERCENT MOISTURE		D2216				Analyst: BVS
Percent Moisture	3.38	1.00		wt%	1	9/13/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	Client Sample ID:	BH-4 0-6"
Lab Order:	0109076	Tag Number:	SK7365
Project:	01-479 Barry Bronze Camden, N.J.	Collection Date:	9/11/01
Lab ID:	0109076-004A	Matrix:	SOIL

BN TENTATIVELY IDENTIFIED COMPOUNDS

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1		Decahydro-9-ethyl-4,4,8,10-te	16.6	2385	J
2		Acetamide, N-methyl-N-[4-[4-m	17.72	956.7	J
3		Acetamide, N-methyl-N-[4-[4-m	18.02644	1386	J
4	54105-67-8	Heptadecane, 2,6-dimethyl-	19.47278	7315	JN
5		Acetamide, N-methyl-N-[4-[4-m	20.59007	3470	J
6		Acetamide, N-methyl-N-[4-[4-m	20.65564	2483	J
7		Acetamide, N-methyl-N-[4-[4-m	21.68346	2941	J
8		Acetamide, N-methyl-N-[4-[4-m	22.0632	1286	J
9		Acetamide, N-methyl-N-[4-[4-m	22.71486	2380	J
10		Acetamide, N-methyl-N-[4-[4-m	23.08	894.9	J
11		Acetamide, N-methyl-N-[4-[4-m	23.41475	1162	J
12		Acetamide, N-methyl-N-[4-[4-m	23.69411	1587	J
13		Acetamide, N-methyl-N-[4-[4-m	24.64	871.1	J
14		Acetamide, N-methyl-N-[4-[4-m	26.38	934.2	J
15		Acetamide, N-methyl-N-[4-[4-m	29.1	1042	J

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-6 0-6"
Lab Order:	0109076	**Tag Number:**	SK7367
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-006A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PETROLEUM HYDROCARBONS, T/R		E418.1				Analyst: BVS
Petroleum Hydrocarbons, TR	585.0	10.53		mg/Kg-dry	1	9/14/01
PERCENT MOISTURE		D2216				Analyst: BVS
Percent Moisture	5.00	1.00		wt%	1	9/13/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-7 0-6"
Lab Order:	0109076	**Tag Number:**	SK7368
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-007A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BASE NEUTRALS		SW8270B				Analyst: DBD
2-Nitroaniline	ND	349.1		µg/Kg-dry	1	9/19/01
3,3'-Dichlorobenzidine	ND	349.1		µg/Kg-dry	1	9/19/01
3-Nitroaniline	ND	349.1		µg/Kg-dry	1	9/19/01
4-Bromophenyl phenyl ether	ND	349.1		µg/Kg-dry	1	9/19/01
4-Chloroaniline	ND	349.1		µg/Kg-dry	1	9/19/01
4-Chlorophenyl phenyl ether	ND	349.1		µg/Kg-dry	1	9/19/01
4-Nitroaniline	ND	349.1		µg/Kg-dry	1	9/19/01
5-Nitro-o-toluidine	ND	349.1		µg/Kg-dry	1	9/19/01
Acenaphthene	ND	349.1		µg/Kg-dry	1	9/19/01
Acenaphthylene	ND	349.1		µg/Kg-dry	1	9/19/01
Acetophenone	ND	349.1		µg/Kg-dry	1	9/19/01
Anthracene	ND	349.1		µg/Kg-dry	1	9/19/01
Azobenzene	ND	349.1		µg/Kg-dry	1	9/19/01
Benz(a)anthracene	ND	349.1		µg/Kg-dry	1	9/19/01
Benzidine	ND	349.1		µg/Kg-dry	1	9/19/01
Benzo(a)pyrene	ND	349.1		µg/Kg-dry	1	9/19/01
Benzo(b)fluoranthene	ND	349.1		µg/Kg-dry	1	9/19/01
Benzo(g,h,i)perylene	ND	349.1		µg/Kg-dry	1	9/19/01
Benzo(k)fluoranthene	ND	349.1		µg/Kg-dry	1	9/19/01
Benzoic acid	ND	349.1		µg/Kg-dry	1	9/19/01
Benzyl alcohol	ND	349.1		µg/Kg-dry	1	9/19/01
Bis(2-chloroethoxy)methane	ND	349.1		µg/Kg-dry	1	9/19/01
Bis(2-chloroethyl)ether	ND	349.1		µg/Kg-dry	1	9/19/01
Bis(2-chloroisopropyl)ether	ND	349.1		µg/Kg-dry	1	9/19/01
Bis(2-ethylhexyl)phthalate	204	349.1	J	µg/Kg-dry	1	9/19/01
Butyl benzyl phthalate	ND	349.1		µg/Kg-dry	1	9/19/01
Carbazole	ND	349.1		µg/Kg-dry	1	9/19/01
Chrysene	ND	349.1		µg/Kg-dry	1	9/19/01
Di-n-butyl phthalate	1091	349.1		µg/Kg-dry	1	9/19/01
Di-n-octyl phthalate	ND	349.1		µg/Kg-dry	1	9/19/01
Dibenz(a,h)anthracene	ND	349.1		µg/Kg-dry	1	9/19/01
Diethyl phthalate	ND	349.1		µg/Kg-dry	1	9/19/01
Dimethyl phthalate	ND	349.1		µg/Kg-dry	1	9/19/01
Diphenylamine	ND	349.1		µg/Kg-dry	1	9/19/01
Fluoranthene	179	349.1	J	µg/Kg-dry	1	9/19/01
Fluorene	ND	349.1		µg/Kg-dry	1	9/19/01
Hexachlorobenzene	ND	349.1		µg/Kg-dry	1	9/19/01
Hexachlorobutadiene	ND	349.1		µg/Kg-dry	1	9/19/01
Hexachloroethane	ND	349.1		µg/Kg-dry	1	9/19/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	Client Sample ID:	BH-7 0-6"
Lab Order:	0109076	Tag Number:	SK7368
Project:	01-479 Barry Bronze Camden, N.J.	Collection Date:	9/11/01
Lab ID:	0109076-007A	Matrix:	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS EPA METHOD 8260B		SW8260A				Analyst: DBD
4-Isopropyltoluene	ND	617		µg/Kg-dry	50	9/20/01
4-Methyl-2-pentanone	ND	617		µg/Kg-dry	50	9/20/01
Acetone	ND	617		µg/Kg-dry	50	9/20/01
Acrolein	ND	617		µg/Kg-dry	50	9/20/01
Acrylonitrile	ND	617		µg/Kg-dry	50	9/20/01
Benzene	ND	617		µg/Kg-dry	50	9/20/01
Bromobenzene	ND	617		µg/Kg-dry	50	9/20/01
Bromochloromethane	ND	617		µg/Kg-dry	50	9/20/01
Bromodichloromethane	ND	617		µg/Kg-dry	50	9/20/01
Bromoform	ND	617		µg/Kg-dry	50	9/20/01
Bromomethane	ND	617		µg/Kg-dry	50	9/20/01
Carbon disulfide	ND	617		µg/Kg-dry	50	9/20/01
Carbon tetrachloride	ND	617		µg/Kg-dry	50	9/20/01
Chlorobenzene	ND	617		µg/Kg-dry	50	9/20/01
Chloroethane	ND	617		µg/Kg-dry	50	9/20/01
Chloroform	ND	617		µg/Kg-dry	50	9/20/01
Chloromethane	ND	617		µg/Kg-dry	50	9/20/01
cis-1,2-Dichloroethene	ND	617		µg/Kg-dry	50	9/20/01
cis-1,3-Dichloropropene	ND	617		µg/Kg-dry	50	9/20/01
Dibromochloromethane	ND	617		µg/Kg-dry	50	9/20/01
Dibromomethane	ND	617		µg/Kg-dry	50	9/20/01
Dichlorodifluoromethane	ND	617		µg/Kg-dry	50	9/20/01
Ethylbenzene	ND	617		µg/Kg-dry	50	9/20/01
Hexachlorobutadiene	ND	617		µg/Kg-dry	50	9/20/01
Iodomethane	ND	617		µg/Kg-dry	50	9/20/01
Isopropylbenzene	ND	617		µg/Kg-dry	50	9/20/01
m,p-Xylene	ND	617		µg/Kg-dry	50	9/20/01
Methyl tert-butyl ether	ND	617		µg/Kg-dry	50	9/20/01
Methylene chloride	ND	617		µg/Kg-dry	50	9/20/01
n-Butylbenzene	ND	617		µg/Kg-dry	50	9/20/01
n-Propylbenzene	ND	617		µg/Kg-dry	50	9/20/01
Naphthalene	ND	617		µg/Kg-dry	50	9/20/01
o-Xylene	ND	617		µg/Kg-dry	50	9/20/01
sec-Butylbenzene	ND	617		µg/Kg-dry	50	9/20/01
Styrene	ND	617		µg/Kg-dry	50	9/20/01
tert-Butylbenzene	ND	617		µg/Kg-dry	50	9/20/01
Tertiary butyl alcohol	ND	617		µg/Kg-dry	50	9/20/01
Tetrachloroethene	ND	617		µg/Kg-dry	50	9/20/01
trans-1,2-Dichloroethene	ND	617		µg/Kg-dry	50	9/20/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	Client Sample ID:	BH-7 0-6"
Lab Order:	0109076	Tag Number:	SK7368
Project:	01-479 Barry Bronze Camden, N.J.	Collection Date:	9/11/01
Lab ID:	0109076-007A	Matrix:	SOIL

V OR TENTATIVELY IDENTIFIED COMPOUNDS

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-8 0-6"
Lab Order:	0109076	**Tag Number:**	SK7369
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-008A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PETROLEUM HYDROCARBONS, T/R		E418.1				Analyst: BVS
Petroleum Hydrocarbons, TR	3918	31.58		mg/Kg-dry	1	9/14/01
PERCENT MOISTURE		D2216				Analyst: BVS
Percent Moisture	5.00	1.00		wt%	1	9/13/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

000023

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-10 3-4'
Lab Order:	0109076	**Tag Number:**	
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-010A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PETROLEUM HYDROCARBONS, T/R		E418.1				Analyst: BVS
Petroleum Hydrocarbons, TR	ND	10.12		mg/Kg-dry	1	9/14/01
PERCENT MOISTURE		D2216				Analyst: BVS
Percent Moisture	1.20	1.00		wt%	1	9/13/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-10 13-14'
Lab Order:	0109076	**Tag Number:**	
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-012A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PETROLEUM HYDROCARBONS, T/R		E418.1				Analyst: BVS
Petroleum Hydrocarbons, TR	4854	30.92		mg/Kg-dry	1	9/14/01
PERCENT MOISTURE		D2216				Analyst: BVS
Percent Moisture	2.99	1.00		wt%	1	9/13/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

000027

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-10 18-19'
Lab Order:	0109076	**Tag Number:**	SK7371
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-014A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS EPA METHOD 8260B		SW8260A				Analyst: DBD
1,1,1,2-Tetrachloroethane	ND	1340		µg/Kg-dry	100	9/20/01
1,1,1-Trichloroethane	ND	1340		µg/Kg-dry	100	9/20/01
1,1,2,2-Tetrachloroethane	4410	1340		µg/Kg-dry	100	9/20/01
1,1,2-Trichloroethane	2810	1340		µg/Kg-dry	100	9/20/01
1,1-Dichloroethane	ND	1340		µg/Kg-dry	100	9/20/01
1,1-Dichloroethene	ND	1340		µg/Kg-dry	100	9/20/01
1,1-Dichloropropene	ND	1340		µg/Kg-dry	100	9/20/01
1,2,3-Trichlorobenzene	ND	1340		µg/Kg-dry	100	9/20/01
1,2,3-Trichloropropane	ND	1340		µg/Kg-dry	100	9/20/01
1,2,4-Trichlorobenzene	ND	1340		µg/Kg-dry	100	9/20/01
1,2,4-Trimethylbenzene	26500	1340		µg/Kg-dry	100	9/20/01
1,2-Dibromo-3-chloropropane	ND	1340		µg/Kg-dry	100	9/20/01
1,2-Dibromoethane	ND	1340		µg/Kg-dry	100	9/20/01
1,2-Dichlorobenzene	ND	1340		µg/Kg-dry	100	9/20/01
1,2-Dichloroethane	ND	1340		µg/Kg-dry	100	9/20/01
1,2-Dichloropropane	ND	1340		µg/Kg-dry	100	9/20/01
1,2-Dimethylnaphthalene	ND	1340		µg/Kg-dry	100	9/20/01
1,3,5-Trimethylbenzene	11900	1340		µg/Kg-dry	100	9/20/01
1,3-Dichlorobenzene	ND	1340		µg/Kg-dry	100	9/20/01
1,3-Dichloropropane	ND	1340		µg/Kg-dry	100	9/20/01
1,4-Dichlorobenzene	ND	1340		µg/Kg-dry	100	9/20/01
1-Methylnaphthalene	25400	1340		µg/Kg-dry	100	9/20/01
2,2-Dichloropropane	ND	1340		µg/Kg-dry	100	9/20/01
2-Butanone	ND	1340		µg/Kg-dry	100	9/20/01
2-Chloroethyl vinyl ether	ND	1340		µg/Kg-dry	100	9/20/01
2-Chlorotoluene	ND	1340		µg/Kg-dry	100	9/20/01
2-Hexanone	4260	1340		µg/Kg-dry	100	9/20/01
4-Chlorotoluene	ND	1340		µg/Kg-dry	100	9/20/01
4-Isopropyltoluene	ND	1340		µg/Kg-dry	100	9/20/01
4-Methyl-2-pentanone	9250	1340		µg/Kg-dry	100	9/20/01
Acetone	ND	1340		µg/Kg-dry	100	9/20/01
Acrolein	ND	1340		µg/Kg-dry	100	9/20/01
Acrylonitrile	ND	1340		µg/Kg-dry	100	9/20/01
Benzene	ND	1340		µg/Kg-dry	100	9/20/01
Bromobenzene	ND	1340		µg/Kg-dry	100	9/20/01
Bromochloromethane	ND	1340		µg/Kg-dry	100	9/20/01
Bromodichloromethane	ND	1340		µg/Kg-dry	100	9/20/01
Bromoform	ND	1340		µg/Kg-dry	100	9/20/01
Carbon disulfide	ND	1340		µg/Kg-dry	100	9/20/01

Qualifiers:
- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

00026

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-10 18-19'
Lab Order:	0109076	**Tag Number:**	SK7371
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-01~~4~~A	**Matrix:**	SOIL

VOB TENTATIVELY IDENTIFIED COMPOUNDS

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1	611-14-3	Benzene, 1-ethyl-2-methyl-(6)	16.85676	21700	JN
2	611-14-3	Benzene, 1-ethyl-2-methyl-(5)	17.44097	22200	JN
3	1074-43-7	Benzene, 1-methyl-3-propyl-	19.04770	35700	JN
4	105-05-5	Benzene, 1,4-diethyl-	19.15883	37400	JN
5	1074-17-5	Benzene, 1-methyl-2-propyl-	19.55804	20500	JN
6	934-80-5	Benzene, 4-ethyl-1,2-dimethyl	19.94986	21400	JN
7	3333-13-9	Benzene, 1-methyl-4-(2-propen	20.23768	32000	JN
8	95-93-2	Benzene, 1,2,4,5-tetramethyl-	20.93999	16700	JN
9	2049-95-8	Benzene, (1,1-dimethylpropyl)	21.63566	16000	JN

(856) 354-1337

VAL ASSOCIATES LABORATORY INC.

FAX: (856)354-1586

Water,Air & Soil Analysis

PHILIP V. DATZ, JR.

N.J. Cert. # 04174

Seven Deer Tree
Professional Center

Cherry Hill, NJ 08034

Methodology

Purgeables

Preparations - NJDEP Methodology for the Field Extraction/Preservation of Soil Samples with Methanol for Volatile Organic Compounds. February 1997

Analysis - Method 8260: Gas Chromatography/Mass Spectrometry for Volatile Organics

Semivolatiles

Preparations - Method 3550: Sonication Extraction

Analysis - Method 8270: Gas Chromatography/Mass Spectrometry for Semivolatile Organics: Capillary Column Technique

PCBs

Preparations - Method 3550: Sonication Extraction

Analysis - Method 8082: Polychlorinated Biphenyls (PCBs) by Capillary Column Gas Chromatography

Total Petroleum Hydrocarbons

Preparations - Petroleum Hydrocarbons by EPA 418.1 modified for soil

Analysis - Methods for chemical analysis for water and wastes, EPA-600/4-79-020,USEPA, Method 418.1, March 1983.

Metals

Preparations - Method 3050: Acid digestion of sediments, sludges and soils.

Analysis - Furnace atomic absorption spectroscopy.
- Antimony - Method 7041
- Arsenic - Method 7060
- Selenium - Method 7740
- Thallium - Method 7841

- Cold vapor atomic absorption spectroscopy.
  - Mercury - Method 7471
- Method 6010 : Determination of Metals and Trace Elements by Inductively Coupled Plasma-Atomic Emission Spectrometry

VAL Associates Laboratory, Inc.

11-Dec-01

Lab Order: 0109076
Client: TTI
Project: 01-479 Barry Bronze Camden, N.J

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
0109076-007A	BH-7 0-6"	9/11/01	Soil	PCB IN SOIL		9/18/01	9/19/01
				Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/13/01	9/14/01
				SELENIUM, Total		9/11/01	9/19/01
				THALLIUM, Total		9/11/01	9/18/01
				VOLATILES by GC/MS		9/7/01	9/20/01
0109076-008A	BH-8 0-6"			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/13/01	9/14/01
0109076-009A	BH-9 15-16'			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/13/01	9/14/01
0109076-010A	BH-10 3-4'			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/13/01	9/14/01
0109076-011A	BH-10 10-11'			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/13/01	9/14/01
0109076-012A	BH-10 13-14'			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/13/01	9/14/01
0109076-013A	BH-10 16-17'			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/13/01	9/14/01
0109076-014A	BH-10 18-19'			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/17/01	9/14/01
				VOLATILES by GC/MS		9/7/01	9/20/01
0109076-015A	BH-12 11-14'			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/17/01	9/14/01
0109076-016A	BH-12 14-15'			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/17/01	9/14/01
0109076-017A	BH-12 16-17'			Percent Moisture			9/13/01
				PETROLEUM HYDROCARBONS, T/R		9/17/01	9/14/01
0109076-018A	BH-13 13-1[illegible]			Percent Moisture			9/13/01

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RE ORT

TestCode: tl_gts

Sample ID: lcs | SampType: lcs | TestCode: tl_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_ 918A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7841 | Analysis Date: 9/18/01 | SeqNo: 124621

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Thallium	0.02505	0.00200	0.025	0	100	75	125	0	0			

Sample ID: lcs | SampType: lcs | TestCode: tl_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_ 924B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7841 | Analysis Date: 9/24/01 | SeqNo: 125180

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Thallium	0.02626	0.00200	0.025	0	105	75	125	0	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Mei l Blank

00087

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RE ORT

TestCode: sb_gts

Sample ID: lcs | SampType: lcs | TestCode: sb_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_)918B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/18/01 | SeqNo: 124640

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	it	Qual
Antimony	0.02344	0.00500	0.025	0	93.7	80	120	0	0			

Sample ID: lcs | SampType: lcs | TestCode: sb_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_)924A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/24/01 | SeqNo: 125160

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	it	Qual
Antimony	0.02475	0.00500	0.025	0	99	80	120	0	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Me l Blank

00085

VAL Associates Laboratory, Inc.

Date: 11-Dec-0

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RE ORT

TestCode: as_gts

Sample ID: lcs | SampType: lcs | TestCode: as_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_ 914A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7060A | Analysis Date: 9/19/01 | SeqNo: 124054

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Arsenic	0.05055	0.0100	0.05	0	101	75	125	0	0			

Sample ID: lcs | SampType: lcs | TestCode: as_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_ 925A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7060A | Analysis Date: 9/25/01 | SeqNo: 125207

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Arsenic	0.05117	0.0100	0.05	0	102	75	125	0	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Met l Blank

VAL Associates Laboratory, Inc.

Date: *13-Dec-0*

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RE ORT

TestCode: 8082_S_PCB

Sample ID: **LCS-2664** SampType: **LCS** TestCode: **8082_S_PCB** Units: **µg/Kg** Prep Date: **9/18/01** Run ID: **PEST/PCB_ 0921A**
Client ID: **ZZZZZ** Batch ID: **2664** TestNo: **SW8082** Analysis Date: **9/19/01** SeqNo: **124019**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLi	Qual
Aroclor 1016/1260	159.7	16.7	166.5	0	95.9	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Metho lank

000081

3D

SOIL SEMIVOLATILE MATRIX/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Val Asso lab Contract:

Lab Code: F2 Case No.: SAS No.: SDG No.: bb399

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
Phenol	100.00	0.0	109.9	109.9	5-120
2-Chlorophenol	100.00	0.0	111.0	111.0	25-120
1,4-Dichlorobenzene	100.00	0.0	93.2	93.2	28-120
N-Nitrosodi-n-propylamine	100.00	0.0	55.3	55.3	25-126
1,2,4-Trichlorobenzene	100.00	0.0	82.7	82.7	38-120
4-chloro-3-methylphenol	100.00	0.0	106.3	106.3	26-120
Acenaphthene	100.00	0.0	84.4	84.4	31-137
4-Nitrophenol	100.00	0.0	5.2	5.2	5-120
2,4-Dinitrotoluene	100.00	0.0	35.3	35.3	28-120
Pentachlorophenol	100.00	0.0	11.3	11.3	10-120
Pyrene	100.00	0.0	120.2	120.2	35-142

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100.00	109.9	109.9	0.0	35	5-120
2-Chlorophenol	100.00	111.0	111.0	0.0	50	25-120
1,4-Dichlorobenzene	100.00	93.2	93.2	0.0	27	28-120
N-Nitrosodi-n-propylamine	100.00	55.3	55.3	0.0	38	25-126
1,2,4-Trichlorobenzene	100.00	82.7	82.7	0.0	23	38-120
4-chloro-3-methylphenol	100.00	106.3	106.3	0.0	33	26-120
Acenaphthene	100.00	84.4	84.4	0.0	19	31-137
4-Nitrophenol	100.00	5.2	5.2	0.0	50	5-120
2,4-Dinitrotoluene	100.00	35.3	35.3	0.0	47	28-120
Pentachlorophenol	100.00	11.3	11.3	0.0	47	10-120
Pyrene	100.00	120.2	120.2	0.0	36	35-142

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: out of 22 outside limits

COMMENTS: _____

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RE ORT

TestCode: tl_gts

Sample ID: 0109091-003ams | SampType: ms | TestCode: tl_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_ 918A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7841 | Analysis Date: 9/18/01 | SeqNo: 124602

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Thallium	1.569	0.290	1.45	0	108	75	125	0	0			

Sample ID: 0109139-002ams | SampType: ms | TestCode: tl_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_ 924B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7841 | Analysis Date: 9/24/01 | SeqNo: 125169

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Thallium	1.464	0.277	1.384	0	106	75	125	0	0			

Sample ID: 0109091-003amsd | SampType: msd | TestCode: tl_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_ 918A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7841 | Analysis Date: 9/18/01 | SeqNo: 124603

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Thallium	1.539	0.290	1.45	0	106	75	125	1.569	1.94		)	

Sample ID: 0109139-002amsd | SampType: msd | TestCode: tl_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_ 924B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7841 | Analysis Date: 9/24/01 | SeqNo: 125170

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Thallium	1.45	0.277	1.384	0	105	75	125	1.464	0.953		)	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Metl Blank

000077

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RE ORT

TestCode: sb_gts

Sample ID: 0109091-003ams | SampType: ms | TestCode: sb_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_ 0918B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/18/01 | SeqNo: 124625

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	it	Qual
Antimony	1.762	0.290	1.45	0	122	75	125	0	0			

Sample ID: 0109139-002ams | SampType: ms | TestCode: sb_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_ 0924A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/24/01 | SeqNo: 125154

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	it	Qual
Antimony	1.448	0.277	1.384	0	105	75	125	0	0			

Sample ID: 0109091-003amsd | SampType: msd | TestCode: sb_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_ 0918B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/18/01 | SeqNo: 124626

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Antimony	1.781	0.290	1.45	0	123	75	125	1.762	1.05		0	

Sample ID: 0109139-002amsd | SampType: msd | TestCode: sb_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_ 0924A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/24/01 | SeqNo: 125155

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL	t	Qual
Antimony	1.416	0.277	1.384	0	102	75	125	1.448	2.23		0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Met l Blank

00075

VAL Associates Laboratory, Inc.

Date: 11-Dec-(

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RI 'ORT

TestCode: as_gts

Sample ID: 0109139-002AMS SampType: ms TestCode: as_gts Units: mg/Kg-dry Prep Date: 9/11/01 Run ID: METALS_ 0925A
Client ID: ZZZZZ Batch ID: 2651 TestNo: SW7060A Analysis Date: 9/25/01 SeqNo: 125237

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDI	it	Qual
Arsenic	4.875	1.66	2.768	2.641	80.7	75	125	0	0			

Sample ID: 0109139-002amsd SampType: msd TestCode: as_gts Units: mg/Kg-dry Prep Date: 9/11/01 Run ID: METALS_ 0925A
Client ID: ZZZZZ Batch ID: 2651 TestNo: SW7060A Analysis Date: 9/25/01 SeqNo: 125238

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDI	it	Qual
Arsenic	4.915	1.66	2.768	2.641	82.2	75	125	4.875	0.816		:0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Met l Blank

000073

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

TestCode: se_gts

Sample ID: 0109076-007AMS | SampType: ms | TestCode: se_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_0919B
Client ID: BH-7 0-6" | Batch ID: 2651 | TestNo: SW7740 | Analysis Date: 9/19/01 | SeqNo: 128866

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	1.34	0.262	1.311	0	102	75	125	0	0		

Sample ID: 0109139-002ams | SampType: ms | TestCode: se_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_0926B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7740 | Analysis Date: 9/26/01 | SeqNo: 131791

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	1.367	0.277	1.384	0.08979	92.3	75	125	0	0		

Sample ID: 0109076-007amsd | SampType: msd | TestCode: se_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_0919B
Client ID: BH-7 0-6" | Batch ID: 2651 | TestNo: SW7740 | Analysis Date: 9/19/01 | SeqNo: 128867

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	1.388	0.262	1.311	0	106	75	125	1.34	3.54	20	

Sample ID: 0109139-002amsd | SampType: msd | TestCode: se_gts | Units: mg/Kg-dry | Prep Date: 9/11/01 | Run ID: METALS_0926B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7740 | Analysis Date: 9/26/01 | SeqNo: 131792

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	1.405	0.277	1.384	0.08979	95	75	125	1.367	2.70	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

000071

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RE ORT

TestCode: hg_cts

Sample ID: 0109076-007ams SampType: ms TestCode: hg_cts Units: mg/Kg-dry Prep Date: 10/1/01 Run ID: HG_0109
Client ID: BH-7 0-6" Batch ID: 2803 TestNo: SW7471 Analysis Date: 9/20/01 SeqNo: 136304

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDI it	Qual
Mercury	0.2042	0.0262	0.2184	0.02344	82.8	75	125	0	0		

Sample ID: 0109076-007amsd SampType: msd TestCode: hg_cts Units: mg/Kg-dry Prep Date: 10/1/01 Run ID: HG_0109
Client ID: BH-7 0-6" Batch ID: 2803 TestNo: SW7471 Analysis Date: 9/20/01 SeqNo: 136305

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPD it	Qual
Mercury	0.2043	0.0262	0.2184	0.02344	82.8	75	125	0.2042	0.0586	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated M hod Blank

00006

VAL Associates Laboratory, Inc.

Date: *13-Dec-0*

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RE ORT

TestCode: 8082_S_PCB

Sample ID: **0109103-001AMS** SampType: **MS** TestCode: **8082_S_PCB** Units: **µg/Kg-dry** Prep Date: **9/18/01** Run ID: **PEST/PCE 10921A**
Client ID: **ZZZZZ** Batch ID: **2664** TestNo: **SW8082** Analysis Date: **9/20/01** SeqNo: **124034**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDI it	Qual
Aroclor 1016	ND	18.0	1078	0	0	0	0	0	0		
Aroclor 1016/1260	192.1	18.0	179.4	0	107	85	115	0	0		
Aroclor 1221	ND	18.0	1078	0	0	0	0	0	0		
Aroclor 1232	ND	18.0	1078	0	0	0	0	0	0		
Aroclor 1242	ND	18.0	1078	0	0	0	0	0	0		
Aroclor 1248	ND	18.0	1078	0	0	0	0	0	0		
Aroclor 1254	ND	18.0	1078	0	0	0	0	0	0		
Aroclor 1260	ND	18.0	1078	0	0	0	0	0	0		

Sample ID: **0109103-001AMSD** SampType: **MSD** TestCode: **8082_S_PCB** Units: **µg/Kg-dry** Prep Date: **9/18/01** Run ID: **PEST/PCI 10921A**
Client ID: **ZZZZZ** Batch ID: **2664** TestNo: **SW8082** Analysis Date: **9/20/01** SeqNo: **124035**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDI it	Qual
Aroclor 1016	ND	18.0	1078	0	0	0	0	0	0	0	
Aroclor 1016/1260	193	18.0	179.4	0	108	85	115	192.1	0.485	20	
Aroclor 1221	ND	18.0	1078	0	0	0	0	0	0	0	
Aroclor 1232	ND	18.0	1078	0	0	0	0	0	0	0	
Aroclor 1242	ND	18.0	1078	0	0	0	0	0	0	0	
Aroclor 1248	ND	18.0	1078	0	0	0	0	0	0	0	
Aroclor 1254	ND	18.0	1078	0	0	0	0	0	0	0	
Aroclor 1260	ND	18.0	1078	0	0	0	0	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Meth Blank

000066

3D

SOIL SEMIVOLATILE MATRIX/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Val Asso lab Contract:

Lab Code: F2 Case No.: SAS No.: SDG No.: bb393

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONCENTRATION (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #	QC LIMITS REC.
Phenol	100.00	0.0	70.5	70.5	5-120
2-Chlorophenol	100.00	0.0	78.8	78.8	25-120
1,4-Dichlorobenzene	100.00	0.0	75.3	75.3	28-120
N-Nitrosodi-n-propylamine	100.00	0.0	48.3	48.3	25-126
1,2,4-Trichlorobenzene	100.00	0.0	81.4	81.4	38-120
4-chloro-3-methylphenol	100.00	0.0	84.1	84.1	26-120
Acenaphthene	100.00	0.0	77.4	77.4	31-137
4-Nitrophenol	100.00	0.0	11.3	11.3	5-120
2,4-Dinitrotoluene	100.00	0.0	64.4	64.4	28-120
Pentachlorophenol	100.00	0.0	67.4	67.4	10-120
Pyrene	100.00	0.0	104.8	104.8	35-142

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100.00	67.6	67.6	4.2	35	5-120
2-Chlorophenol	100.00	75.9	75.9	3.7	50	25-120
1,4-Dichlorobenzene	100.00	73.6	73.6	2.3	27	28-120
N-Nitrosodi-n-propylamine	100.00	48.7	48.7	0.8	38	25-126
1,2,4-Trichlorobenzene	100.00	79.5	79.5	2.4	23	38-120
4-chloro-3-methylphenol	100.00	89.2	89.2	5.9	33	26-120
Acenaphthene	100.00	79.1	79.1	2.2	19	31-137
4-Nitrophenol	100.00	11.3	11.3	0.0	50	5-120
2,4-Dinitrotoluene	100.00	57.6	57.6	11.1	47	28-120
Pentachlorophenol	100.00	56.4	56.4	17.8	47	10-120
Pyrene	100.00	97.9	97.9	6.8	36	35-142

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: out of 22 outside limits

COMMENTS: _____

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Val Asso lab Contract:

Lab Code: F2 Case No.: SAS No.: SDG No.: bb716

Level: (low/med) LOW

	EPA SAMPLE No.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	TOT OUT
01	BLANK	94	93	113	0
02	50PPBSTD	106	98	107	0
03	0109107-001A	18*	18*	21*	3
04	0109107-003A	42*	41*	44*	3
05	0109076-004A	107	95	107	0
06	0109076-007A	113	91	107	0
07	0109076-014A	48*	47*	53*	3
08	0109076-014	48*	52*	51*	3
09	0109076-014A	50*	53*	58*	3
10	0109054-001A	96	86	115	0
11	0109054-005A	90	83	110	0
12	0109045-008A	93	91	105	0
13	0109054-010A	91	83	96	0
14	0109091-003A	95	84	106	0
15	0109059-001A	103	84	98	0
16	0109109-001A	98	106	98	0
17	50PPBSTD	102	104	114	0

		QC LIMITS
SMC1(TOL)	= Toluene-D8	(81-117)
SMC2(BFB)	= P-Bromofluorobenzene	(74-121)
SMC3(DCE)	= 1,2-Dichloroethane-D4	(75-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
BLANK

Lab Name: VAL ASSO LAB Contract:

Lab Code: F2 Case No.: _____ SAS No.: _____ SDG No.: BB716

Lab File ID: VOB051.Q Lab Sample ID: BLANK

Date Analyzed: 09/20/81 Time Analyzed: 08:41

GC Column: CAP ID: .25 (mm) Heated Purge: (Y/N) Y

Instrument ID: GC/MS

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BLANK	BLANK	VOB051.MSS	08:41
02	50PPBSTD	50PPBSTD	VOB052.MSS	09:30
03	0109107-001A	0109107-001A	VOB054.MSS	10:43
04	0109107-003A	0109107-003A	VOB055.MSS	11:24
05	0109076-004A	0109076-004A	VOB056.MSS	12:05
06	0109076-007A	0109076-007A	VOB057.MSS	12:47
07	0109076-014A	0109076-014A	VOB058.MSS	13:28
08	0109076-014A	0109076-014A	VOB059.MSS	14:10
09	0109076-014A	0109076-014A	VOB060.MSS	14:51
10	0109054-001A	0109054-001A	VOB062.MSS	16:14
11	0109054-005A	0109054-005A	VOB063.MSS	16:55
12	0109045-008A	0109045-008A	VOB064.MSS	17:37
13	0109054-010A	0109054-010A	VOB065.MSS	18:18
14	0109091-003A	0109091-003A	VOB066.MSS	18:59
15	0109059-001A	0109059-001A	VOB067.MSS	19:41
16	0109109-001A	0109109-001A	VOB068.MSS	20:22
17	50PPBSTD	50PPBSTD	VOB069.MSS	21:05
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS: _____

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY RE ORT

TestCode: tl_gts

Sample ID: ccb | SampType: ccb | TestCode: tl_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_(918A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7841 | Analysis Date: 9/18/01 | SeqNo: 124609

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL t	Qual
Thallium	ND	0.00200	0	0	0	0	0	0	0		

Sample ID: ccb | SampType: ccb | TestCode: tl_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_(924B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7841 | Analysis Date: 9/24/01 | SeqNo: 125172

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDL t	Qual
Thallium	ND	0.00200	0	0	0	0	0	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Me l Blank

000058

CLIENT: TT
Work Order: 01( )76
Project: 01 '9 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

TestCode: sb_gts

Sample ID: ccb | SampType: ccb | TestCode: sb_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_010918B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/18/01 | SeqNo: 124632

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.00500	0	0	0	0	0	0	0		

Sample ID: ccb | SampType: ccb | TestCode: sb_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_010924A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/24/01 | SeqNo: 125156

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.00500	0	0	0	0	0	0	0		

Sample ID: icb | SampType: icb | TestCode: sb_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_010918B
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/18/01 | SeqNo: 124636

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.00500	0	0	0	0	0	0	0		

Sample ID: icb | SampType: icb | TestCode: sb_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_010924A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7041 | Analysis Date: 9/24/01 | SeqNo: 125158

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.00500	0	0	0	0	0	0	0		

Qualifiers: ND - t Detected at the Reporting Limit
J - A yte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

0059

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT: TTI
Work Order: 010 76
Project: 01- 9 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

TestCode: as_gts

Sample ID: ccb | SampType: ccb | TestCode: as_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_010914A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7060A | Analysis Date: 9/19/01 | SeqNo: 124046

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.0100	0	0	0	0	0	0	0		

Sample ID: ccb | SampType: ccb | TestCode: as_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_010925A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7060A | Analysis Date: 9/25/01 | SeqNo: 125195

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.0100	0	0	0	0	0	0	0		

Sample ID: icb | SampType: icb | TestCode: as_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_010914A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7060A | Analysis Date: 9/19/01 | SeqNo: 124050

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.0100	0	0	0	0	0	0	0		

Sample ID: icb | SampType: icb | TestCode: as_gts | Units: mg/Kg | Prep Date: | Run ID: METALS_010925A
Client ID: ZZZZZ | Batch ID: 2651 | TestNo: SW7060A | Analysis Date: 9/25/01 | SeqNo: 125201

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.0100	0	0	0	0	0	0	0		

Qualifiers: ND - ı Detected at the Reporting Limit
J - Ar te detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

000054

CLIENT: TT
Work Order: 01( )76
Project: 01- 9 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

TestCode: se_gts

Sample ID: mblk	SampType: mblk	TestCode: se_gts	Units: mg/Kg	Prep Date:	Run ID: METALS_010919B
Client ID: ZZZZZ	Batch ID: 2651	TestNo: SW7740		Analysis Date: 9/19/01	SeqNo: 128886

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.00500									

Sample ID: mblk	SampType: mblk	TestCode: se_gts	Units: mg/Kg	Prep Date:	Run ID: METALS_010926B
Client ID: ZZZZZ	Batch ID: 2651	TestNo: SW7740		Analysis Date: 9/26/01	SeqNo: 131823

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.00500									

Qualifiers: ND - ɔt Detected at the Reporting Limit
J - A yte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

000052

CLIENT: TT
Work Order: 01( )76
Project: 01- '9 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

TestCode: hg_cts

Sample ID: mblk | SampType: mblk | TestCode: hg_cts | Units: mg/Kg | Prep Date: | Run ID: HG_010920A
Client ID: ZZZZZ | Batch ID: 2803 | TestNo: SW7471 | Analysis Date: 9/20/01 | SeqNo: 136342

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.000200									

Qualifiers: ND - ıt Detected at the Reporting Limit
J - A ytc detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

000050

CLIENT TTI
Work Order: 010 76
Project: 01-) Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

TestCode: icp_ts

Sample ID: ICB | SampType: ICB | TestCode: ICP_TS | Units: mg/Kg | Prep Date: | Run ID: ICP_010924A
Client ID: ZZZZZ | Batch ID: 2660 | TestNo: SW6010A | Analysis Date: 9/24/01 | SeqNo: 131779

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	0.0113	0	0	0	0	0	0	0		

Qualifiers ND - Detected at the Reporting Limit
J - An te detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

000048

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT: TT
Work Order: 01( )76
Project: 01- 9 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

TestCode: icp_ts

Sample ID: mblk | SampType: mblk | TestCode: icp_ts | Units: mg/Kg | Prep Date: | Run ID: ICP_010918B
Client ID: ZZZZZ | Batch ID: 2660 | TestNo: SW6010A | Analysis Date: 9/18/01 | SeqNo: 124994

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	ND	0.000628									
Cadmium	ND	0.000628									
Chromium	ND	0.00314									
Copper	ND	0.00314									
Lead	ND	0.000754									
Nickel	ND	0.00785									
Silver	ND	0.00345									
Zinc	ND	0.00157									

Sample ID: MBLK | SampType: MBLK | TestCode: ICP_TS | Units: mg/Kg | Prep Date: | Run ID: ICP_010924A
Client ID: ZZZZZ | Batch ID: 2660 | TestNo: SW6010A | Analysis Date: 9/24/01 | SeqNo: 131783

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	0.0113	0	0	0	0	0	0	0		

Sample ID: ccb | SampType: ccb | TestCode: icp_ts | Units: mg/Kg | Prep Date: | Run ID: ICP_010918B
Client ID: ZZZZZ | Batch ID: 2660 | TestNo: SW6010A | Analysis Date: 9/18/01 | SeqNo: 124991

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	ND	0.000628	0	0	0	80	120	0	0		
Cadmium	ND	0.000628	0	0	0	80	120	0	0		
Chromium	ND	0.00314	0	0	0	80	120	0	0		
Copper	ND	0.00314	0	0	0	80	120	0	0		
Lead	ND	0.000754	0	0	0	80	120	0	0		
Nickel	ND	0.00785	0	0	0	80	120	0	0		
Silver	ND	0.00345	0	0	0	80	120	0	0		
Zinc	ND	0.00157	0	0	0	80	120	0	0		

Qualifiers: ND - ot Detected at the Reporting Limit
J - A yte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

000046

(856) 354-1337

VAL ASSOCIATES LABORATORY INC.

FAX: (856)354-1586

Water,Air & Soil Analysis

PHILIP V. DATZ, JR.
Chemist

N.J. Cert. # 04174

Seven Deer Tree
Professional Center
600 Deer Road
Cherry Hill, NJ 08034

Organics Analysis Data Sheet
Tentatively Identified Compounds
Volatile Compounds

Client:
Sample ID: Method Blank (VOB 051)
Date Received: N/A
Analysis Date: 09/20/01
Sample Matrix: Aqueous
Sample Wt./Vol.: 5.0 ml
Reporting Units: ug/L
Column: J & W; DB-624 (capillary)
Method: EPA Method 8260

Client ID: Method Blank

Project #:
Dilution Factor: 1.00
Percent Solids: 0.00

C.A.S. Number	Compound	Retention Time		Result	DQ
	No unknown compounds detected				

DQ - Data qualifiers
J - Estimated value
B - Compound found in method blank
MDL - Method detection limit

CLIENT: TT
Work Order: 01( )76
Project: 01- 9 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S

Sample ID: MB-2671#3 | SampType: MBLK | TestCode: 8260_S | Units: µg/L | Prep Date: 9/7/01 | Run ID: VOB_010920A
Client ID: ZZZZZ | Batch ID: 2671 | TestNo: SW8260A | Analysis Date: 9/20/01 | SeqNo: 130083

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acrolein	ND	3.30	0	0	0	0	0	0	0		
Acrylonitrile	ND	3.92	0	0	0	0	0	0	0		
Benzene	ND	2.88	0	0	0	0	0	0	0		
Bromobenzene	ND	3.54	0	0	0	0	0	0	0		
Bromochloromethane	ND	4.52	0	0	0	0	0	0	0		
Bromodichloromethane	ND	2.47	0	0	0	0	0	0	0		
Bromoform	ND	1.80	0	0	0	0	0	0	0		
Bromomethane	ND	3.67	0	0	0	0	0	0	0		
Carbon disulfide	ND	2.56	0	0	0	0	0	0	0		
Carbon tetrachloride	ND	1.82	0	0	0	0	0	0	0		
Chlorobenzene	ND	2.11	0	0	0	0	0	0	0		
Chloroethane	ND	2.50	0	0	0	0	0	0	0		
Chloroform	ND	1.22	0	0	0	0	0	0	0		
Chloromethane	ND	2.64	0	0	0	0	0	0	0		
cis-1,2-Dichloroethene	ND	1.86	0	0	0	0	0	0	0		
cis-1,3-Dichloropropene	ND	3.90	0	0	0	0	0	0	0		
Dibromochloromethane	ND	2.87	0	0	0	0	0	0	0		
Dibromomethane	ND	2.53	0	0	0	0	0	0	0		
Dichlorodifluoromethane	ND	4.02	0	0	0	0	0	0	0		
Ethylbenzene	ND	3.37	0	0	0	0	0	0	0		
Hexachlorobutadiene	ND	1.14	0	0	0	0	0	0	0		
Iodomethane	ND	1.84	0	0	0	0	0	0	0		
Isopropylbenzene	ND	1.01	0	0	0	0	0	0	0		
m,p-Xylene	ND	4.11	0	0	0	0	0	0	0		
Methyl tert-butyl ether	ND	2.65	0	0	0	0	0	0	0		
Methylene chloride	ND	4.97	0	0	0	0	0	0	0		
n-Butylbenzene	ND	1.16	0	0	0	0	0	0	0		
n-Propylbenzene	ND	1.59	0	0	0	0	0	0	0		
Naphthalene	ND	5.22	0	0	0	0	0	0	0		
o-Xylene	ND	1.84	0	0	0	0	0	0	0		
sec-Butylbenzene	ND	1.78	0	0	0	0	0	0	0		

Qualifiers: ND - ıt Detected at the Reporting Limit
J - A yte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

000042

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
MB-2542#3

Lab Name: VAL ASSO LAB Contract: _____

Lab Code: F2 Case No.: _____ SAS No.: _____ SDG No.: BB399

Lab File ID: BNAPB125.Q Lab Sample ID:

Instrument ID: GC/MS Date Extracted:

Matrix: (soil/water) SOIL Date Analyzed: 09/19/81

Level: (low/med) Low Time Analyzed: 09:16

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MB-2542#3	MB-2542#3	BNAPB125.MSS	09:16
02	MB-2549#3	MB-2549#3	BNAPB126.MSS	10:00
03	100PPBSTD	100PPBSTD	BNAPB127.MSS	10:57
04	0109091-001A	0109091-001A	BNAPB128.MSS	11:39
05	0109091-002A	0109091-002A	BNAPB129.MSS	12:31
06	0109091-003A	0109091-003A	BNAPB130.MSS	13:23
07	0109008-001A	0109008-001A	BNAPB131.MSS	14:15
08	0109054-001A	0109054-001A	BNAPB132.MSS	15:07
09	0109054-005A	0109054-005A	BNAPB133.MSS	15:59
10	0109054-008A	0109054-008A	BNAPB134.MSS	16:50
11	0109054-010A	0109054-010A	BNAPB135.MSS	17:42
12	0109076-004A	0109076-004A	BNAPB136.MSS	18:35
13	0109076-007A	0109076-007A	BNAPB137.MSS	19:27
14	100PPBSTD	100PPBSTD	BNAPB138.MSS	20:20
15				
16				
17				
18				
19				
20				
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29				
30				

COMMENTS: _____

CLIENT: T

Work Order: 01 076

Project: 01 79 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

BatchID: 2549

Sample ID: MB-2549#: | SampType: MBLK | TestCode: 8270_SBNA | Units: µg/L | Prep Date: 8/22/01 | Run ID: BNAPB_010919A

Client ID: ZZZZZ | Batch ID: 2549 | TestNo: SW8270B | Analysis Date: 9/19/01 | SeqNo: 124404

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diethyl phthalate	0	6.927	0	0	0	0	0	0	0		
Dimethyl phthalate	0	2.028	0	0	0	0	0	0	0		
Diphenylamine	0	10.00	0	0	0	0	0	0	0		
Fluoranthene	0	4.918	0	0	0	0	0	0	0		
Fluorene	0	2.801	0	0	0	0	0	0	0		
Hexachlorobenzene	0	3.767	0	0	0	0	0	0	0		
Hexachlorobutadiene	0	5.939	0	0	0	0	0	0	0		
Hexachlorocyclopentadiene	0	3.379	0	0	0	0	0	0	0		
Hexachloroethane	0	5.058	0	0	0	0	0	0	0		
Indeno(1,2,3-cd)pyrene	0	3.893	0	0	0	0	0	0	0		
Isophorone	0	4.709	0	0	0	0	0	0	0		
N-Nitrosodi-n-propylam	0	2.235	0	0	0	0	0	0	0		
N-Nitrosodimethylamine	0	4.100	0	0	0	0	0	0	0		
N-Nitrosodiphenylamine	0	2.959	0	0	0	0	0	0	0		
Naphthalene	0	5.505	0	0	0	0	0	0	0		
Nitrobenzene	0	3.173	0	0	0	0	0	0	0		
o-Toluidine	0	10.00	0	0	0	0	0	0	0		
Pentachlorophenol	0	4.476	0	0	0	0	0	0	0		
Phenanthrene	0	4.254	0	0	0	0	0	0	0		
Phenol	0	5.039	0	0	0	0	0	0	0		
Pyrene	0	4.565	0	0	0	0	0	0	0		
Pyridine	0	3.944	0	0	0	0	0	0	0		

Qualifiers: ND ot Detected at the Reporting Limit | S - Spike Recovery outside accepted recovery limits | B - Analyte detected in the associated Method Blank

J - A lyte detected below quantitation limits | R - RPD outside accepted recovery limits

000038

CLIENT: TT
Work Order: 01( )76
Project: 01- '9 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

BatchID: 2549

Sample ID: MB-2549#2 | SampType: MBLK | TestCode: 8270_SBNA | Units: µg/L | Prep Date: 8/22/01 | Run ID: BNAPB_010913A
Client ID ZZZZZ | Batch ID: 2549 | TestNo: SW8270B | Analysis Date: 9/13/01 | SeqNo: 123057

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	0	5.039	0	0	0	0	0	0	0		
Pyrene	0	4.565	0	0	0	0	0	0	0		
Pyridine	0	3.944	0	0	0	0	0	0	0		

Sample ID: MB-2549#3 | SampType: MBLK | TestCode: 8270_SBNA | Units: µg/L | Prep Date: 8/22/01 | Run ID: BNAPB_010919A
Client ID: ZZZZZ | Batch ID: 2549 | TestNo: SW8270B | Analysis Date: 9/19/01 | SeqNo: 124404

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0	4.522	0	0	0	0	0	0	0		
1,2-Dichlorobenzene	0	4.139	0	0	0	0	0	0	0		
1,2-Dimethynaphthalen	0	10.00	0	0	0	0	0	0	0		
1,3-Dichlorobenzene	0	3.347	0	0	0	0	0	0	0		
1,4-Dichlorobenzene	0	4.108	0	0	0	0	0	0	0		
2,4,5-Trichlorophenol	0	3.584	0	0	0	0	0	0	0		
2,4,6-Trichlorophenol	0	4.080	0	0	0	0	0	0	0		
2,4-Dichlorophenol	0	4.931	0	0	0	0	0	0	0		
2,4-Dimethylphenol	0	4.337	0	0	0	0	0	0	0		
2,4-Dinitrophenol	0	5.164	0	0	0	0	0	0	0		
2,4-Dinitrotoluene	0	3.142	0	0	0	0	0	0	0		
2,6-Dinitrotoluene	0	3.707	0	0	0	0	0	0	0		
2-Chloronaphthalene	0	4.427	0	0	0	0	0	0	0		
2-Chlorophenol	0	4.970	0	0	0	0	0	0	0		
2-Methylnaphthalene	0	10.00	0	0	0	0	0	0	0		
2-Methylphenol	0	4.403	0	0	0	0	0	0	0		
2-Nitroaniline	0	1.000	0	0	0	0	0	0	0		
2-Nitrophenol	0	4.357	0	0	0	0	0	0	0		
3,3'-Dichlorobenzidine	0	7.054	0	0	0	0	0	0	0		
3-Methylphenol	0	1.485	0	0	0	0	0	0	0		
3-Nitroaniline	0	10.00	0	0	0	0	0	0	0		
4,6-Dinitro-2-methylphe	0	3.548	0	0	0	0	0	0	0		
4-Bromophenyl phenyl er	0	2.948	0	0	0	0	0	0	0		

Qualifiers: ND - ot Detected at the Reporting Limit | S - Spike Recovery outside accepted recovery limits | B - Analyte detected in the associated Method Blank
J - A yte detected below quantitation limits | R - RPD outside accepted recovery limits

000036

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

CLIENT:	TTI	**Client Sample ID:**	BH-12 16-17'
Lab Order:	0109076	**Tag Number:**	SK7372
Project:	01-479 Barry Bronze Camden, N.J.	**Collection Date:**	9/11/01
Lab ID:	0109076-017A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PETROLEUM HYDROCARBONS, T/R		E418.1				Analyst: BVS
Petroleum Hydrocarbons, TR	19110	884.6		mg/Kg-dry	25	9/14/01
PERCENT MOISTURE		D2216				Analyst: BVS
Percent Moisture	15.22	1.00		wt%	1	9/13/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

VAL Associates Laboratory, Inc.

Date: *11-Dec-01*

Project: 01-479 Barry Bronze Camden, N.J.
Lab Order: 0109076

CASE NARRATIVE

The software used to quantitate both volatile and semivolatile data, due to a year 2000 error, cannot recognize the year 2000. Until this problem can be resolved, the year 2001 will be replaced with the year 1981 on all volatile and semivolatile data (i.e. 01/01/01 will be displayed as 01/01/81).

All samples were extracted and/or analyzed within prescribed hold time. See laboratory chronicle for further details.

All volatile surrogate spikes were within QA/QC limits. See volatile surrogate recovery sheets for further details. All semivolatile surrogate spikes were within QA/QC limits. See semivolatile surrogate recovery sheet for further details. All pesticide/PCB surrogate spikes were within QA/QC limits. See pesticide/PCB surrogate recovery sheet for further details.

All volatile matrix spike/matrix spike duplicate recoveries were within QA/QC limits. See volatile matrix spike/matrix spike duplicate recovery sheets for further details. All semivolatile matrix spike/matrix spike duplicate recoveries were within QA/QC limits. See semivolatile matrix spike/matrix spike duplicate recovery sheets for further details. All PCB matrix spike/matrix spike duplicate recoveries were within QA/QC limits. See pcb matrix spike/matrix spike duplicate recovery sheets for further details. All metal matrix spike/matrix spike duplicate recoveries were within QA/QC limits. See metal matrix spike/matrix spike duplicate recovery sheets for further details. All TPH matrix spike/matrix spike duplicate recoveries were within QA/QC limits.
See TPH matrix spike/matrix spike duplicate recovery sheets for further details.

All initial and continuing calibration data met QA/QC standards. Please see initial and continuing calibration summaries for further details. All instrument tune data met QA/QC criteria. Please see instrument tune summary for further details.

No other problems were encountered during extraction and/or analysis.

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Val Asso lab Contract:

Lab Code: F2 Case No.: SAS No.: SDG No.: b001

Instrument ID: GC/MS Calibration Date(s): 08/22/81 08/22/81

Calibration Times: 10:22 13:38

1270

LAB FILE ID: RRF20=BNAPB002.Q RRF50=BNAPB003.Q
RRF100=BNAPB004.Q RRF120=BNAPB005.Q RRF160=BNAPB006.Q

COMPOUND	RRF20	RRF50	RRF100	RRF120	RRF160	$\overline{RRF}$	% RSD
N-Nitrosodimethylamine	0.70958	0.68228	0.74984	0.87879	0.84987	0.77407	11.17
Pyridine	1.14368	0.98268	1.33958	1.64648	1.22969	1.26842	19.58
Aniline	1.02203	1.22866	1.18008	1.23855	1.22760	1.17938	7.70
bis(2-Chloroethyl) ether	1.02048	1.11775	1.17379	1.23855	1.30847	1.17181	9.44
Phenol	1.10092	1.19931	1.14749	0.82559	1.08207	1.07108	13.49
2-Chlorophenol	1.43246	1.54147	1.49472	1.56767	1.76882	1.56103	8.14
1,3-Dichlorobenzene	1.55635	1.53951	1.52551	1.65032	1.57487	1.56931	3.12
1,4-Dichlorobenzene	0.89194	0.97961	1.01406	1.08601	1.13475	1.02127	9.24
1,2-Dichlorobenzene	1.21784	1.26185	1.34413	1.36567	1.54830	1.34756	9.45
Benzyl alcohol	0.55618	0.67298	0.73719	0.66020	0.81774	0.68886	14.08
Bis(2-Chloroisopropyl) ether	0.28144	0.27688	0.27261	0.28931	0.32023	0.28809	6.59
3-Methylphenol	1.05611	0.94004	1.08663	1.02973	1.10721	1.04394	6.24
Acetophenone	1.38056	1.58873	1.74874	1.94137	1.86035	1.70395	13.15
o-Toluidine	1.36171	1.63311	1.94364	1.92945	2.00253	1.77409	15.31
N-Nitrosodi-n-propylamine	0.32988	0.40154	0.45992	0.46206	0.44388	0.41946	13.27
Hexachloroethane	0.72946	0.75523	0.76042	0.90596	1.00706	0.83163	14.44
2-Methylphenol	1.19373	1.34401	1.15737	1.45417	1.20800	1.27146	9.77
4-Methylphenol	2.10691	2.05231	2.53879	2.38128	2.20699	2.25726	8.91
Nitrobenzene	0.25030	0.22869	0.25676	0.30472	0.33126	0.27435	15.39
Isophorone	0.37882	0.40209	0.39333	0.35978	0.39636	0.38608	4.41
2-Nitrophenol	0.19114	0.16067	0.17446	0.18336	0.19558	0.18104	7.70
2,4-Dimethylphenol	0.21608	0.26946	0.24492	0.29331	0.27344	0.25944	11.46
bis(2-Chloroethoxy)methane	0.15785	0.22690	0.25115	0.25192	0.24182	0.22593	17.43
1,2,4-Trichlorobenzene	0.23608	0.24526	0.25140	0.27471	0.28103	0.25770	7.50
2,4-Dichlorophenol	0.20307	0.21447	0.20697	0.22338	0.20823	0.21122	3.76
Benzoic acid	0.00000	0.07507	0.11750	0.10272	0.11141	0.10168	18.43
Naphthalene	1.01970	1.03417	1.09087	1.17160	1.11007	1.08528	5.64
Hexachlorobutadiene	0.13419	0.13333	0.13107	0.15898	0.15046	0.14161	8.75
4-Chloroaniline	0.14067	0.15055	0.16297	0.14266	0.14180	0.14773	6.34
2-Methylnaphthalene	0.65097	0.60674	0.63597	0.65678	0.67403	0.64490	3.92
4-chloro-3-methylphenol	0.19488	0.20220	0.18813	0.19434	0.18704	0.19332	3.15
Caprolactam	0.14682	0.15445	0.20912	0.17717	0.23170	0.18385	19.63
Hexachlorocyclopentadiene	0.00000	0.06870	0.07807	0.08954	0.07070	0.07675	12.28
2,4,6-Trichlorophenol	0.23001	0.21281	0.24066	0.26412	0.23293	0.23611	7.91
2,4,5-Trichlorophenol	0.20981	0.19991	0.28312	0.25815	0.24351	0.23890	14.37
2-Chloronaphthalene	1.02668	1.09756	1.18337	1.19099	1.31916	1.16355	9.46
2-Nitroaniline	0.41215	0.40485	0.46006	0.46125	0.51183	0.45003	9.64
1,2-Dimethylnaphtalene	0.40[illegible]	0.56428	0.64011	0.70359	0.76442	0.62817	18.50
3-Nitroaniline	0.13[illegible]	0.20230	0.17003	0.19146	0.16540	0.17243	15.53
Dimethyl phthalate	1.26847	1.36806	1.41653	1.46751	1.37843	1.37980	5.32
Acenaphthylene	1.63746	1.75468	1.88038	1.93946	2.06898	1.85619	8.97
4-Nitroaniline	0.20540	0.21845	0.25164	0.26624	0.28399	0.24514	13.36
Dibenzofuran	1.45249	1.52623	1.64229	1.64804	1.89117	1.63204	10.20
2,6-Dinitrotoluene	0.20013	0.12469	0.17918	0.18732	0.15036	0.16834	18.11
Acenaphthene	1.11608	1.16962	1.25923	1.29245	1.38847	1.24517	8.55
2,4-Dinitrophenol	0.00000	0.06104	0.06885	0.07809	0.07739	0.07134	11.28
2,4-Dinitrotoluene	0.33815	0.34801	0.39692	0.40839	0.39491	0.37728	8.44
4-Nitrophenol	0.76247	0.85923	0.96941	1.03282	1.20436	0.96566	17.49
Diethyl phthalate	1.39338	1.49812	1.62681	1.82150	1.86047	1.64006	12.30

Compounds with required mininum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: VAL ASSO LAB Contract: _____

Lab Code: F2 Case No.: _____ SAS No.: _____ SDG No.: BB399

Lab File ID: BNAPB127.Q Init Calib. Date(s): 8-22-01 8-22-01

Init. Calib. Times: 10:22 13:38

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
N-Nitrosodimethylamine	0.7740	0.6790		12.3	
Pyridine	1.2684	1.0275		19.0	
Aniline	1.1793	1.2299		4.3	
bis(2-Chloroethyl) ether	1.1718	1.2251		4.5	
Phenol	1.0710	0.9982		6.8	25.0
2-Chlorophenol	1.5610	1.3558		13.1	
1,3-Dichlorobenzene	1.5693	1.5715		0.1	
1,4-Dichlorobenzene	1.0212	1.0570		3.5	25.0
1,2-Dichlorobenzene	1.3475	1.5667		16.3	
Benzyl alcohol	0.6888	0.7478		8.6	
Bis(2-Chloroisopropyl) ether	0.2880	0.2975		3.3	
3-Methylphenol	1.0439	0.8514		18.4	
Acetophenone	1.7039	1.7371		1.9	
o-Toluidine	1.7740	1.8391		3.7	
N-Nitrosodi-n-propylamine	0.4194	0.3825	0.050	8.8	
Hexachloroethane	0.8316	0.8180		1.6	
2-Methylphenol	1.2714	1.1046		13.1	
4-Methylphenol	2.2572	1.8500		18.0	
Nitrobenzene	0.2743	0.2232		18.6	
Isophorone	0.3860	0.4001		3.6	
2-Nitrophenol	0.1810	0.1514		16.3	25.0
2,4-Dimethylphenol	0.2594	0.2120		18.3	
bis(2-Chloroethoxy)methane	0.2259	0.2530		12.0	
1,2,4-Trichlorobenzene	0.2577	0.2900		12.5	
2,4-Dichlorophenol	0.2112	0.2326		10.1	25.0
Benzoic acid	0.1016	0.1101		8.4	
Naphthalene	1.0852	1.1291		4.0	
Hexachlorobutadiene	0.1416	0.1596		12.7	25.0
4-Chloroaniline	0.1477	0.1453		1.6	
2-Methylnaphthalene	0.6449	0.6537		1.4	
4-chloro-3-methylphenol	0.1933	0.2319		20.0	25.0
Caprolactam	0.1838	0.1823		0.8	
Hexachlorocyclopentadiene	0.0767	0.0695	0.050	9.4	
2,4,6-Trichlorophenol	0.2361	0.2609		10.5	25.0
2,4,5-Trichlorophenol	0.2389	0.2545		6.5	

All other compounds must meet a minimum RF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: VAL ASSO LAB Contract: _____

Lab Code: F2 Case No.: _____ SAS No.: _____ SDG No.: BB399

Lab File ID: BNAPB127.Q Init Calib. Date(s): 09/19/00 8-22-01 10:57/00 8-22-01

Init. Calib. Times: 10:22 13:38

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Benzo(b)fluoranthene	2.2926	2.2311		2.7	
Benzo(k)fluoranthene	2.2970	1.9839		13.6	
Benzo(a)pyrene	1.7581	1.8091		2.9	25.0
Indeno(1,2,3-c,d)pyrene	2.3630	1.9074		19.3	
Dibenz(a,h)anthracene	1.9349	1.5257		21.1	
Benzo(ghi)perylene	2.0279	1.6295		19.6	
2-Fluorophenol	1.3187	0.5265	0.600	60.1	.0
Phenol-D6	0.9897	0.7626	0.800	23.0	.0
Nitrobenzene-D5	0.3197	0.1851	0.200	42.1	.0

All other compounds must meet a minimum RF of 0.010.

QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor: <None>
Output File: C:\BNAP\BNAPB127.Q
Data File: c:\bnap\bnapb127.mss
Name: LPC__8270_SBNA_(3) 0
Misc: 100PPBSTD,BB399,L,1000.0,1.00,1.0,0,
ID File: c:\bnap\hsl\8270b.i
Title: SW-846 Method 8270 Semi-Volatile Quant ID File

Quant Time : 01/91/20 45:30
Injected at : 09/19/01 10:57

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
73)	Fluoranthene	23.87	202	324064	90.43	ug/l	98
74)	Pyrene	24.44	202	403853	109.98	ug/l	94
75)	*d12-Chrysene	27.57	240	111988	40.00	ug/l	100
76)M	Benzidine	20.49	184	2567	88.87	ug/l	0
77)	Terphenyl-D14	24.88	244	144048	85.90	ug/l	92
78)	Butyl benzyl phthalate	26.21	149	360363	72.55	ug/l	82
79)	Benzo(a)anthracene	27.65	228	375442	99.53	ug/l	100
80)	Chrysene	27.65	228	375442	93.98	ug/l	100
81)	3,3'-Dichlorobenzidine	27.60	252	49682	98.42	ug/l	90
82)M	bis(2-Ethylhexyl)phthalate	27.66	149	1099420	106.92	ug/l	0
83)M	*d12-Perylene	31.02	264	41818	40.00	ug/l	0
84)	Di-n-octyl phthalate	29.23	149	1146647	83.02	ug/l	98
85)	Benzo(b)fluoranthene	30.23	252	233252	97.32	ug/l	0
86)	Benzo(k)fluoranthene	30.26	252	207409	86.37	ug/l	0
87)	Benzo(a)pyrene	30.92	252	189140	102.90	ug/l	0
88)	Indeno(1,2,3-c,d)pyrene	33.48	276	199410	80.72	ug/l	0
89)	Dibenz(a,h)anthracene	33.46	278	159514	78.85	ug/l	0
90)	Benzo(ghi)perylene	34.06	276	170363	80.35	ug/l	0

* Compound is Internal Standard

6A

VOLATILE ORGANICS INITIAL CALIBATION DATA

Lab Name: VAL ASSO LAB Contract: _____

Lab Code: F2 Case No.: _____ SAS No.: _____ SDG No.: B001

Instrument ID: GC/MS Calibration Date(s): 08/20/81 08/20/81

Heated Purge: (Y/N) Y Calibration Times: 09:10 11:53

GC Column: CAP ID: .25 (mm)

LAB FILE ID: RRF5=VOB857.Q RRF20=VOB858.Q
RRF50=VOB859.Q RRF80=VOB860.Q RRF100=VOB861.Q

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF100	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	1.71173	1.58183	1.22001	1.44437	1.34909	1.46141	13.18
Chloromethane	0.70633	0.73366	0.78919	0.81314	0.82354	0.77317	6.60
Vinyl Chloride	0.73354	0.77612	0.77509	0.88574	0.80744	0.79559	7.14
Bromomethane	1.18444	1.25540	1.34922	1.30962	1.15868	1.25147	6.45
Chloroethane	0.27218	0.29327	0.25972	0.32142	0.36476	0.30227	13.91
Trichlorofluoromethane	2.05668	1.82405	1.99367	2.04429	2.01413	1.98656	4.74
Acrolein	0.00000	0.05012	0.06197	0.06472	0.05686	0.05842	10.99
Acetone	0.09048	0.11224	0.09197	0.09884	0.09480	0.09767	8.96
1,1-Dichloroethene	1.30929	1.29581	1.06585	1.20485	1.21453	1.21807	7.97
Iodomethane	0.68233	1.02958	1.03755	0.86996	1.04370	0.93263	16.90
Carbon Disulfide	1.86732	1.74204	1.46038	1.93051	1.70362	1.74078	10.44
Methylene Chloride	0.67596	0.71534	0.69075	0.70237	0.72378	0.70164	2.72
Acrylonitrile	0.00000	0.08389	0.07960	0.10037	0.08904	0.08823	10.17
Tertiary butyl alcohol	0.00000	0.02914	0.03180	0.03487	0.03384	0.03241	7.80
Methyl tertiary butyl ether	0.82168	1.19042	1.16310	1.13596	1.01476	1.06519	14.25
1,2-Trans-Dichloroethene	1.26272	1.14384	1.05161	1.24148	1.14793	1.16951	7.27
1,1-Dichloroethane	1.22940	1.13014	1.10880	1.14777	1.15739	1.15470	3.96
Vinyl Acetate	0.14811	0.19221	0.15699	0.18731	0.15894	0.16871	11.69
Methyl Ethyl Ketone	0.06424	0.09638	0.08691	0.08942	0.07980	0.08335	14.66
2,2-Dichloropropane	0.95511	0.93699	0.78598	0.92081	0.79367	0.87851	9.32
1,2-Cis-Dichloroethene	0.77993	0.72054	0.62040	0.67511	0.69761	0.69872	8.40
Chloroform	1.19793	1.01029	1.00034	1.07195	1.02197	1.06050	7.70
Bromochloromethane	0.34101	0.27498	0.35430	0.35969	0.31464	0.32893	10.59
1,1,1-Trichloroethane	1.55687	1.40306	1.24470	1.32409	1.23124	1.35199	9.89
1,1-Dichloro-1-Propene	0.18777	0.18803	0.19004	0.18745	0.18381	0.18742	1.21
Carbon Tetrachloride	0.61713	0.61942	0.44630	0.52976	0.51721	0.54596	13.42
1,2-Dichloroethane	0.29429	0.33749	0.35715	0.36210	0.34976	0.34016	8.01
Benzene	1.31621	1.24901	1.20075	1.21653	1.15724	1.22795	4.84
Trichloroethene	0.18986	0.19792	0.19815	0.19483	0.19332	0.19482	1.77
1,2-Dichloropropane	0.21106	0.25508	0.24998	0.23059	0.21418	0.23218	8.65
Dichlorobromomethane	0.48152	0.49657	0.43127	0.42851	0.44528	0.45663	6.73
Dibromomethane	0.19330	0.27610	0.25081	0.26030	0.22789	0.24168	13.32
2-Chloroethylvinyl Ether	0.00000	0.05328	0.03794	0.05824	0.04965	0.04978	17.36
Mehtyl-Iso-Butyl-Ketone	0.08661	0.12572	0.09713	0.10792	0.09200	0.10188	15.19
Cis-1,3-Dichloropropene	0.31780	0.42151	0.39495	0.37942	0.36818	0.37637	10.20
Toluene	1.10670	1.14577	0.97122	1.03207	1.04718	1.06059	6.39
Trans-1,3-Dichloropropene	0.19625	0.27022	0.25499	0.28734	0.28137	0.25803	14.21
1,1,2-Trichloroethane	0.16544	0.26250	0.23677	0.24238	0.20920	0.22326	16.8[illegible]
1,2-Dibromoethane	0.14087	0.22195	0.22151	0.21984	0.21778	0.20439	17.39
2-Hexanone	0.05744	0.08989	0.07489	0.08579	0.07861	0.07732	16.26
1,3-Dichloropropane	0.21978	0.31331	0.28933	0.29004	0.29823	0.28214	12.82
Tetrachloroethene	0.31588	0.36802	0.27807	0.33900	0.33690	0.32757	10.17
Chlorodibromomethane	0.22890	0.33871	0.27809	0.28010	0.27581	0.28032	13.91
Chlorobenzene	1.28805	1.21918	1.01231	1.20003	1.19261	1.18244	8.65
1,1,1,2-Tetrachloroethane	0.17247	0.19646	0.17435	0.19914	0.20275	0.18904	7.64
Ethylbenzene	0.80399	0.77546	0.66362	0.76502	0.76128	0.75387	7.05
M+P-Xylenes	1.31816	1.34136	1.16990	1.30647	1.35496	1.29817	5.71
O-Xylene	0.98839	0.93191	0.79963	0.96699	0.98946	0.93528	8.48
Styrene	1.43496	1.68646	1.46325	1.68805	1.66093	1.58673	7.97

* Compounds with required mininum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: VAL ASSO LAB Contract: _____

Lab Code: F2 Case No.: _____ SAS No.: _____ SDG No.: BB716

Instrument ID: GC/MS Calibration Date(s): 09/20/81 Time: 09:30

Lab File ID: VOB052.Q Init Calib. Date(s): 08/20/81 08/20/81

Heated Purge: (Y/N) Y Init. Calib. Times: 09:10 11:53

GC Column: CAP ID: .25 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	1.4614	1.2459		14.7	
Chloromethane	0.7731	0.8644	0.100	11.8	
Vinyl Chloride	0.7955	0.8426		5.9	20.0
Bromomethane	1.2514	1.2963		3.6	
Chloroethane	0.3022	0.3129		3.5	
Trichlorofluoromethane	1.9865	1.9530		1.7	
Acrolein	0.0584	0.0648		11.0	
Acetone	0.0976	0.0957		1.9	
1,1-Dichloroethene	1.2180	1.0192		16.3	20.0
Iodomethane	0.9326	0.9025		3.2	
Carbon Disulfide	1.7407	1.4047		19.3	
Methylene Chloride	0.7016	0.5578		20.5	
Acrylonitrile	0.0882	0.0839		4.8	
Tertiary butyl alcohol	0.0324	0.0373		15.2	
Methyl tertiary butyl ether	1.0651	1.2151		14.1	
1,2-Trans-Dichloroethene	1.1695	1.1047		5.5	
1,1-Dichloroethane	1.1547	1.0646	0.100	7.8	
Vinyl Acetate	0.1687	0.1842		9.2	
Methyl Ethyl Ketone	0.0833	0.0791		5.0	
2,2-Dichloropropane	0.8785	0.8608		2.0	
1,2-Cis-Dichloroethene	0.6987	0.6889		1.4	
Chloroform	1.0605	1.0564		0.4	20.0
Bromochloromethane	0.3289	0.3513		6.8	
1,1,1-Trichloroethane	1.3519	1.2848		5.0	
1,1-Dichloro-1-Propene	0.1874	0.1744		6.9	
Carbon Tetrachloride	0.5459	0.5719		4.8	
1,2-Dichloroethane	0.3401	0.3969		16.7	
Benzene	1.2279	1.2739		3.7	
Trichloroethene	0.1948	0.2121		8.9	
1,2-Dichloropropane	0.2321	0.2382		2.6	20.0
Dichlorobromomethane	0.4566	0.4902		7.[illegible]	
Dibromomethane	0.2416	0.2743		13.5	
2-Chloroethylvinyl Ether	0.0497	0.0596		19.8	
Mehtyl-Iso-Butyl-Ketone	0.1018	0.1165		14.4	
Cis-1,3-Dichloropropene	0.3763	0.4010		6.6	
Toluene	1.0605	1.0998		3.7	20.0
Trans-1,3-Dichloropropene	0.2580	0.3052		18.3	

All other compounds must meet a minimum RF of 0.010.

QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB052.Q
Data File: c:\data\vob\vob052.mss
Name: LPC__8260_S_(1) 0)
Misc: 50PPBSTD,BB716,L,5.00,5.00,1.0,0,

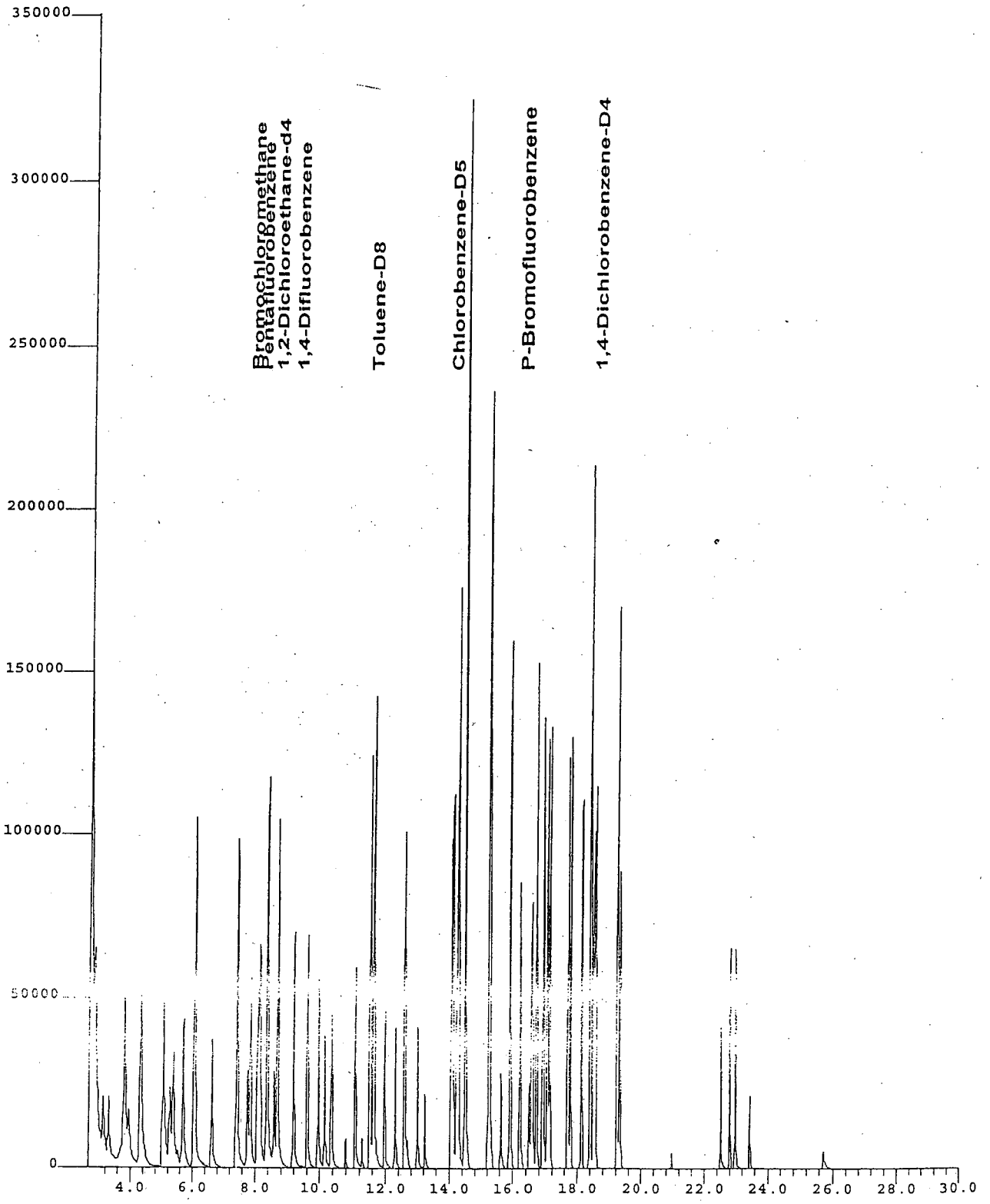
Quant Time : 01/98/20 38:00
Injected at : 09/20/81 09:30

Title: SW-846 Method 8260 Volatile Organic Quant LB File
Last Calib: 08/21/01 07:54 Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)M	*Pentafluorobenzene	8.06	168	99162	50.00	ppb	0
2)	Dichlorodifluoromethane	2.83	85	123554	42.63	ppb	97
3)	Chloromethane	3.12	50	85725	55.91	ppb	91
4)	Vinyl Chloride	3.30	62	83560	52.96	ppb	100
5)	Bromomethane	3.79	94	128549	51.79	ppb	95
6)	Chloroethane	3.94	64	31030	51.76	ppb	100
7)	Trichlorofluoromethane	4.30	101	193668	49.16	ppb	100
8)	Acrolein	6.02	56	6428	55.48	ppb	100
9)M	Acetone	5.11	43	9497	49.03	ppb	0
10)	1,1-Dichloroethene	5.03	61	101067	41.84	ppb	100
11)	Iodomethane	5.24	142	89496	48.39	ppb	89
12)	Carbon Disulfide	5.35	76	139300	40.35	ppb	100
13)	Methylene Chloride	5.67	84	55314	39.75	ppb	91
14)	Acrylonitrile	6.02	53	8329	47.60	ppb	100
15)M	Tertiary butyl alcohol	6.05	59	3703	57.60	ppb	0
16)	Methyl tertiary butyl ether	6.03	73	120492	57.04	ppb	100
17)	1,2-Trans-Dichloroethene	6.04	61	109544	47.23	ppb	100
18)	1,1-Dichloroethane	6.61	63	105569	46.10	ppb	95
19)	Vinyl Acetate	11.28	43	18272	54.61	ppb	100
20)	Methyl Ethyl Ketone	7.41	43	7848	47.48	ppb	100
21)	2,2-Dichloropropane	7.41	77	85367	49.00	ppb	100
22)	1,2-Cis-Dichloroethene	7.40	61	68316	49.30	ppb	100
23)	Chloroform	7.83	83	104761	49.81	ppb	85
24)	Bromochloromethane	7.75	49	34836	53.40	ppb	100
25)	1,2-Dichloroethane-d4	8.57	65	53871	106.83	ppb	95
26)	1,1,1-Trichloroethane	8.12	97	127410	47.52	ppb	100
27)	*1,4-Difluorobenzene	9.17	114	156716	50.00	ppb	96
28)	1,1-Dichloro-1-Propene	8.35	110	27331	46.53	ppb	98
29)	Carbon Tetrachloride	8.36	117	89636	52.38	ppb	92
30)M	1,2-Dichloroethane	8.67	62	62206	58.35	ppb	0
31)	Benzene	8.66	78	199640	51.87	ppb	95
32)	Trichloroethene	9.60	130	33242	54.44	ppb	100
33)	1,2-Dichloropropane	9.95	63	37344	51.32	ppb	83
34)	Dichlorobromomethane	10.36	83	76837	53.69	ppb	90
35)	Dibromomethane	10.15	93	42988	56.75	ppb	85
36)	2-Chloroethylvinyl Ether	10.80	63	9345	59.89	ppb	100
37)	Mehtyl-Iso-Butyl-Ketone	11.28	43	18272	57.22	ppb	100
38)	Cis-1,3-Dichloropropene	11.06	75	62848	53.28	ppb	94
39)	Toluene-D8	11.52	98	235002	105.90	ppb	95
40)	Toluene	11.63	92	172364	51.85	ppb	94
41)M	Trans-1,3-Dichloropropene	11.97	75	47831	59.14	ppb	0
42)	1,1,2-Trichloroethane	12.30	97	38664	55.25	ppb	100
43)M	1,2-Dibromoethane	13.23	107	36929	57.64	ppb	0
44)	*Chlorobenzene-D5	14.04	117	142446	50.00	ppb	100
45)	2-Hexanone	12.68	43	10555	47.91	ppb	100
46)	1,3-Dichloropropane	12.59	41	36143	44.97	ppb	64
47)	Tetrachloroethene	12.57	164	46474	49.80	ppb	92
48)	Chlorodibromomethane	13.00	129	43867	54.93	ppb	91
49)	Chlorobenzene	14.10	112	165834	49.23	ppb	100
50)	1,1,1,2-Tetrachloroethane	14.23	131	31946	59.32	ppb	100
51)	Ethylbenzene	14.27	106	104453	48.63	ppb	100
52)	M+P-Xylenes	14.48	106	263517	71.25	ppb	84
53)	O-Xylene	15.23	106	132840	49.86	ppb	87
54)	Styrene	15.25	104	221506	49.00	ppb	79
55)M	Bromoform	15.64	173	26842	58.16	ppb	0
56)	P-Bromofluorobenzene	16.23	95	96744	98.13	ppb	100
57)	Trans-1,4-Dichloro-2-Butene	16.58	75	37854	52.87	ppb	100
58)	*1,4-Dichlorobenzene-D4	18.51	152	64534	50.00	ppb	96
59)	Isopropylbenzene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60)	1,1,2,2-Tetrachloroethane	16.48	83	32377	47.45	ppb	74
61)	1,2,3-Trichloropropane	16.58	110	6792	48.85	ppb	100
62)	N-Propylbenzene	16.70	120	51528	47.50	ppb	100
63)	Bromobenzene	16.55	156	60470	52.27	ppb	97
64)	O-Chlorotoluene	16.91	126	51462	50.14	ppb	100
65)	1,3,5-Trimethylbenzene	17.04	105	243701	43.65	ppb	79
66)	P-Chlorotoluene	17.11	126	49048	48.31	ppb	100
67)	Tert-Butylbenzene	17.69	119	136057	42.52	ppb	70
68)	1,2,4-Trimethylbenzene	17.79	105	240188	45.67	ppb	80
69)	Sec-Butylbenzene	18.13	105	252504	41.93	ppb	76
70)	p-Isopropyltoluene	18.40	119	176891	45.65	ppb	100
71)	1,3-Dichlorobenzene	18.39	146	103004	52.73	ppb	89
72)	1,4-Dichlorobenzene	18.39	146	103004	54.49	ppb	86

* Compound is Internal Standard

Data File: C:\DATA\VOB\VOB052.MSS
Quant Output File: C:\DATA\VOB\VOB052.Q
Injection Time: 09/20/81 09:30
Misc: 50PPBSTD,BB716,L,5.00,5.00,1.0,0,



********** SUMMARY REPORT *********

File Name	Sample Name	Tetrachloro m Xylene Ret. Time	Area [µV·s]	Area/ Amount	Adjusted Amount	AR01016/1260-1 Ret. Time	Area [µV·s]	Area/ Amount	Adjusted Amount
pcba262.	200PPBSTD 1061/1	9.38	1781603.02	18808.9604	94.7102	12.13	78777.15	280.5980	218.5578
pcba263.	400PPBSTD 1016/1	9.38	1911376.58	18808.9604	101.6295	12.13	124152.22	247.2786	257.5007
pcba264.	600PPBSTD 1016/1	9.38	1805483.58	18808.9604	95.9906	12.13	228431.18	337.1426	677.5507
pcba265.	800PPBSTD 1016/1	9.39	1973369.48	18808.9604	104.9165	12.14	271699.26	335.2871	810.3480
pcba266.	1000PPBSTD 1016/	9.40	1926849.46	18808.9604	102.4432	12.15	319873.25	333.8264	958.2024
Averages		9.38	1880896.43	18808.9604	100.0000	12.14	204697.83	342.8467	604.7089
%RSD		0.11	4.41	0.0000	4.4147	0.07	48.17	3.2915	51.0845

File Name	Sample Name	AR01016/1260-2 Ret. Time	Area [µV·s]	Area/ Amount	Adjusted Amount	AR01016/1260-3 Ret. Time	Area [µV·s]	Area/ Amount	Adjusted Amount
pcba262.	200PPBSTD 1061/1	13.89	51988.23	324.2728	160.3225	16.86	556514.39	2622.3871	212.2167
pcba263.	400PPBSTD 1016/1	13.89	136239.90	344.4719	395.5036	16.87	1034728.83	2394.4357	432.1389
pcba264.	600PPBSTD 1016/1	13.89	224835.23	349.7695	642.8097	16.86	1474538.21	2324.3062	634.3993
pcba265.	800PPBSTD 1016/1	13.90	284933.87	351.5229	810.5696	16.88	1844392.85	2292.6272	804.4888
pcba266.	1000PPBSTD 1016/	13.91	344051.84	352.6594	975.5924	16.88	2183570.64	2273.4385	960.4705
Averages		13.90	208409.81	344.5393	596.9596	16.87	1418748.98	2381.4389	608.7428
%RSD		0.06	55.85	3.4120	54.4316	0.05	45.41	5.9770	48.6695

File Name	Sample Name	AROCLOR 1016/1260 Ret. Time	Area [µV·s]	Area/ Amount	Adjusted Amount	AR01016/1260-4 Ret. Time	Area [µV·s]	Area/ Amount	Adjusted Amount
pcba262.	200PPBSTD 1061/1	16.86	1464291.71	7818.3281	187.2896	18.34	322896.64	1468.5226	219.8786
pcba263.	400PPBSTD 1016/1	16.87	2673122.22	6704.2731	398.7192	18.34	569840.94	1367.3718	416.7418
pcba264.	600PPBSTD 1016/1	16.86	3950507.15	6349.8768	622.1392	18.34	831205.01	1329.7144	625.1004
pcba265.	800PPBSTD 1016/1	16.88	5026904.72	6202.9488	810.4056	18.35	1060291.78	1312.6848	807.7276
pcba266.	1000PPBSTD 1016/	16.88	6004815.59	6118.3328	981.4464	18.36	1261443.62	1303.0295	968.0852
Averages		16.87	3823928.28	6638.7515	600.0000	18.35	809135.60	1356.2646	607.5067
%RSD		0.05	47.35	10.4900	52.7774	0.05	46.32	4.9685	49.1802

File Name	Sample Name	AR01016/1260-5 Ret. Time	Area [µV·s]	Area/ Amount	Adjusted Amount	Decachlorobiphenyl Ret. Time	Area [µV·s]	Area/ Amount	Adjusted Amount
pcba262.	200PPBSTD 1061/1	19.56	453559.31	2083.0689	217.7361	21.91	2024307.16	20189.4420	100.2656
pcba263.	400PPBSTD 1016/1	19.56	808160.24	1991.5278	405.7991	21.91	2016080.44	20189.4420	99.8582
pcba264.	600PPBSTD 1016/1	19.56	1191497.52	1956.1527	609.1025	21.91	2016750.30	20189.4420	99.9904
pcba265.	800PPBSTD 1016/1	19.57	1565586.96	1938.8043	807.5013	21.92	2041334.79	20189.4420	101.1090
pcba266.	1000PPBSTD 1016/	19.58	1895876.25	1929.3100	982.6706	21.93	1994248.33	20189.4420	98.7768
Averages		19.57	1182936.05	1979.7728	604.5619	21.92	2018944.20	20189.4420	100.0000
%RSD		0.05	48.69	3.1535	50.5319	0.05	0.84	0.0000	0.8392

ASCII File Created Successfully - Stored in: C:\TC4\GRO\pcb_007K.csv

Initial Cal : 8/24/01
PCB Channel A
MK

VAL Associates Laboratory, Inc.

Date: 11-Dec-01

CLIENT: TTI
Work Order: 0109076
Project: 01-479 Barry Bronze Camden, N.J.

ANALYTICAL QC SUMMARY REPORT

TestCode: icp_ts

Sample ID: ccv | SampType: ccv | TestCode: icp_ts | Units: mg/Kg | Prep Date: | Run ID: ICP_010918
Client ID: ZZZZZ | Batch ID: 2660 | TestNo: SW6010A | Analysis Date: 9/18/01 | SeqNo: 124990

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	4.909	0.000628	5	0	98.2	90	110	0	0		*
Cadmium	1.232	0.000628	1.25	0	98.6	90	110	0	0		
Chromium	5.03	0.00314	5	0	101	90	110	0	0		
Copper	4.922	0.00314	5	0	98.4	90	110	0	0		
Lead	5.02	0.000754	5	0	100	90	110	0	0		
Nickel	4.895	0.00785	5	0	97.9	90	110	0	0		
Silver	0.505	0.00345	0.5	0	101	90	110	0	0		
Zinc	4.949	0.00157	5	0	99	90	110	0	0		

Sample ID: ccv | SampType: ccv | TestCode: icp_ts | Units: mg/Kg | Prep Date: | Run ID: ICP_010918
Client ID: ZZZZZ | Batch ID: 2660 | TestNo: SW6010A | Analysis Date: 9/18/01 | SeqNo: 124995

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	4.776	0.000628	5	0	95.5	90	110	0	0		*
Cadmium	1.226	0.000628	1.25	0	98.1	90	110	0	0		
Chromium	4.933	0.00314	5	0	98.7	90	110	0	0		
Copper	4.874	0.00314	5	0	97.5	90	110	0	0		
Lead	5.04	0.000754	5	0	101	90	110	0	0		
Nickel	4.888	0.00785	5	0	97.8	90	110	0	0		
Silver	0.4958	0.00345	0.5	0	99.2	90	110	0	0		
Zinc	4.876	0.00157	5	0	97.5	90	110	0	0		

Sample ID: CCV | SampType: CCV | TestCode: ICP_TS | Units: mg/Kg | Prep Date: | Run ID: ICP_010924
Client ID: ZZZZZ | Batch ID: 2660 | TestNo: SW6010A | Analysis Date: 9/24/01 | SeqNo: 131780

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.26	0.0113	1.25	0	101	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

(856) 354-1337

VAL ASSOCIATES LABORATORY INC.

FAX: (856)354-1586

Water,Air & Soil Analysis

PHILIP V. DATZ, JR.
Chemist

N.J. Cert. # 04174

Seven Deer Tree
Professional Center
[illegible] Deer Road
Cherry Hill, NJ 08034

Quality Assurance/Quality Control Data
Initial and Continuing Calibration Verification
Furnace Atomic Absorption

Analysis Date: 09/18/01
Reporting Units: ppm
Method: GFAA

Element: Thallium (Tl)

Initial Calibration

Standards	True Concentration	Cor. Peak Area	Amount Read	Percent Recovery
Blank	0.00	0.001	0.00	N/A
Standard 1	0.002	0.004	0.001	51.07
Standard 2	0.010	0.038	0.011	107.05
Standard 3	0.025	0.095	0.027	107.70
Standard 4	0.050	0.171	0.049	97.55

Continuing Calibration

Standards	True Concentration		Amount Read	Percent Recovery
Intial Calibration Verification	0.050		0.049	97.54
Initial Calibration Blank	0.00		0.00	N/A
Continuing Calibration Verification	0.025		0.026	104.42
Continuing Calibration Blank	0.00		0.00	N/A

N/A - Not applicable

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Water,Air & Soil Analysis

N.J. Cert. # 04174

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Seven Deer Tree
Professional Center
600 Deer Road
Cherry Hill, NJ 08034

Quality Assurance/Quality Control Data
Initial and Continuing Calibration Verification
Furnace Atomic Absorption

Analysis Date: 9/19/01
Reporting Units: ppm
Method: GFAA

Element: Selenium (Se)

Initial Calibration

Standards	True Concentration	Cor. Peak Area	Amount Read	Percent Recovery
Blank	0.00	-0.006	0.000	N/A
Standard 1	0.005	0.008	0.004	86.01
Standard 2	0.010	0.021	0.011	109.64
Standard 3	0.025	0.051	0.027	107.10
Standard 4	0.050	0.093	0.049	97.62

Continuing Calibration

Standards	True Concentration		Amount Read	Percent Recovery
Intial Calibration Verification	0.050		0.050	99.34
Initial Calibration Blank	0.000		0.001	N/A
Continuing Calibration Verification	0.025		0.026	105.36
Continuing Calibration Blank	0.000		-0.005	N/A

N/A - Not applicable

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Water,Air & Soil Analysis

PHILIP V. DATZ, JR.
Chemist

N.J. Cert. # 04174

Seven Deer Tree
Professional Center
500 Deer Road
Cherry Hill, NJ 08034

Quality Assurance/Quality Control Data
Initial and Continuing Calibration Verification
Cold Vapor Atomic Absorption

Analysis Date: 9/20/01
Reporting Units: ppm
Method: CVAA

Element: Mercury (Hg)

Initial Calibration				
Standards	. True . Concentration	Cor. Peak Area	Amount Read	Percent Recovery
Blank	0.00000	0.0014	0.0000	N/A
Standard 1	0.00020	0.0060	0.0002	94.52
Standard 2	0.00050	0.0177	0.0006	111.11
Standard 3	0.00100	0.0320	0.0010	100.31
Standard 4	0.00500	0.1596	0.0050	99.96

Continuing Calibration				
Standards	. True . Concentration		Amount Read	Percent Recovery
Intial Calibration Verification	0.0050		0.0050	99.18
Initial Calibration Blank	0.0000		0.0000	N/A
Continuing Calibration Verification	0.0010		0.0010	98.02
Continuing Calibration Blank	0.0000		0.0000	N/A

N/A - Not applicable

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Val Asso lab Contract:

Lab Code: F2 Case No.: SAS No.: SDG No.: [illegible]

Lab File ID: BFB055B.MSS BFB Injection Date: 9/20/81

Instrument ID: GC/MS BFB Injection Time: 8:21

GC Column: CAP ID: .25 (mm) Heated Purge (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 to 40.0% of mass 95	17.0
75	30.0 to 60.0% of mass 95	37.1
95	base peak, 100% relative abundance	100.0
96	5.0 to 9.0% of mass 95	5.9
173	0% to less than 2.0% of mass 174	0.5(0.8)1
174	greater than 50% of mass 95	54.6
175	5.0 to 9.0% of mass 174	4.0(7.3)1
176	greater than 95.0% but less that 101.0% of mass 174	54.8(100.4)1
177	5.0 to 9.0% of mass 176	3.7(6.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	BLANK	BLANK	VOB051.O	09/20/81	08:41
02	50PPBSTD	50PPBSTD	VOB052.O	09/20/81	09:30
03	0109107-001A	0109107-001A	VOB054.O	09/20/81	10:43
04	0109107-003A	0109107-003A	VOB055.O	09/20/81	11:24
05	0109076-004A	0109076-004A	VOB056.O	09/20/81	12:05
06	0109076-007A	0109076-007A	VOB057.O	09/20/81	12:47
07	0109076-014A	0109076-014A	VOB058.O	09/20/81	13:28
08	0109076-014A	0109076-014A	VOB059.O	09/20/81	14:10
09	0109076-014A	0109076-014A	VOB060.O	09/20/81	14:51
10	0109054-001A	0109054-001A	VOB062.O	09/20/81	16:14
11	0109054-005A	0109054-005A	VOB063.O	09/20/81	16:55
12	0109045-008A	0109045-008A	VOB064.O	09/20/81	17:37
13	0109054-010A	0109054-010A	VOB065.O	09/20/81	18:18
14	0109091-003A	0109091-003A	VOB066.O	09/20/81	18:59
15	0109059-001A	0109059-001A	VOB067.O	09/20/81	19:41
16	0109109-001A	0109109-001A	VOB068.O	09/20/81	[illegible]
17	50PPBSTD	50PPBSTD	VOB069.O	09/20/81	21:05
18					
19					
20					
21					
22					

Page __ of __

FORM V VOA

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Val Asso lab | Contract:

Lab Code: F2 | Case No.: | SAS No. | SDG No. bb399

Lab File ID (Standard): BNAPB126.Q | Date Analyzed: 09/19/81

Instrument ID: GC/MS | Time Analyzed: 10:00

		IS4( ) # AREA	RT#	IS5( ) # AREA	RT#	IS6( ) # AREA	RT#
	12 HOUR STD	52746	20.78	18368	27.64	7358	31.14
	UPPER LIMIT	105492	21.28	36736	28.14	14716	31.64
	LOWER LIMIT	26373	20.28	9184	27.14	3679	30.64
	EPA SAMPLE NO.						
01	MB-2542#3	111313*	20.77	53026*	27.62	22273*	31.12
02	MB-2549#3	52746	20.78	18368	27.64	7358	31.14
03	100PPBSTD	143810*	20.74	111988*	27.57	41818*	31.02
04	0109091-001A	43903	20.74	41355*	27.60	27382*	31.07
05	0109091-002A	180344*	20.74	90497*	27.55	48265*	31.03
06	0109091-003A	40474	20.73	16744	27.58	10441	31.04
07	0109008-001A	62716	20.74	89108*	27.64	37455*	31.09
08	0109054-001A	72298	20.73	62776*	27.75	28793*	31.27
09	0109054-005A	117527*	20.73	87982*	27.62	23998*	31.08
10	0109054-008A	157985*	20.85	113802*	27.73	21249*	31.13
11	0109054-010A	76792	20.74	61667*	27.73	21009*	31.19
12	0109076-004A	241128*	20.79	96425*	27.59	23030*	31.06
13	0109076-007A	82771	20.72	48845*	27.58	24299*	31.10
14	100PPBSTD	45111	20.72	18695	27.57	7027	31.08
15							
16							
17							
18							
19							
20							
21							
22							

IS4 ( ) = d10-Phenanthrene
IS5 ( ) = d12-Chrysene
IS6 ( ) = d12-Perylene

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

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VAL ASSO LAB Contract: _____

Lab Code: [illegible] Case No.: _____ SAS No.: _____ SDG No.: [illegible]

Lab File ID (Standard): VOB052.Q Date Analyzed: 09/20/81

Instrument ID: GC/MS Time Analyzed: 09:30

GC Column CAP ID: .25 (mm) Heated Purge: (Y/N) Y

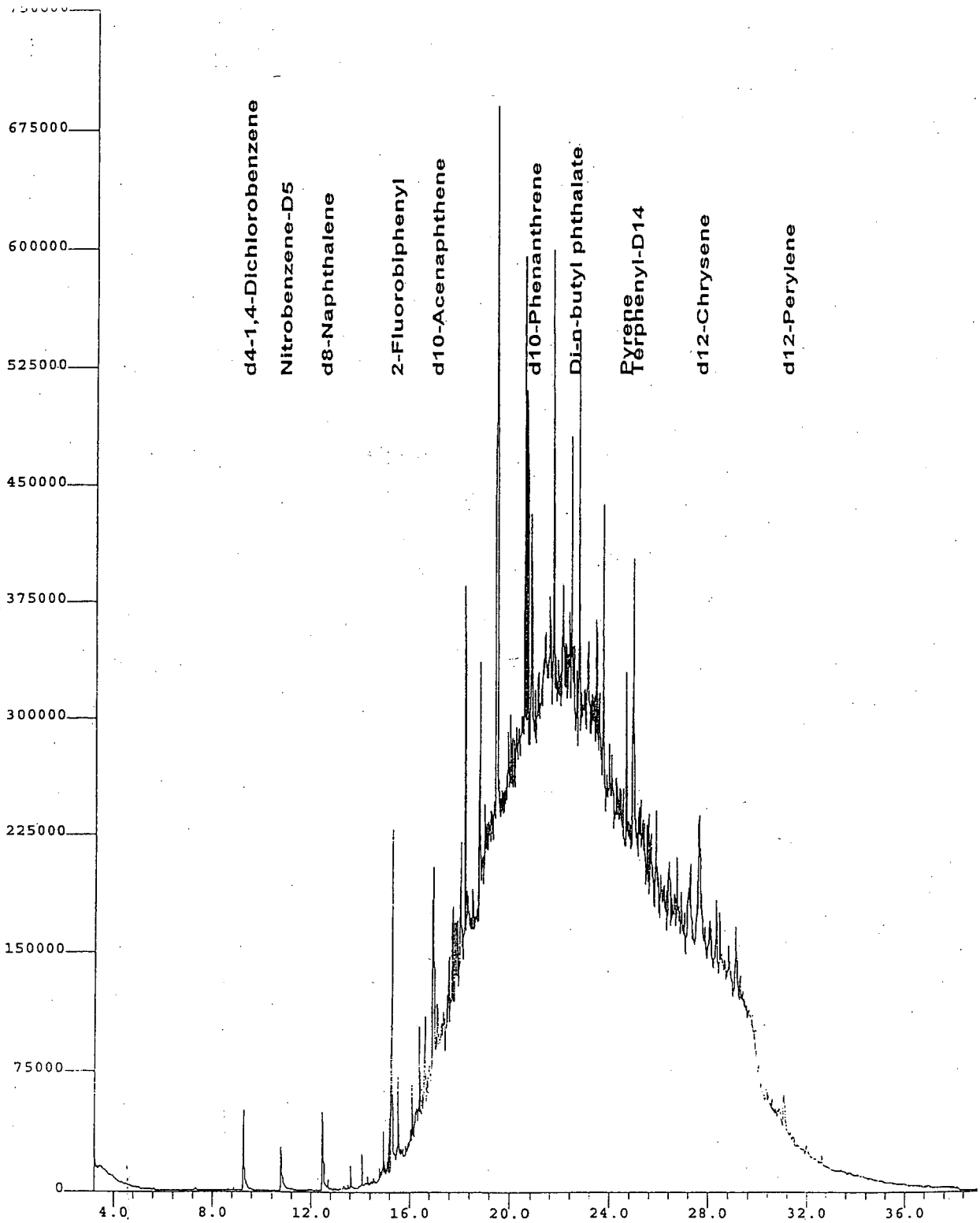
		IS4( ) # AREA	RT#				
	12 HOUR STD	64534	18.51				
	UPPER LIMIT	129068	19.01				
	LOWER LIMIT	32267	18.01				
	EPA SAMPLE NO.						
01	BLANK	62980	18.52				
02	50PPBSTD	64534	18.51				
03	0109107-001A	84970	18.51				
04	0109107-003A	98099	18.51				
05	0109076-004A	84147	18.50				
06	0109076-007A	91962	18.51				
07	0109076-014A	102091	18.50				
08	0109076-014A	95047	18.51				
09	0109076-014A	96388	18.51				
10	0109054-001A	51188	18.51				
11	0109054-005A	55657	18.52				
12	0109045-008A	65997	18.52				
13	0109054-010A	13861*	18.54				
14	0109091-003A	58956	18.52				
15	0109059-001A	68490	18.52				
16	0109109-001A	101914	18.49				
17	50PPBSTD	72267	18.47				
18							
19							
20							
21							
22							

IS4 ( ) = 1,4-Dichlorobenzene-D4

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

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits

Data File: C:\BNAP\BNAPB136.MSS
Quant Output File: C:\BNAP\BNAPB136.Q
Injection Time: 09/19/81 18:35
Misc. 0109076-004A,DB399,S,30.00,1.00,1.0,0,



Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\bnap\bnapb136.q
Data File Name: C:\BNAP\BNAPB136.MSS
Name: SAMP_8270_SBNA_(12)
Misc Data: 0109076-004A,BB399,S,30.00,1.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\BNA.NIS
Parameters Minimum % Istd Area to Report: 10.00 Rank Order
Absolute maximum Number of Peaks: 35 Date: 00 00 0000
Which Istd from Output file(1st,2nd)...: 2 Time: 15:19:37
Maximum Hits for graphics: 3 Delta Rt: 0.06

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
69)	19.47	19.38	19.50	0.116	VV	2533505	1	
83)	20.59	20.53	20.62	0.092	VV	1201941	2	
95)	21.68	21.63	21.71	0.083	BV	1018701	3	
127)	24.92	24.84	25.03	0.190	BB	985552	CMPD	Terphenyl-D14
17)	15.28	15.21	15.36	0.146	BB	949863	CMPD	2-Fluorobiphenyl
53)	18.20	18.13	18.24	0.106	BV	912931	CMPD	Diethyl phthalate
84)	20.66	20.62	20.72	0.100	VB	860111	4	
107)	22.71	22.66	22.74	0.086	BB	824258	5	
37)	16.95	16.93	17.02	0.094	VV	804739	ISTD	d10-Acenaphthene
85)	20.79	20.72	20.87	0.146	BB	751882	ISTD	d10-Phenanthrene
59)	18.77	18.70	18.80	0.097	BV	689297	CMPD	Diphenylamine
104)	22.41	22.37	22.45	0.076	BV	562263	CMPD	Di-n-butyl phthalate
116)	23.69	23.65	23.73	0.080	BB	549545	6	
51)	18.03	17.99	18.07	0.087	VV	480034	7	
36)	16.91	16.85	16.93	0.076	VV	477964	ISTD	d10-Acenaphthene
100)	22.06	22.03	22.15	0.114	VV	445315	8	
114)	23.41	23.36	23.49	0.128	VB	402578	9	
162)	29.10	28.98	29.23	0.253	BB	360979	10	
47)	17.72	17.66	17.77	0.112	VB	331348	11	
32)	16.60	16.56	16.66	0.100	VB	329382	12	
140)	26.38	26.30	26.44	0.133	BV	323588	13	
110)	23.08	23.00	23.14	0.136	BB	309930	14	
125)	24.64	24.60	24.67	0.069	BB	301680	15	
2)	9.26	9.23	9.36	0.132	BB	295704	ISTD	d4-1,4-Dichlorobenzene
94)	21.54	21.46	21.58	0.112	VB	294646	16	
157)	28.32	28.21	28.39	0.178	BB	267987	17	
18)	15.53	15.44	15.61	0.168	BV	259268	18	
41)	17.28	17.19	17.31	0.120	VV	250009	19	
48)	17.82	17.77	17.85	0.087	BV	249521	20	
105)	22.48	22.45	22.57	0.125	VV	240921	21	
92)	21.36	21.33	21.41	0.074	VV	240202	22	
75)	19.91	19.85	19.94	0.090	BV	237502	23	
153)	27.60	27.55	27.64	0.093	BB	226519	ISTD	Chrysene
144)	26.70	26.64	26.77	0.123	BV	224431	24	
39)	17.11	17.07	17.14	0.068	VV	221341	25	
76)	20.00	19.94	20.04	0.099	VV	220350	26	
28)	16.36	16.32	16.39	0.067	VV	216919	27	
87)	21.06	20.98	21.09	0.119	BB	213289	28	

Int.report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\bnap\bnapb136.q
Data File Name: C:\BNAP\BNAPB136.MSS
Name: SAMP_8270_SBNA (12)
Misc Data: 0109076-004A,BB399,S,30.00,1.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\BNA.NIS
Parameters Minimum % Istd Area to Report: 10.00 Rank Order

Which Istd from Output file(1st,2nd)..: 2 Time: 15:19:37
Maximum Hits for graphics: 3 Delta Rt: 0.06

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
79)	20.23	20.18	20.26	0.072	BB	117384	59	
16)	15.17	15.13	15.20	0.078	VB	116199	60	
115)	23.52	23.49	23.55	0.059	BB	113915	61	
124)	24.51	24.46	24.56	0.100	BB	113068	CMPD	Pyrene
56)	18.49	18.46	18.55	0.088	BB	112090	62	
152)	27.52	27.44	27.55	0.104	BB	108719	63	
40)	17.17	17.14	17.19	0.051	VV	106403	64	
68)	19.37	19.30	19.38	0.080	BV	104587	65	
117)	23.84	23.80	23.88	0.080	BV	103348	66	
55)	18.33	18.30	18.37	0.070	VB	102973	67	
64)	19.06	19.04	19.09	0.053	VV	101156	68	
156)	28.05	27.95	28.08	0.126	BB	100800	69	
29)	16.41	16.39	16.44	0.058	VV	100286	70	
103)	22.32	22.29	22.34	0.048	VB	98469	71	
78)	20.15	20.11	20.18	0.071	BB	95918	72	
142)	26.55	26.50	26.59	0.093	VV	94069	73	
30)	16.47	16.44	16.52	0.075	VV	93793	74	
52)	18.10	18.07	18.13	0.061	VB	90503	75	
108)	22.80	22.76	22.84	0.077	BV	89785	76	
130)	25.29	25.23	25.30	0.070	VB	89445	77	
8)	14.06	14.00	14.12	0.125	BB	87950	78	
150)	27.25	27.21	27.29	0.072	BB	87838	79	
121)	24.23	24.20	24.25	0.049	VV	86662	80	
163)	29.28	29.23	29.34	0.105	BV	83334	81	
98)	21.95	21.90	21.98	0.075	BB	82697	82	
86)	20.93	20.90	20.98	0.073	BB	79573	83	
160)	28.79	28.72	28.82	0.105	BV	78993	84	
46)	17.64	17.60	17.66	0.061	VV	78987	85	
63)	19.02	19.00	19.04	0.036	VV	78959	86	
43)	17.38	17.36	17.41	0.051	VB	77677	87	
141)	26.47	26.44	26.50	0.061	VV	76637	88	
155)	27.85	27.80	27.90	0.105	BB	73283	89	
119)	24.03	24.00	24.06	0.059	BB	72854	90	
93)	21.43	21.41	21.46	0.055	VV	70084	91	
67)	19.23	19.21	19.27	0.062	VB	69555	92	

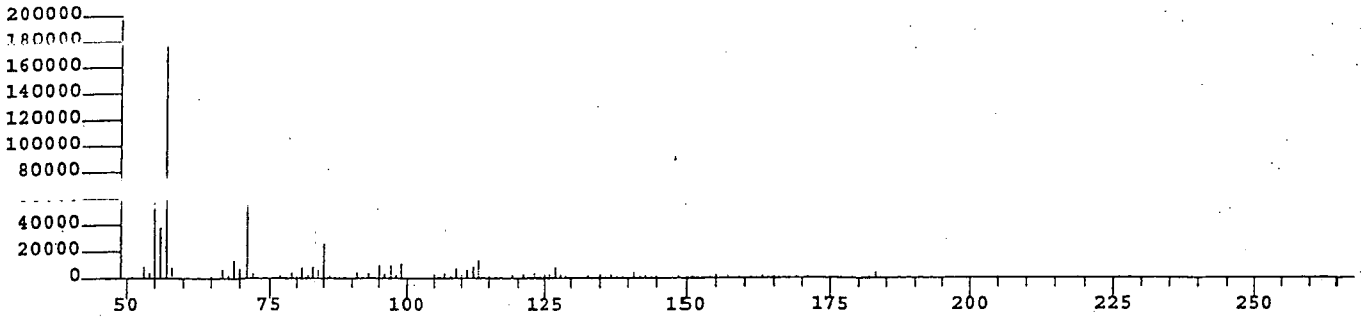
Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\bnap\bnapb136.q
Data File Name: C:\BNAP\BNAPB136.MSS
Name: SAMP_8270_SBNA_(12)
Misc Data: 0109076-004A,BB399,S,30.00,1.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\BNA.NIS
Parameters Minimum % Istd Area to Report: 10.00 Rank Order

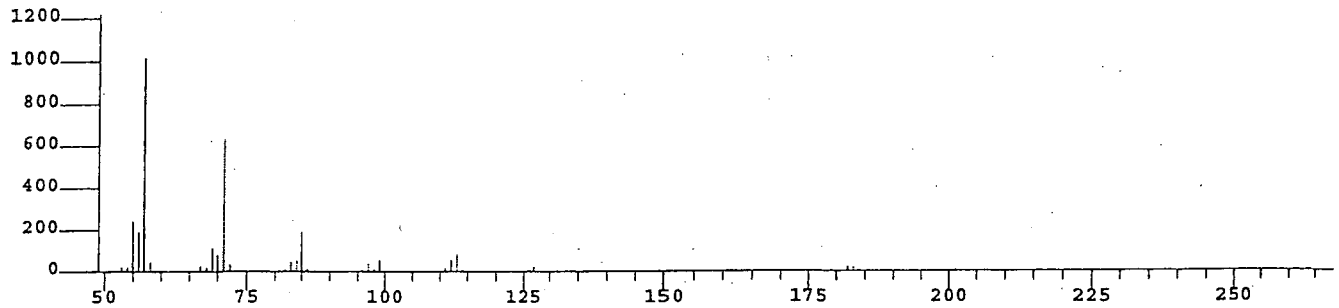
Which Istd from Output file(1st,2nd)..: 2 Time: 15:19:37
Maximum Hits for graphics: 3 Delta Rt: 0.06

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank
175)	31.98	31.92	32.05	0.128	BB	33775	127
126)	24.80	24.78	24.84	0.059	BB	32894	128
66)	19.19	19.17	19.21	0.036	VV	31417	129
12)	14.85	14.81	14.88	0.069	VV	31225	130
71)	19.61	19.58	19.63	0.045	BV	30462	131
74)	19.81	19.76	19.82	0.054	BB	30381	132
166)	29.80	29.78	29.83	0.052	BB	29596	133
165)	29.62	29.55	29.66	0.115	BB	28969	134
70)	19.53	19.50	19.55	0.045	VB	27833	135
33)	16.68	16.66	16.70	0.041	BV	27730	136
171)	30.60	30.55	30.64	0.088	BB	27519	137
176)	32.61	32.53	32.66	0.134	BB	26857	138
11)	14.79	14.76	14.81	0.053	BV	26577	139
20)	15.71	15.69	15.78	0.096	VB	25264	140
58)	18.67	18.65	18.69	0.044	BB	24990	141
5)	12.70	12.66	12.74	0.079	BB	21198	142
135)	25.72	25.71	25.76	0.050	BB	21062	143
22)	15.95	15.89	15.97	0.082	BB	20918	144
148)	27.11	27.06	27.12	0.061	BB	20806	145

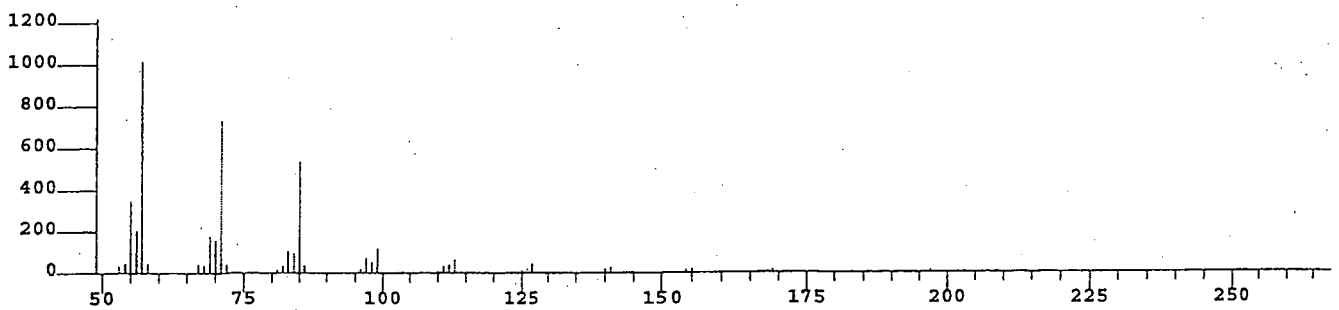
Scan: 2183 RT (min): 19.47



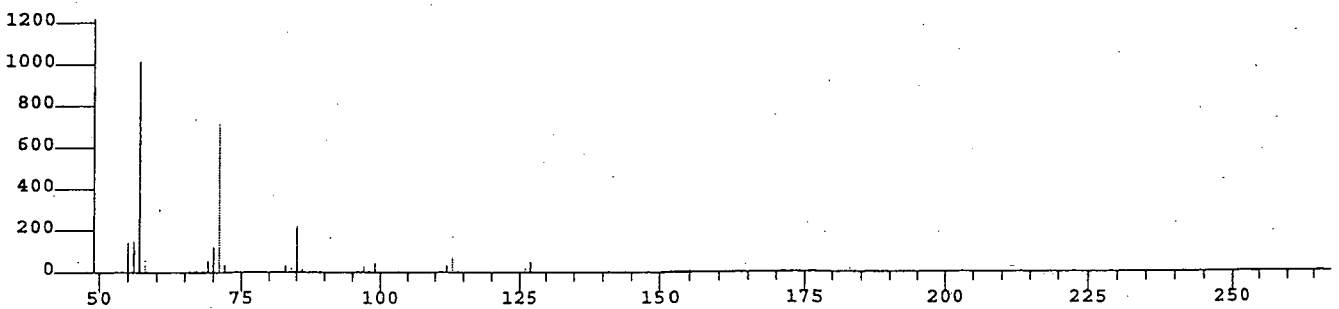
Heptadecane, 2,6-dimethyl-



Nonadecane



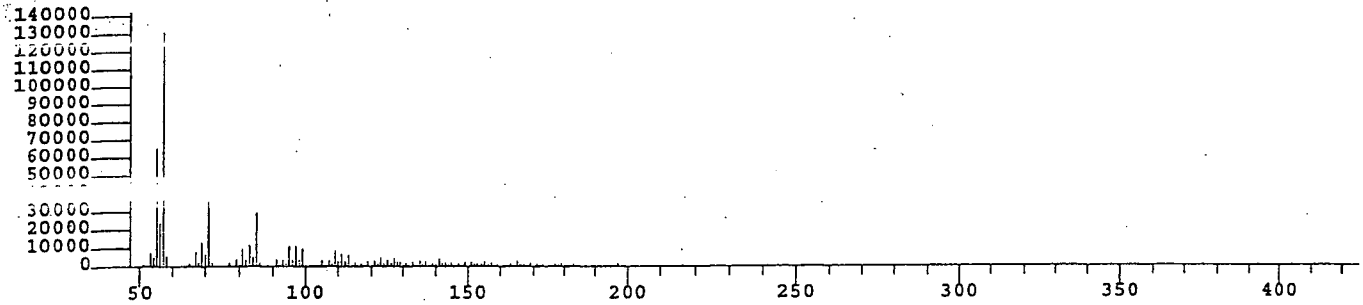
Dodecane, 2,6,10-trimethyl-



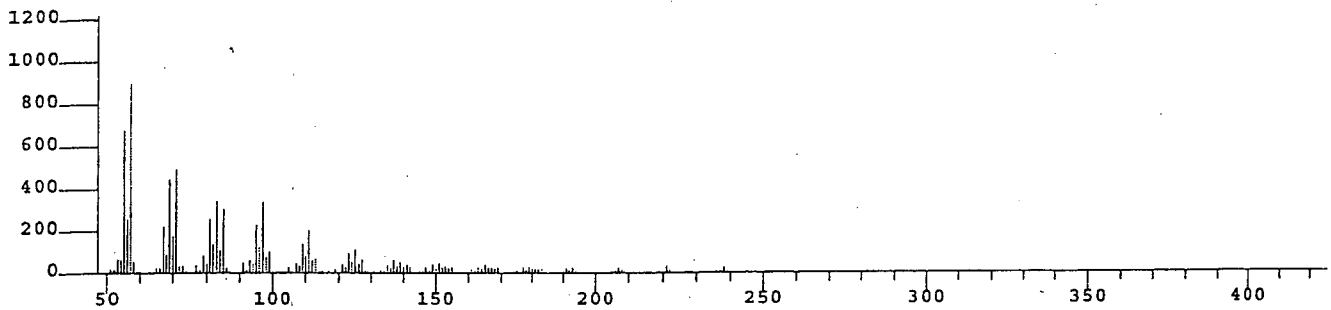
Data File: C:\BNAP\BNAPB136.MSS
Name: SAMP_8270_SBNA_(12)
Misc Data: 0109076-004A,BB399,S,30.00,1.00,1.0,0,
RT (min): 19.47 Scan: 2183
Area: 2533505 Rank: 1
Semi-quantitative Conc(uncorrected): 212.02 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.95

	Name	Cas No	SI	MW	Formula
1)	Heptadecane, 2,6-dimethyl-	54105-67-8	84.8	268	C19H40
2)	Nonadecane	629-92-5	84.2	268	C19H40
3)	Dodecane, 2,6,10-trimethyl-	3891-98-3	81.1	212	C15H32
4)	Triacontane	638-68-6	80.8	422	C30H62
5)	Pentatriacontane	630-07-9	80.8	492	C35H72
6)	Nonacosane	630-03-5	80.6	408	C29H60
7)	Octadecane, 2,6-dimethyl-	75163-97-2	80.2	282	C20H42
8)	Heptadecane, 2,6,10,15-tetramethyl-	54833-48-6	80.0	296	C21H44
9)	Pentacosane	629-99-2	79.9	352	C25H52
10)	Pentadecane, 2,6,10,14-tetramethyl-	1921-70-6	79.4	268	C19H40

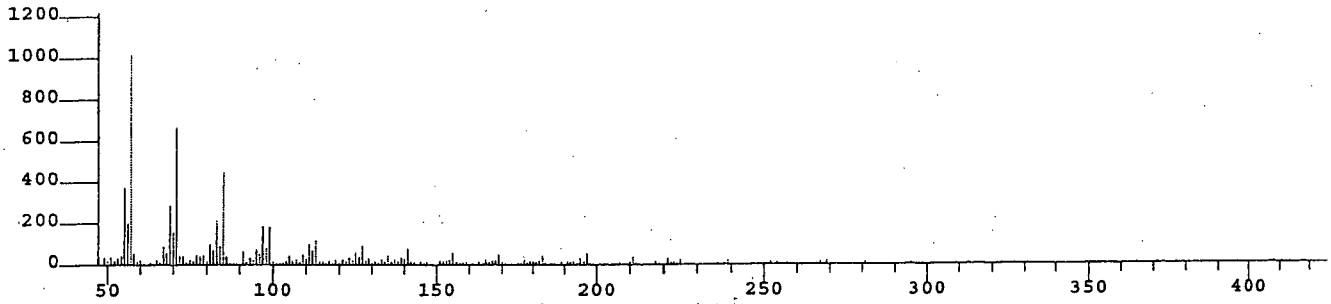
Scan: 2426 RT (min): 21.68



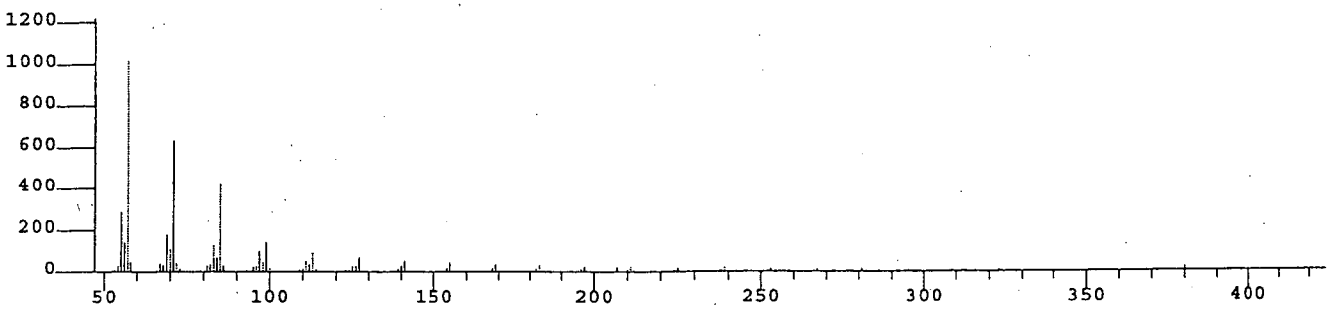
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



Dotriacontane



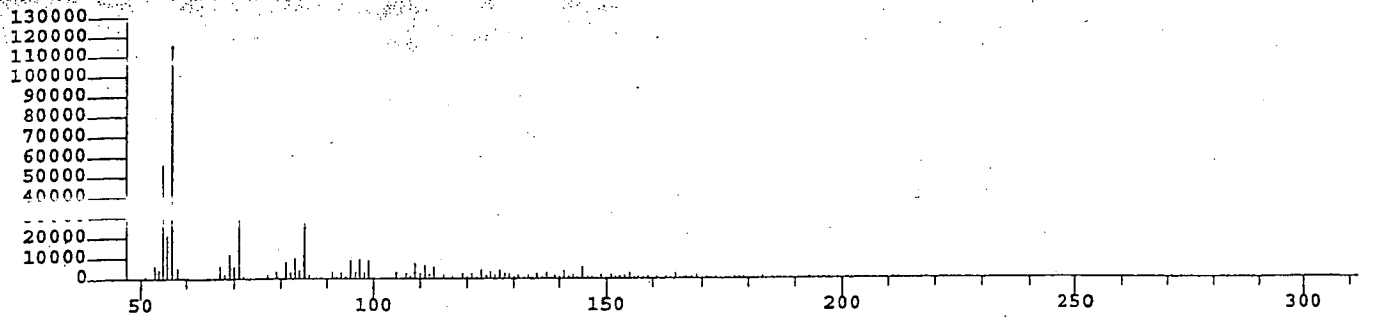
Heptacosane



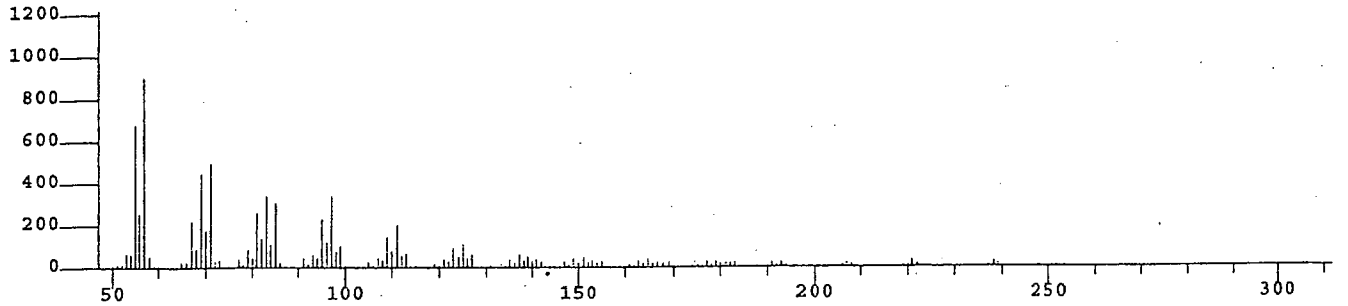
Data File: C:\BNAP\BNAPB136.MSS
Name: SAMP_8270_SEMA_(1)
Misc Data: 0109076-004A,BB399,S,30.00,1.00,1.0,0,
RT (min): 21.68 Scan: 2426
Area: 1018701 Rank: 3
Semi-quantitative Conc(uncorrected): 85.25 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.95

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		87.6	238	C13H22N2O2
2)	Dotriacontane	544-85-4	87.0	450	C32H66
3)	Heptacosane	593-49-7	83.8	380	C27H56
4)	Tritetracontane	7098-21-7	81.8	604	C43H88
5)	Tetracontane, 3,5,24-trimethyl-	55162-61-3	81.6	604	C43H88
6)	Nonadecane	629-92-5	80.7	268	C19H40
7)	Pentatriacontane	630-07-9	80.6	492	C35H72
8)	Nonahexacontanoic acid	40710-32-5	79.5	998	C69H138O2
9)	Cyclohexanol, dodecyl-	55000-30-1	79.5	268	C18H36O
10)	Docosane, 2,21-dimethyl-	77536-31-3	79.1	338	C24H50

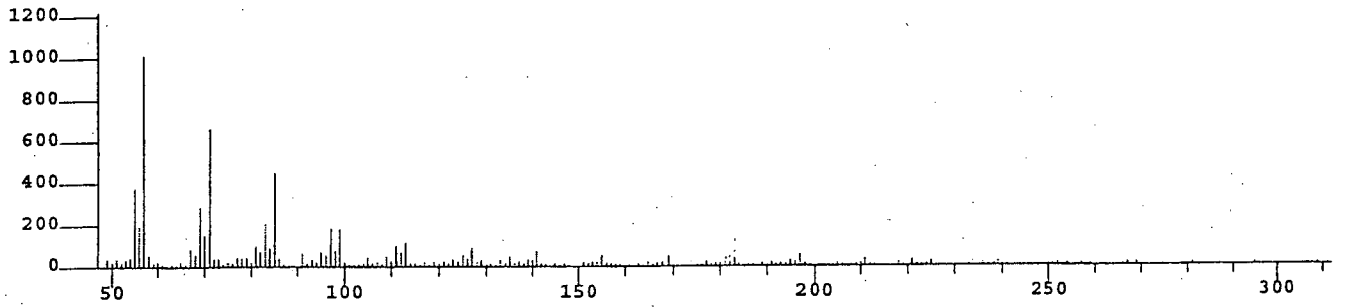
Scan: 2535 RT (min): 22.71



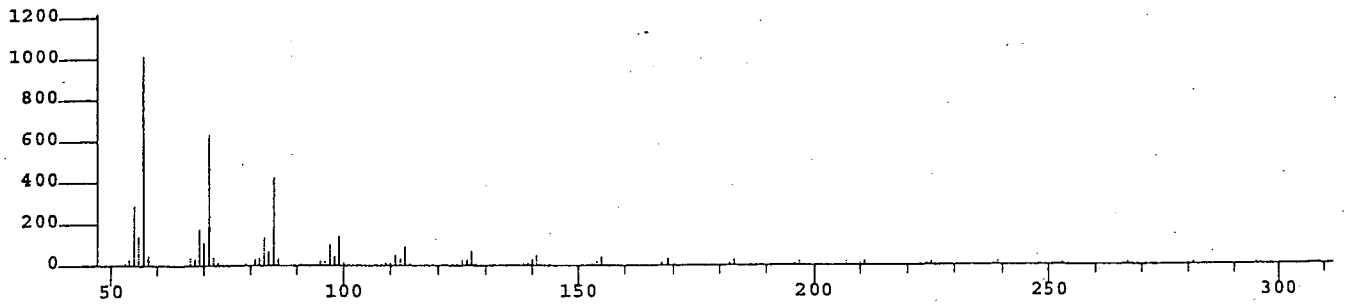
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



Dotriacontane



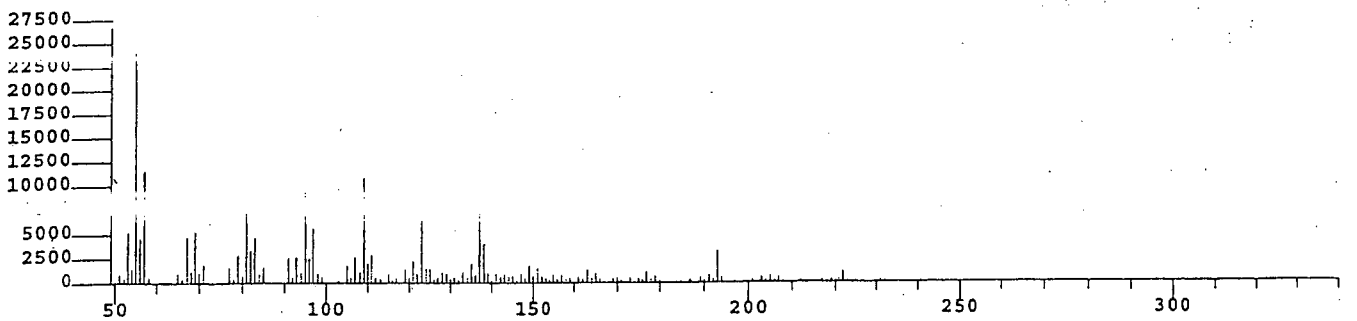
Heptacosane



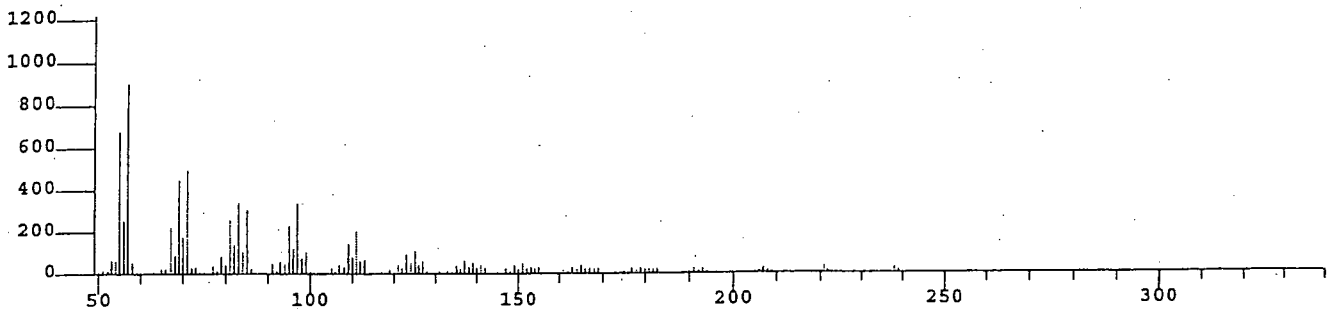
Data File: C:\BNAP\BNAPB136.MSS
Name: SAMP_8270_SBNA_(12)
Misc Data: 0109076-004A,BB399,S,30.00,1.00,1.0,0,
RT (min): 22.71 Scan: 2535
Area: 824258 Rank: 5
Semi-quantitative Conc(uncorrected): 68.98 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.95

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		85.3	238	C13H22N2O2
2)	Dotriacontane	544-85-4	85.1	450	C32H66
3)	Heptacosane	593-49-7	82.5	380	C27H56
4)	Tetracontane, 3,5,24-trimethyl-	55162-61-3	80.7	604	C43H88
5)	Nonadecane	629-92-5	79.4	268	C19H40
6)	Docosane	629-97-0	79.2	310	C22H46
7)	Tritetracontane	7098-21-7	79.1	604	C43H88
8)	Nonahexacontanoic acid	40710-32-5	79.0	998	C69H138O2
9)	Pentacosane	629-99-2	78.9	352	C25H52
10)	2-Hexyl-1-decanol		77.9	242	C16H34O

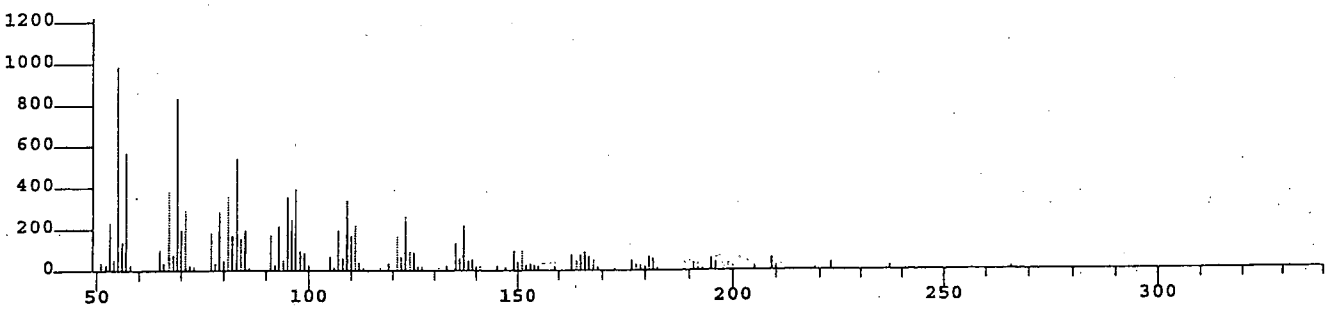
Scan: 2020 RT (min): 18.03



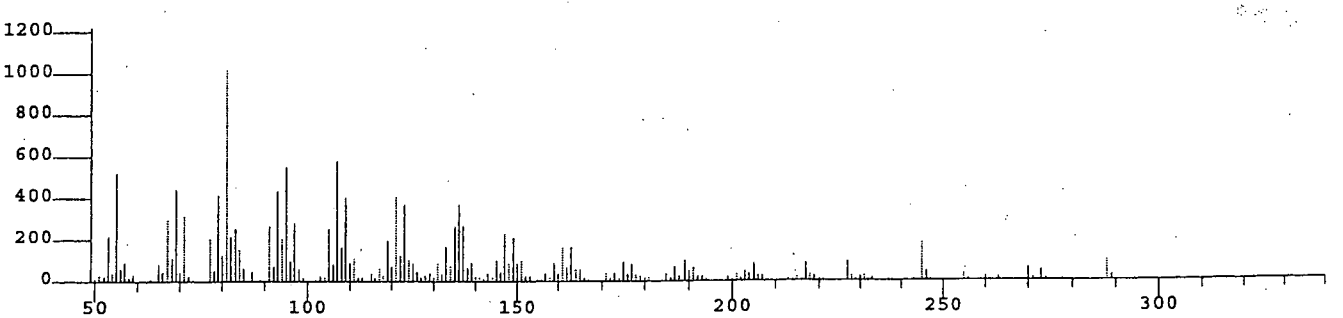
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



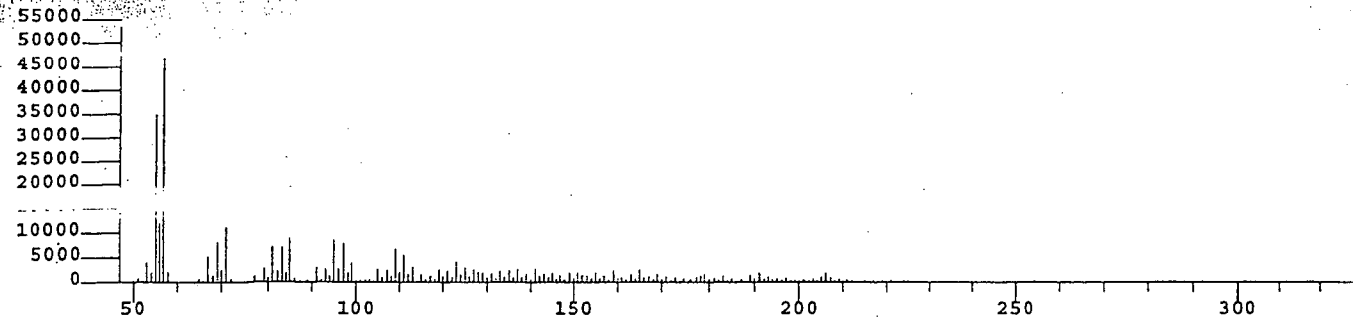
4,8,13-Cyclotetradecatriene-1,3-diol, 1,5,9-trimethyl-12-(1-meth



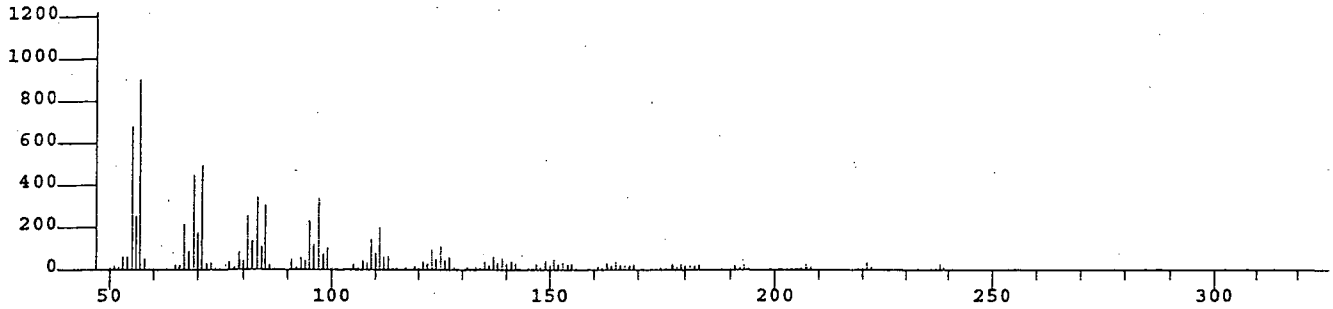
Data File: C:\BNAP\BNAPB136.MSS
Name: SAMP_8270_SBNA_(12)
Misc Data: 0109076-004A,BB399,S,30.00,1.00,1.0,0,
RT (min): 18.03 Scan: 2020
Area: 480034 Rank: 7
Semi-quantitative Conc(uncorrected): 40.17 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.95

Name	Cas No	SI	MW	Formula
1) Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		76.3	238	C13H22N2O2
2) 2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	76.2	266	C16H26O3
3) 4,8,13-Cyclotetradecatriene-1,3-diol, 1,5,9-trimethyl-12-(1-meth	7220-78-2	74.5	306	C20H34O2
4) 2(1H)-Naphthalenone, octahydro-4a-methyl-7-(1-methylethyl)-, (4a	54594-42-2	74.5	208	C14H24O
5) D:A-Friedooleanan-28-al, 3-oxo-	14440-40-5	73.5	440	C30H48O2
6) 13-Heptadecyn-1-ol	56554-77-9	72.3	252	C17H32O
7) Squalene	7683-64-9	72.3	410	C30H50
8) 2-Cyclohexen-1-one, 3-(3-hydroxybutyl)-2,4,4-trimethyl-	27185-79-1	71.6	210	C13H22O2
9) Pentalene, octahydro-1-(2-octyldecyl)-	55401-65-5	70.1	362	C26H50

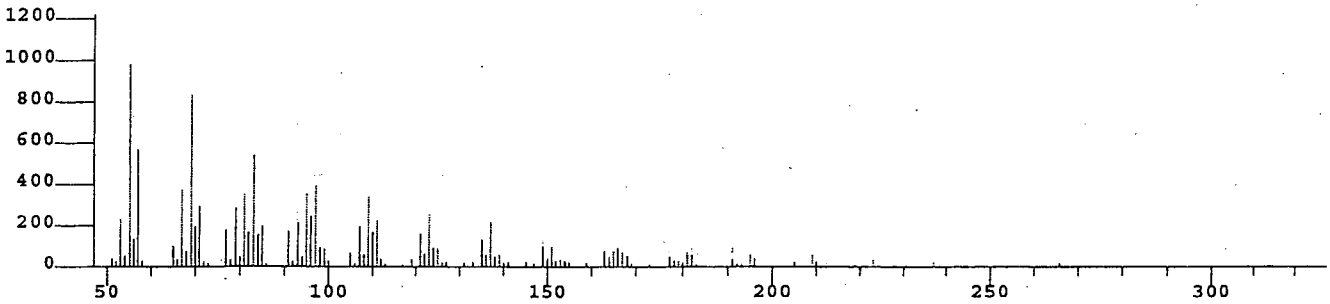
Scan: 2607 RT (min): 23.41



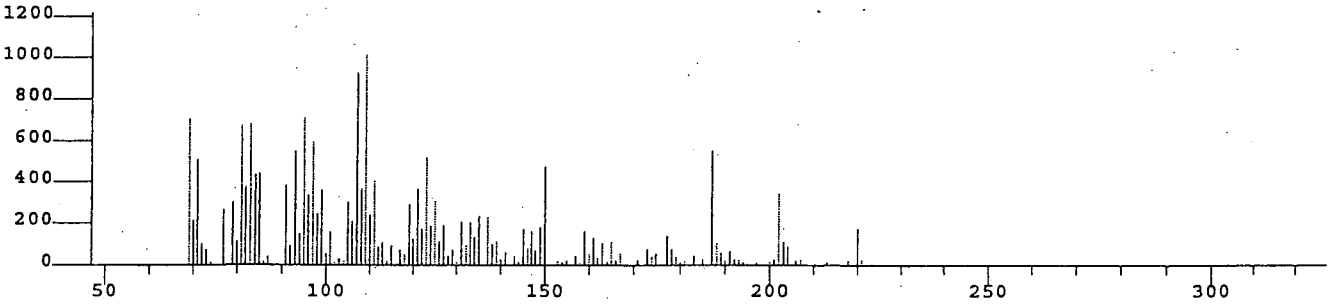
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



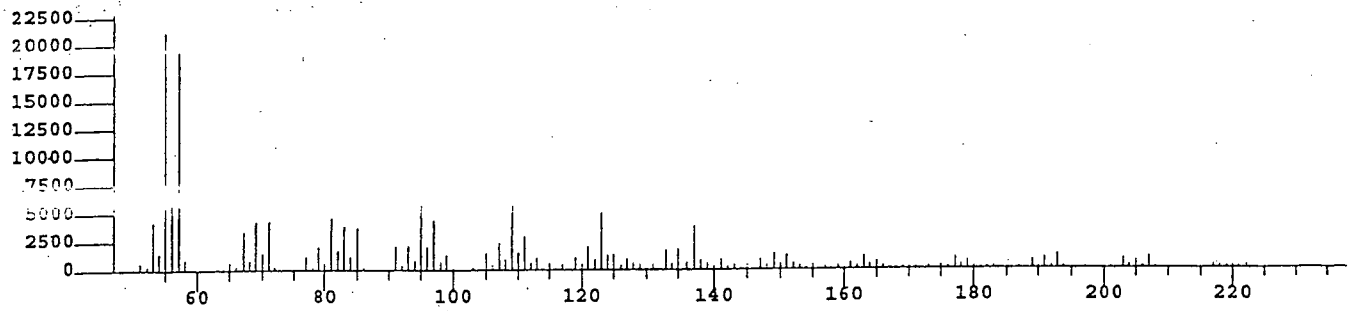
1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



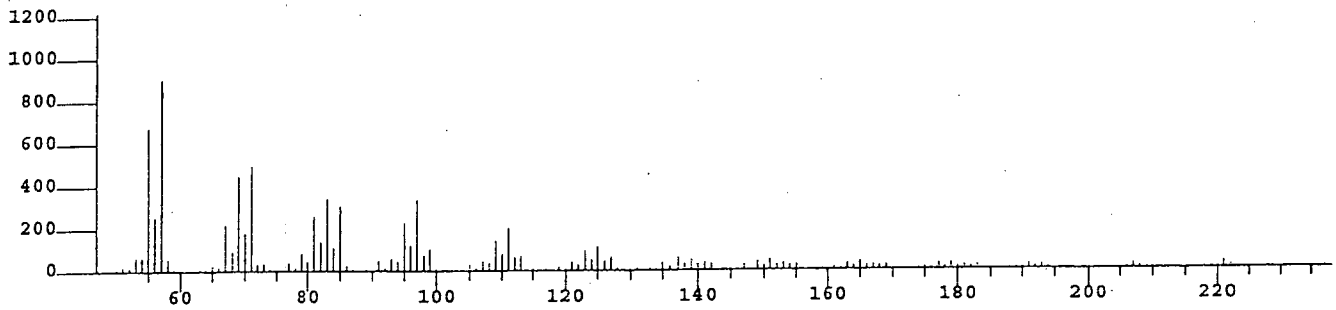
Data File: C:\BNAP\BNAPB136.MSS
Name: SAMP_8270_SBNA_(12)
Misc Data: 0109076-004A,BB399,S,30.00,1.00,1.0,0,
RT (min): 23.41 Scan: 2607
Area: 402578 Rank: 9
Semi-quantitative Conc(uncorrected): 33.69 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.95

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		83.8	238	C13H22N2O2
2)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	77.2	266	C16H26O3
3)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	77.1	220	C15H24O
4)	Aspidospermidine-3-carboxylic acid, 2,3-didehydro-, methyl ester	3247-10-7	73.3	338	C21H26N2O2
5)	Aspidospermidin-17-ol, 1-acetyl-19,21-epoxy-15,16-dimethoxy-	2122-26-1	71.9	414	C23H30N2O5
6)	Cyclohexane, 1,1'-[1-(2,2-dimethylbutyl)-1,3-propanediyl]bis-	61142-63-0	71.4	292	C21H40
7)	2-Hexadecanol	14852-31-4	70.4	242	C16H34O
8)	Hexadecane, 1,1-bis(dodecyloxy)-	56554-64-4	70.1	594	C40H82O2

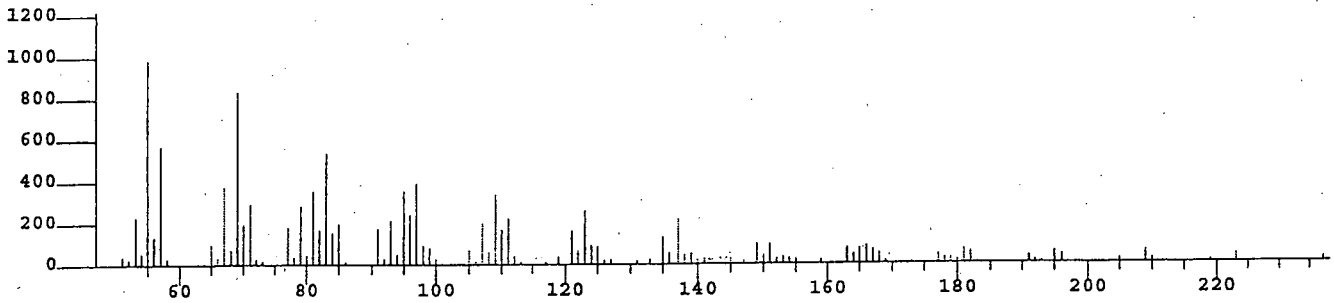
Scan: 1984 RT (min): 17.72



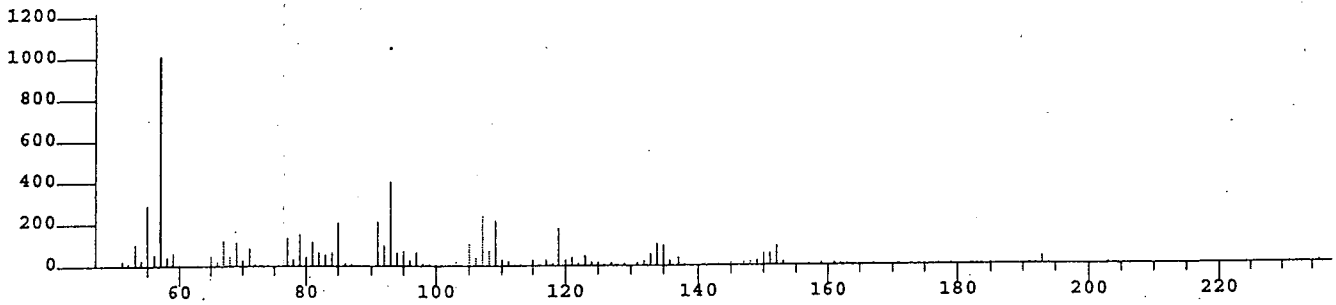
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



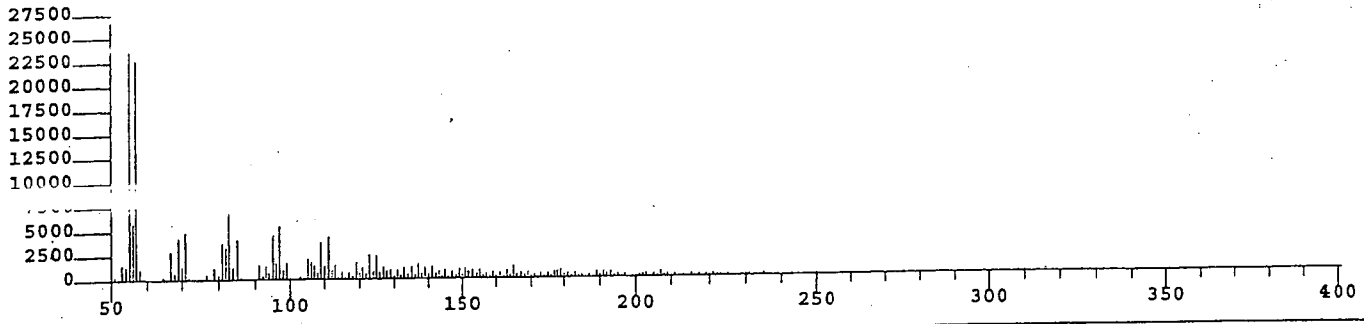
Limonen-6-ol, t-butyrate



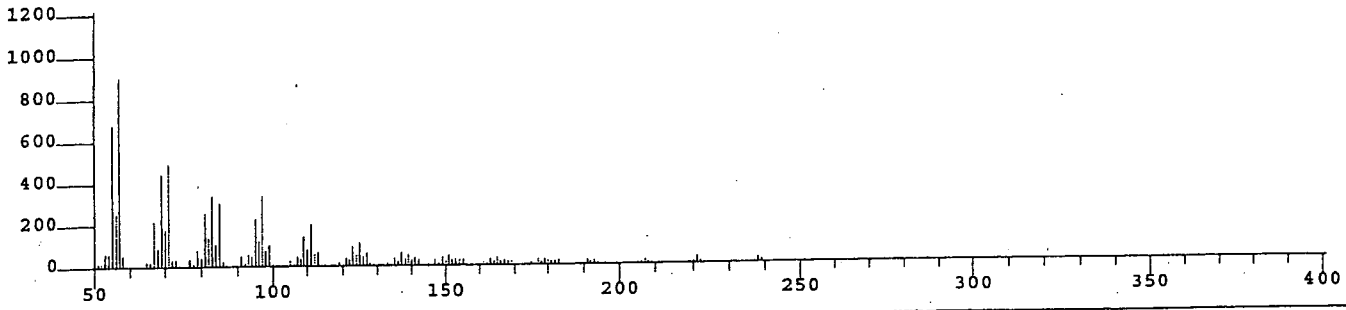
Data File: C:\BNAP\BNAPB136.MSS
Name: SAMP_8270_SBNA_(12)
Misc Data: 0109076-004A,BB359,S,30.00,1.00,1.0,0,
RT (min): 17.72 Scan: 1984
Area: 331348 Rank: 11
Semi-quantitative Conc(uncorrected): 27.73 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.95

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		80.6	238	C13H22N2O2
2)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	78.4	266	C16H26O3
3)	Limonen-6-ol, t-butyrate		75.2	236	C15H24O2
4)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	75.1	220	C15H24O
5)	Spiro[7H-cyclohepta[b]furan-7,2'(5'H)-furan]-2,5'(3H)-dione, oct	3533-47-9	73.7	280	C15H20O5
6)	Colchicine, N-desacetyl-N-retinoyl-		72.7	639	C40H49NO6
7)	Cyclotetradecanol, 1,7,11-trimethyl-4-(1-methylethyl)-, (-)-	20489-83-2	72.5	296	C20H40O
8)	1-Naphthalenol, decahydro-4a-methyl-8-methylene-2-(1-methylethyl	30951-17-8	71.5	222	C15H26O
9)	Dodecane, 1,2-dibromo-	55334-42-4	71.3	326	C12H24Br2
10)	2-Cyclohexen-1-one, 3-(3-hydroxybutyl)-2,4,4-trimethyl-	27185-79-1	71.0	210	C13H22O2

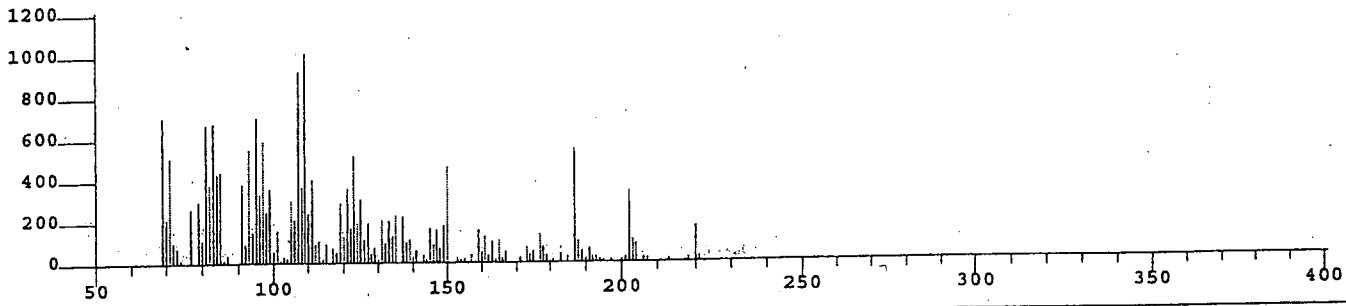
Scan: 2904 RT (min): 26.38



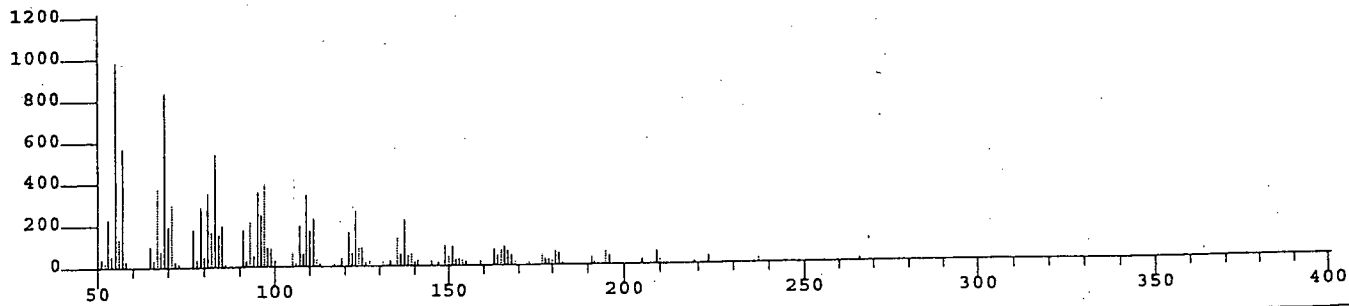
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



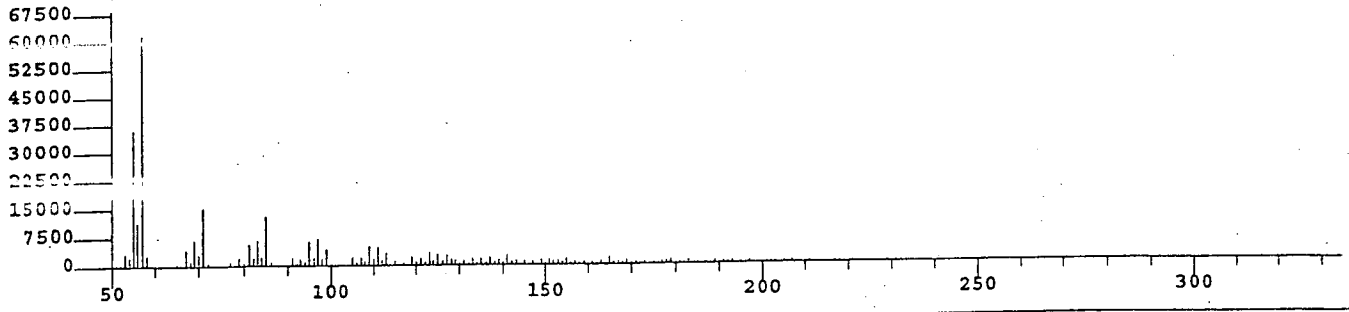
2-Dodecen-1-yl(-)succinic anhydride



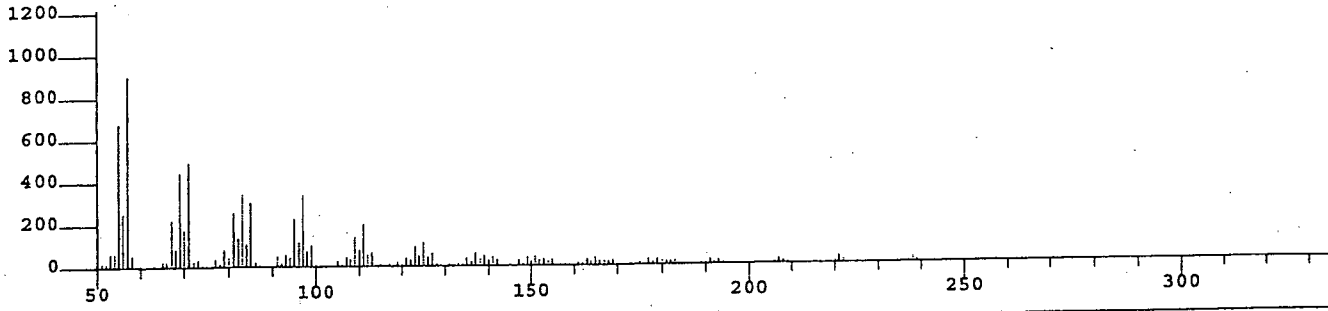
Data File: C:\BNAP\BNAPB136.MSS
Name: SAMP 8270 SBNA (1:
Misc Data: 0109076-004A,BB399,S,30.00,1.00,1.0,0,
RT (min): 26.38 Scan: 2904
Area: 323588 Rank: 13
Semi-quantitative Conc(uncorrected): 27.08 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.95

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		86.0	238	C13H22N2O2
2)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	79.5	220	C15H24O
3)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	78.6	266	C16H26O3
4)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	51906-06-0	76.3	550	C28H38O11
5)	Aspidospermidine-3-carboxylic acid, 2,3-didehydro-, methyl ester	3247-10-7	75.5	338	C21H26N2O2
6)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	77573-08-1	74.9	424	C22H32O8
7)	9,12,15-Octadecatrienoic acid, 2,3-bis(acetyloxy)propyl ester, (	55320-02-0	74.0	436	C25H40O6
8)	Octadecanal, 2-bromo-	56599-95-2	73.4	346	C18H35BrO
9)	2-Hexadecanol	14852-31-4	73.4	242	C16H34O
10)	Nonacosanol	25154-56-7	72.7	424	C29H60O

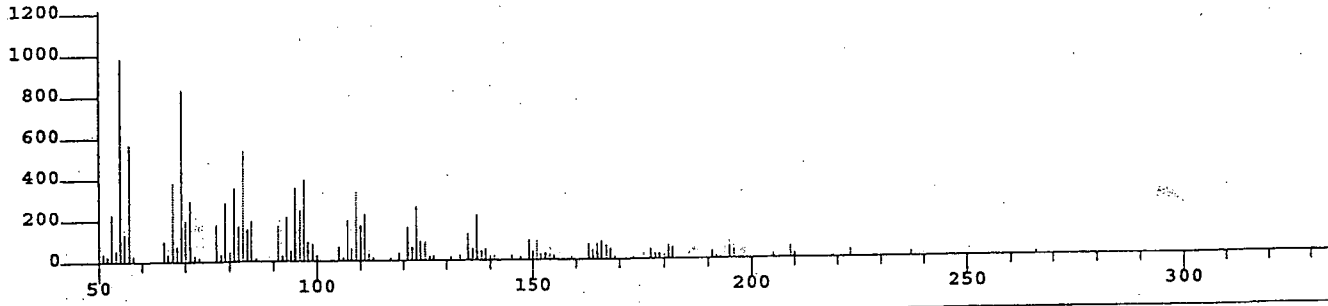
Scan: 2731 RT (min): 24.64



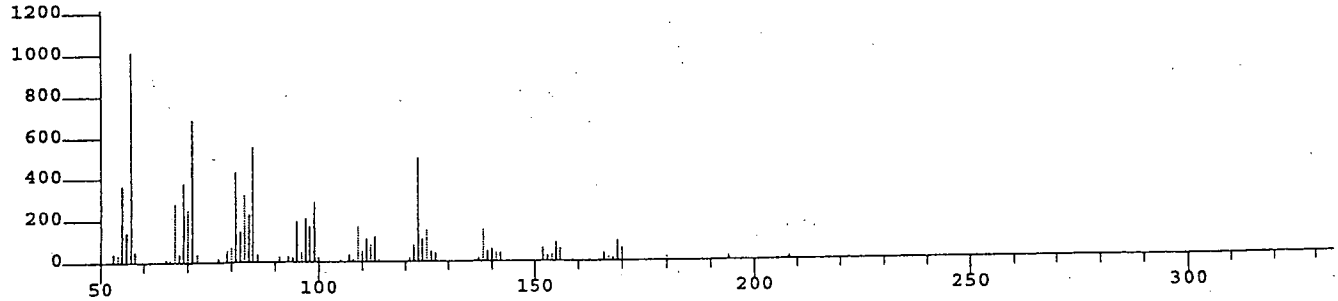
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



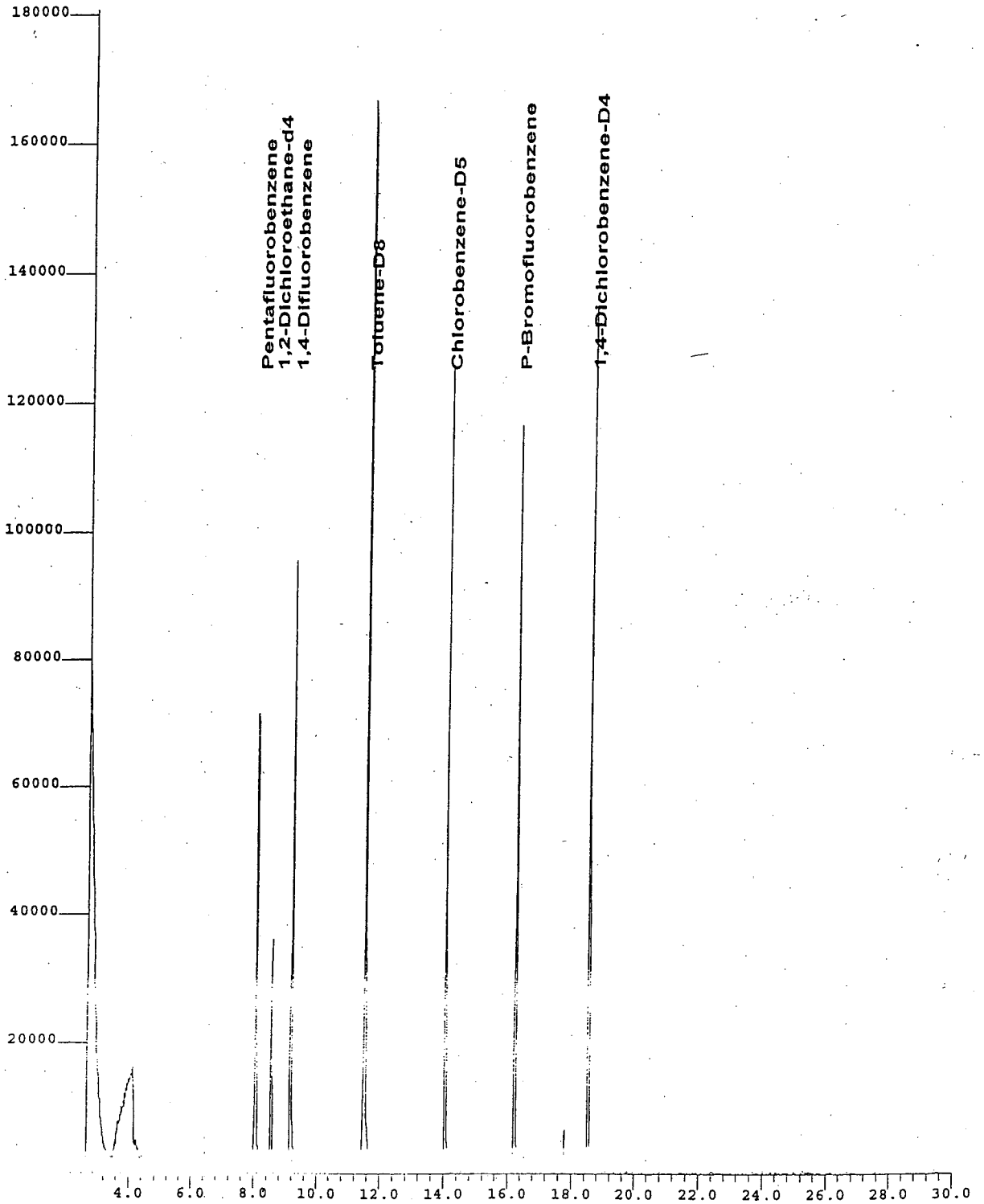
Cyclohexanol, dodecyl-



Data File: C:\BNAP\BNAPB136.MSS
Name: SAMP 8270 SBNA (1
Misc Data: 0109076-004A,BE399,S,30.00,1.00,1.0,0,
RT (min): 24.64 Scan: 2731
Area: 301680 Rank: 15
Semi-quantitative Conc(uncorrected): 25.25 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.95

Name	Cas No	SI	MW	Formula
1) Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		86.9	238	C13H22N2O2
2) 2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	78.3	266	C16H26O3
3) Cyclohexanol, dodecyl-	55000-30-1	76.2	268	C18H36O
4) Nonahexacontanoic acid	40710-32-5	75.8	998	C69H138O2
5) Dodecane, 1,2-dibromo-	55334-42-4	75.1	326	C12H24Br2
6) Octadecane, 1-(ethenyloxy)-	930-02-9	74.5	296	C20H40O
7) Pentalene, octahydro-1-(2-octyldecyl)-	55401-65-5	74.5	362	C26H50
8) 2-Hexadecanol	14852-31-4	73.9	242	C16H34O
9) Nonadecane	629-92-5	73.9	268	C19H40
10) Triacontane	638-68-6	73.8	422	C30H62

Data File: C:\DATA\VOB\VOB056.MSS
Quant Output File: C:\DATA\VOB\VOB056.Q
Injection Time: 09/20/81 12:05
Misc: 0109076-004A,BB716,S,5.00,5.00,1.0,0,



QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB056.Q
Data File: c:\data\vob\vob056.mss
Name: SAMP_8260_S_(5) 4)
Misc: 0109076-004A,BB716,S,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 09/21/** 06:47
Injected at : 09/20/81 12:05
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*Pentafluorobenzene	8.04	168	132463	50.00	ppb	100
25)	1,2-Dichloroethane-d4	8.55	65	72057	106.97	ppb	96
27)	*1,4-Difluorobenzene	9.15	114	207249	50.00	ppb	96
39)	Toluene-D8	11.50	98	314677	107.23	ppb	97
44)	*Chlorobenzene-D5	14.03	117	171508	50.00	ppb	100
56)	P-Bromofluorobenzene	16.22	95	113164	95.34	ppb	100
58)	*1,4-Dichlorobenzene-D4	18.50	152	84147	50.00	ppb	92

* Compound is Internal Standard

Int report for Plus Analysis ..... Plus version 5.0

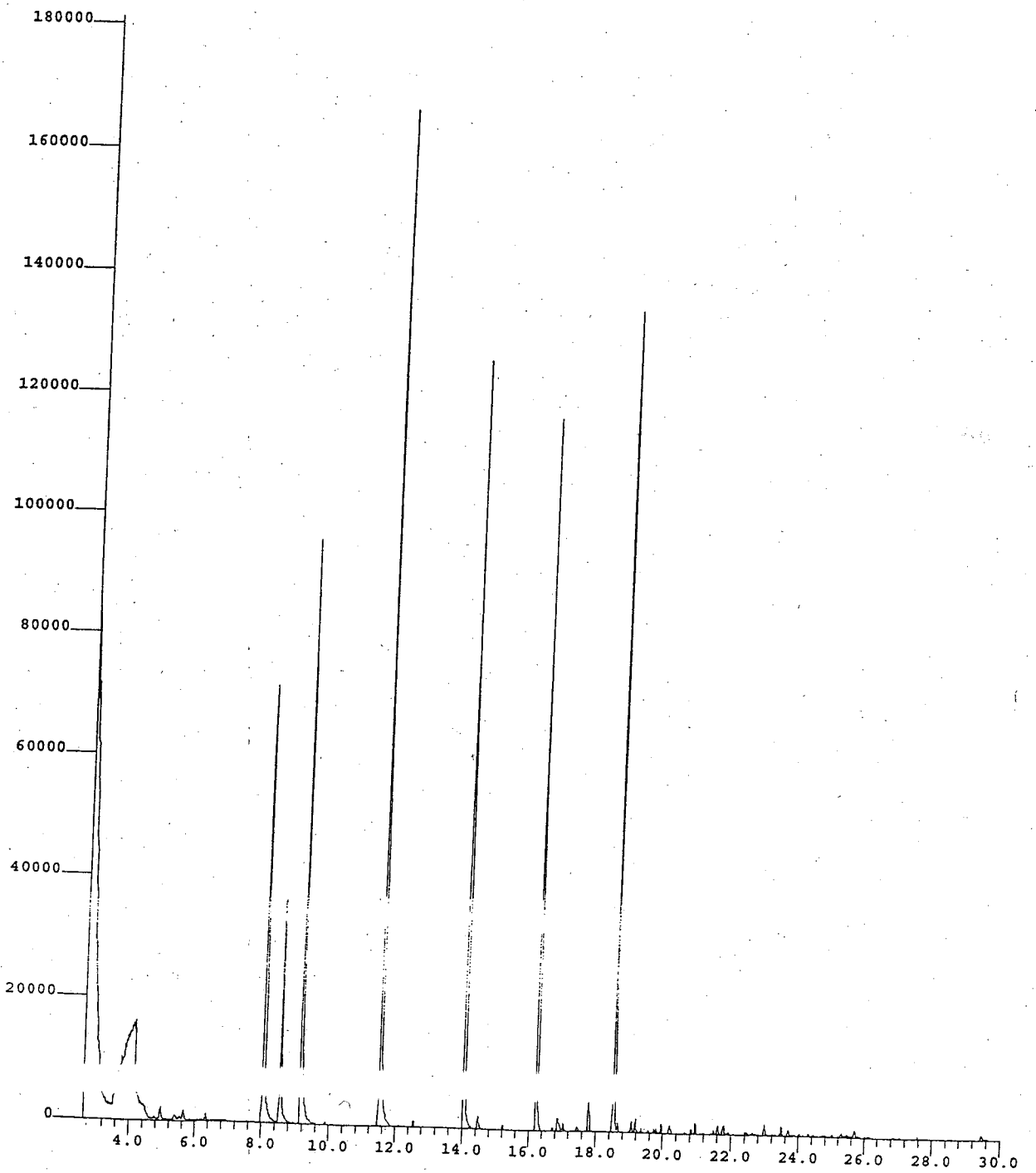
Quant Output File: c:\data\vob\vob056.q
Data File Name: C:\DATA\VOB\VOB056.MSS
Name: SAMP_8260_S_(5) 4)
Misc Data: 0109076-004A,BB716,S,5.00,5.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\VOA.NIS

Parameters
Minimum % Istd Area to Report: 10.00
Absolute maximum Number of Peaks: 10
Which Istd from Output file(1st,2nd)..: 2
Maximum Hits for graphics: 3

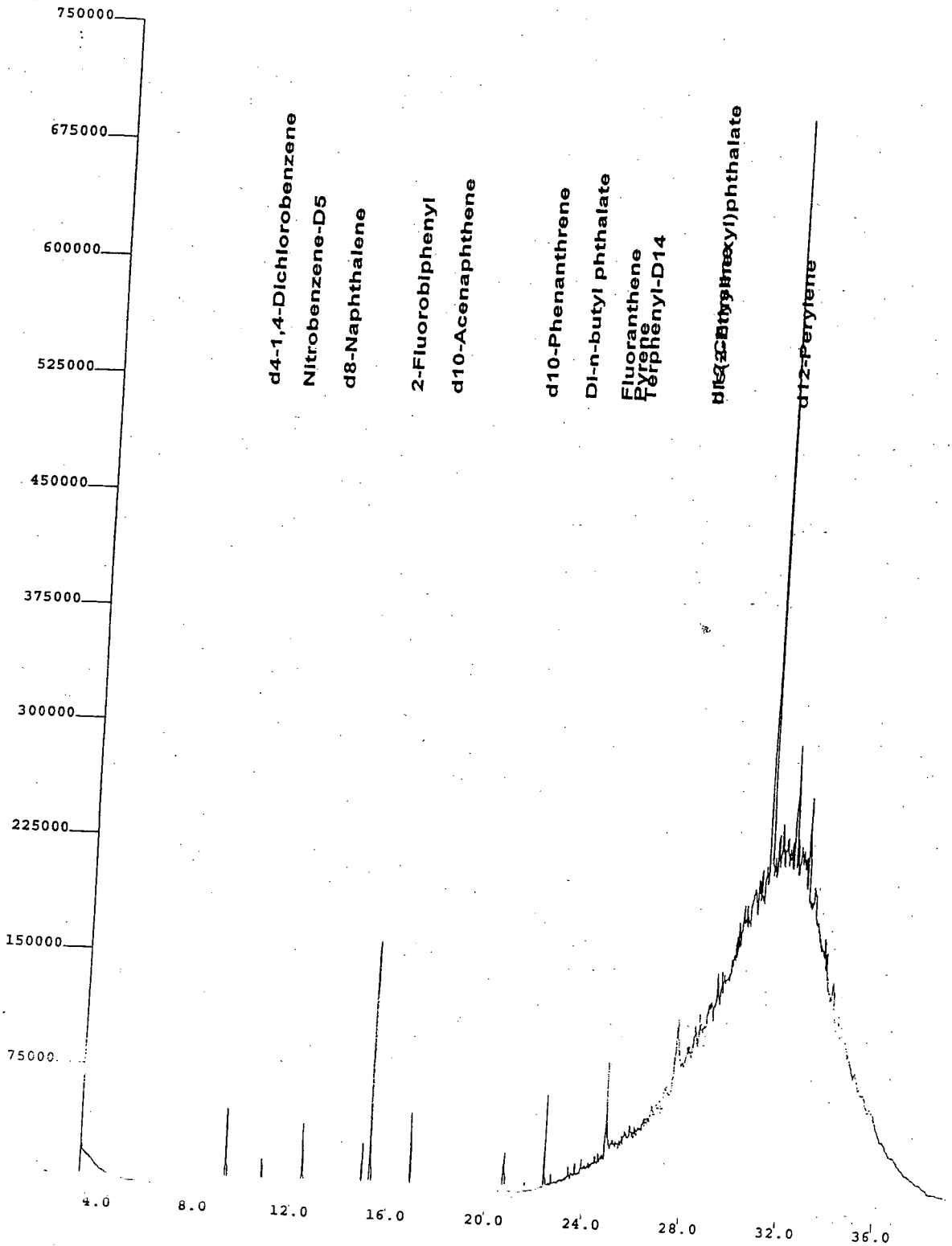
Rank Order
Date: 09-21-2001
Time: 12:35:56
Delta Rt: 0.05

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
5)	11.50	11.44	11.60	0.156	BB	778008	CMPD	Toluene-D8
6)	14.03	13.98	14.14	0.156	BB	549602	ISTD	Chlorobenzene-D5
10)	18.51	18.45	18.60	0.147	BB	535205	ISTD	1,4-Dichlorobenzene-D4
7)	16.22	16.17	16.32	0.156	BB	471439	CMPD	P-Bromofluorobenzene
4)	9.15	9.10	9.24	0.146	BB	459327	ISTD	1,4-Difluorobenzene
2)	8.04	7.98	8.17	0.192	BB	396872	ISTD	Pentafluorobenzene
3)	8.54	8.49	8.62	0.128	BB-	177948	CMPD	1,2-Dichloroethane-d4

Data File: C:\DATA\VOB\VOB056.MSS
Quant Output File: c:\data\vob\vob056.q
Injection Time: 09/20/81 12:05
Misc: 0109076-004A,BB716,S,5.00,5.00,1.0,0,



Data File: C:\BNAP\BNAPB137.MSS
Quant Output File: C:\BNAP\BNAPB137.Q
Injection Time: 09/19/81 19:27
Misc: 0109076-007A,BB399,S,30.00,1.00,1.0,0,



QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\BNAP\BNAPB137.Q
Data File: c:\bnap\bnapb137.mss
Name: SAMP_8270_SBNA_(13)
Misc: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
ID File: c:\bnap\hsl\8270b.i
Title: SW-846 Method 8270 Semi-Volatile Quant ID File
Last Calib: 08/23/01 06:59

Quant Time : 01/99/20 31:00
Injected at : 09/19/81 19:27
Last Qcal Date: None

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*d4-1,4-Dichlorobenzene	9.26	152	48091	40.00	ug/l	98
22)	*d8-Naphthalene	12.43	136	171375	40.00	ug/l	100
23)M	Nitrobenzene-D5	10.76	54	66089	48.24	ug/l	0
37)	*d10-Acenaphthene	16.92	162	69177	40.00	ug/l	99
42)	2-Fluorobiphenyl	15.26	172	204631	98.63	ug/l	100
63)	*d10-Phenanthrene	20.72	188	82771	40.00	ug/l	97
72)	Di-n-butyl phthalate	22.36	149	141592	31.23	ug/l	96
73)	Fluoranthene	23.88	202	10562	5.12	ug/l	99
74)M	Pyrene	24.45	202	12639	5.98	ug/l	0
75)	*d12-Chrysene	27.58	240	48845	40.00	ug/l	100
77)	Terphenyl-D14	24.87	244	42884	58.63	ug/l	92
82)	bis(2-Ethylhexyl)phthalate	27.64	149	26254	5.85	ug/l	85
83)	*d12-Perylene	31.10	264	24299	40.00	ug/l	100

* Compound is Internal Standard

Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\bnap\bnapb137.q
Data File Name: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_(13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\BNA.NIS
Parameters Minimum % Istd Area to Report: 10.00
Absolute maximum Number of Peaks: 15
Which Istd from Output file(1st,2nd)..: 2
Maximum Hits for graphics: 3

Rank Order
Date: 09-21-2001
Time: 15:21:27
Delta Rt: 0.06

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
75)	31.11	30.98	31.22	0.238	BV	2678109	ISTD	d12-Perylene
5)	15.26	15.21	15.36	0.153	BB	795686	CMPD	2-Fluorobiphenyl
83)	32.06	31.98	32.12	0.143	BB	422533	1	
87)	32.68	32.62	32.76	0.143	BB	340162	2	
21)	24.88	24.80	24.97	0.162	BB	321900	CMPD	Terphenyl-D14
1)	9.26	9.22	9.36	0.138	BB	301039	ISTD	d4-1,4-Dichlorobenzene
6)	16.92	16.87	17.01	0.134	BB	267009	ISTD	d10-Acenaphthene
3)	12.43	12.39	12.54	0.145	BB	266907	ISTD	d8-Naphthalene
13)	22.36	22.30	22.43	0.130	BB	239486	CMPD	Di-n-butyl phthalate
11)	20.73	20.66	20.89	0.227	BB	226143	ISTD	d10-Phenanthrene
43)	27.59	27.53	27.62	0.091	VV	202125	ISTD	bis(2-Ethylhexyl)phthal
65)	30.07	29.95	30.11	0.152	VV	167582	3	
77)	31.40	31.33	31.47	0.142	BB	135908	4	
71)	30.65	30.60	30.72	0.120	BV	135467	5	
44)	27.64	27.62	27.68	0.060	VV	133740	CMPD	bis(2-Ethylhexyl)phthal
2)	10.76	10.73	10.86	0.128	BB	133724	CMPD	Nitrobenzene-D5
70)	30.47	30.40	30.54	0.140	VB	133095	6	
78)	31.52	31.47	31.59	0.121	BB	126815	7	
4)	14.93	14.87	14.97	0.100	BB	126140	8	
64)	29.91	29.86	29.95	0.097	BV	103952	9	
72)	30.76	30.72	30.80	0.076	VV	100852	10	
57)	29.11	29.05	29.16	0.104	VB	89382	11	
58)	29.29	29.24	29.34	0.095	BV	83179	12	
50)	28.32	28.27	28.37	0.104	VB	83075	13	
94)	34.20	34.15	34.27	0.126	BB	70917	14	
47)	28.05	27.91	28.07	0.162	BV	70360	15	
53)	28.79	28.71	28.82	0.114	BV	67495	16	
82)	31.93	31.88	31.98	0.100	VB	67048	17	
92)	33.60	33.55	33.65	0.096	BB	66196	18	
67)	30.18	30.15	30.21	0.064	VV	65910	19	
84)	32.16	32.12	32.20	0.078	BB	65574	20	
55)	28.90	28.87	28.96	0.093	VB	64822	21	
69)	30.37	30.32	30.40	0.076	BV	63751	22	
76)	31.28	31.22	31.33	0.109	VB	61611	23	
91)	33.50	33.45	33.55	0.098	BB	60613	24	
86)	32.57	32.51	32.62	0.110	BB	54208	25	
51)	28.47	28.43	28.49	0.062	BB	52160	26	
59)	29.40	29.34	29.44	0.105	VB	52146	27	

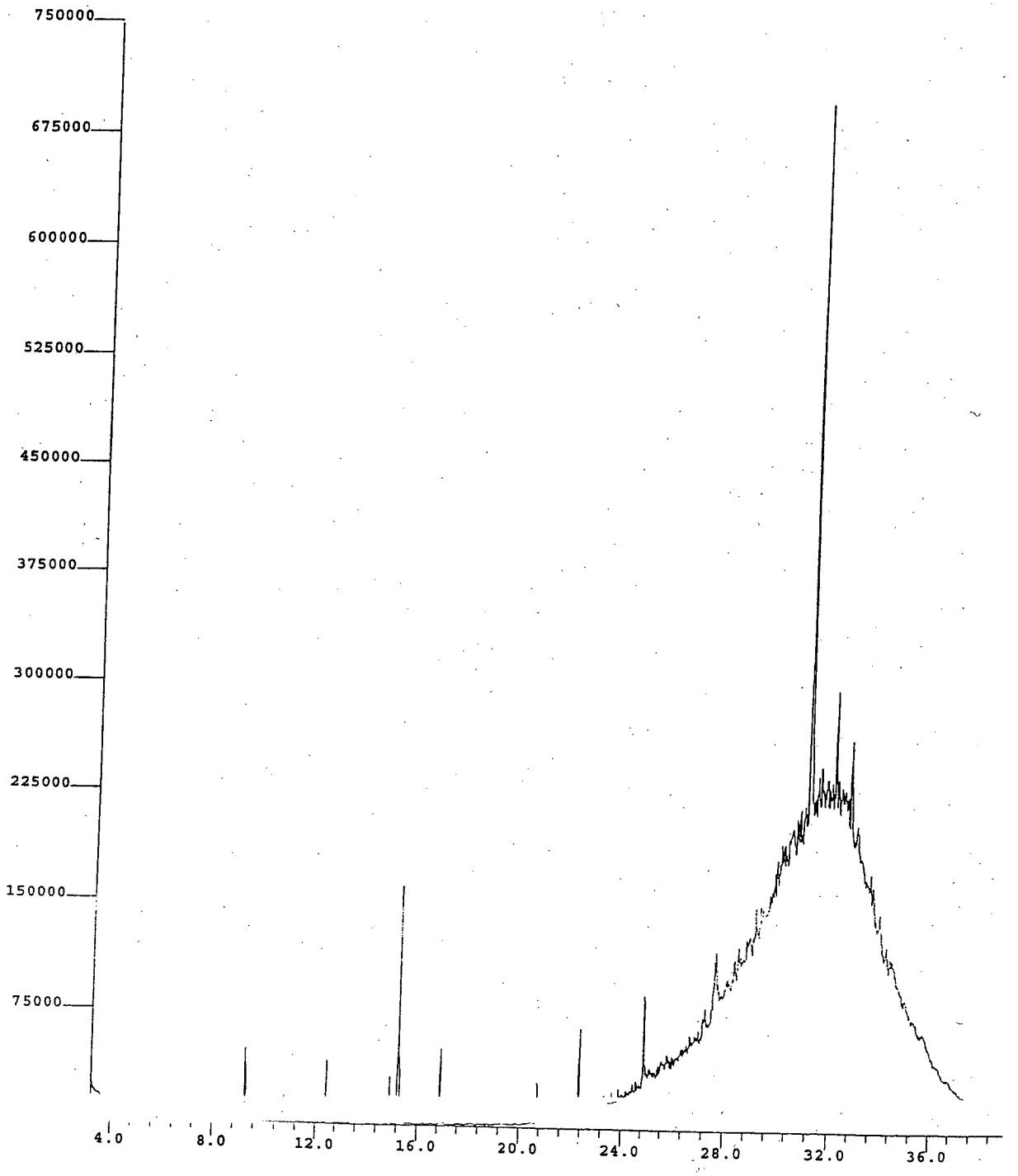
Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\bnap\bnapb137.q
Data File Name: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_(13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\BNA.NIS
Parameters
Minimum % Istd Area to Report: 10.00
Absolute maximum Number of Peaks: 15
Which Istd from Output file(1st,2nd)..: 2
Maximum Hits for graphics: 3

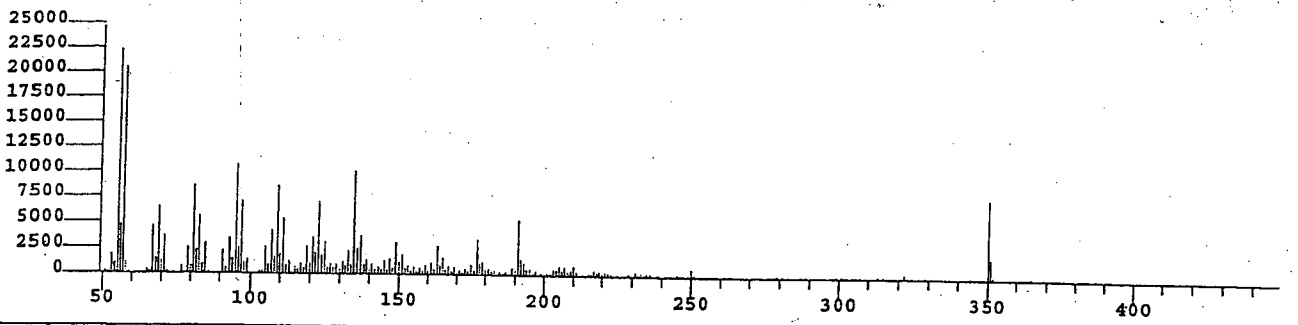
Rank Order
Date: 09-21-2001
Time: 15:21:27
Delta Rt: 0.06

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
63)	29.82	29.78	29.86	0.076	BB	50289	28	
74)	30.91	30.86	30.93	0.065	BB	50220	CMPD	Benzo(a)pyrene
85)	32.32	32.25	32.33	0.077	BB	47512	29	
81)	31.84	31.81	31.88	0.066	BV	44775	30	
17)	23.88	23.83	23.93	0.101	BB	40582	CMPD	Fluoranthene
66)	30.13	30.11	30.15	0.043	VV	40480	31	
15)	23.35	23.30	23.40	0.099	BB	40173	32	
54)	28.85	28.82	28.87	0.042	VV	38844	33	
8)	19.36	19.29	19.43	0.140	BB	38794	34	
89)	32.96	32.90	32.99	0.087	BB	35994	35	
19)	24.46	24.40	24.53	0.130	BB	34668	CMPD	Pyrene
45)	27.72	27.68	27.74	0.060	VB	34104	36	
30)	26.06	26.03	26.11	0.082	VB	33112	37	
98)	35.69	35.57	35.73	0.156	BB	32312	38	
97)	34.99	34.90	35.02	0.112	BB	32273	39	
31)	26.34	26.29	26.36	0.074	BV	31666	40	
68)	30.24	30.21	30.29	0.076	VB	30735	41	
42)	27.51	27.43	27.53	0.099	BV	30572	42	
62)	29.66	29.60	29.68	0.085	VB	30412	43	
80)	31.72	31.67	31.75	0.078	VB	29637	44	
56)	29.03	29.00	29.05	0.052	BV	29574	45	
40)	27.24	27.21	27.27	0.059	BB	27512	46	
49)	28.24	28.21	28.27	0.061	BV	27072	47	

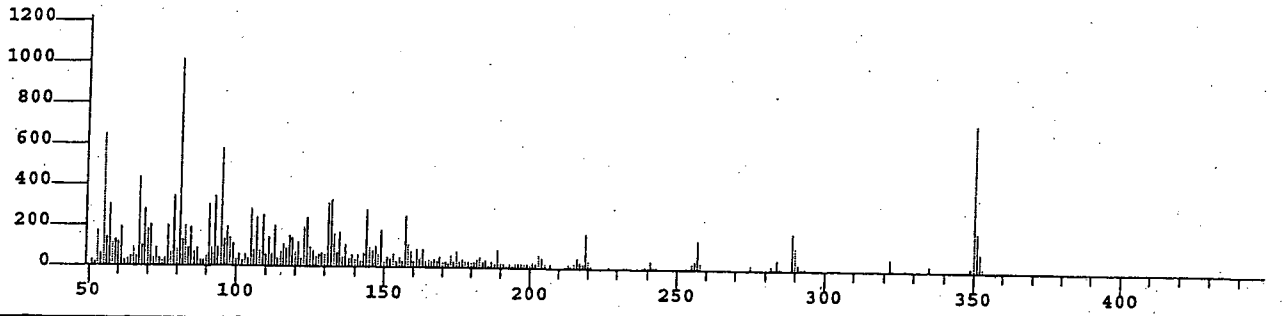
Data File: C:\BNAP\BNAPB137.MSS
Quant Output File: c:\bnap\bnapb137.q
Injection Time: 09/19/81 19:27
Misc: 0109076-007A,BB399,S,30.00,1.00,1.0,0,



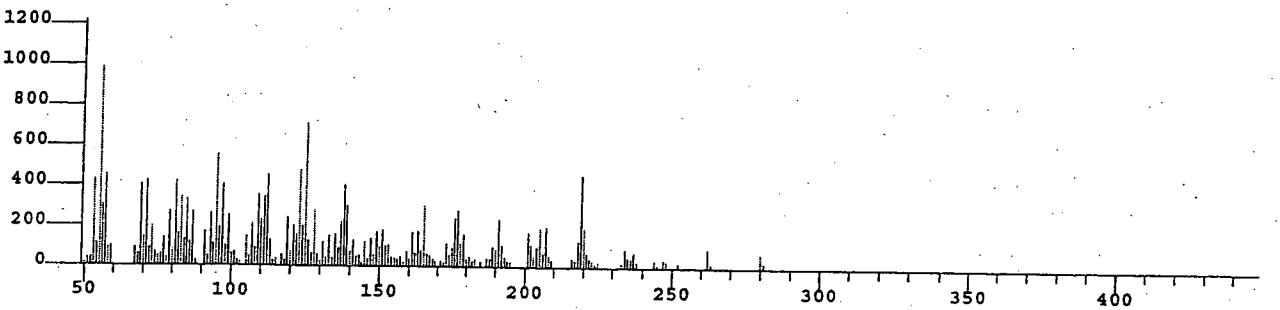
Scan: 3683 RT (min): 32.06



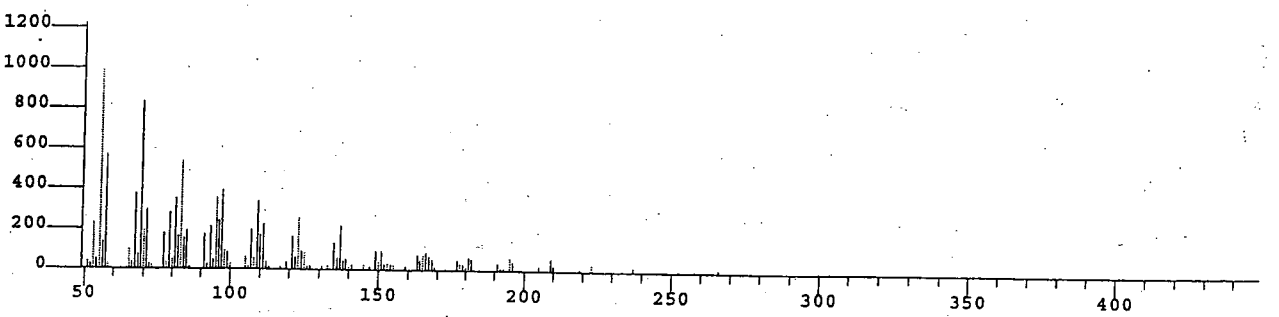
Androstan-3-one, cyclic 1,2-ethanediyl mercaptole, (5.alpha.)-



Spiro[7H-cyclohepta[b]furan-7,2'(5'H)-furan]-2,5'(3H)-dione, oct



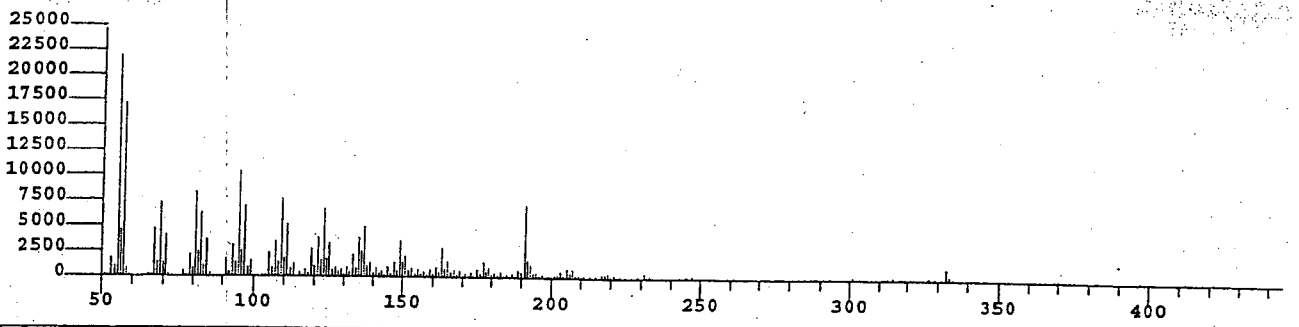
2-Dodecen-1-yl(-)succinic anhydride



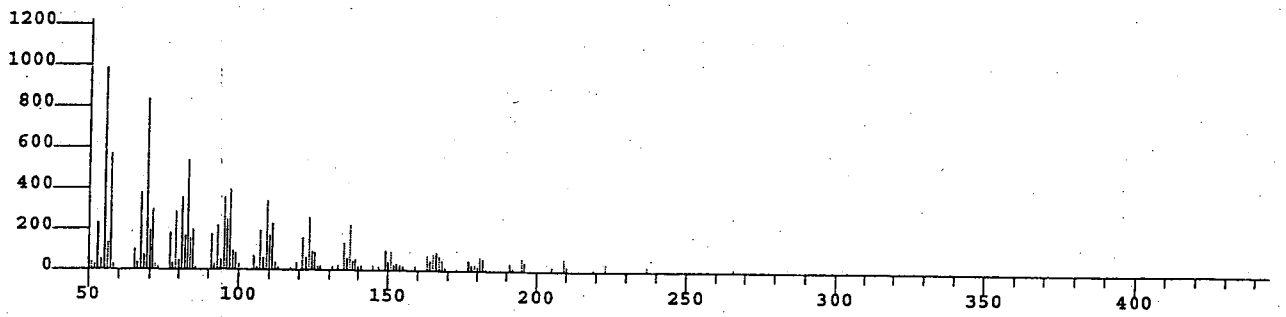
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA (13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 32.06 Scan: 3683
Area: 422533 Rank: 1
Semi-quantitative Conc(uncorrected): 63[illegible]30 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	Androstan-3-one, cyclic 1,2-ethanediyl mercaptole, (5.alpha.)-	2791-42-6	73.8	350	C21H34S2
2)	Spiro[7H-cyclohepta[b]furan-7,2'(5'H)-furan]-2,5'(3H)-dione, oct	27696-09-9	73.6	280	C15H20O5
3)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	72.0	266	C16H26O3
4)	1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecen-11-one, 1a,2	52557-29-6	71.8	364	C20H28O6
5)	Azuleno[4,5-b]furan-2(3H)-one, decahydro-8,9-dihydroxy-6,9a-dime	5090-67-5	71.3	266	C15H22O4

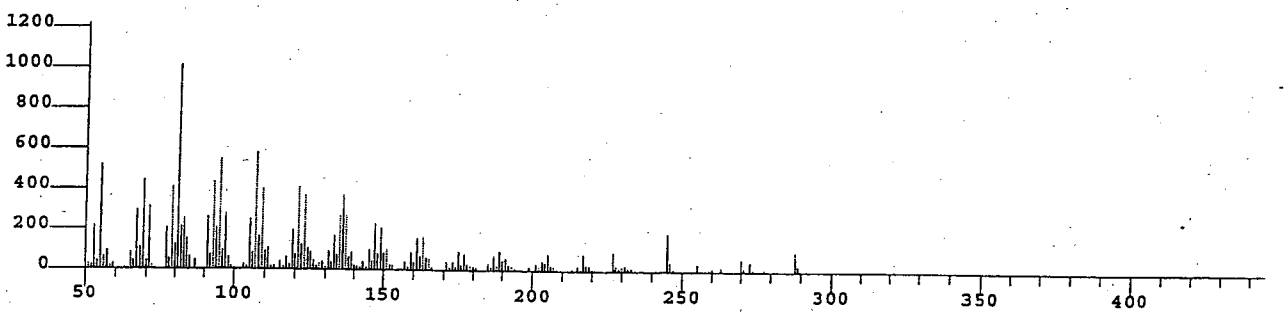
Scan: 3740 RT (min): 32.68



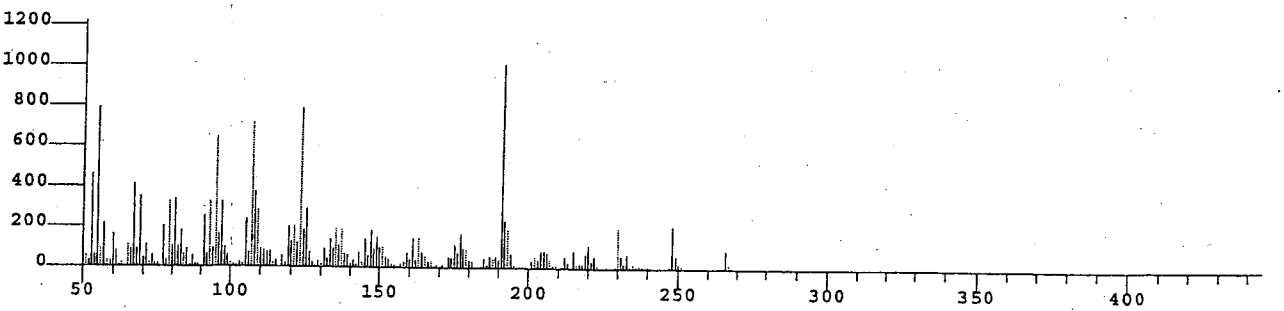
2-Dodecen-1-yl(-)succinic anhydride



4,8,13-Cyclotetradecatriene-1,3-diol, 1,5,9-trimethyl-12-(1-meth



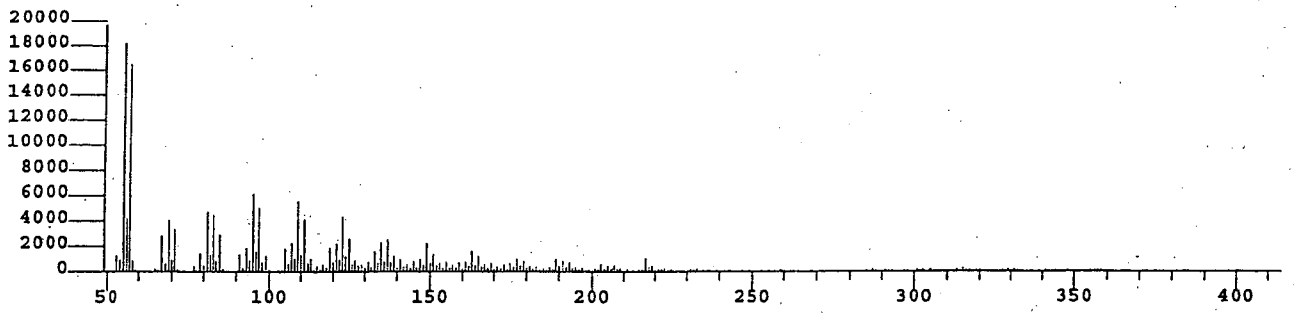
Azuleno[4,5-b]furan-2(3H)-one, decahydro-8,9-dihydroxy-6,9a-dime



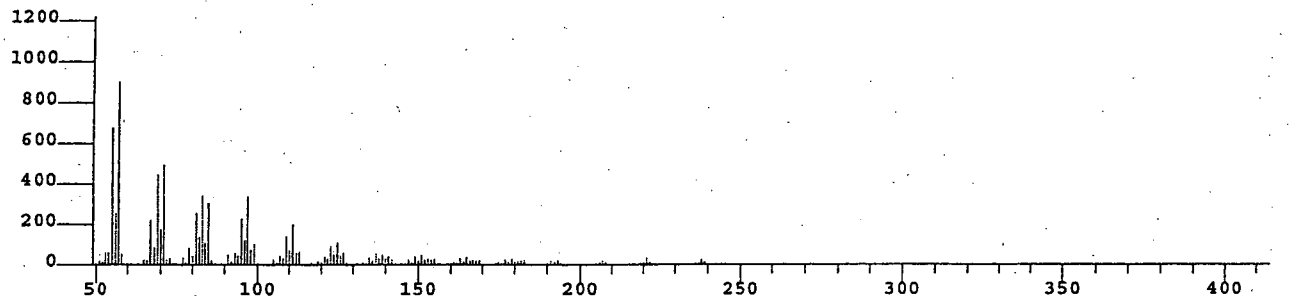
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_(13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 32.68 Scan: 3740
Area: 340162 Rank: 2
Semi-quantitative Conc(uncorrected): 50.96 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	78.6	266	C16H26O3
2)	4,8,13-Cyclotetradecatriene-1,3-diol, 1,5,9-trimethyl-12-(1-meth	7220-78-2	77.4	306	C20H34O2
3)	Azuleno[4,5-b]furan-2(3H)-one, decahydro-8,9-dihydroxy-6,9a-dime	5090-67-5	76.3	266	C15H22O4
4)	Ergost-25-ene-3,5,6,12-tetrol, (3.beta.,5.alpha.,6.beta.,12.beta.	56052-87-2	74.4	448	[illegible]
6)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	77573-08-1	74.1	424	C22H32O8
7)	1H-Naphtho[2,1-b]pyran-8(4aH)-one, 3-ethenyldecahydro-3,4a,7,7,1	26729-54-4	73.6	304	C20H32O2
8)	D:A-Friedooleanan-7-ol, (7.alpha.)-	18671-57-3	73.0	428	C30H52O
9)	Squalene	7683-64-9	72.9	410	C30H50
10)	Rhodopin	105-92-0	71.8	554	C40H58O

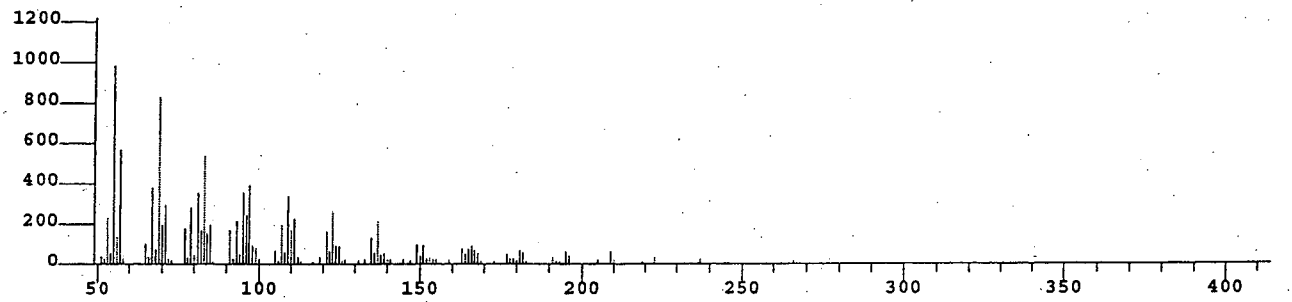
Scan: 3501 RT (min): 30.07



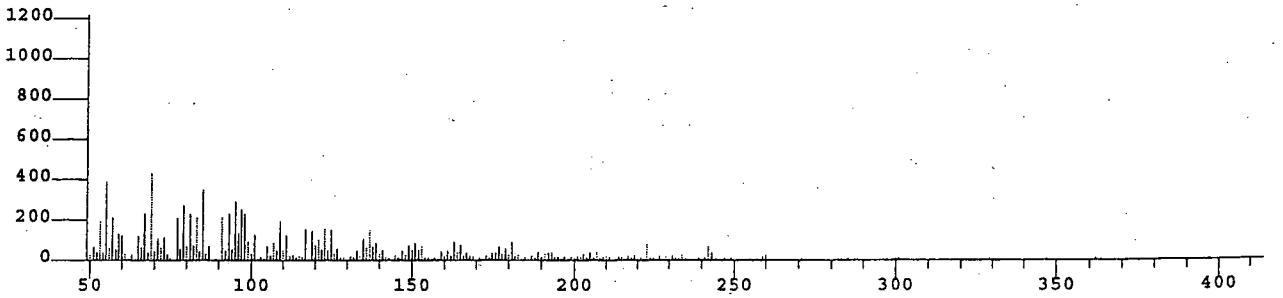
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



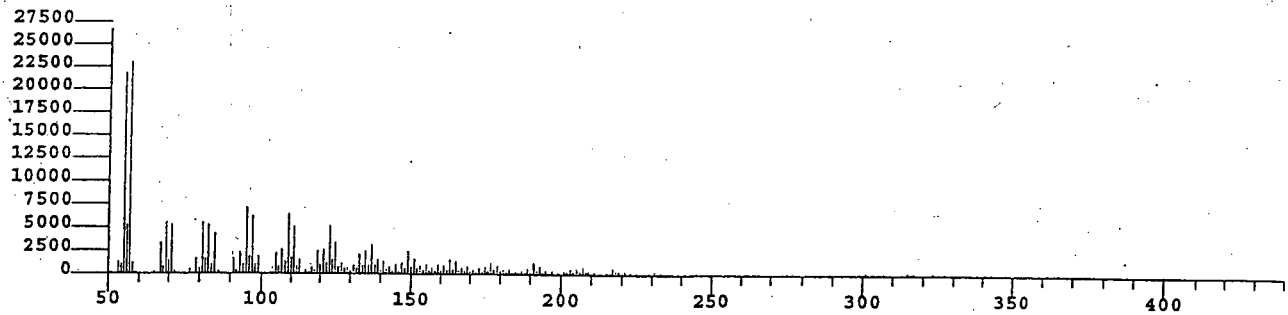
1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox



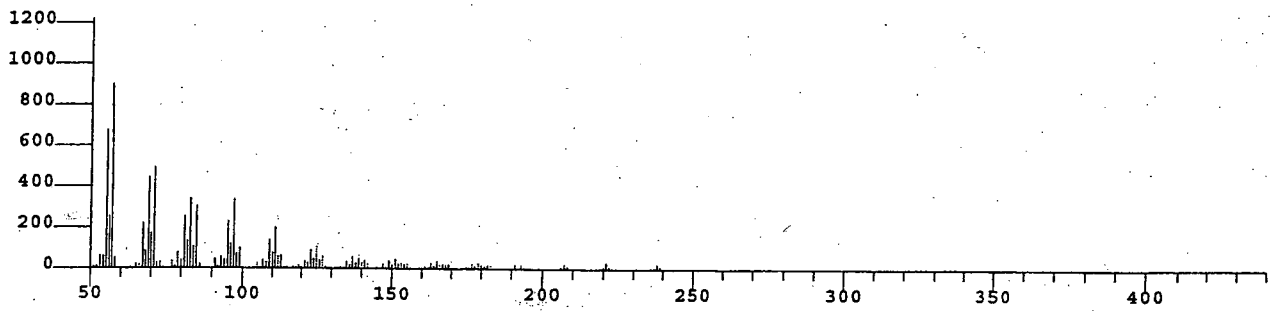
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_(13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 30.07 Scan: 3501
Area: 167582 Rank: 3
Semi-quantitative Conc(uncorrected): 25.11 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		81.3	238	C13H22N2O2
2)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	78.2	266	C16H26O3
3)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	51906-06-0	78.1	550	C28H38O11
5)	Knodopin				
6)	4.alpha.,5.beta.-Epoxy-germacra-1(10),11(13)-dien-6,12-olide 8.a		75.0	362	C20H26O6
7)	Ergost-25-ene-3,5,6,12-tetrol, (3.beta.,5.alpha.,6.beta.,12.beta	56052-97-2	74.2	448	C28H48O4
8)	Limonen-6-ol, t-butyrate		73.4	236	C15H24O2
9)	Aspidospermidine-3-carboxylic acid, 2,3-didehydro-, methyl ester	3247-10-7	73.2	338	C21H26N2O2
10)	Squalene	7683-64-9	71.9	410	C30H50

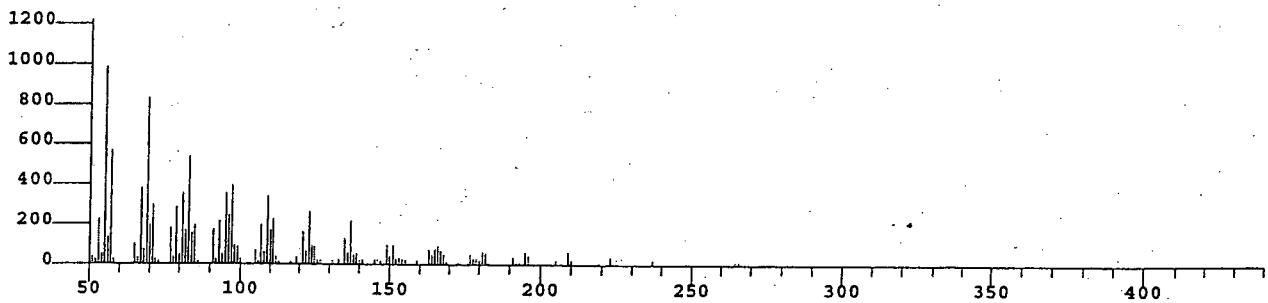
Scan: 3623 RT (min): 31.40



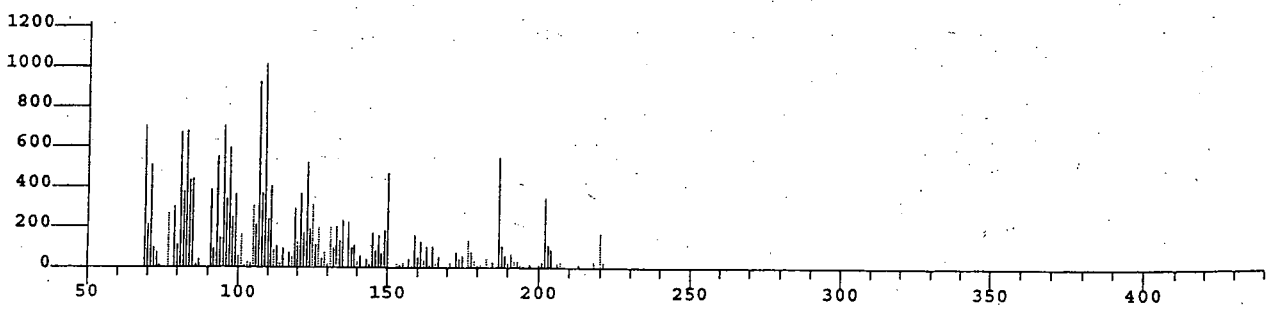
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



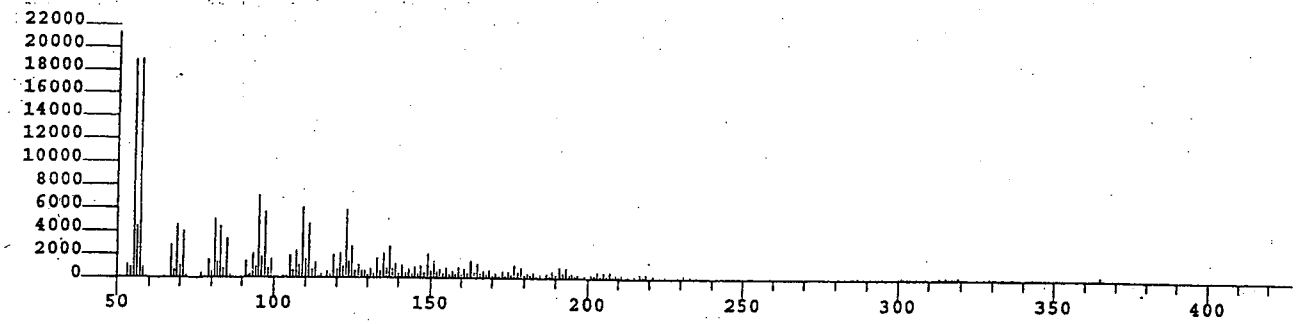
1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



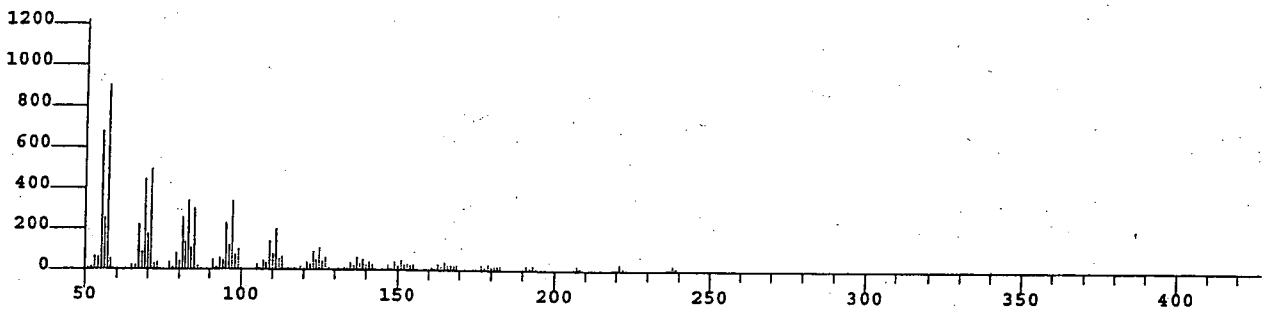
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_(13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 31.40 Scan: 3623
Area: 135908 Rank: 4
Semi-quantitative Conc(uncorrected): 20.36 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		83.4	238	C13H22N2O2
2)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	78.7	266	C16H26O3
3)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	78.1	220	C15H24O
4)	Spiro[7H-cyclohepta[b]furan-7,2'(5'H)-furan]-2',5'(3'H)-dione, oct	[illegible]	[illegible]	[illegible]	[illegible]
6)	Rhodopin	105-92-0	75.5	554	C40H58O
7)	4.alpha.,5.beta.-Epoxy-germacra-1(10),11(13)-dien-6,12-olide 8.a		74.8	362	C20H26O6
8)	Ergost-25-ene-3,5,6,12-tetrol, (3.beta.,5.alpha.,6.beta.,12.beta	56052-97-2	73.4	448	C28H48O4
9)	Vitamin A aldehyde	116-31-4	73.0	284	C20H28O
10)	Cucurbitacin B, 23,24-dihydro-		72.9	560	C32H48O8

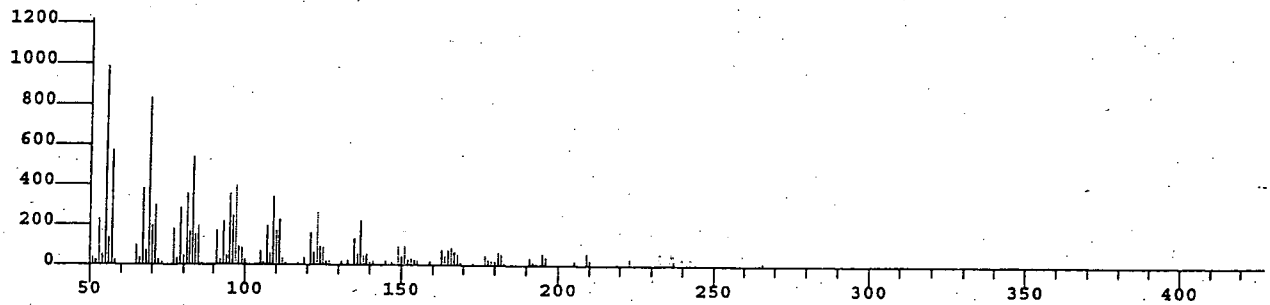
Scan: 3554 RT (min): 30.65



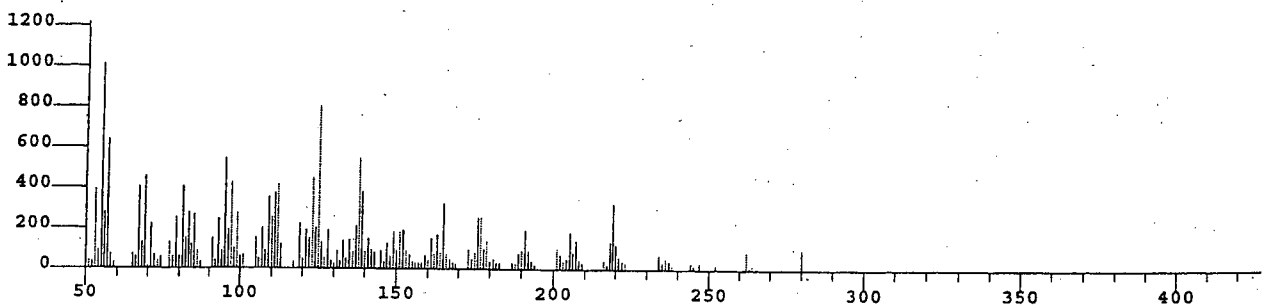
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



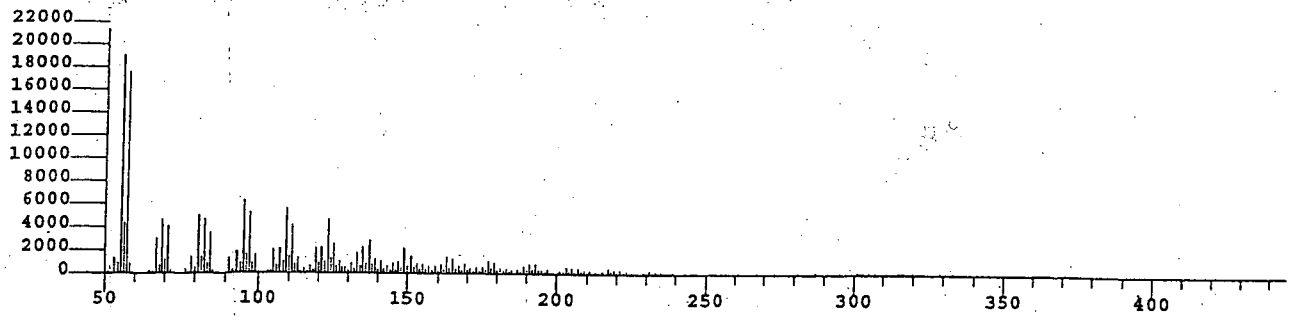
Spiro[7H-cyclohepta[b]furan-7,2'(5'H)-furan]-2,5'(3H)-dione, oct



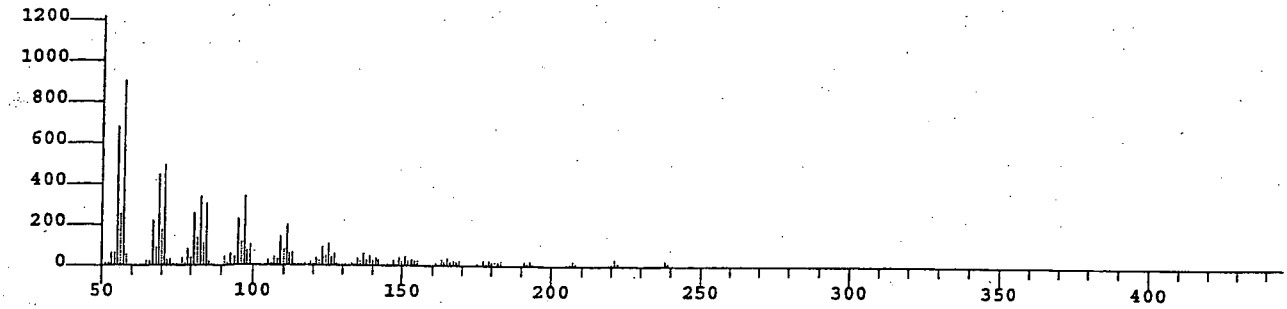
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_(13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 30.65 Scan: 3554
Area: 135467 Rank: 5
Semi-quantitative Conc(uncorrected): 20.29 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

Name	Cas No	SI	MW	Formula
1) Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		83.2	238	C13H22N2O2
2) 2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	79.0	266	C16H26O3
3) Spiro[7H-cyclohepta[b]furan-7,2'(5'H)-furan]-2,5'(3H)-dione, oct	3533-47-9	78.8	280	C15H20O5
4) 1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	78.5	220	C15H24O
5) 1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	51906-06-0	77.1	550	C28H38O11
6) Aspidospermidine-3-carboxylic acid, 2,3-didehydro-, methyl ester	3247-10-7	74.1	338	C21H26N2O2
8) Pentalene, octahydro-1-(2-octyldecyl)-	55401-65-5	72.3	362	C26H50
9) Cyclotetradecanol, 1,7,11-trimethyl-4-(1-methylethyl)-, (-)-	20489-83-2	72.2	296	C20H40O
10) Octadecanal, 2-bromo-	56599-95-2	72.2	346	C18H35BrO

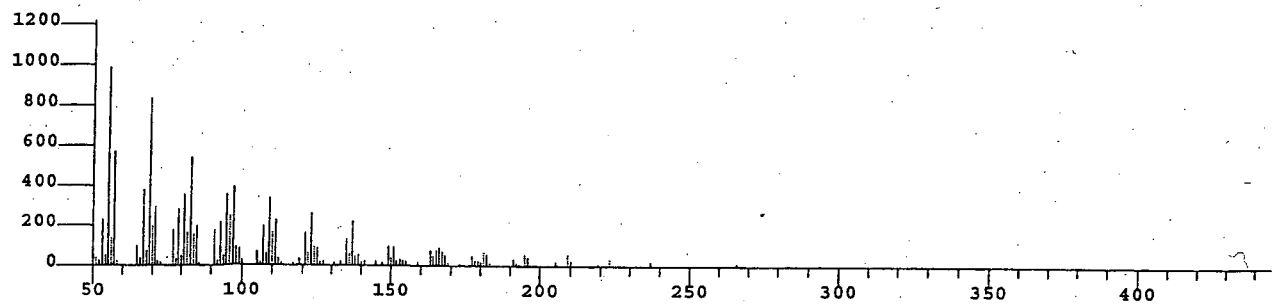
Scan: 3538 RT (min): 30.47



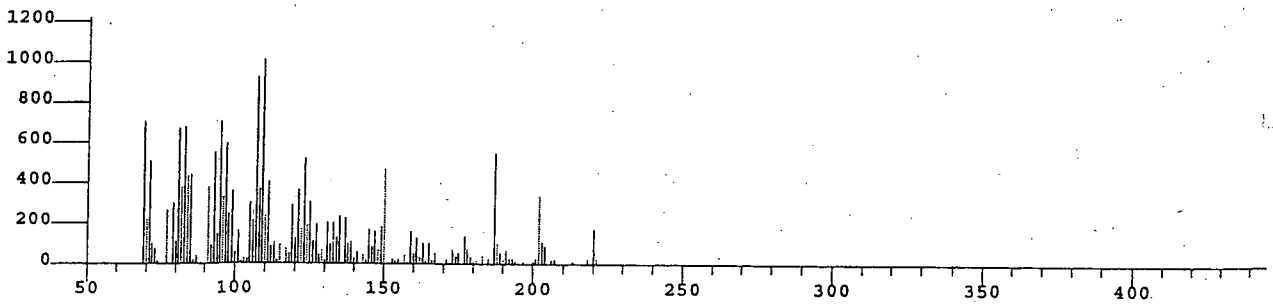
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



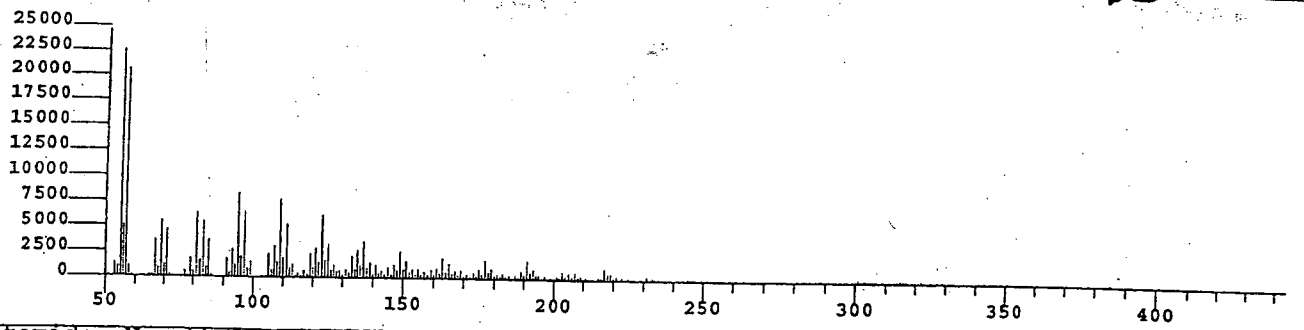
1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



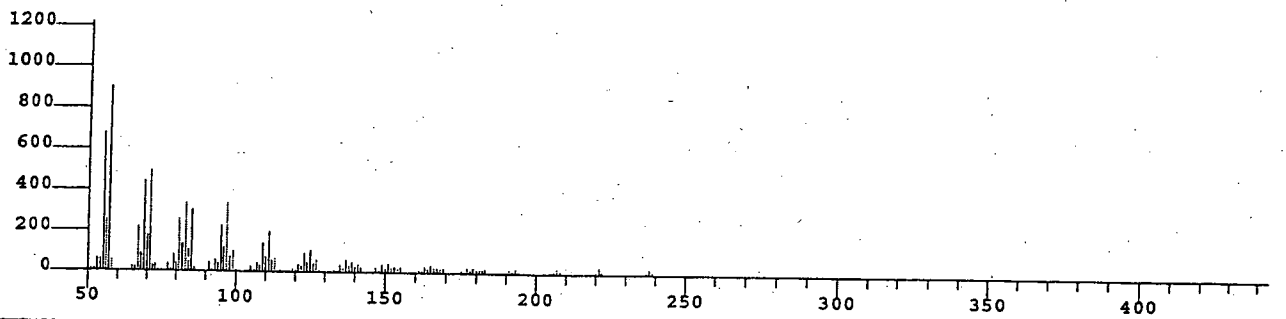
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_(13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 30.47 Scan: 3538
Area: 133095 Rank: 6
Semi-quantitative Conc(uncorrected): 19.94 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		83.2	238	C13H22N2O2
2)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	78.5	266	C16H26O3
3)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	78.1	220	C15H24O
4)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	51906-06-0	77.1	550	C28H38O11
5)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	77573-08-1	76.7	424	C22H32O8
7)	1-alpha.,9.beta.-Epoxy-germacra-1(10),11(13)-dien-6,12-olide 8.a		74.8	382	[illegible]
8)	Aspidospermidine-3-carboxylic acid, 2,3-didehydro-, methyl ester	3247-10-7	74.6	338	C21H26N2O2
9)	Ergost-25-ene-3,5,6,12-tetrol, (3.beta.,5.alpha.,6.beta.,12.beta	56052-97-2	74.5	448	C28H48O4
10)	Limonen-6-ol, t-butyrate		74.4	236	C15H24O2

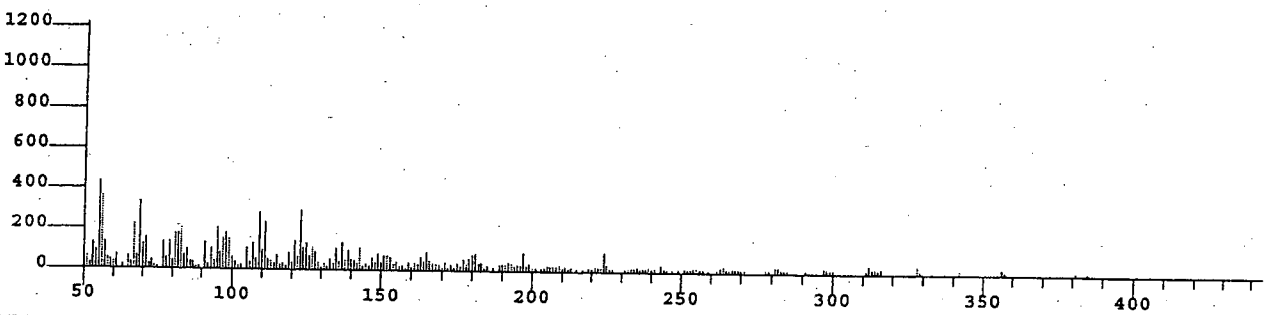
Scan: 3634 RT (min): 31.52



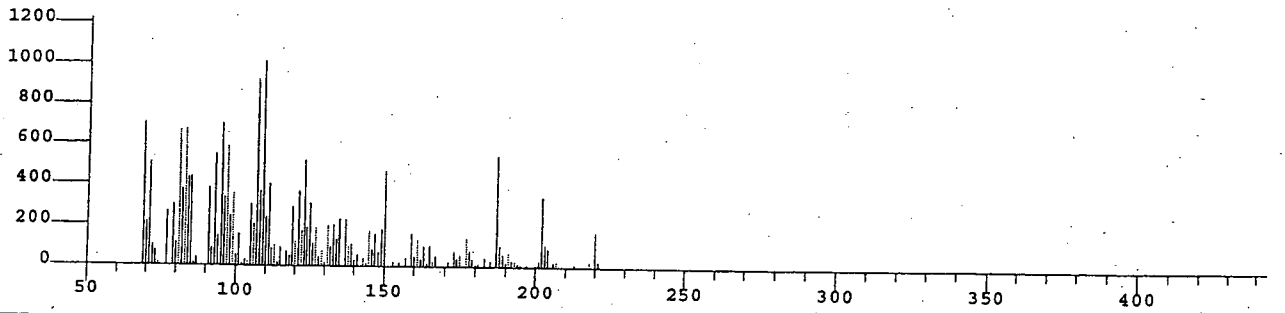
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



Colchicine, N-desacetyl-N-retinoyl-



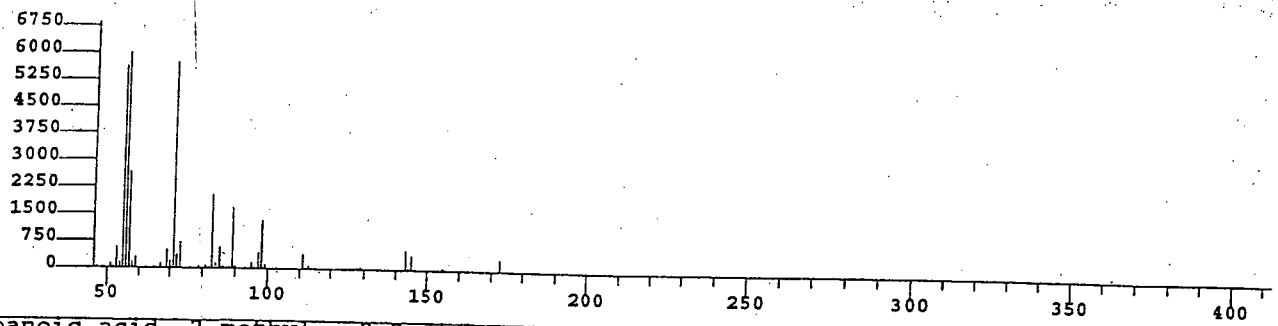
1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



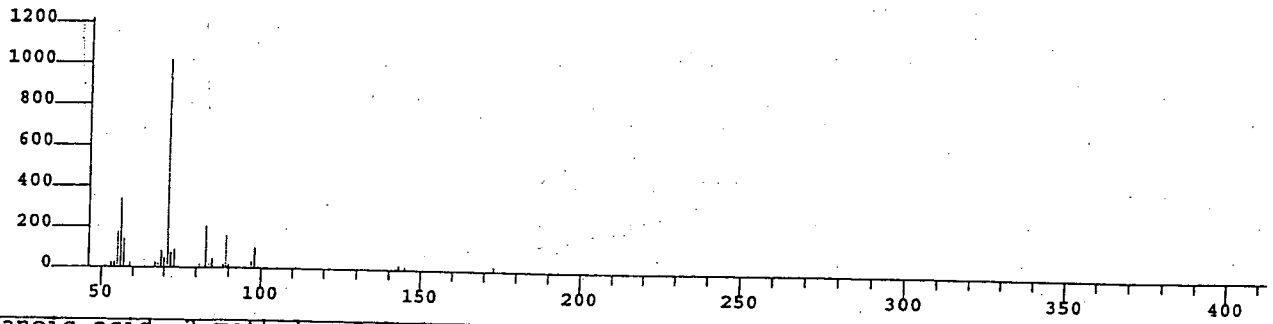
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP 8270 SBNA (13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 31.52 Scan: 3634
Area: 126815 Rank: 7
Semi-quantitative Conc(uncorrected): 19.00 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		81.5	238	C13H22N2O2
2)	Colchicine, N-desacetyl-N-retinoyl-		77.9	639	C40H49NO6
3)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	77.7	220	C15H24O
4)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	51906-06-0	77.5	550	C28H38O11
7)	4.alpha.,5.beta.-Epoxy-germacra-1(10),11(13)-dien-6,12-olide 8.a	105-92-0	74.6	554	C40H58O
8)	Ergost-25-ene-3,5,6,12-tetrol, (3.beta.,5.alpha.,6.beta.,12.beta		74.2	362	C20H26O6
9)	Aspidospermidine-3-carboxylic acid, 2,3-didehydro-, methyl ester	56052-97-2	74.0	448	C28H48O4
10)	Limonen-6-ol, t-butyrate	3247-10-7	73.8	338	C21H26N2O2
			73.1	236	C15H24O2

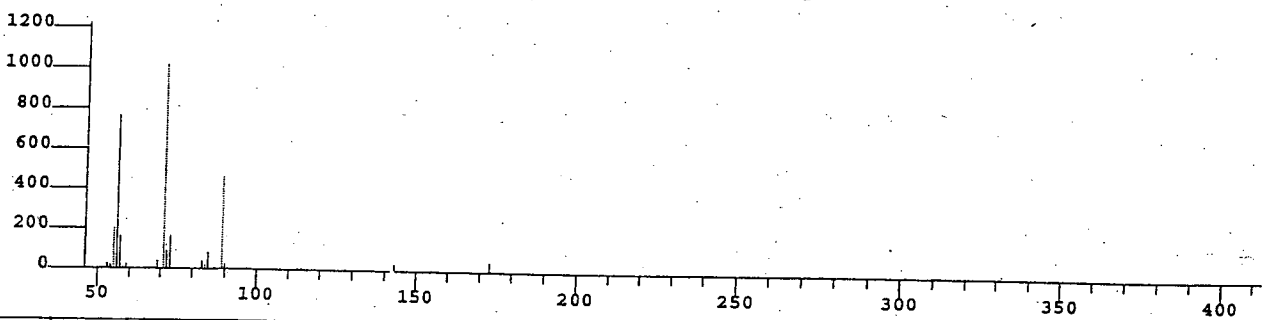
Scan: 1656 RT (min): 14.93



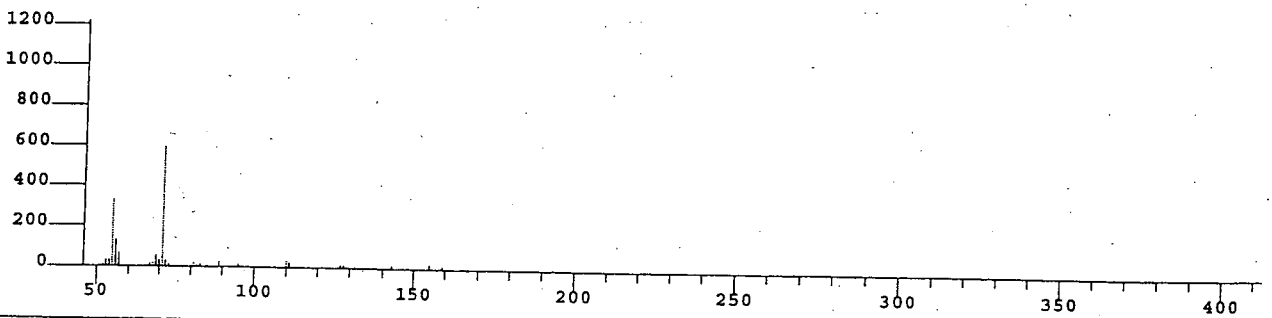
Propanoic acid, 2-methyl-, 2,2-dimethyl-1-(2-hydroxy-1-methyleth



Propanoic acid, 2-methyl-, 3-hydroxy-2,4,4-trimethylpentyl ester



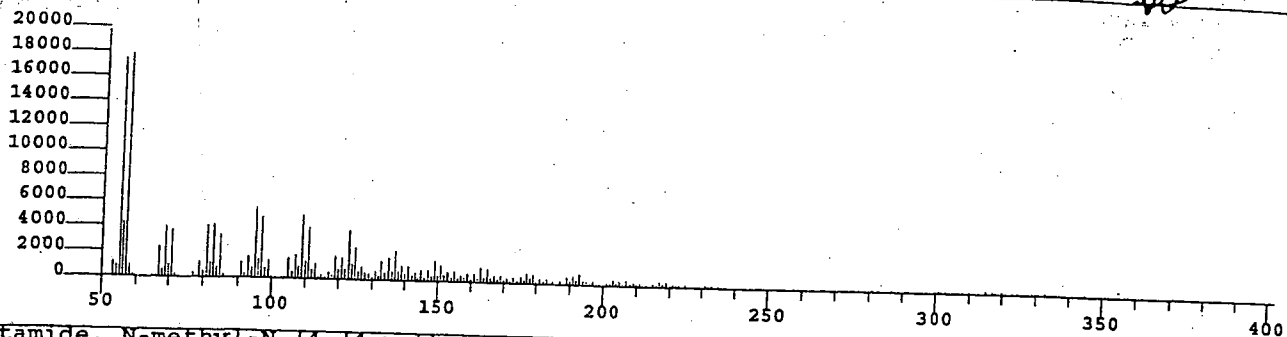
Propanoic acid, 2-methyl-, 2-ethyl-1-propyl-1,3-propanediyl este



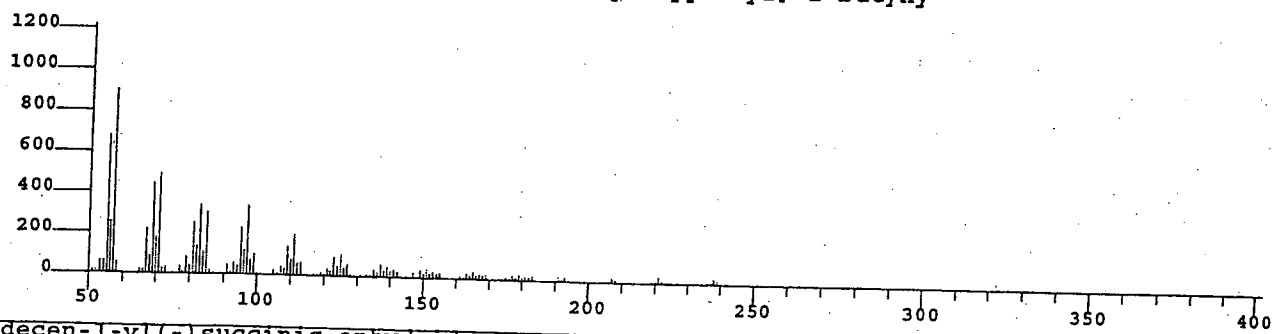
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_(13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 14.93 Scan: 1656
Area: 126140 Rank: 8
Semi-quantitative Conc(uncorrected): 18.90 ug/l
Calculated Using Istd: d8-Naphthalene@ 12.43

	Name	Cas No	SI	MW	Formula
1)	Propanoic acid, 2-methyl-, 2,2-dimethyl-1-(2-hydroxy-1-methyleth	74367-33-2	86.1	216	C12H24O3
2)	Propanoic acid, 2-methyl-, 3-hydroxy-2,4,4-trimethylpentyl ester	74367-34-3	73.8	216	C12H24O3
3)	Propanoic acid, 2-methyl-, 2-ethyl-1-propyl-1,3-propanediyl este	74367-30-9	70.1	286	C16H30O4

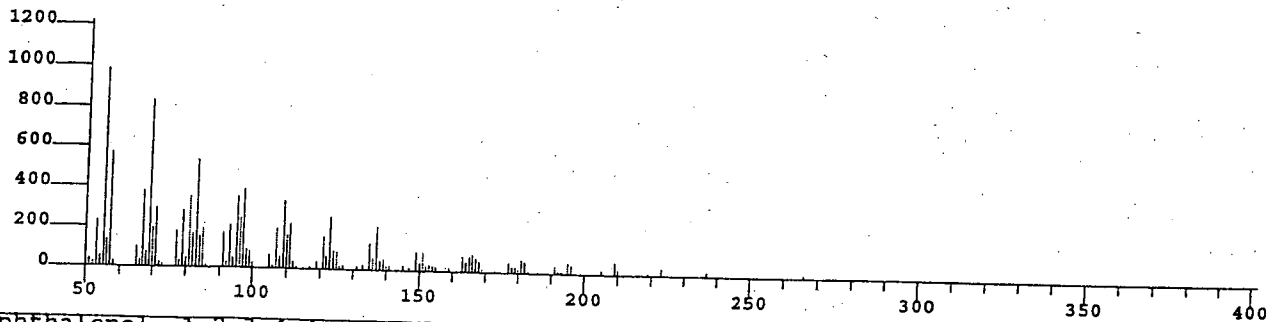
Scan: 3486 RT (min): 29.91



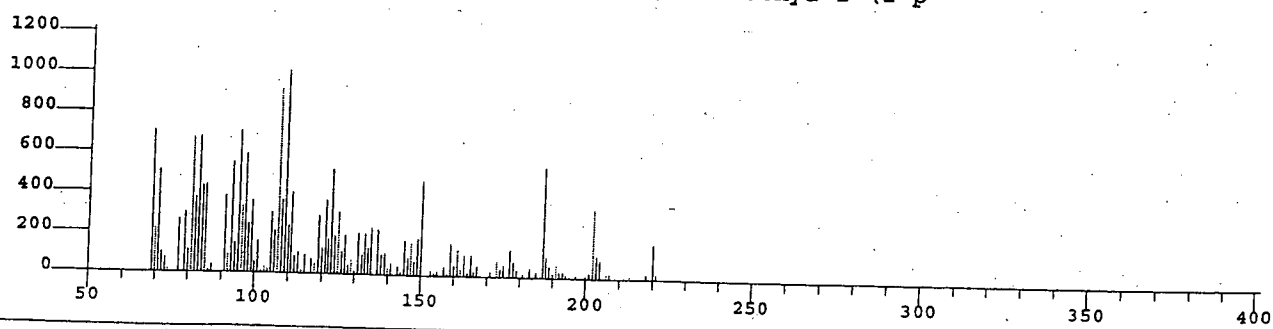
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



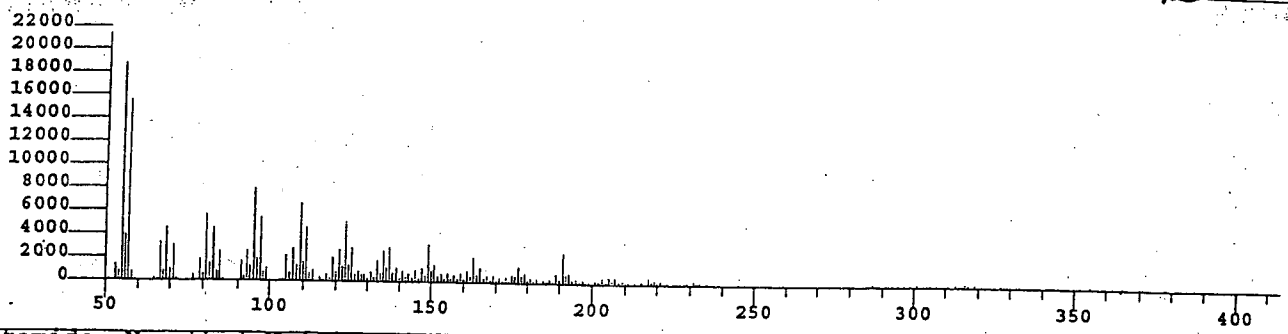
1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



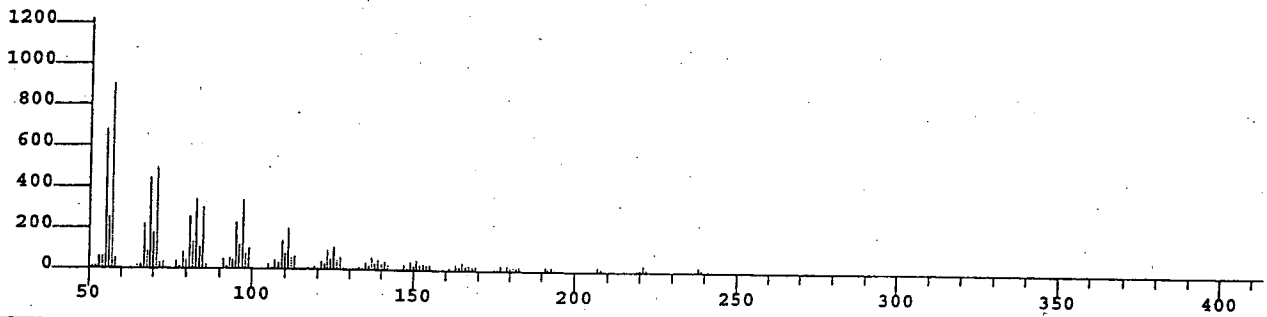
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP 8270 SBNA (13)
[illegible]
RT (min): 29.91 Scan: 3486
Area: 103952 Rank: 9
Semi-quantitative Conc(uncorrected): 15.57 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		83.7	238	C13H22N2O2
2)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	79.0	266	C16H26O3
3)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	78.6	220	C15H24O
4)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	51906-06-0	77.9	550	C28H38O11
5)	Aspidospermidine-2-carboxylic acid, [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7)	Cyclotetradecanol, 1,7,11-trimethyl-4-(1-methylethyl)-, (-)-	[illegible]	75.5	348	C18H35BrO
8)	Pentalene, octahydro-1-(2-octyldecyl)-	20489-83-2	73.4	296	C20H40O
9)	9,12-Octadecadienoyl chloride, (Z,Z)-	55401-65-5	72.6	362	C26H50
10)	Hexadecadienoic acid, methyl ester	7459-33-8	71.5	298	C18H31ClO
		29961-54-4	71.5	266	C17H30O2

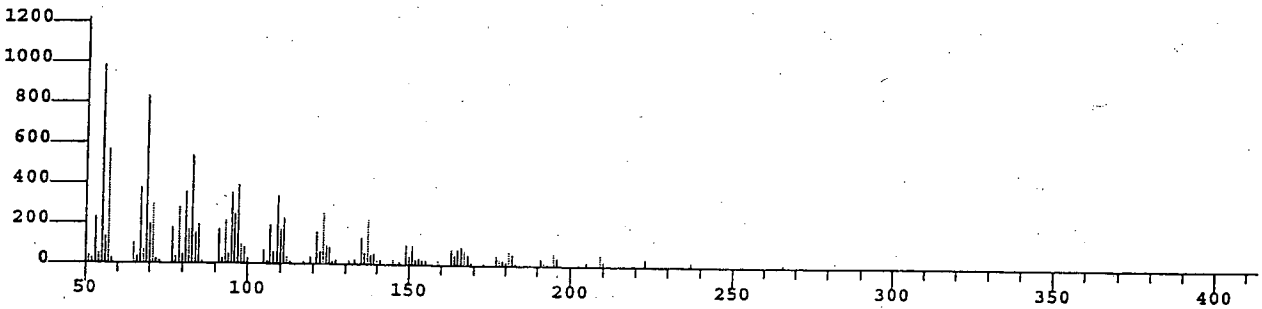
Scan: 3564 RT (min): 30.76



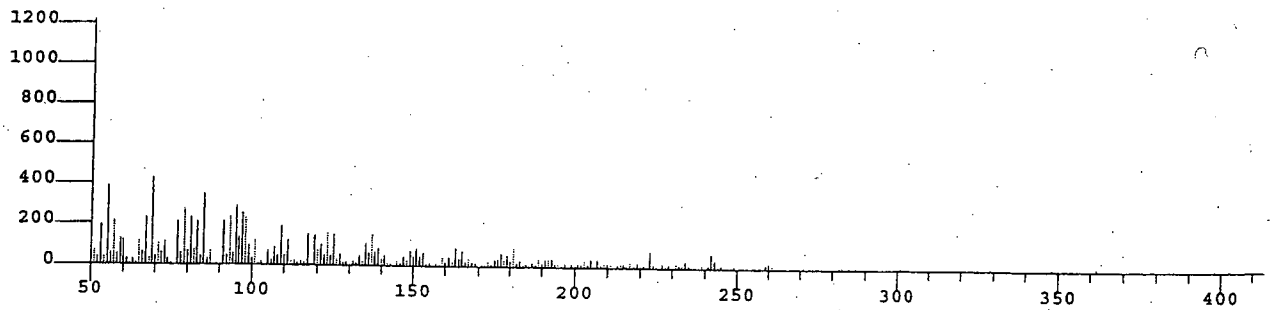
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



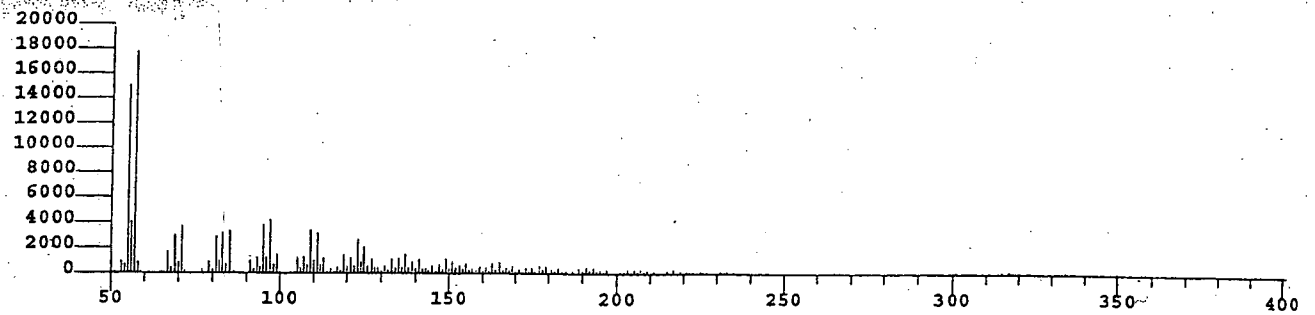
1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox



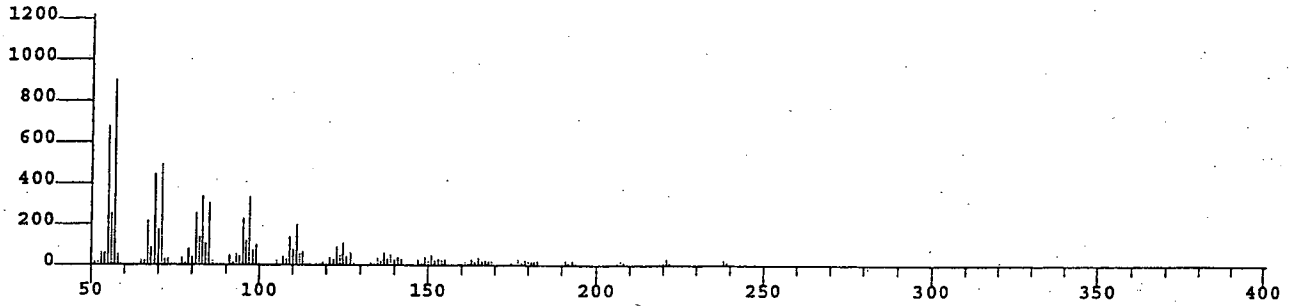
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP 8270 SBNA (13)
Misc Data: 0109076-007A,SB399,S,30.00,1.00,1.0,0,
RT (min): 30.76 Scan: 3564
Area: 100852 Rank: 10
Semi-quantitative Conc(uncorrected): 15.11 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		80.9	238	C13H22N2O2
2)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	78.4	266	C16H26O3
3)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	51906-06-0	78.4	550	C28H38O11
4)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	76.9	220	C15H24O
5)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	77573-08-1	76.1	424	C22H32O8
8)	4.alpha.,5.beta.-Epoxy-germacra-1(10),11(13)-dien-6,12-olide 8.a		75.0	362	C20H26O6
9)	Rhodopin	105-92-0	74.9	554	C40H58O
10)	Squalene	7683-64-9	73.1	410	C30H50

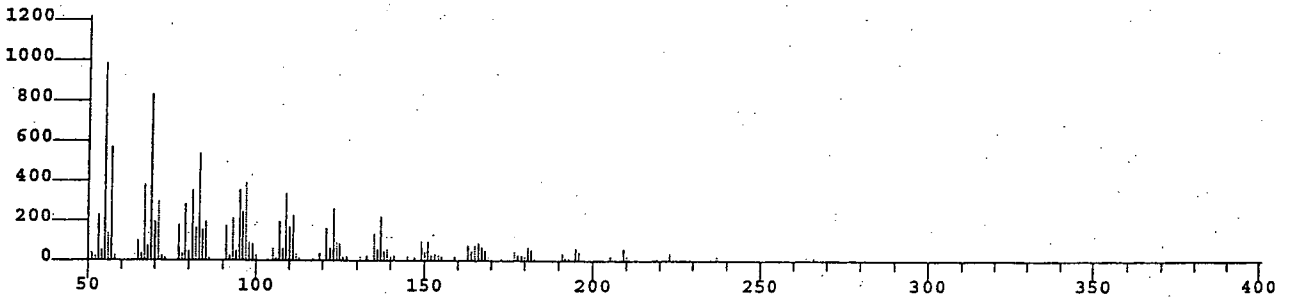
Scan: 3411 RT (min): 29.11



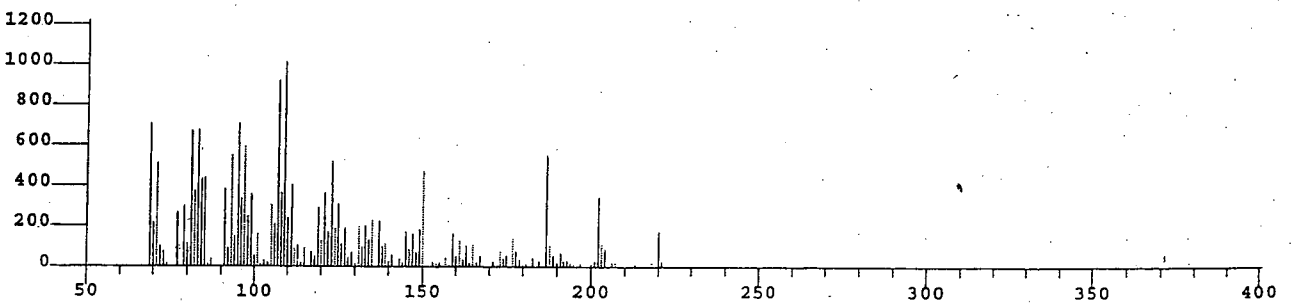
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



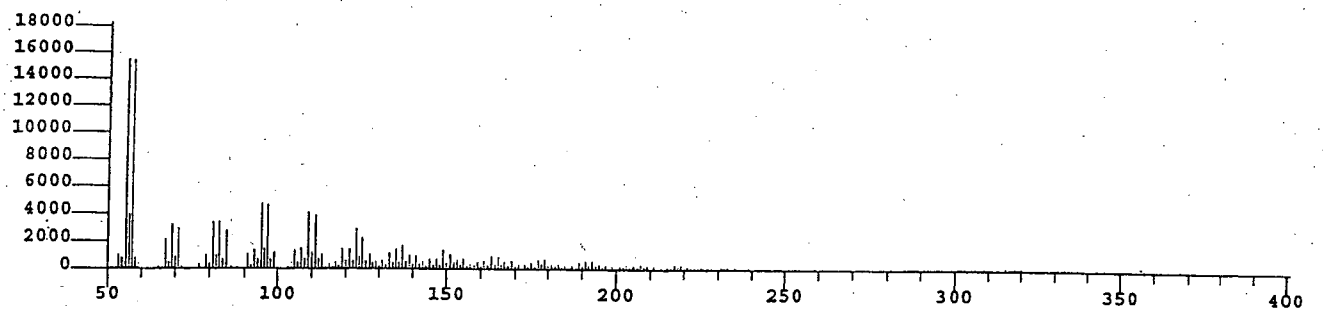
1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



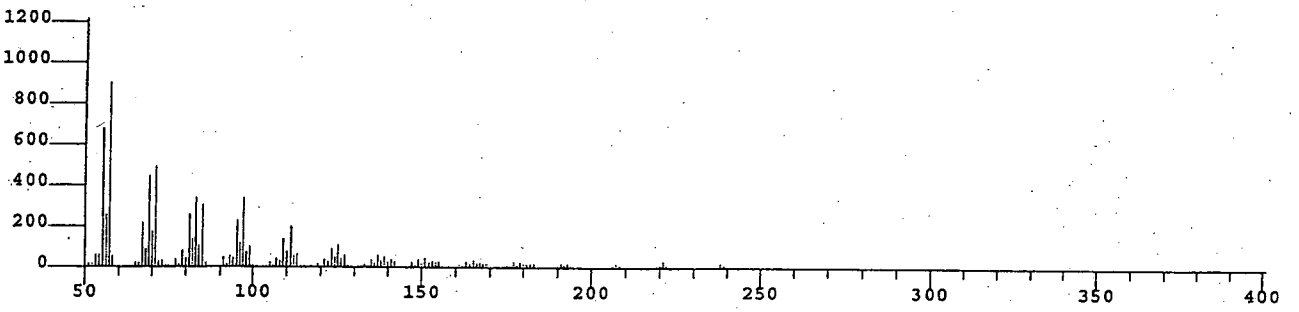
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_(13)
Misc Data: 0109076-007A,BE399,S,30.00,1.00,1.0,0,
RT (min): 29.11 Scan: 3411
Area: 89382 Rank: 11
Semi-quantitative Conc(uncorrected): 13.39 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

Name	Cas No	SI	MW	Formula
1) Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		86.0	238	C13H22N2O2
2) 2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	79.6	266	C16H26O3
3) 1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	79.0	220	C15H24O
4) 1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	51906-06-0	76.1	550	C28H38O11
5) 1-alpha,5-beta,[illegible]		[illegible]	[illegible]	[illegible]
6) [illegible]		[illegible]	[illegible]	[illegible]
7) Limonen-6-ol, t-butyrate		73.8	236	C15H24O2
8) Cyclotetradecanol, 1,7,11-trimethyl-4-(1-methylethyl)-, (-)-	20489-83-2	73.7	296	C20H40O
9) Dodecane, 1,2-dibromo-	55334-42-4	73.7	326	C12H24Br2
10) Pentalene, octahydro-1-(2-octyldecyl)-	55401-65-5	72.4	362	C26H50

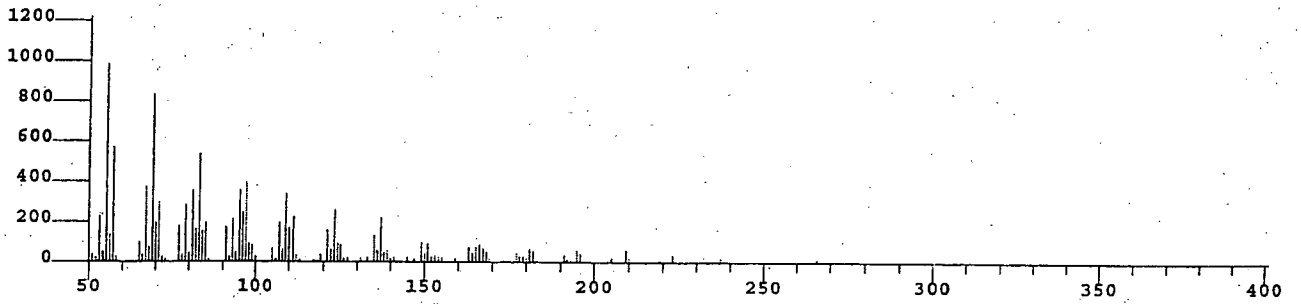
Scan: 3428 RT (min): 29.29



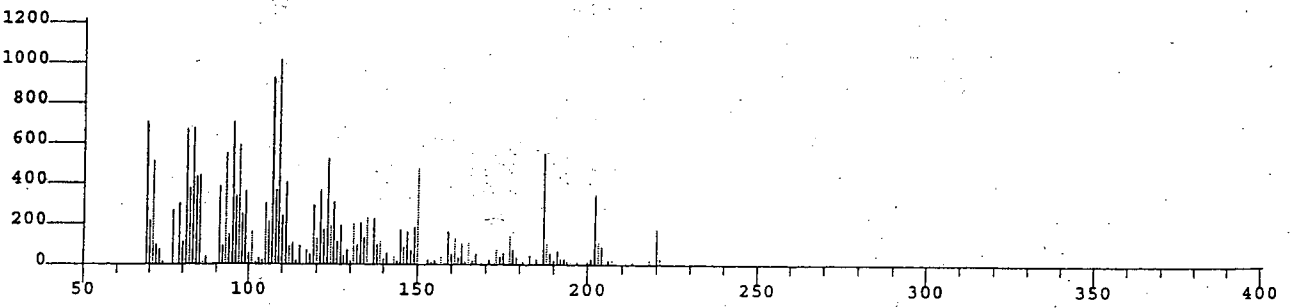
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



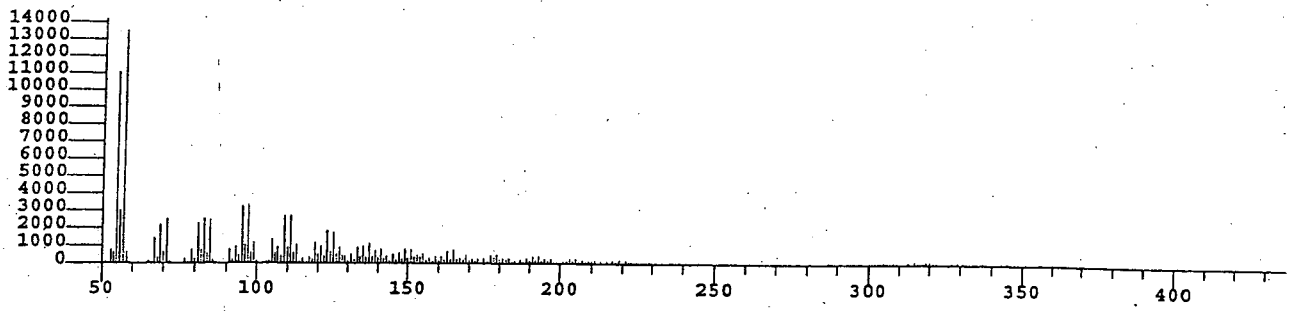
1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



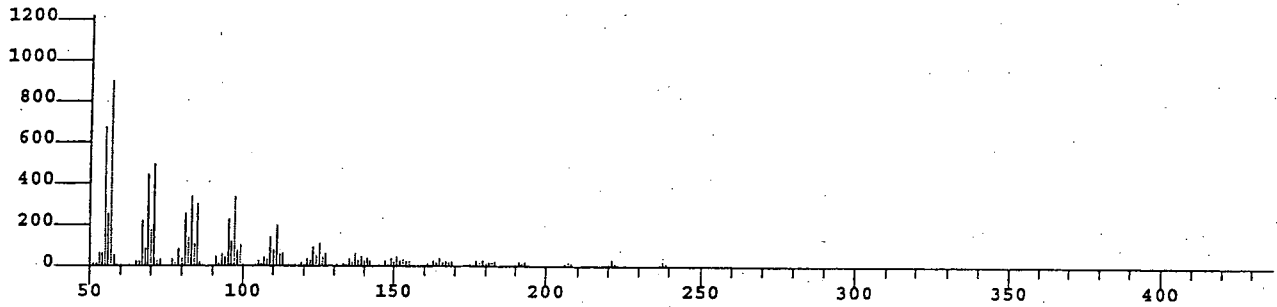
Data File: C:\BNAP\BNAPB137.MSS
Name: [illegible]
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 29.29 Scan: 3428
Area: 83179 Rank: 12
Semi-quantitative Conc(uncorrected): 12.46 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		85.1	238	C13H22N2O2
2)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	79.2	266	C16H26O3
3)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	78.6	220	C15H24O
4)	1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	77573-08-1	77.3	424	C22H32O8
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7)	Pentalene, octahydro-1-(2-octyldecyl)-	55401-65-5	72.5	362	C26H50
8)	Dodecane, 1,2-dibromo-	55334-42-4	71.8	326	C12H24Br2
9)	1-Dodecanol, 3,7,11-trimethyl-	6750-34-1	71.6	228	C15H32O
10)	Cyclotetradecanol, 1,7,11-trimethyl-4-(1-methylethyl)-, (-)-	20489-83-2	71.3	296	C20H40O

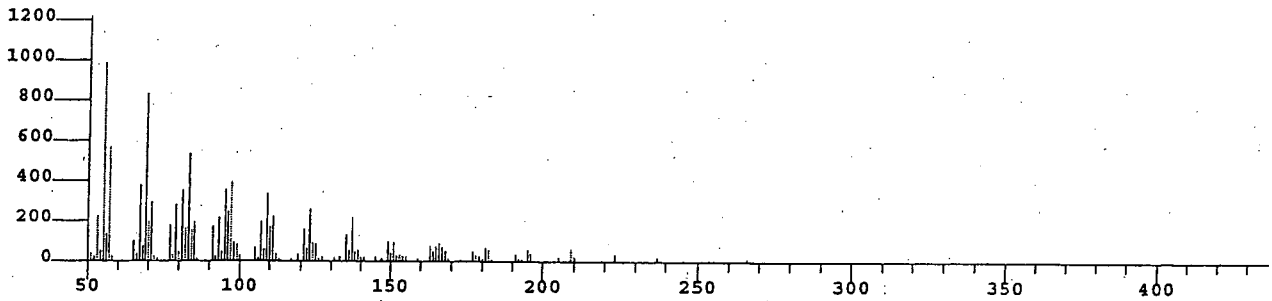
Scan: 3334 RT (min): 28.32



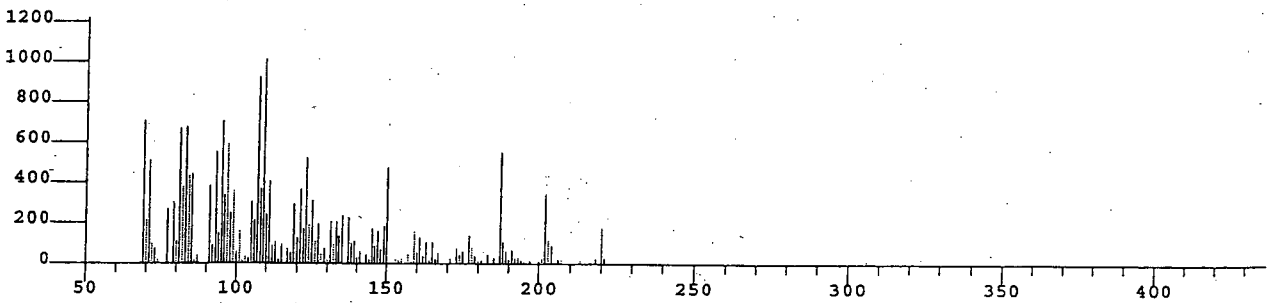
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



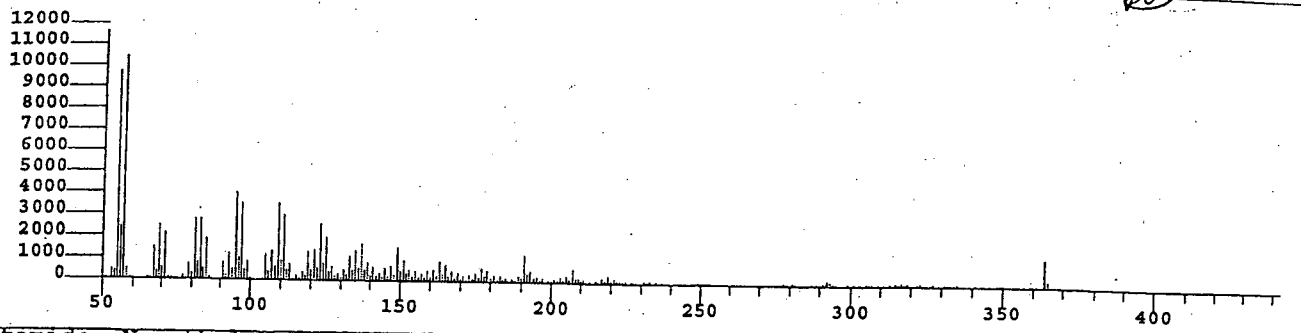
1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



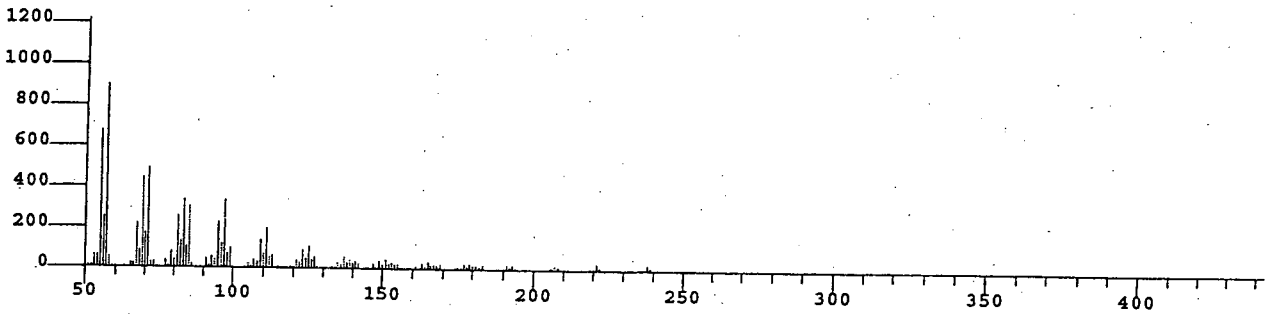
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA (13)
Misc Data: 0109076-007A,5E399,S,30.00,1.00,1.0,0,
RT (min): 28.32 Scan: 3334
Area: 83075 Rank: 13
Semi-quantitative Conc(uncorrected): 12.45 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

	Name	Cas No	SI	MW	Formula
1)	Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		87.0	238	C13H22N2O2
2)	2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	79.0	266	C16H26O3
3)	1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	78.8	220	C15H24O
4)	Dodecane, 1,2-dibromo-	55334-42-4	73.6	326	C12H24Br2
5)	Pentalene, octahydro-1-(2-octyldecyl)-	55401-65-5	72.1	362	C26H50
6)	Cyclotetradecanol, 1,7,11-trimethyl-4-(1-methylethyl)-, (-)-	20489-83-2	71.6	296	C20H40O
7)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8)	1-Heptacosanol	2004-39-9	70.8	396	C27H56O

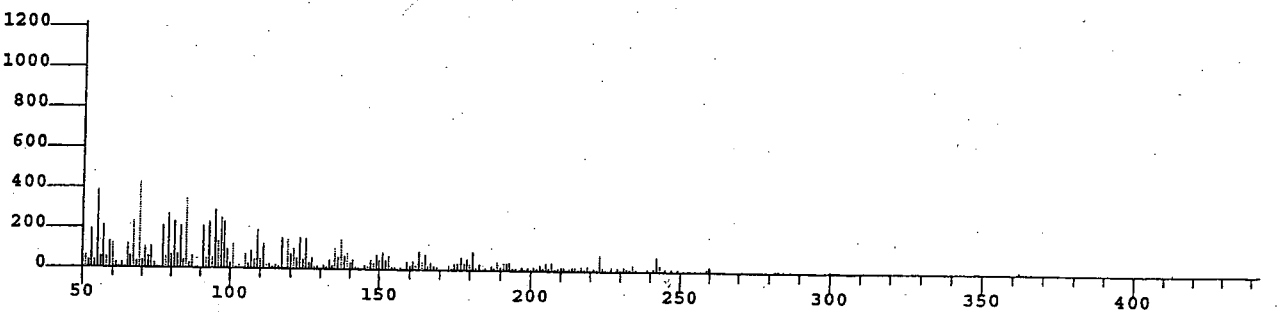
Scan: 3881 RT (min): 34.20



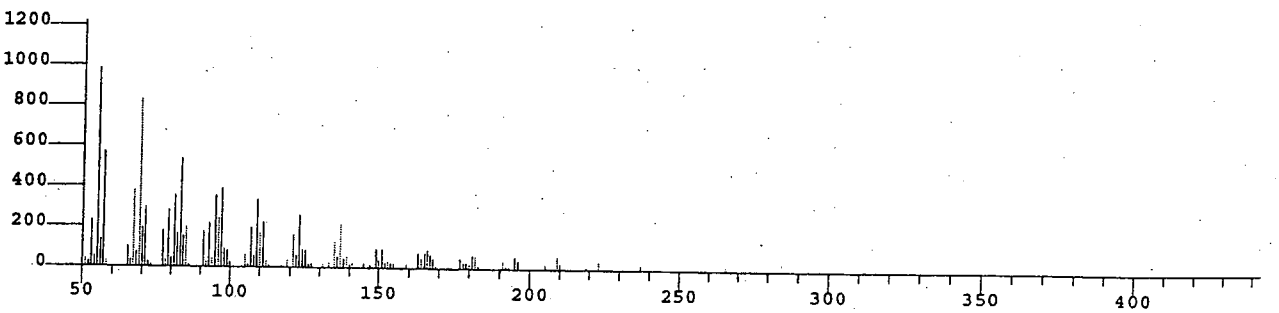
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox



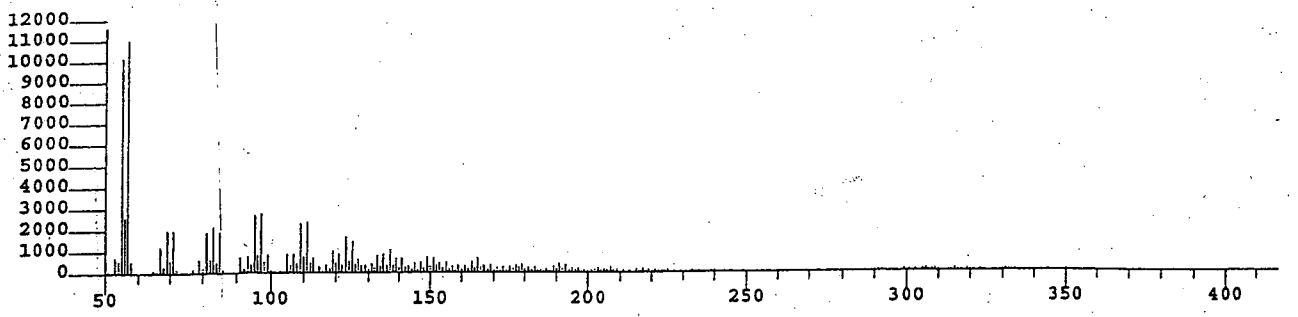
2-Dodecen-1-yl(-)succinic anhydride



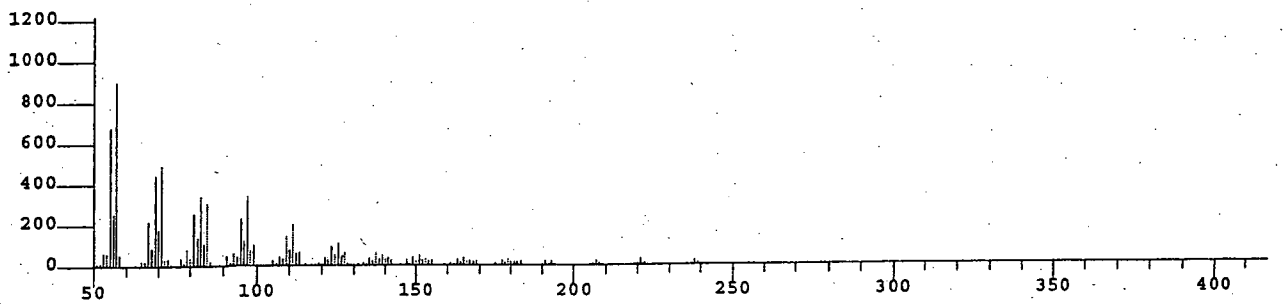
Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8270_SBNA_([illegible])
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 34.20 Scan: 3881
Area: 70917 Rank: 14
Semi-quantitative Conc(uncorrected): 10.62 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

Name	Cas No	SI	MW	Formula
1) Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		81.4	238	C13H22N2O2
2) 1b,4a-Epoxy-2H-cyclopenta[3,4]cyclopropa[8,9]cycloundec[1,2-b]ox	51906-06-0	76.4	550	C28H38O11
3) 2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	74.9	266	C16H26O3
4) 1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	74.9	220	C15H24O
[illegible]				
7) 2,6-Nonadienoic acid, 7-ethyl-9-(3-ethyl-3-methyloxiranyl)-3-met	3247-10-7	72.1	338	C21H26N2O2
8) Octadecanal, 2-bromo-	13804-51-8	71.5	294	C18H30O3
	56599-95-2	70.8	346	C18H35BrO

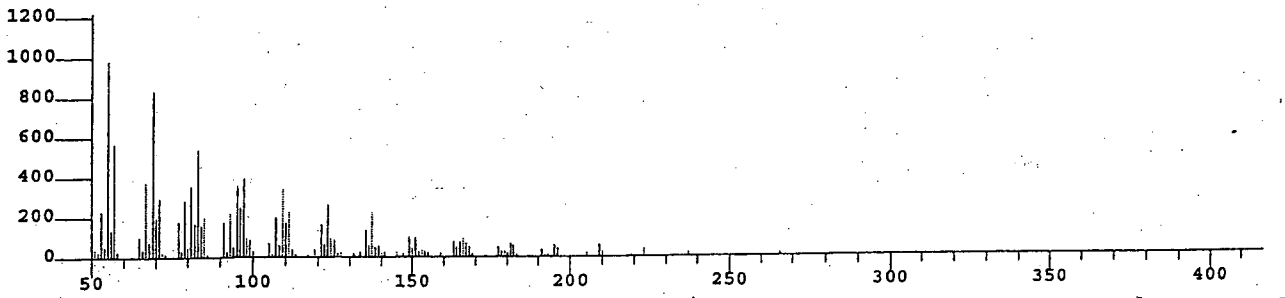
Scan: 3308 RT (min): 28.05



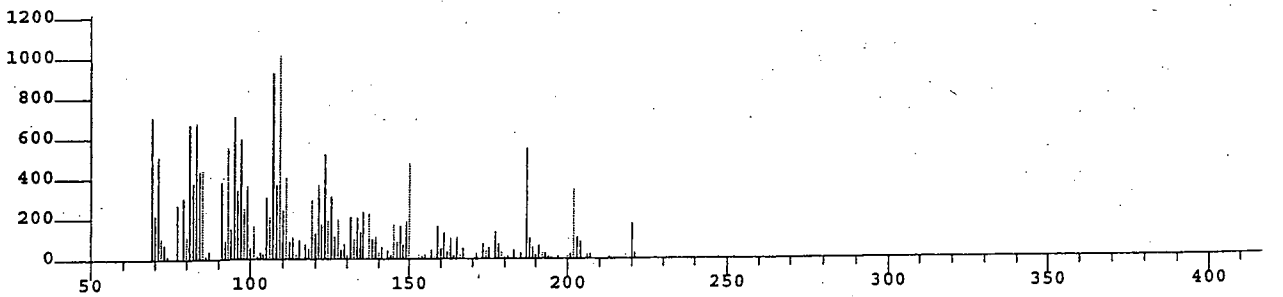
Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny



2-Dodecen-1-yl(-)succinic anhydride



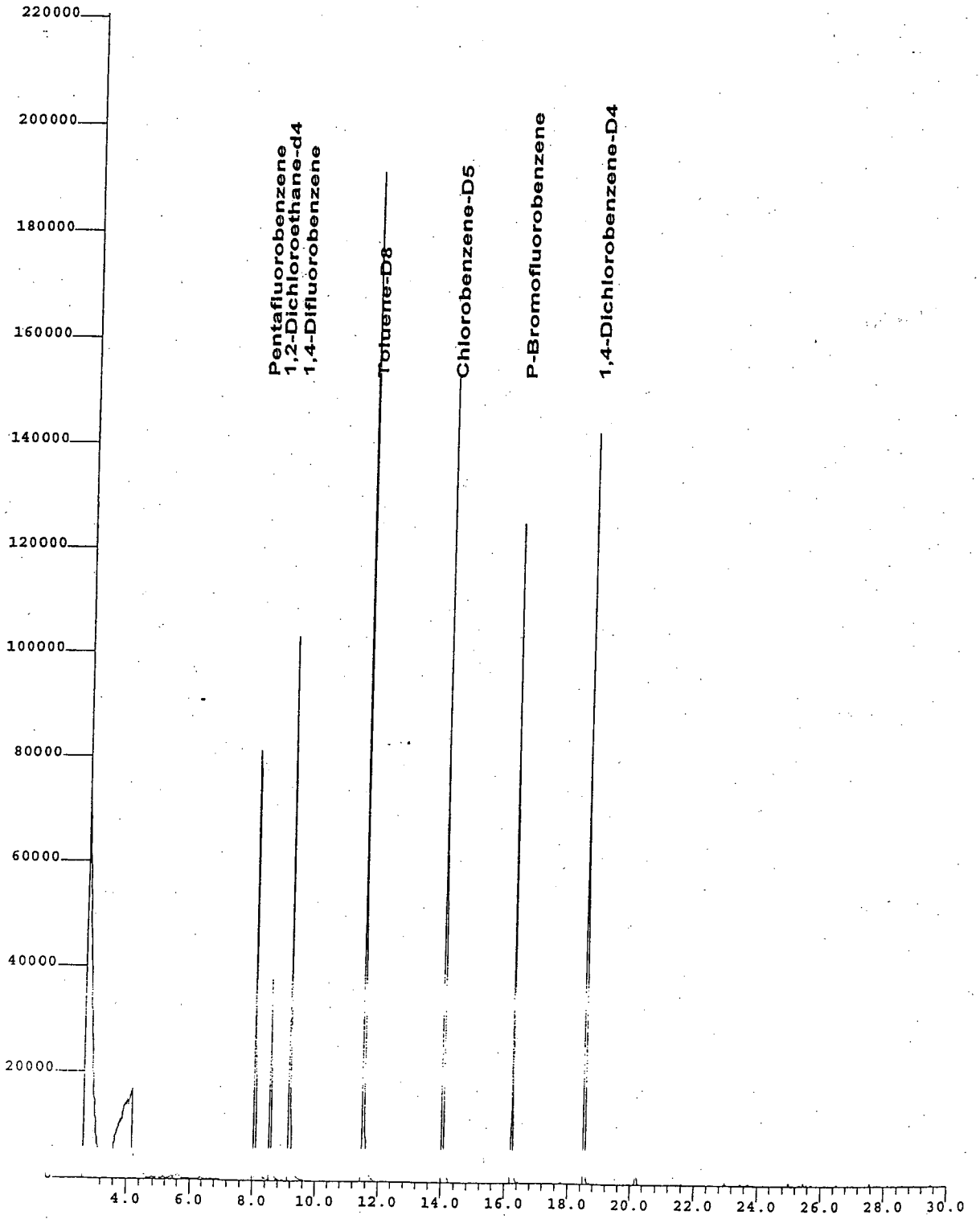
1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p



Data File: C:\BNAP\BNAPB137.MSS
Name: SAMP_8370_SBNA_(13)
Misc Data: 0109076-007A,BB399,S,30.00,1.00,1.0,0,
RT (min): 28.05 Scan: 3308
Area: 70360 Rank: 15
Semi-quantitative Conc(uncorrected): 10.54 ug/l
Calculated Using Istd: d10-Acenaphthene@ 16.92

Name	Cas No	SI	MW	Formula
1) Acetamide, N-methyl-N-[4-[4-methoxy-1-hexahydropyridyl]-2-butyny		85.5	238	C13H22N2O2
2) 2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	78.9	266	C16H26O3
3) 1-Naphthalenol, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(2-p	56793-05-6	78.7	220	C15H24O
4) 1-Hexacosene	18835-33-1	75.7	364	C26H52
6) Dodecane, 1,2-dibromo-	[illegible]	[illegible]	[illegible]	[illegible]
7) Pentalene, octahydro-1-(2-octyldecyl)-	55401-65-5	72.2	362	C26H50
8) Cyclotetradecanol, 1,7,11-trimethyl-4-(1-methylethyl)-, (-)-	20489-83-2	72.1	296	C20H40O
9) Nonacosanol	25154-56-7	70.3	424	C29H60O

Data File: C:\DATA\VOB\VOB057.MSS
Quant Output File: C:\DATA\VOB\VOB057.Q
Injection Time: 09/20/81 12:47
Misc: 0109076-007A,BB716,S,5.00,5.00,1.0,0,



QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB057.Q
Data File: c:\data\vob\vob057.mss
Name: SAMP_8260_S_(6) 5)
Misc: 0109076-007A,BB716,S,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 09/21/** 06:47
Injected at : 09/20/81 12:47
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*Pentafluorobenzene	8.04	168	138292	50.00	ppb	100
25)	1,2-Dichloroethane-d4	8.55	65	75101	106.79	ppb	95
27)	*1,4-Difluorobenzene	9.16	114	220244	50.00	ppb	99
39)	Toluene-D8	11.51	98	353359	113.30	ppb	96
44)	*Chlorobenzene-D5	14.04	117	198969	50.00	ppb	100
56)	P-Bromofluorobenzene	16.23	95	125684	91.27	ppb	100
58)	*1,4-Dichlorobenzene-D4	18.51	152	91962	50.00	ppb	93

* Compound is Internal Standard

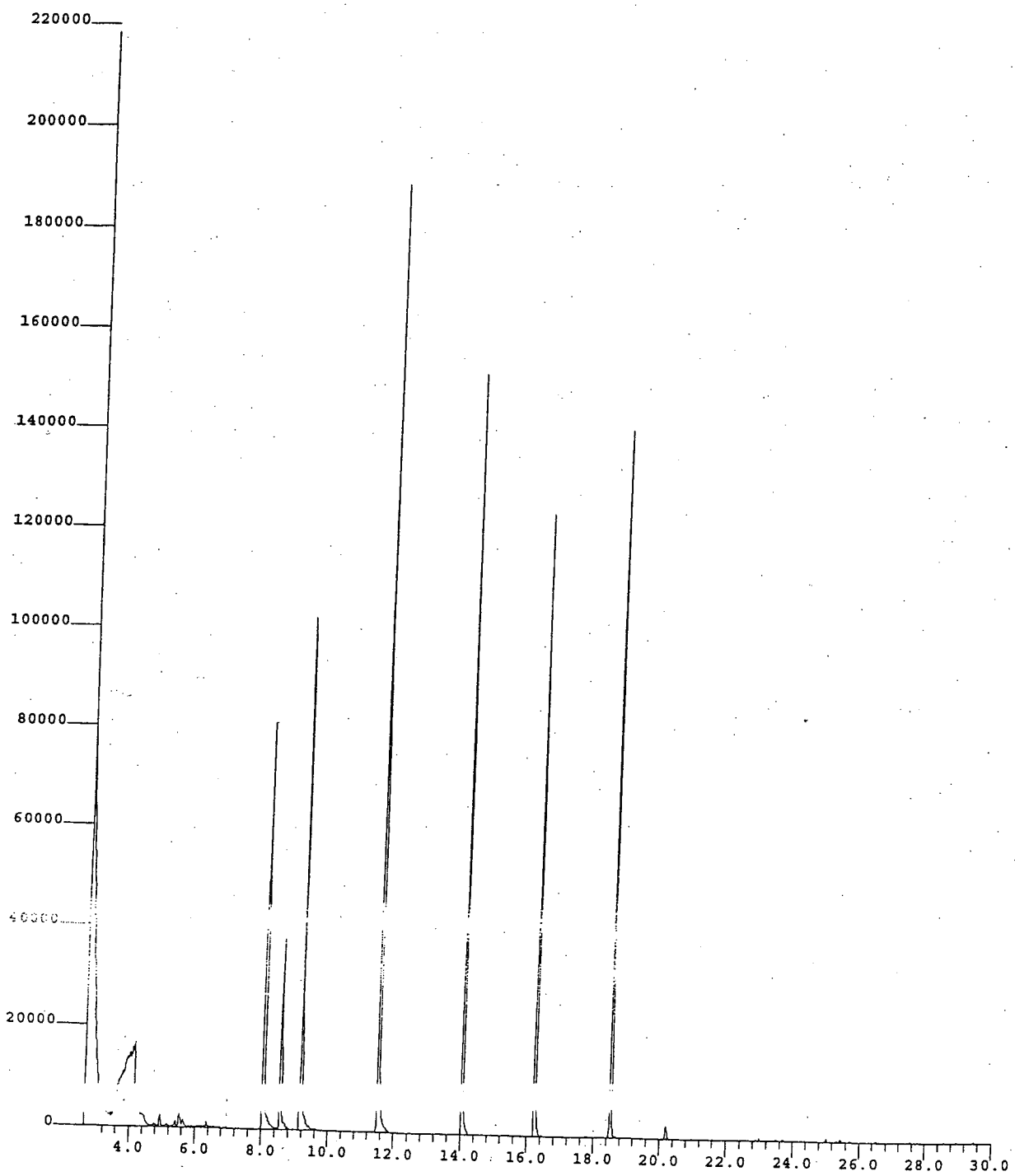
Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\data\vob\vob057.q
Data File Name: C:\DATA\VOB\VOB057.MSS
Name: SAMP_8260_S_(6) 5)
Misc Data: 0109076-007A,BB716,S,5.00,5.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\VOA.NIS
Parameters Minimum % Istd Area to Report: 10.00
Absolute maximum Number of Peaks: 10
Which Istd from Output file(1st,2nd)..: 2
Maximum Hits for graphics: 3

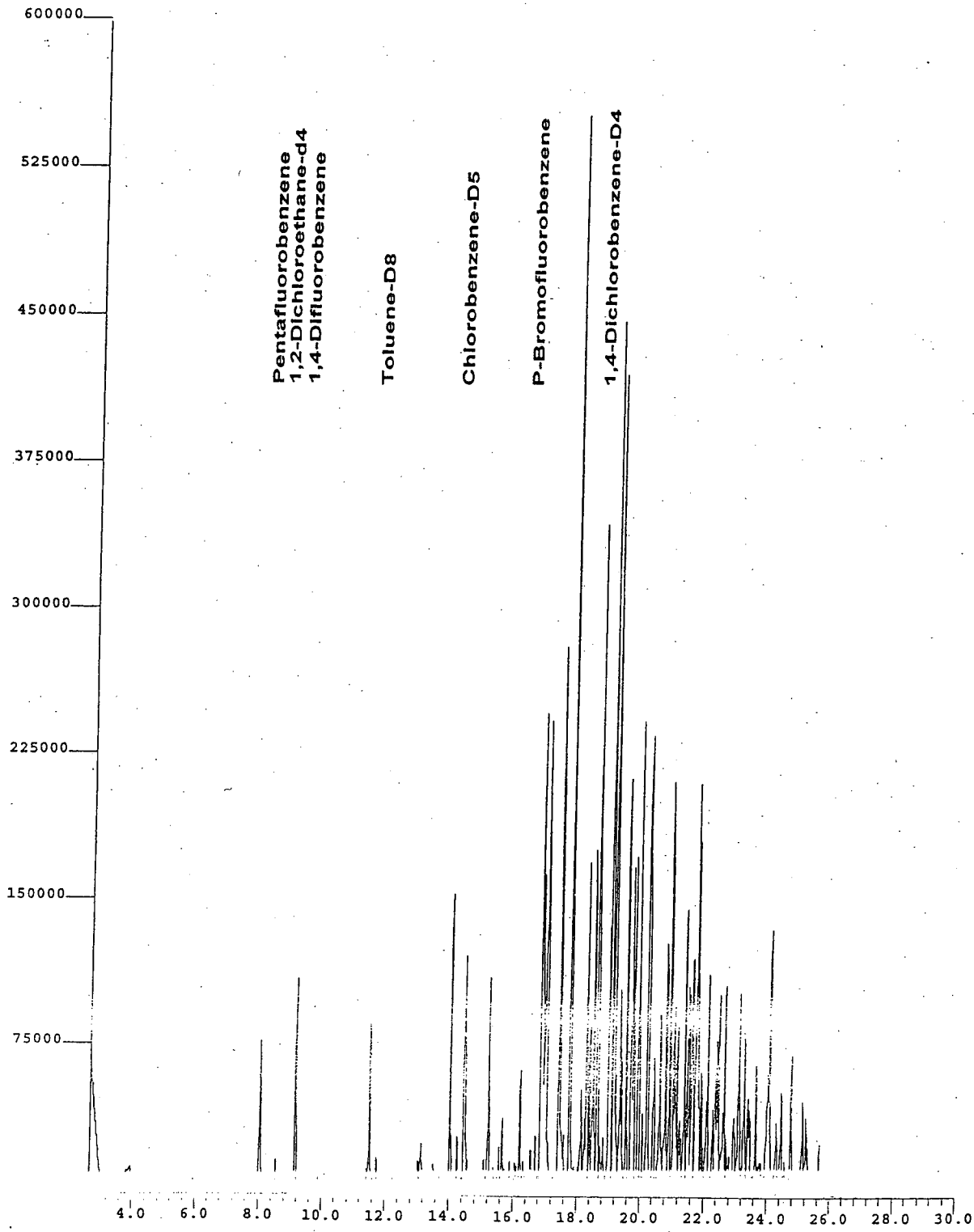
Rank Order
Date: 09-21-2001
Time: 12:36:21
Delta Rt: 0.05

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
4)	11.51	11.46	11.66	0.201	BB	871364	CMPD	Toluene-D8
5)	14.04	13.98	14.16	0.174	BB	619968	ISTD	Chlorobenzene-D5
7)	18.51	18.44	18.61	0.174	BB	571629	ISTD	1,4-Dichlorobenzene-D4
6)	16.23	16.17	16.31	0.137	BB	491533	CMPD	P-Bromofluorobenzene
3)	9.16	9.11	9.24	0.128	BB	484643	ISTD	1,4-Difluorobenzene
1)	8.04	7.99	8.14	0.156	BB	428091	ISTD	Pentafluorobenzene
2)	8.55	8.50	8.63	0.128	BB	183260	CMPD	1,2-Dichloroethane-d4

Data File: C:\DATA\VOB\VOB057.MSS
Quant Output File: c:\data\vob\vob057.q
Injection Time: 09/20/81 12:47
Misc: 0109076-007A,BB716,S,5.00,5.00,1.0,0,



Data File: C:\DATA\VOB\VOB058.MSS
Quant Output File: C:\DATA\VOB\VOB058.Q
Injection Time: 09/20/81 13:28
Misc: 0109076-014A,BB716,S,5.00,5.00,1.0,0,



QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB058.Q
Data File: c:\data\vob\vob058.mss
Name: SAMP_8260_S_(7) 6)
Misc: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 01/98/20 56:00
Injected at : 09/20/81 13:28
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*Pentafluorobenzene	8.03	168	138868	50.00	ppb	100
19)	Vinyl Acetate	10.78	43	5482	11.70	ppb	100
25)	1,2-Dichloroethane-d4	8.54	65	37437	53.01	ppb	96
27)	*1,4-Difluorobenzene	9.15	114	234834	50.00	ppb	93
37)	Mehtyl-Iso-Butyl-Ketone	11.73	43	16542	34.57	ppb	100
39)	Toluene-D8	11.50	98	158825	47.76	ppb	88
40)	Toluene	11.62	92	8878	1.78	ppb	79
42)	1,1,2-Trichloroethane	12.04	97	11010	10.50	ppb	100
44)	*Chlorobenzene-D5	14.03	117	202213	50.00	ppb	100
45)	2-Hexanone	12.53	43	4975	15.91	ppb	100
51)	Ethylbenzene	14.25	106	14560	4.78	ppb	100
52)	M+P-Xylenes	14.46	106	85721	16.33	ppb	83
53)	O-Xylene	15.21	106	79030	20.89	ppb	84
56)	P-Bromofluorobenzene	16.22	95	65931	47.11	ppb	100
58)	*1,4-Dichlorobenzene-D4	18.50	152	102091	50.00	ppb	99
59)	Isopropylbenzene	15.90	105	34401	2.66	ppb	82
60)	1,1,2,2-Tetrachloroethane	16.96	83	17795	16.49	ppb	80
62)M	N-Propylbenzene	16.69	120	10538	6.14	ppb	0
65)M	1,3,5-Trimethylbenzene	17.02	105	391998	44.38	ppb	0
68)M	1,2,4-Trimethylbenzene	17.77	105	824276	99.06	ppb	0
69)	Sec-Butylbenzene	18.11	105	99316	10.43	ppb	73
70)	p-Isopropyltoluene	18.29	119	199269	32.51	ppb	100
78)	Naphthalene	22.96	128	16775	12.09	ppb	100
80)M	1-Methylnaphthalene	25.66	142	33205	95.07	ppb	0

* Compound is Internal Standard

Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\data\vob\vob058.q
Data File Name: C:\DATA\VOB\VOB058.MSS
Name: SAMP_8260_S_(7) 6)
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\VOA.NIS
Parameters Minimum % Istd Area to Report: 10.00
Absolute maximum Number of Peaks: 10
Which Istd from Output file(1st,2nd)..: 2
Maximum Hits for graphics: 3

Rank Order
Date: 09-21-2001
Time: 12:36:49
Delta Rt: 0.05

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
52)	17.78	17.71	17.85	0.137	BB	2194834	CMPD 1	1,2,4-Trimethylbenzene
66)	19.16	19.11	19.21	0.101	VV	1878744	2	
65)	19.05	19.01	19.11	0.092	VV	1792687	CMPD 3	1,3,5-Trimethylbenzene
48)	17.03	16.95	17.16	0.211	VB	1644620	4	
75)	20.24	20.13	20.33	0.192	VV	1607656	5	
60)	18.63	18.58	18.68	0.102	VV	1429676	6	
50)	17.44	17.38	17.50	0.120	BB	1111842	7	
46)	16.86	16.81	16.88	0.073	VV	1088114	8	
73)	19.95	19.86	20.01	0.156	VV	1075948	ISTD 9	1,4-Dichlorobenzene-D4
70)	19.56	19.47	19.67	0.201	VV	1029120	10	
59)	18.50	18.43	18.58	0.156	VV	893567	CMPD 11	M+P-Xylenes
81)	20.94	20.90	21.00	0.101	VV	836083	12	
90)	21.64	21.57	21.70	0.129	VB	805004	CMPD 13	1,1,2,2-Tetrachloroetha
29)	14.46	14.39	14.54	0.148	VV	793677	14	
71)	19.72	19.67	19.76	0.083	VV	756917	15	
47)	16.91	16.88	16.95	0.064	VV	740369	16	
72)	19.79	19.76	19.86	0.101	VV	739406	17	
57)	18.29	18.25	18.34	0.091	VV	730069	CMPD 18	p-Isopropyltoluene
87)	21.40	21.34	21.45	0.111	BB	727076	19	
25)	14.03	13.96	14.14	0.174	BV	671671	ISTD 20	Chlorobenzene-D5
64)	18.99	18.94	19.01	0.073	VV	613678	21	
77)	20.64	20.51	20.68	0.174	BV	590040	22	
80)	20.83	20.79	20.90	0.102	VV	584211	23	
120)	24.07	24.03	24.13	0.091	VV	573786	ISTD 24	1,4-Difluorobenzene
6)	9.15	9.09	9.31	0.219	BB	546964	25	
109)	23.11	23.01	23.15	0.146	VV	535461	CMPD 26	O-Xylene
33)	15.21	15.15	15.33	0.174	VV	534569	27	
111)	23.28	23.20	23.34	0.138	VB	534290	28	
82)	21.07	21.00	21.10	0.101	VV	504273	29	
68)	19.36	19.31	19.39	0.082	VV	466019	30	
76)	20.45	20.33	20.51	0.184	VB	460955	ISTD 31	Pentafluorobenzene
3)	8.03	7.97	8.19	0.220	BB	432721	CMPD 32	Toluene-D8
12)	11.50	11.45	11.58	0.128	VV	431145	33	
119)	24.02	23.92	24.03	0.120	BV	413950	34	
96)	22.11	22.08	22.16	0.082	VB	411160	35	
104)	22.64	22.60	22.68	0.073	VV	398465	36	
89)	21.54	21.51	21.57	0.064	VV	378039	37	
88)	21.48	21.45	21.51	0.064	BV	377230		

Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\data\vob\vob058.q
Data File Name: C:\DATA\VOB\VOB058.MSS
Name: SAMP_8260_S_(7) 6)
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\VOA.NIS
Parameters Minimum % Istd Area to Report: 10.00
Absolute maximum Number of Peaks: 10
Which Istd from Output file(1st,2nd)..: 2
Maximum Hits for graphics: 3

Rank Order
Date: 09-21-2001
Time: 12:36:49
Delta Rt: 0.05

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
126)	24.76	24.61	24.82	0.201	VB	365973	28	
58)	18.39	18.34	18.43	0.083	VV	361380	29	
91)	21.76	21.72	21.78	0.055	BB	348144	30	
101)	22.46	22.44	22.49	0.056	VV	338901	31	
84)	21.18	21.15	21.22	0.064	VV	306022	32	
100)	22.41	22.38	22.44	0.055	VV	305592	33	
67)	19.23	19.21	19.31	0.102	VV	295253	34	
124)	24.43	24.36	24.49	0.138	VV	292482	35	
55)	18.11	18.07	18.18	0.111	VV	281404	CMPD	Sec-Butylbenzene
99)	22.36	22.32	22.38	0.064	VV	280236	36	
108)	22.95	22.87	23.01	0.137	VV	270242	CMPD	Naphthalene
128)	25.11	25.03	25.15	0.119	BV	264987	37	
115)	23.65	23.59	23.70	0.101	VV	264957	38	
83)	21.12	21.10	21.15	0.056	VV	261981	39	
69)	19.41	19.39	19.47	0.083	VV	248505	40	
113)	23.45	23.42	23.54	0.120	VV	247270	41	
41)	16.22	16.16	16.27	0.111	BV	246595	CMPD	P-Bromofluorobenzene
129)	25.22	25.15	25.26	0.101	VV	235136	42	
98)	22.27	22.20	22.32	0.120	VV	225386	43	
112)	23.39	23.34	23.42	0.082	BV	219925	44	
123)	24.28	24.23	24.36	0.128	VV	200140	45	
74)	20.08	20.01	20.13	0.119	VV	199147	46	
93)	21.92	21.88	21.95	0.073	BV	187786	47	
56)	18.22	18.18	18.25	0.073	VV	185752	48	
43)	16.54	16.43	16.65	0.220	VB	185662	49	
95)	22.06	22.02	22.08	0.064	BV	177449	50	
103)	22.59	22.55	22.60	0.055	VV	169755	51	
32)	15.09	14.98	15.15	0.174	VV	154732	52	
44)	16.70	16.65	16.75	0.101	BV	153925	CMPD	N-Propylbenzene
61)	18.72	18.68	18.77	0.091	VV	149706	53	
85)	21.25	21.22	21.28	0.064	VV	148808	54	
62)	18.82	18.77	18.88	0.101	VV	143675	55	
27)	14.25	14.21	14.29	0.082	VV	139518	CMPD	Ethylbenzene
79)	20.77	20.74	20.79	0.055	VV	128874	56	
37)	15.65	15.59	15.69	0.092	BB	126549	57	

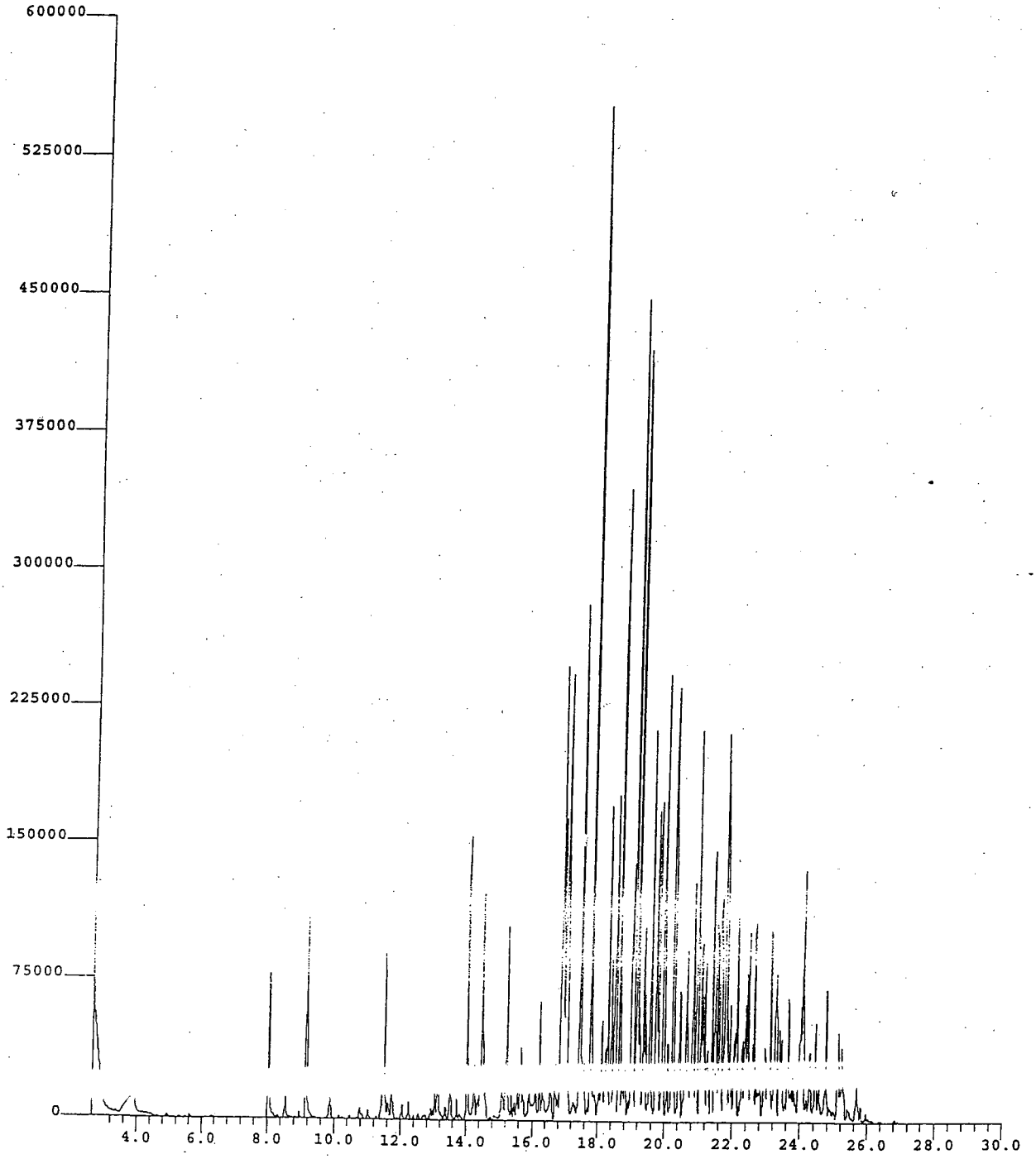
Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\data\vob\vob058.q
Data File Name: C:\DATA\VOB\VOB058.MSS
Name: SAMP_8260_S_(7) 6)
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\VOA.NIS
Parameters
Minimum % Istd Area to Report: 10.00
Absolute maximum Number of Peaks: 10
Which Istd from Output file(1st,2nd)..: 2
Maximum Hits for graphics: 3

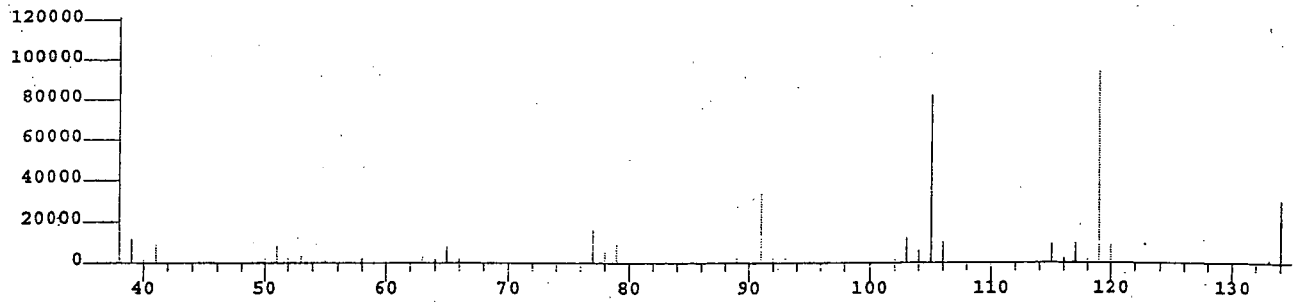
Rank Order
Date: 09-21-2001
Time: 12:36:50
Delta Rt: 0.05

#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
21)	13.13	13.09	13.20	0.110	VB	126132	58	
132)	25.66	25.60	25.72	0.119	BB	122381	CMPD	1-Methylnaphthalene
14)	11.73	11.68	11.83	0.146	VB	116039	CMPD	Mehtyl-Iso-Butyl-Ketone
105)	22.71	22.68	22.74	0.065	VV	114546	59	
130)	25.28	25.26	25.35	0.091	VB	110085	60	
42)	16.31	16.27	16.43	0.156	VV	108958	61	
23)	13.52	13.43	13.59	0.164	BB	105057	62	
36)	15.55	15.50	15.59	0.092	BB	104838	63	
30)	14.57	14.54	14.69	0.147	VB	100847	64	
78)	20.70	20.68	20.74	0.055	VV	94525	65	
102)	22.53	22.49	22.55	0.055	VV	90868	66	
54)	18.04	17.96	18.07	0.110	BV	88384	67	
125)	24.55	24.49	24.61	0.119	VV	86176	68	
4)	8.54	8.49	8.60	0.119	BB	84693	CMPD	1,2-Dichloroethane-d4
86)	21.30	21.28	21.34	0.055	VB	81642	69	
28)	14.36	14.29	14.39	0.101	VV	79854	70	
107)	22.81	22.78	22.87	0.092	VV	79218	71	
20)	13.04	13.01	13.09	0.082	VV	73222	72	
11)	11.42	11.37	11.45	0.082	BV	67530	73	
51)	17.57	17.55	17.61	0.064	BB	61192	74	
7)	9.88	9.79	9.95	0.156	BB	58204	75	
13)	11.61	11.58	11.68	0.101	VV	57649	CMPD	Toluene
94)	21.98	21.95	22.02	0.064	VB	55282	76	

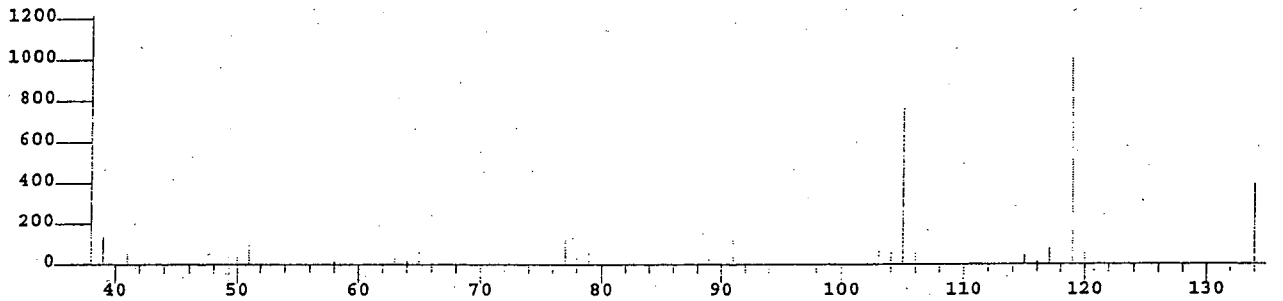
Data File: C:\DATA\VOB\VOB058.MSS
Quant Output File: c:\data\vob\vob058.q
Injection Time: 09/20/81 13:28
Misc: 0109076-014A,BB716,S,5.00,5.00,1.0,0,



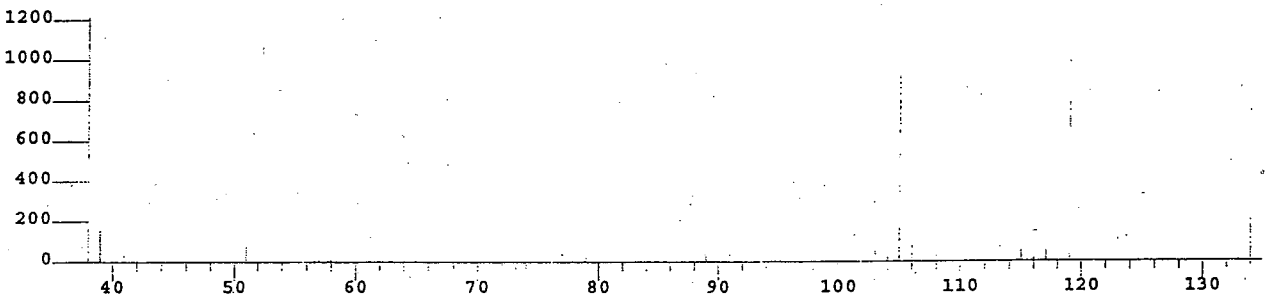
Scan: 1808 RT (min): 19.16



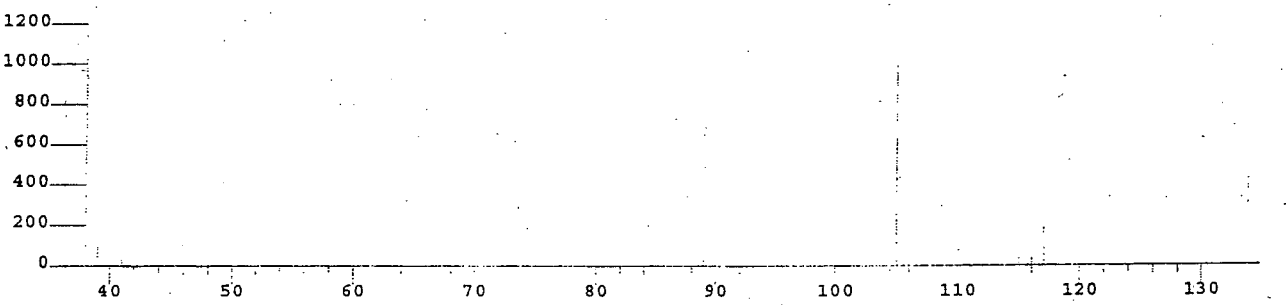
Benzene, 1,4-diethyl-



Benzene, 1,3-diethyl-



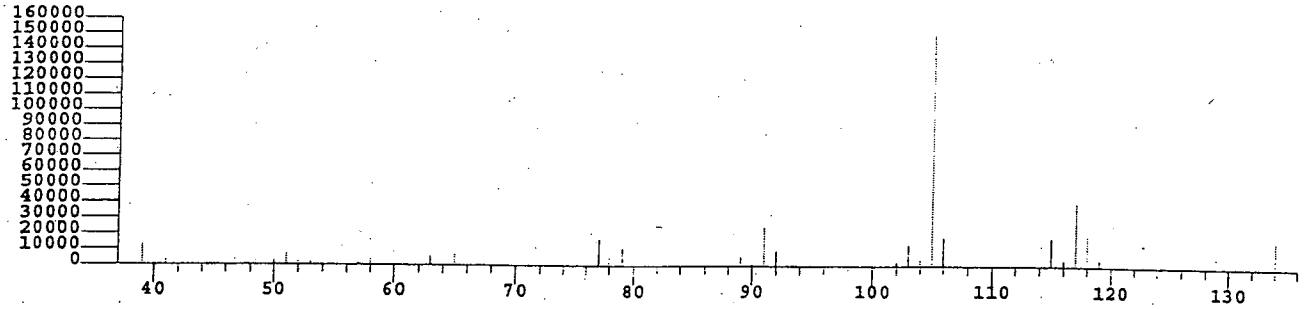
Benzene, 1,2-diethyl-



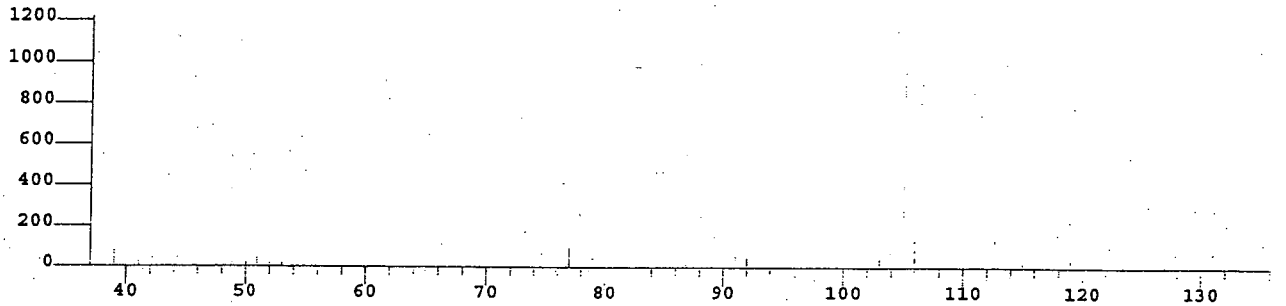
Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP_836[illegible]
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0.0.
RT (min): 19.16 Scan: 1808
Area: 1878744 Rank: 1
Semi-quantitative Conc(uncorrected): 139.86 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

	Name	Cas No	SI	MW	Formula
1)	Benzene, 1,4-diethyl-	105-05-5	92.8	134	C10H14
2)	Benzene, 1,3-diethyl-	141-93-5	92.1	134	C10H14
3)	Benzene, 1,2-diethyl-	135-01-3	90.6	134	C10H14
4)	Benzene, 1-ethyl-2,3-dimethyl-	[illegible]	[illegible]	134	C10H14
6)	Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	84.6	134	C10H14
7)	Benzene, diethyl-	25340-17-4	84.3	134	C10H14
8)	Benzene, 2-ethyl-1,3-dimethyl-	2870-04-4	83.6	134	C10H14
9)	1,3,8-p-Menthatriene	21195-59-5	83.1	134	C10H14
10)	Benzene, 1-ethyl-2,4-dimethyl-	874-41-9	82.4	134	C10H14

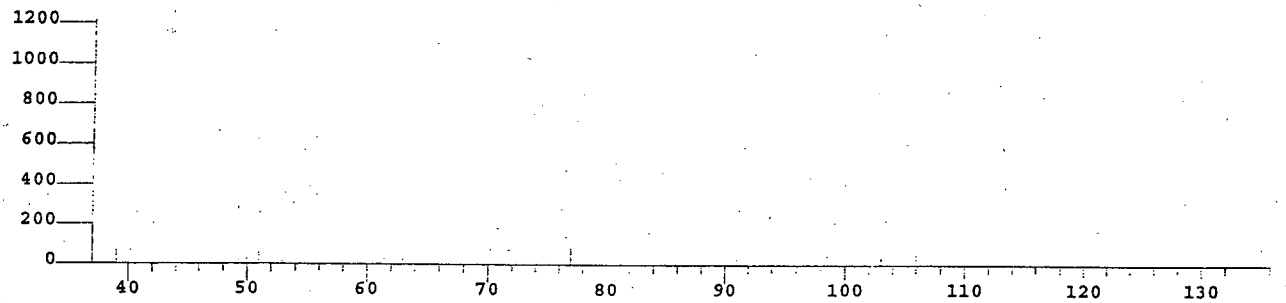
Scan: 1796 RT (min): 19.05



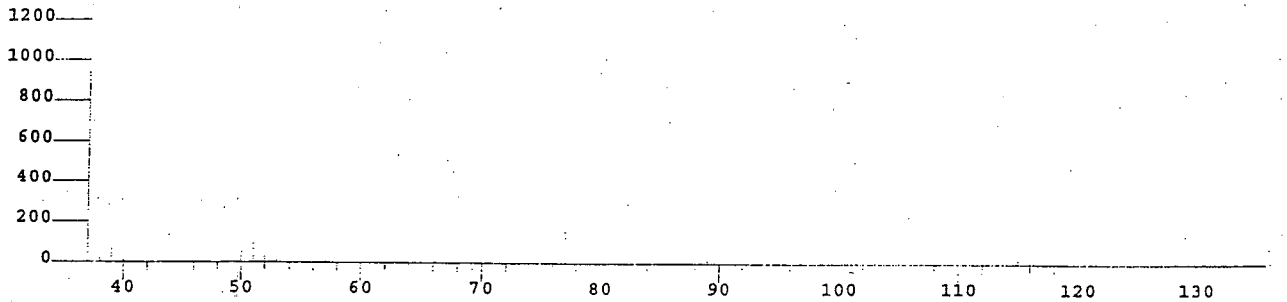
Benzene, 1-methyl-3-propyl-



Benzene, 1-methyl-4-propyl-



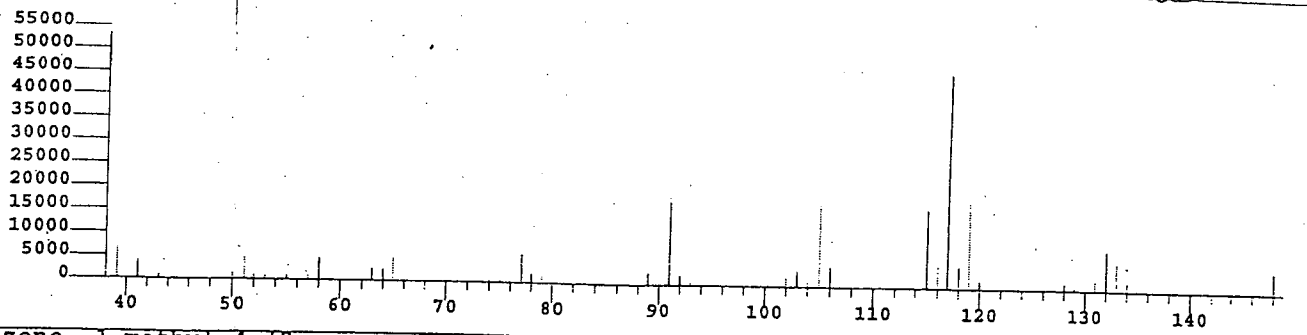
Benzene, (1-methylpropyl)-



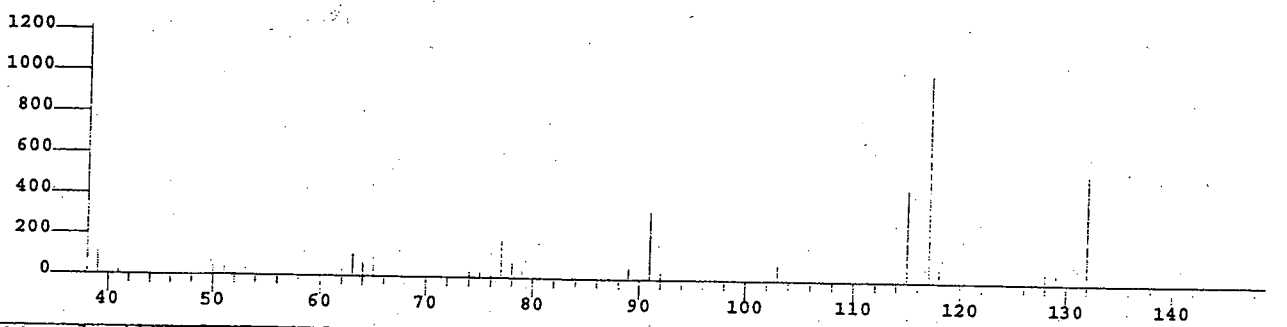
Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP 8700 S (7) 6)
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
RT (min): 19.05 Scan: 1796
Area: 1792687 Rank: 2
Semi-quantitative Conc(uncorrected): 133.45 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

	Name	Cas No	SI	MW	Formula
1)	Benzene, 1-methyl-3-propyl-	1074-43-7	79.1	134	C10H14
2)	Benzene, 1-methyl-4-propyl-	1074-55-1	75.7	134	C10H14
3)	Benzene, (1-methylpropyl)-	135-98-8	74.4	134	C10H14
4)	Benzene, (2-bromo-1-methylethyl)-	[illegible]	[illegible]	[illegible]	[illegible]
6)	Benzeneethanol, 2-methyl-	19819-98-8	73.6	136	C9H12O
7)	Benzene, 1,2-diethyl-	135-01-3	73.3	134	C10H14
8)	Benzene, 1-methyl-2-propyl-	1074-17-5	73.1	134	C10H14
9)	1-Methyl-4-N-hexylbenzene	1595-01-3	71.1	176	C13H20
10)	Benzenemethanol, ar-ethenyl-	30584-69-1	70.2	134	C9H10O

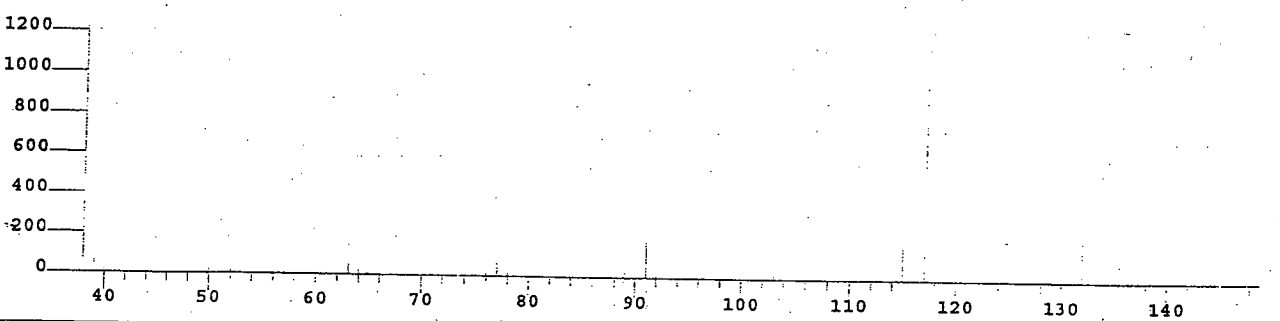
Scan: 1925 RT (min): 20.24



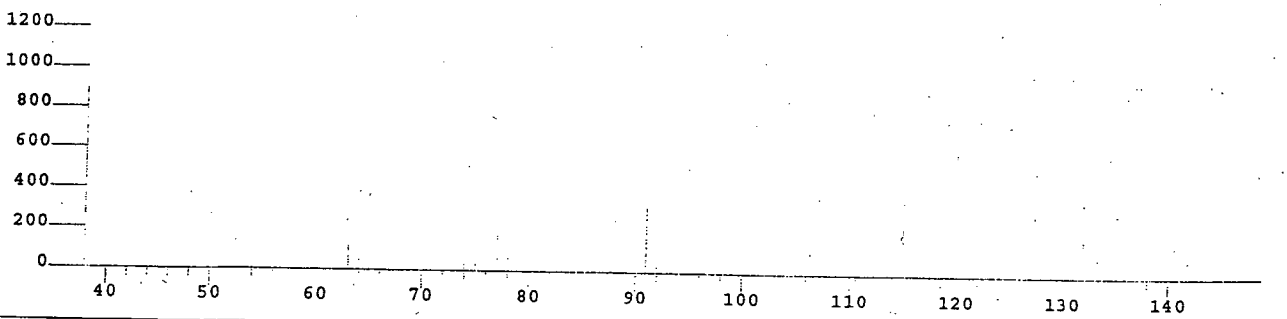
Benzene, 1-methyl-4-(2-propenyl)-



Benzene, 1-ethenyl-3-ethyl-



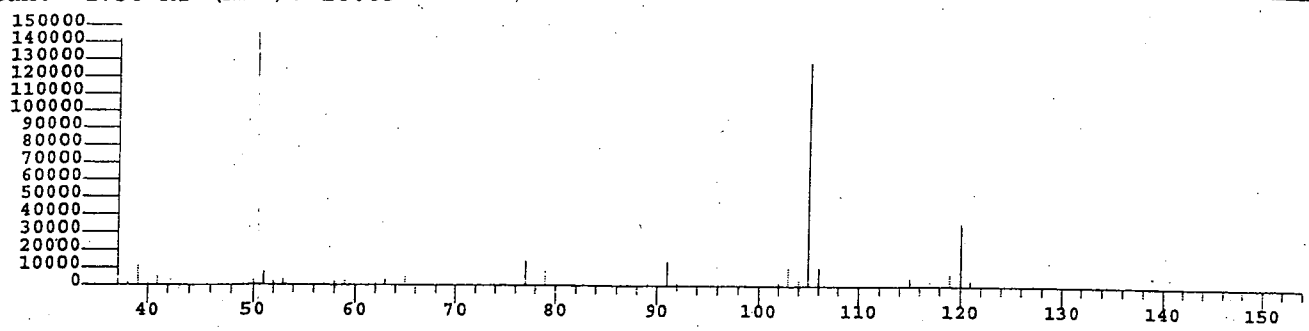
Benzene, 1-methyl-2-(2-propenyl)-



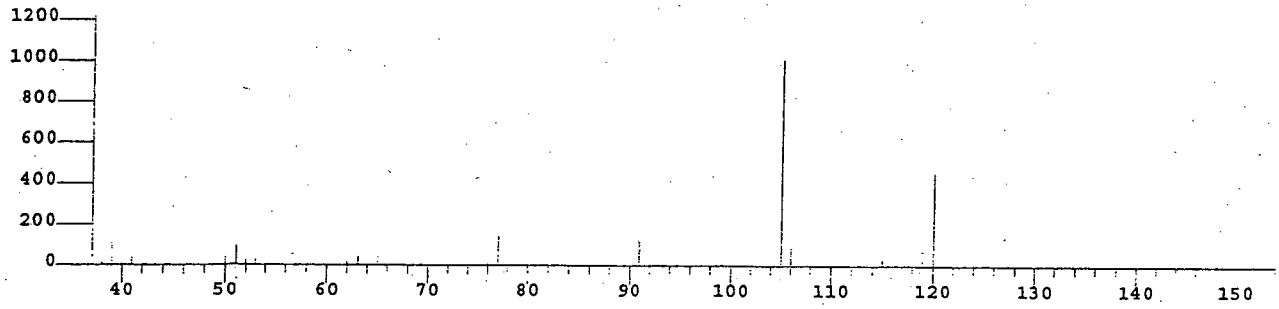
Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP 8260 S (7) 6)
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
RT (min): 20.24 Scan: 1925
Area: 1607656 Rank: 3
Semi-quantitative Conc(uncorrected): 119.68 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

	Name	Cas No	SI	MW	Formula
1)	Benzene, 1-methyl-4-(2-propenyl)-	3333-13-9	76.6	132	C10H12
2)	Benzene, 1-ethenyl-3-ethyl-	7525-62-4	76.2	132	C10H12
3)	Benzene, 1-methyl-2-(2-propenyl)-	1587-04-8	75.3	132	C10H12
4)	Benzene, 1-ethyl-4-(1-methylethyl)-	[illegible]	[illegible]	[illegible]	[illegible]
5)	Benzene, 2-ethenyl-1,4-dimethyl-	[illegible]	[illegible]	[illegible]	[illegible]
7)	Benzene, (2-methyl-1-propenyl)-	2039-89-6	72.6	132	C10H12
8)	Benzene, (1-cyclopropyl-1-methylethyl)-	768-49-0	72.6	132	C10H12
9)	o-Isopropenyltoluene	56282-43-0	71.8	160	C12H16
10)	Benzene, 1-methyl-4-(1-methylethenyl)-	7399-49-7	71.6	132	C10H12
		1195-32-0	71.5	132	C10H12

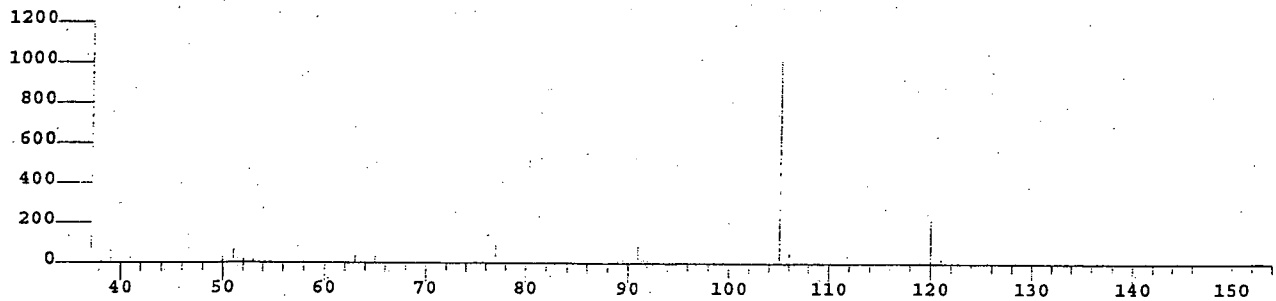
Scan: 1750 RT (min): 18.63



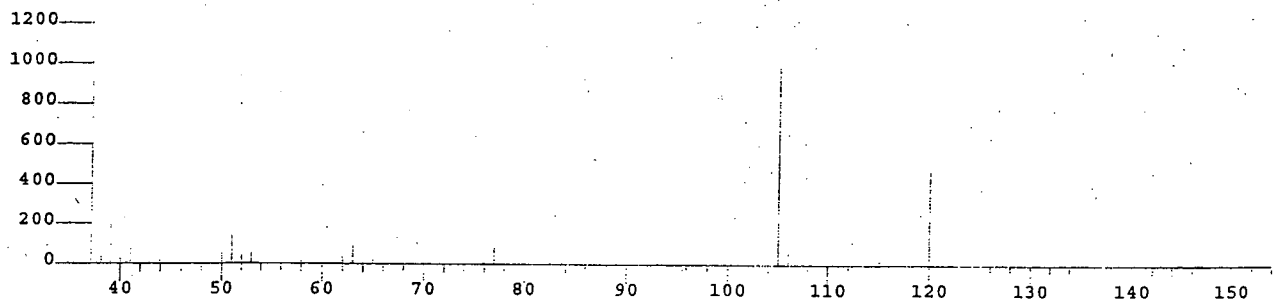
1,2,4-Trimethylbenzene



Benzene, 1-ethyl-4-methyl-



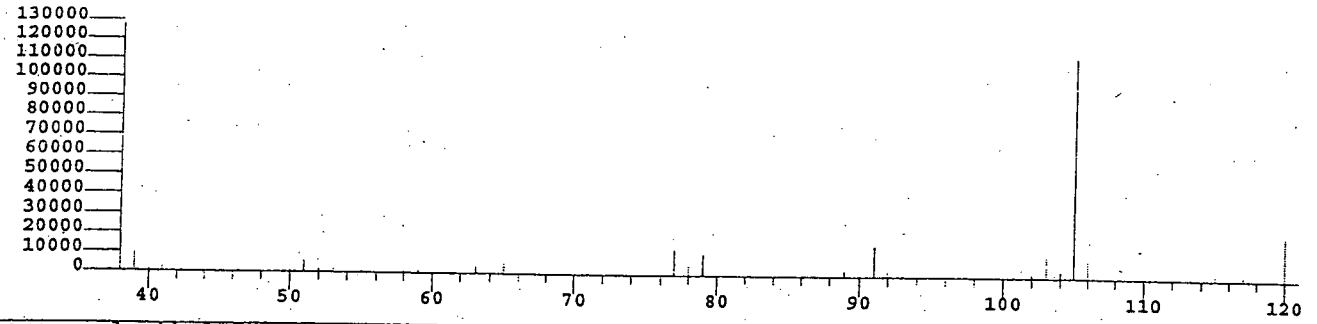
Benzene, 1,2,3-trimethyl-



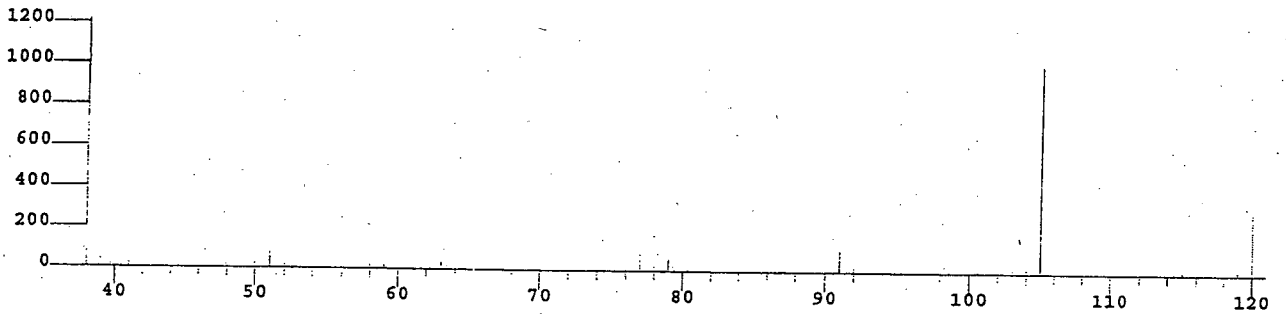
Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP 8360 S (7) 6)
Misc Data: 0109076-014A,B5716,S,5.00,5.00,1.0,0,
RT (min): 18.63 Scan: 1750
Area: 1429676 Rank: 4
Semi-quantitative Conc(uncorrected): 106.43 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

Name	Cas No	SI	MW	Formula
1) ~~1,2,4-Trimethylbenzene~~	95-36-3	93.2	120	C9H12
2) Benzene, 1-ethyl-4-methyl-	622-96-8	92.3	120	C9H12
3) Benzene, 1,2,3-trimethyl-	526-73-8	92.0	120	C9H12
4) Benzene, 1,3,5-trimethyl-	108-67-8	91.6	120	C9H12
5) Benzene, 1-ethyl-3-methyl-	[illegible]	[illegible]	[illegible]	[illegible]
6) [illegible]	611-14-3	91.3	120	C9H12
7) Benzene, 1,2,4-trimethyl-	95-63-6	90.2	120	C9H12
8) Benzene, (1-methylethyl)-	98-82-8	88.2	120	C9H12
9) 2,3-Heptadien-5-yne, 2,4-dimethyl-	41898-89-9	84.3	120	C9H12
10) Cyclohexane, 1,2,4-tris(methylene)-	14296-81-2	83.0	120	C9H12

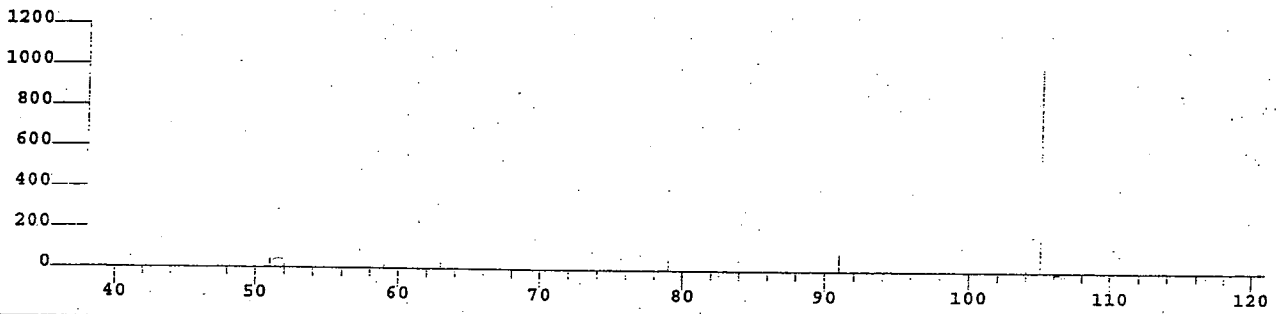
Scan: 1621 RT (min): 17.44



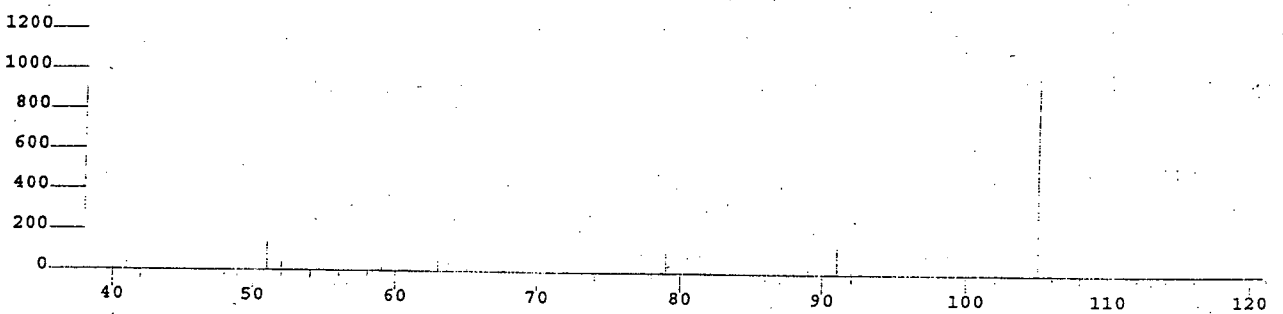
Benzene, 1-ethyl-2-methyl-



Benzene, 1-ethyl-4-methyl-

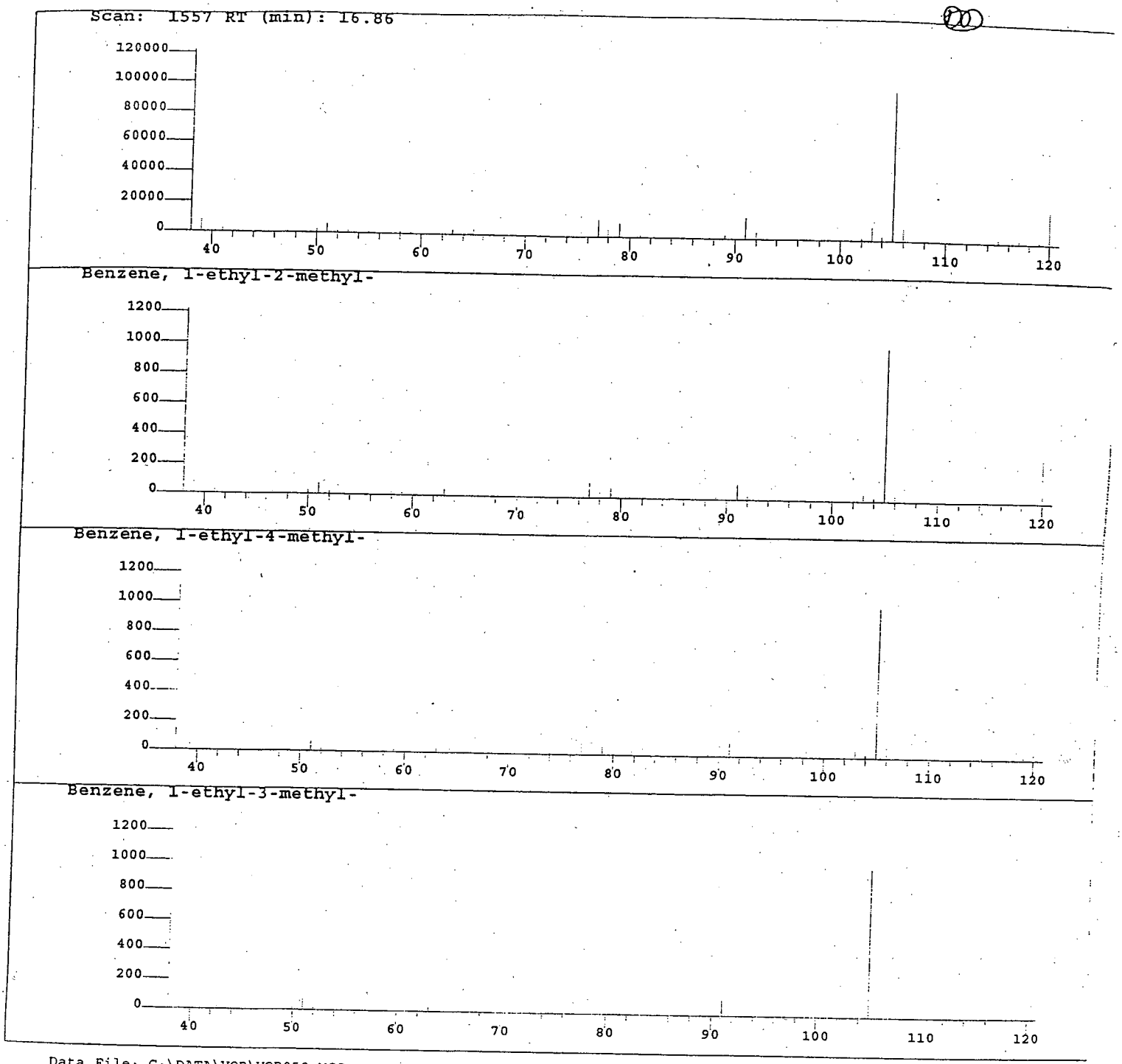


Benzene, 1,2,3-trimethyl-



Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP 8260 S (7) 6)
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
RT (min): 17.44 Scan: 1621
Area: 1111842 Rank: 5
Semi-quantitative Conc(uncorrected): 82.77 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

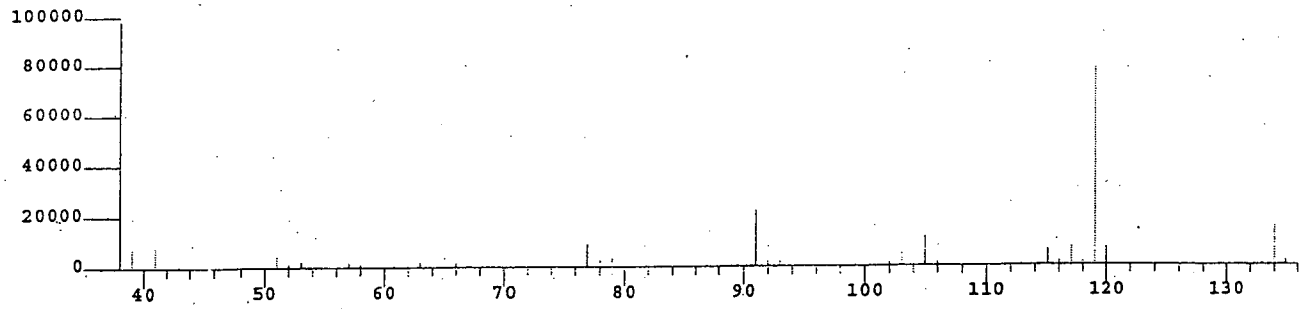
	Name	Cas No	SI	MW	Formula
1)	Benzene, 1-ethyl-2-methyl-	611-14-3	93.0	120	C9H12
2)	Benzene, 1-ethyl-4-methyl-	622-96-8	90.2	120	C9H12
3)	Benzene, 1,2,3-trimethyl-	526-73-8	88.9	120	C9H12
4)	Benzene, 1-ethyl-3-methyl-	[illegible]	[illegible]	[illegible]	[illegible]
6)	Benzene, (1-methylethyl)-	98-82-8	87.3	120	C9H12
7)	Benzene, 1,2,4-trimethyl-	95-63-6	86.2	120	C9H12
8)	Benzene, 1,3,5-trimethyl-	108-67-8	85.8	120	C9H12
9)	Benzene, (2-iodoethyl)-	17376-04-4	81.5	232	C8H9I
10)	2,3-Heptadien-5-yne, 2,4-dimethyl-	41898-89-9	81.2	120	C9H12



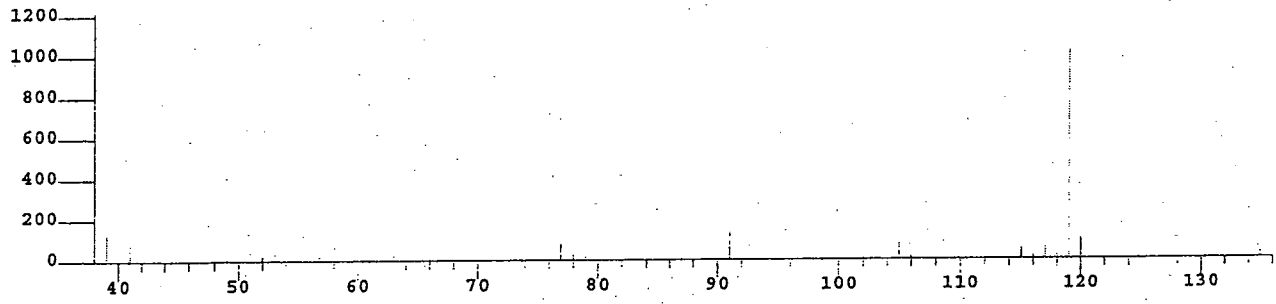
Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP 8260_S (7) 6
Misc Data: 0109076-014E,BB716,S,5.00,5.00,1.0,0,
RT (min): 16.86 Scan: 1557
Area: 1088114 Rank: 6
Semi-quantitative Conc(uncorrected): 81.00 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

Name	Cas No	SI	MW	Formula
1) Benzene, 1-ethyl-2-methyl-	611-14-3	94.0	120	C9H12
2) Benzene, 1-ethyl-4-methyl-	[illegible]	[illegible]	[illegible]	[illegible]
3) [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5) 1,2,4-Trimethylbenzene	526-73-8	89.9	120	C9H12
6) Benzene, 1,2,4-trimethyl-	95-36-3	88.4	120	C9H12
7) Benzene, 1,3,5-trimethyl-	95-63-6	88.2	120	C9H12
8) Benzene, (1-methylethyl)-	108-67-8	87.5	120	C9H12
9) 2,3-Heptadien-5-yne, 2,4-dimethyl-	98-82-8	86.1	120	C9H12
10) Cyclohexane, 1,2,4-tris(methylene)-	41898-89-9	81.7	120	C9H12
	14296-81-2	81.2	120	C9H12

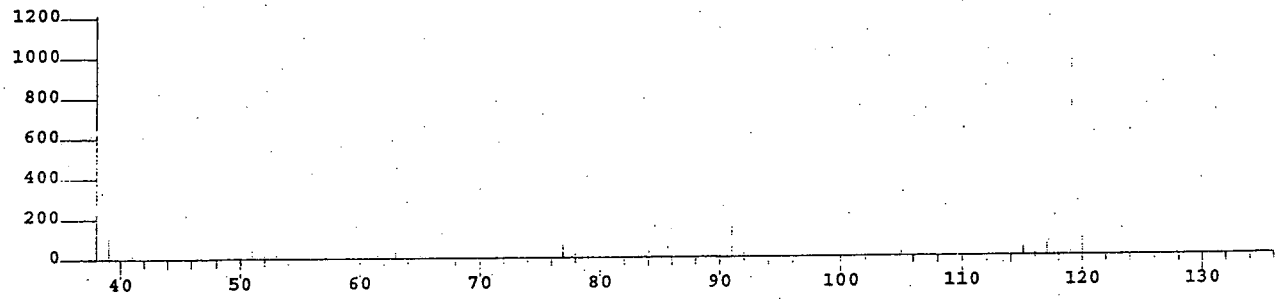
Scan: 1894 RT (min): 19.95



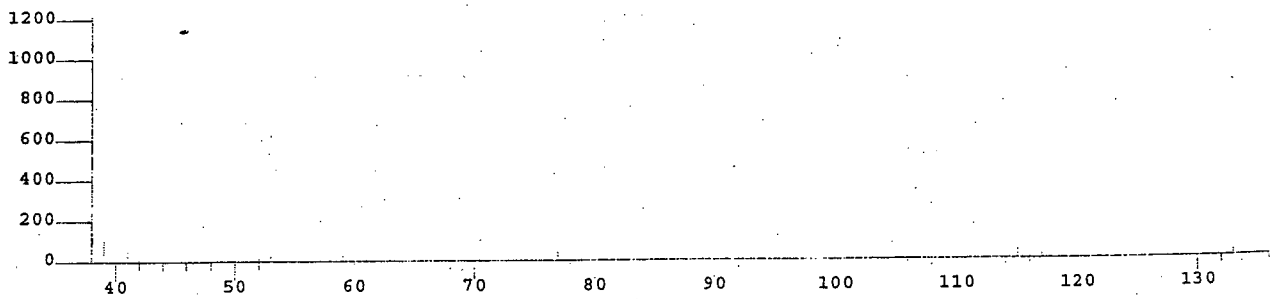
Benzene, 4-ethyl-1,2-dimethyl-



Benzene, 1-methyl-3-(1-methylethyl)-



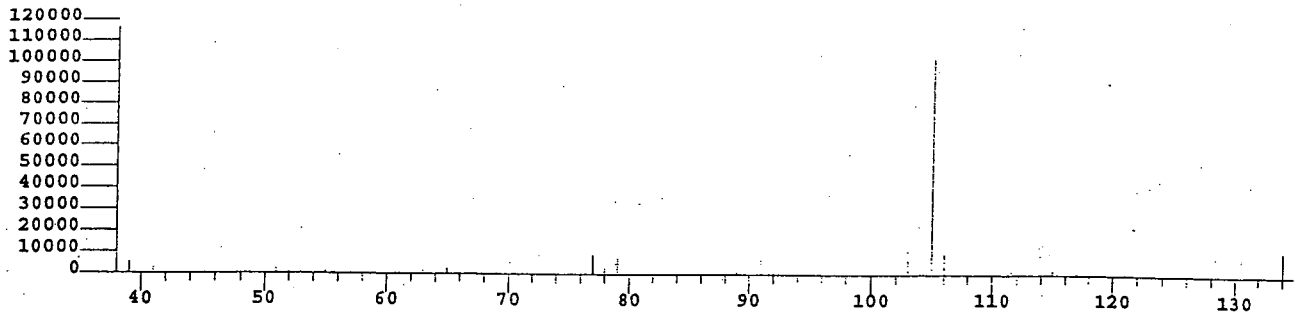
Benzene, 2-ethyl-1,4-dimethyl-



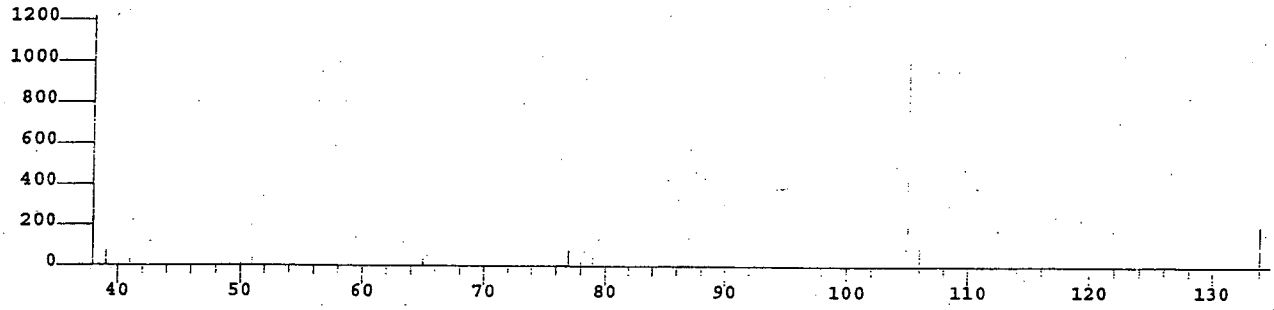
Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP_8260_S_(7) 6)
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
RT (min): 19.95 Scan: 1894
Area: 1075948 Rank: 7
Semi-quantitative Conc(uncorrected): 80.09 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

Name	Cas No	SI	MW	Formula
1) Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	90.5	134	C10H14
2) Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	90.5	134	C10H14
3) Benzene, 2-ethyl-1,4-dimethyl-	[illegible]	[illegible]	134	C10H14
5) Benzene, 2-ethyl-1,3-dimethyl-	2870-04-4	89.5	134	C10H14
6) Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	89.4	134	C10H14
7) Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	89.1	134	C10H14
8) Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	88.8	134	C10H14
9) Benzene, methyl(1-methylethyl)-	25155-15-1	86.6	134	C10H14
10) Bicyclo[4.1.0]hept-4-en-3-ol, 3,7,7-trimethyl-, [1S-(1.alpha.,3.	4017-81-6	85.4	152	C10H16O

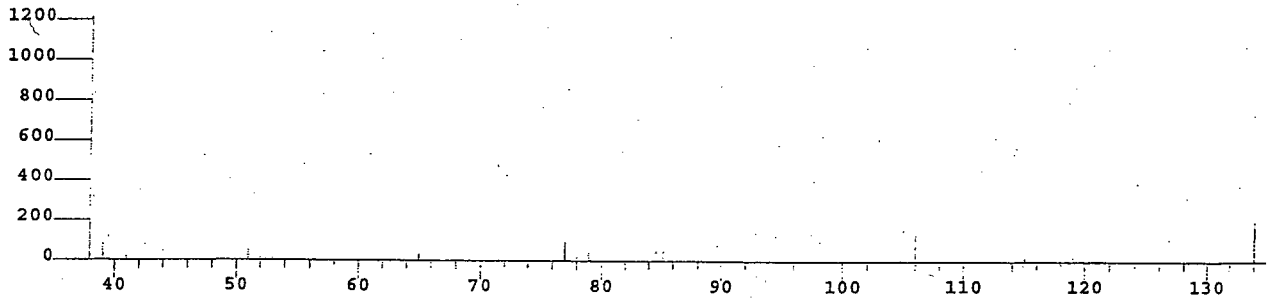
Scan: 1851 RT (min): 19.56



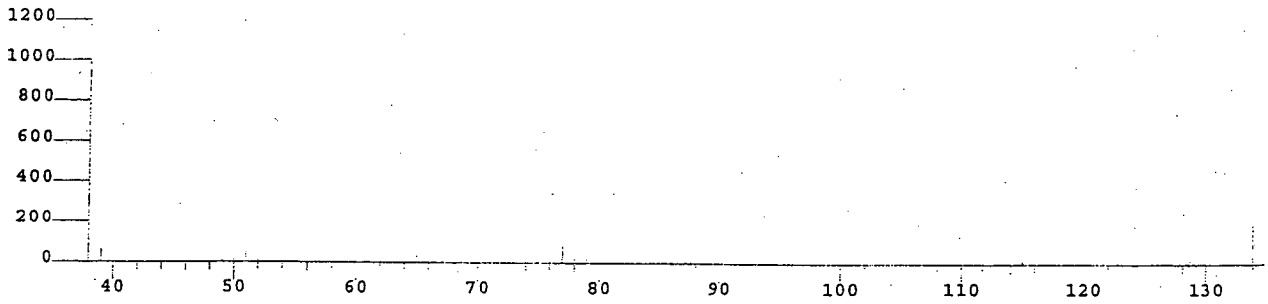
Benzene, 1-methyl-2-propyl-



Benzene, 1-methyl-3-propyl-



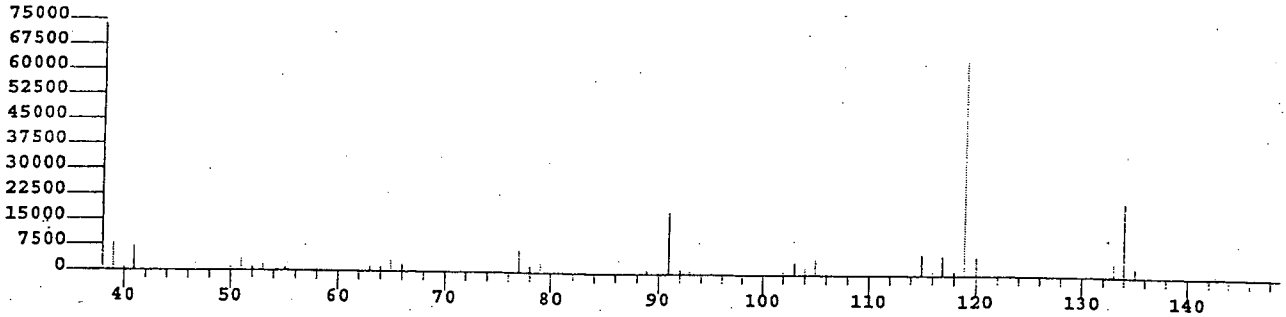
Benzene, 1-methyl-4-propyl-



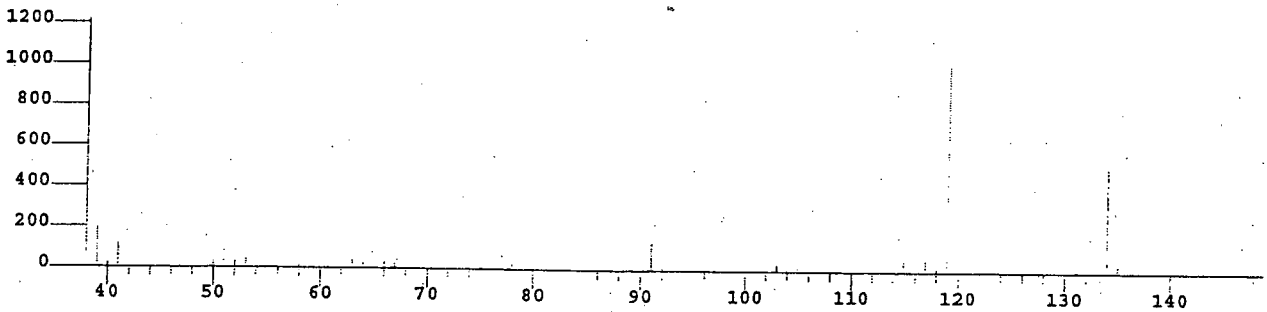
Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP 8260 S (7) 6;
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
RT (min): 19.56 Scan: 1851
Area: 1029120 Rank: 8
Semi-quantitative Conc(uncorrected): 76.61 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

	Name	Cas No.	SI	MW	Formula
1)	Benzene, 1-methyl-2-propyl-	1074-17-5	92.1	134	C10H14
2)	Benzene, 1-methyl-3-propyl-	1074-43-7	89.8	134	C10H14
3)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4)	[illegible]	[illegible]	87.4	134	C9H10O
5)	Benzene, (1-methylpropyl)-	135-98-8	84.5	134	C10H14
6)	Phenol, o-[(.alpha.-methylbenzyl)sulfonyl]-	29634-38-6	83.7	262	C14H14O3S
7)	Benzenehexanenitrile, .beta.,.beta.-dimethyl-.epsilon.-oxo-	62623-62-5	81.4	215	C14H17NO
8)	Benzene, diethyl-	25340-17-4	80.8	134	C10H14
9)	Benzene, (1,3-dimethyl-3-butenyl)-	56851-51-5	79.8	160	C12H16
10)	Benzene, (1-methyl-3-butenyl)-	10340-49-5	79.4	146	C11H14

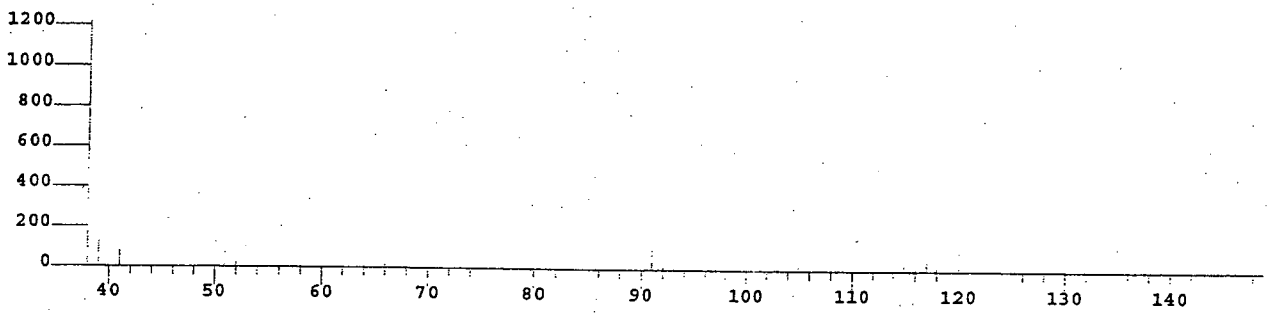
Scan: 2002 RT (min): 20.94



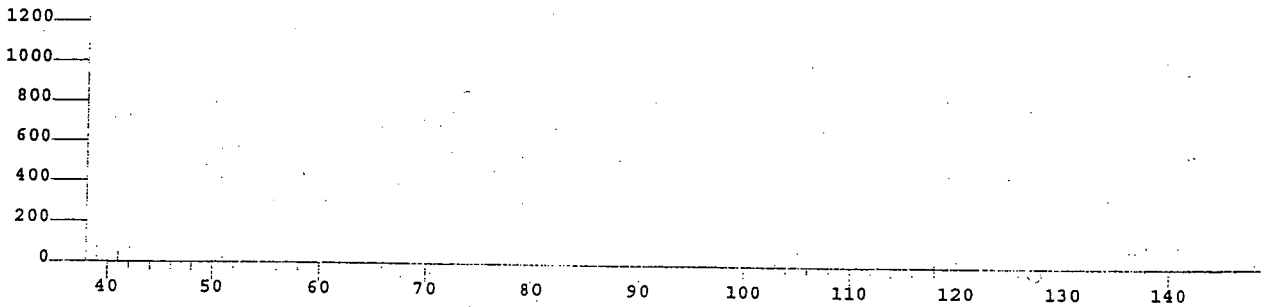
Benzene, 1,2,4,5-tetramethyl-



Benzene, 1,2,3,5-tetramethyl-



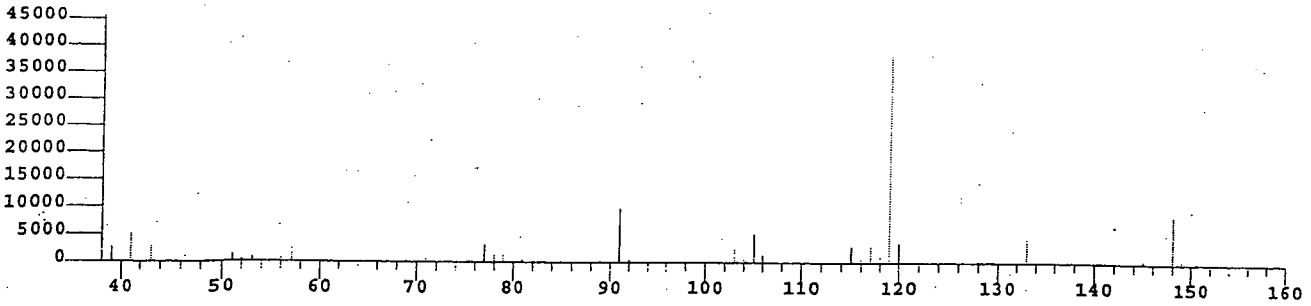
Benzene, 1,2,3,4-tetramethyl-



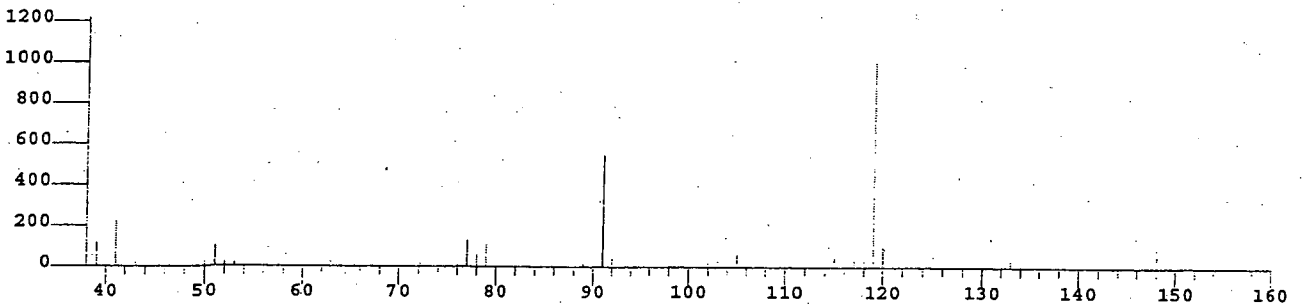
Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP 8260 S (7) 6)
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
RT (min): 20.94 Scan: 2002
Area: 836083 Rank: 9
Semi-quantitative Conc(uncorrected): 62.24 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

	Name	Cas No	SI	MW	Formula
1)	Benzene, 1,2,4,5-tetramethyl-	95-93-2	93.1	134	C10H14
2)	Benzene, 1,2,3,5-tetramethyl-	527-53-7	92.5	134	C10H14
3)	Benzene, 1,2,3,4-tetramethyl-	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6)	Benzene, 1-methyl-3-(1-methylethyl)-	874-41-9	88.2	134	C10H14
7)	Benzene, 2-ethyl-1,3-dimethyl-	535-77-3	88.0	134	C10H14
8)	Benzene, 2-ethyl-1,4-dimethyl-	2870-04-4	87.7	134	C10H14
9)	Benzene, 1-ethyl-3,5-dimethyl-	1758-88-9	87.4	134	C10H14
10)	Benzene, 1-methyl-4-(1-methylethyl)-	934-74-7	86.5	134	C10H14
		99-87-6	86.4	134	C10H14

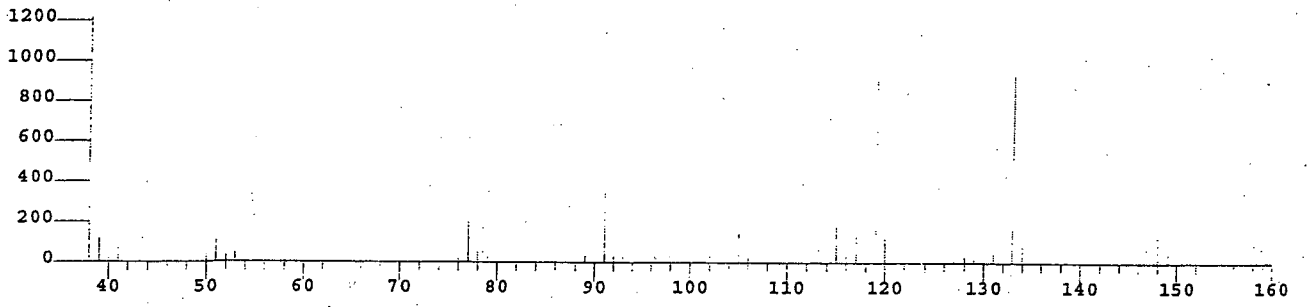
Scan: 2078 RT (min): 21.64



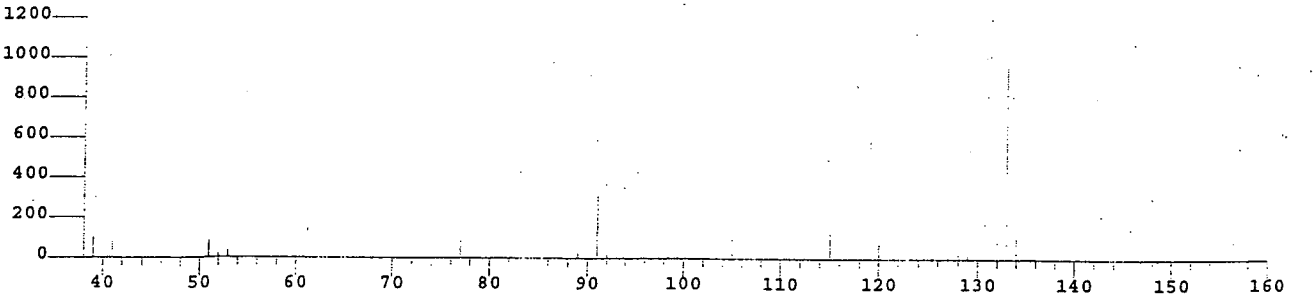
Benzene, (1,1-dimethylpropyl)-



Benzene, 1,3-diethyl-5-methyl-



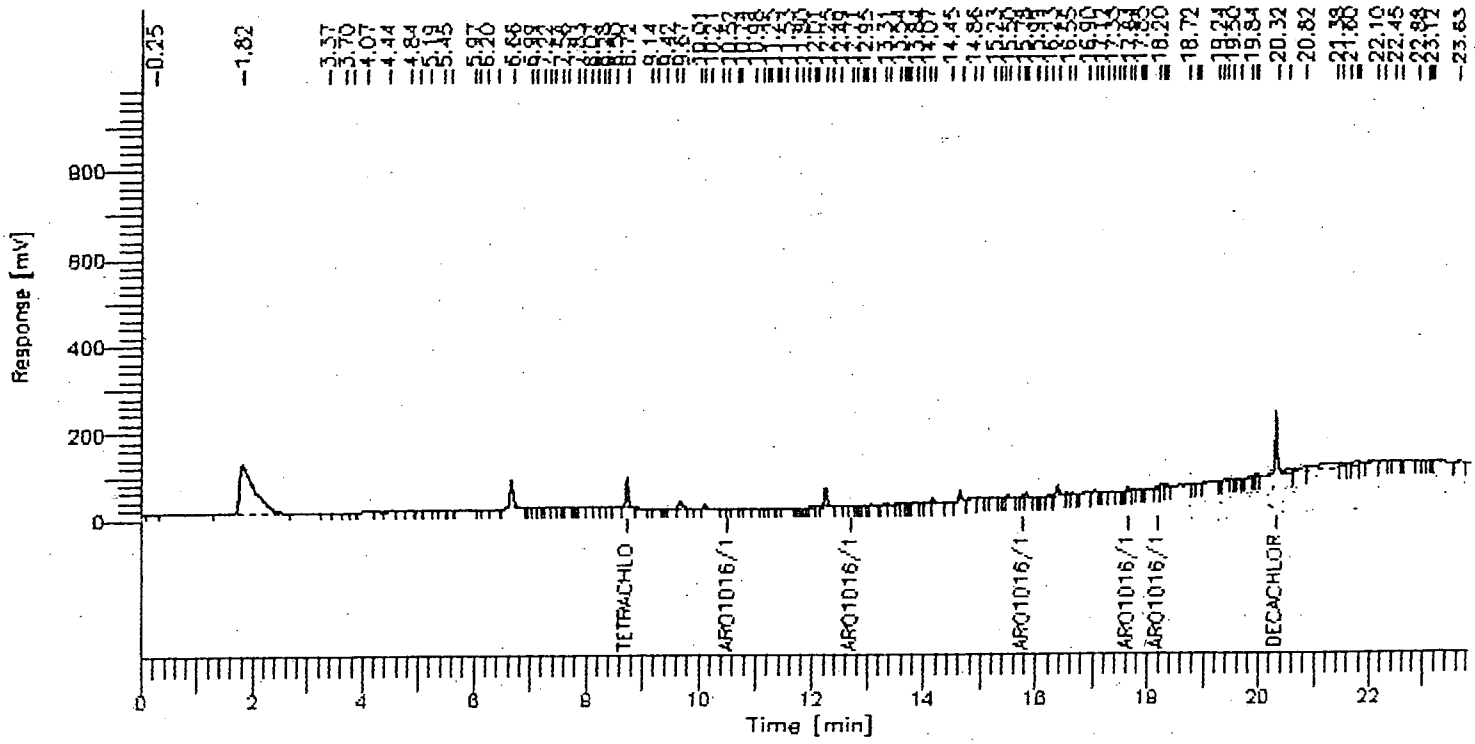
Benzene, 2,4-diethyl-1-methyl-



Data File: C:\DATA\VOB\VOB058.MSS
Name: SAMP 8260 S (7) 6)
Misc Data: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
RT (min): 21.64 Scan: 2078
Area: 805004 Rank: 10
Semi-quantitative Conc(uncorrected): 59.93 ppb
Calculated Using Istd: Chlorobenzene-D5@ 14.03

	Name	Cas No	SI	MW	Formula
1)	Benzene, (1,1-dimethylpropyl)-	2049-95-8	82.5	148	C11H16
2)	Benzene, 1,3-diethyl-5-methyl-	2050-24-0	80.2	148	C11H16
3)	Benzene, 2,4-diethyl-1-methyl-	1758-85-6	77.4	148	C11H16
5)	Benzene, (1,1-dimethylbutyl)-	1985-57-5	74.3	162	C12H18
6)	Benzene, (1,1-dimethyldecyl)-	27854-40-6	73.8	246	C18H30
7)	Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	73.7	134	C10H14
8)	Benzene, (1,1,2-trimethylpropyl)-	26356-11-6	73.7	162	C12H18
9)	Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	72.6	134	C10H14
10)	Benzene, diethylmethyl-	25550-13-4	72.5	148	C11H16

Software Version: 4.1<2F12>
Date: 9/20/01 08:00 AM
Sample Name : 0109076-004A
Data File : C:\TC4\PCB\PCBB466.RAW Date: 9/19/01 10:46 PM
Sequence File: C:\TC4\PCB\PCB2.SEQ Cycle: 466 Channel : B
Instrument : PE_AUTOSYS_PEST/PCB Rack/Vial: 0/0 Operator:
Sample Amount : 1.0000 Dilution Factor : 1.00



VAL ASSOCIATES LABORATORY

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AROCHLOR 1016/1260 ANALYSIS REPORT

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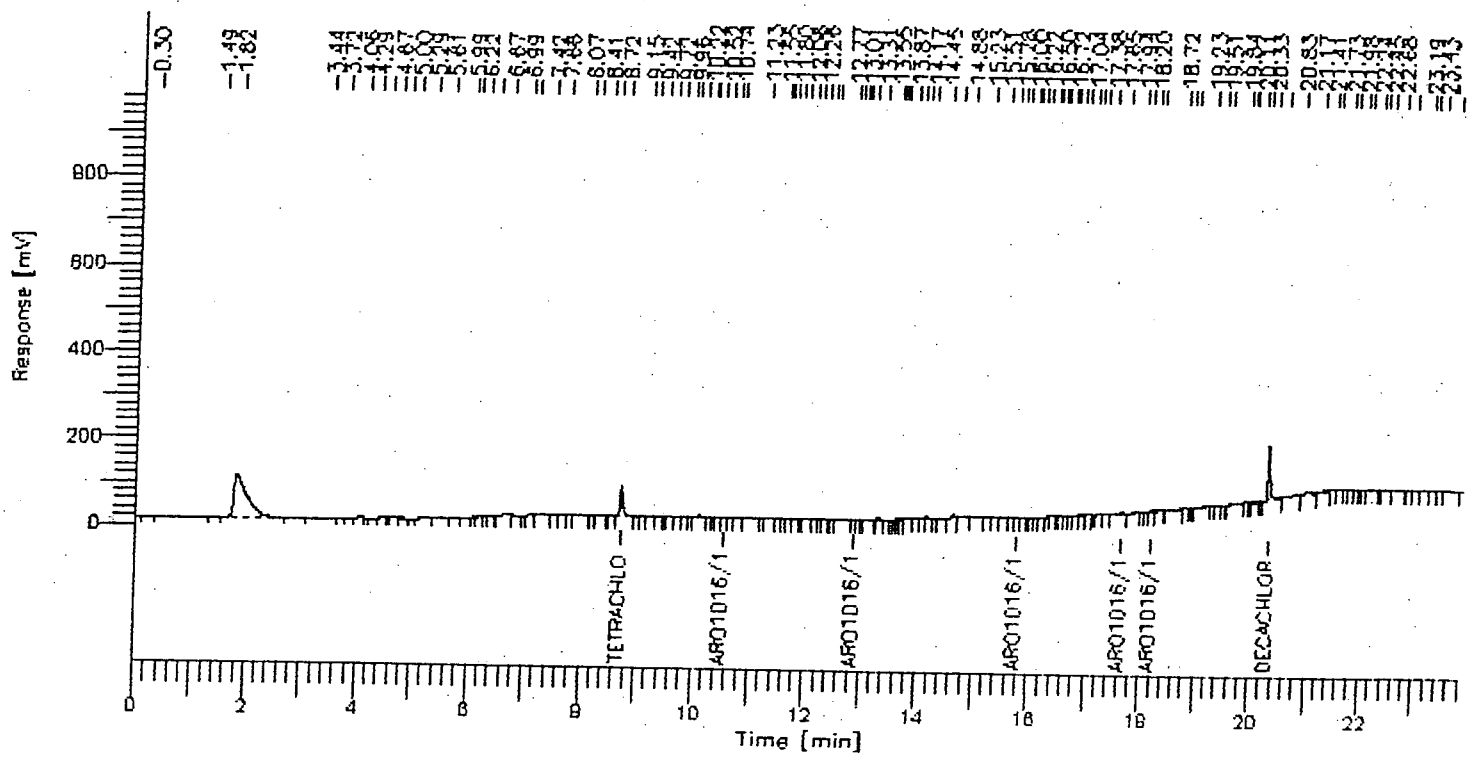
Peak #	Ret Time (min)	Component Name	BL	Area (uV-sec)	Height (uV)	Response Factor	Concentration ppb
32	8.720	Tetrachloro m Xylene	VB	238300.55	70930.89	12361.2627	19.2780
	17.639	AROCLOR 1016/1260		70397.56	24147.31	-3331.0261	-21.1339
119	20.320	Decachlorobiphenyl	VB	459003.57	146017.18	19991.9813	22.9594
				767701.68	241095.39		21.1035

000193

Software Version: 4.1<2F12>
Date: 9/20/01 08:00 AM
Sample Name : 0109076-010A
Data File : C:\TC4\PCB\PCBB467.RAW Date: 9/19/01 11:16 PM
Sequence File: C:\TC4\PCB\PCB2.SEQ Cycle: 467 Channel : B
Instrument : PE_AUTOSYS_PEST/PCB Rack/Vial: 0/0 Operator:
Sample Amount : 1.0000 Dilution Factor : 1.00



VAL ASSOCIATES LABORATORY

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AROCHLOR 1016/1260 ANALYSIS REPORT

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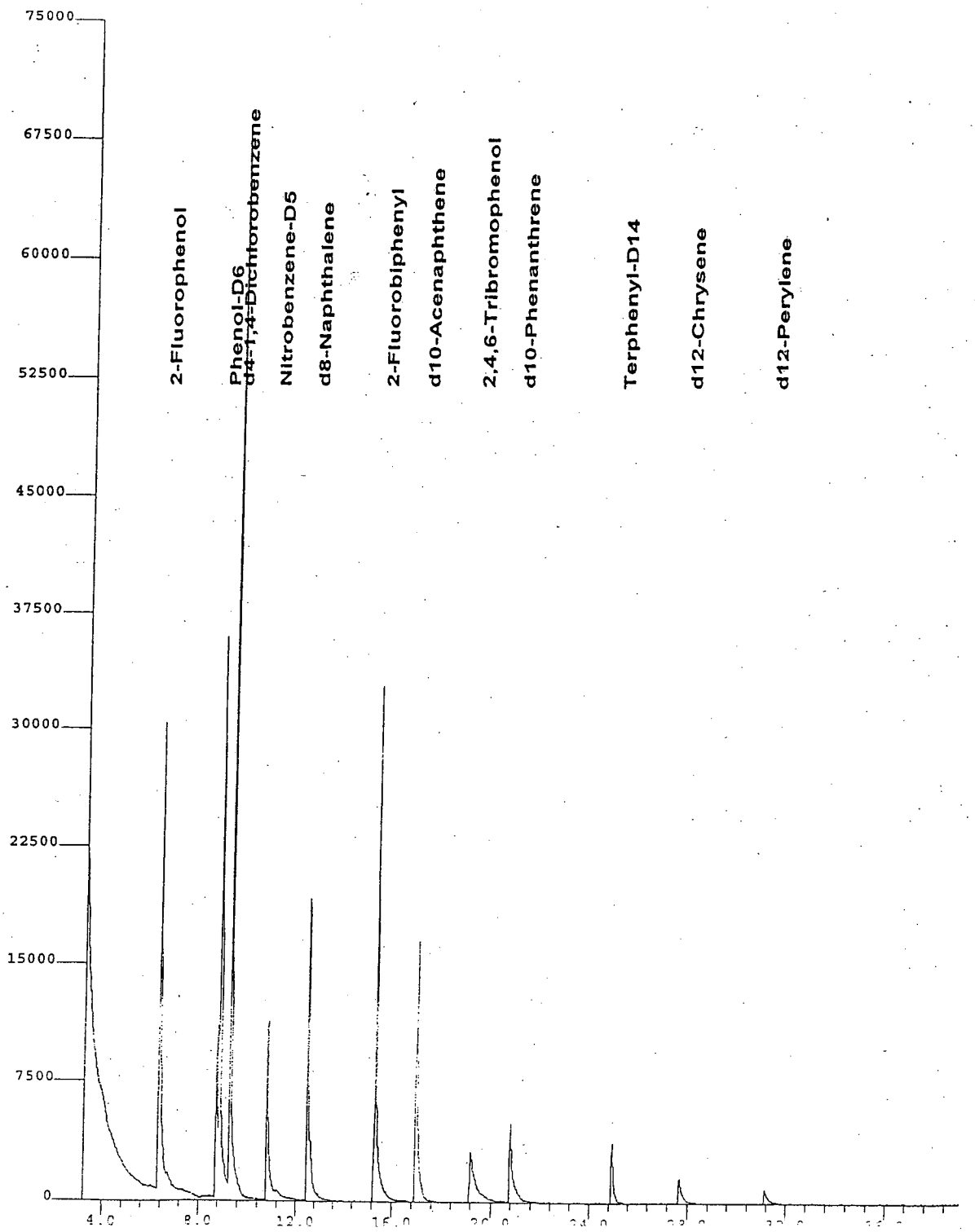
Peak #	Ret Time [min]	Component Name	BL	Area [uV-sec]	Height [uV]	Response Factor	Concentration ppb
27	8.723	Tetrachloro m Xylene	BB	236205.60	68892.80	12361.2627	19.1085
	17.645	AROCLOR 1016/1260		37975.43	9875.21	-1445.2389	-26.2762
107	20.326	Decachlorobiphenyl	BB	370981.02	128154.25	19991.9813	18.5565
				645162.05	206922.26		11.3888

000194

Data File: C:\BNAP\BNAPB126.MSS
Quant Output File: C:\BNAP\BNAPB126.Q
Injection Time: 09/19/81 10:00
Misc: MB-2549#3,BB399,L,1000.0,1.00,1.0,0,



000195

QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\BNAP\BNAPB126.Q
Data File: c:\bnap\bnapb126.mss
Name: MBLK_8270_SBNA_(2) 1
Misc: MB-2549#3,BB399,L,1000.0,1.00,1.0,0,
ID File: c:\bnap\hsl\8270b.i
Title: SW-846 Method 8270 Semi-Volatile Quant ID File
Last Calib: 08/23/01 06:59

Quant Time : 01/98/20 55:00
Injected at : 09/19/81 10:00
Last Qcal Date: None

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*d4-1,4-Dichlorobenzene	9.26	152	62268	40.00	ug/l	98
4)	2-Fluorophenol	6.32	112	96100	46.81	ug/l	100
7)M	Phenol-D6	8.72	99	77111	50.05	ug/l	0
22)	*d8-Naphthalene	12.45	136	72444	40.00	ug/l	100
23)M	Nitrobenzene-D5	10.78	54	34281	59.20	ug/l	0
37)	*d10-Acenaphthene	16.94	162	39500	40.00	ug/l	98
42)	2-Fluorobiphenyl	15.28	172	98265	82.94	ug/l	100
62)	2,4,6-Tribromophenol	19.19	332	12675	63.70	ug/l	94
63)M	*d10-Phenanthrene	20.78	188	52746	40.00	ug/l	0
75)M	*d12-Chrysene	27.64	240	18368	40.00	ug/l	0
77)M	Terphenyl-D14	24.90	244	17180	62.47	COUNTS	0
83)M	*d12-Perylene	31.14	264	7358	40.00	ug/l	0

* Compound is Internal Standard

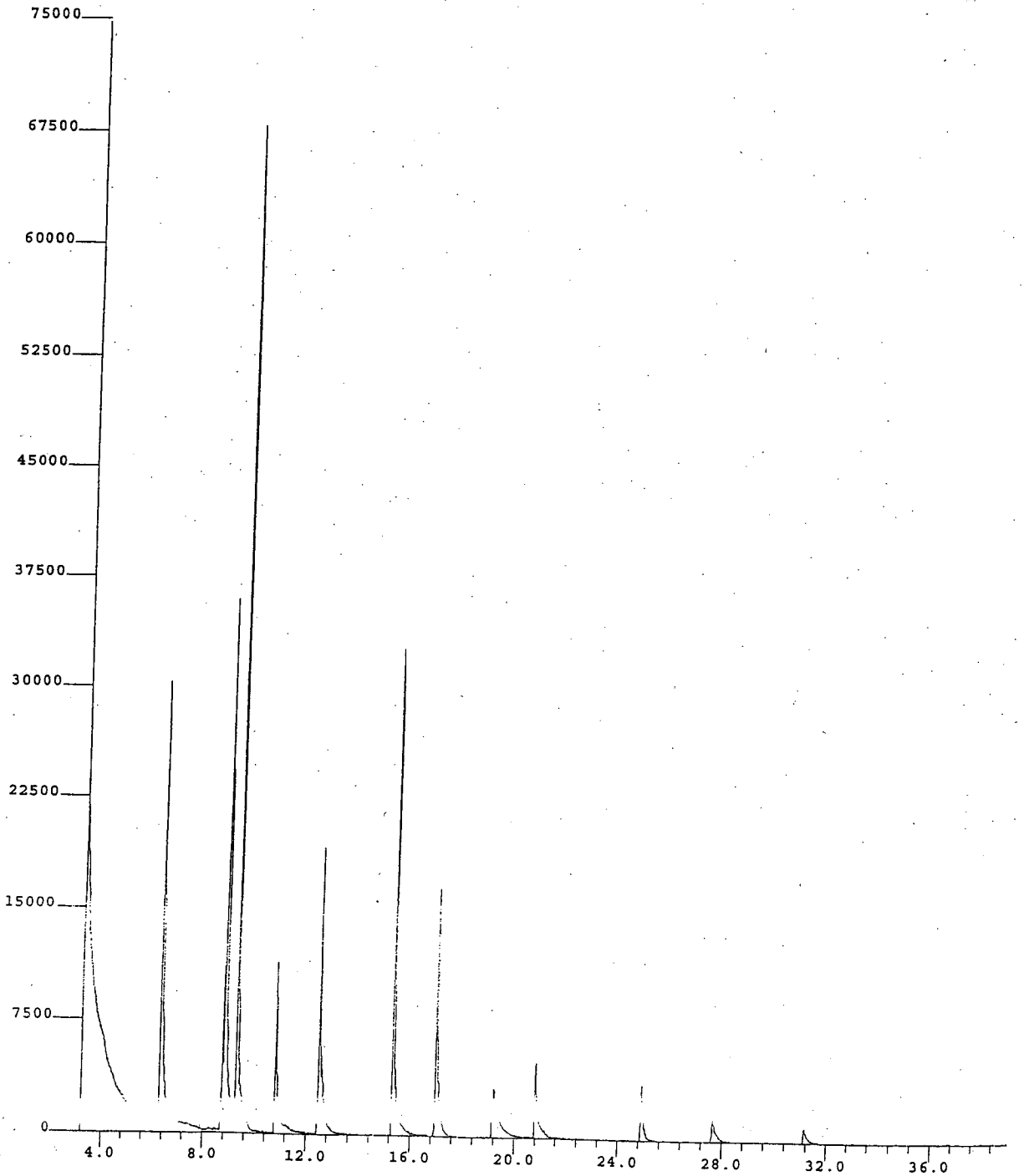
Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\bnap\bnapb126.q
Data File Name: C:\BNAP\BNAPB126.MSS
Name: MBLK_8270_SBNA_(2) 1
Misc Data: MB-2549#3,BB399,L,1000.0,1.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\BNA.NIS
Parameters Minimum % Istd Area to Report: 10.00
Absolute maximum Number of Peaks: 15
Which Istd from Output file(1st,2nd)..: 2
Maximum Hits for graphics: 3

Rank Order
Date: 09-21-2001
Time: 15:05:55
Delta Rt: 0.06

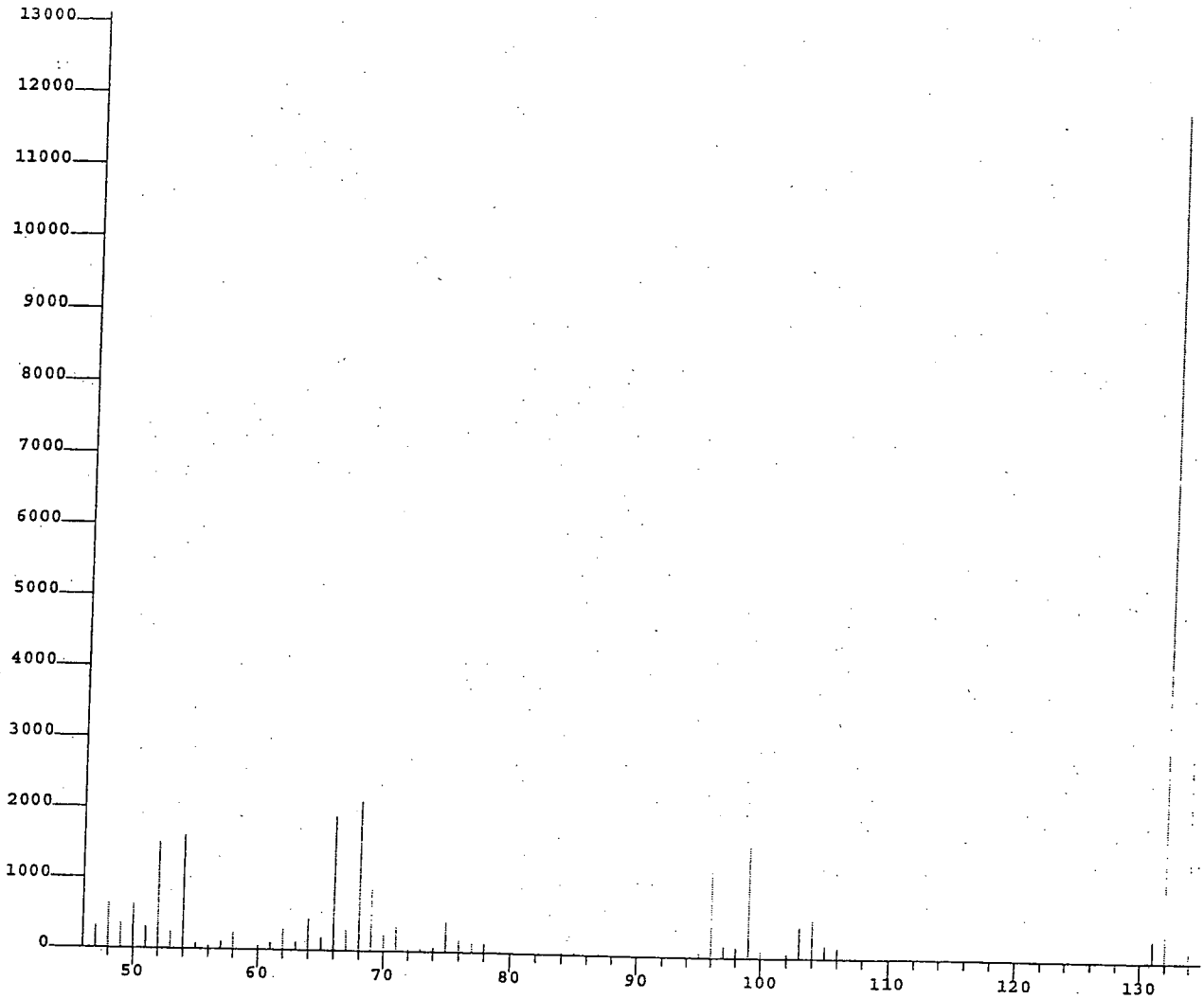
#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
4)	9.26	9.23	9.35	0.124	BB	359857	ISTD	d4-1,4-Dichlorobenzene
3)	8.80	8.77	8.91	0.138	VB	281614	1	
1)	6.32	6.30	6.44	0.142	BB	223234	CMPD	2-Fluorophenol
7)	15.28	15.24	15.37	0.125	BB	204969	CMPD	2-Fluorobiphenyl
6)	12.45	12.42	12.62	0.199	BB	154183	ISTD	d8-Naphthalene
8)	16.94	16.90	17.02	0.115	BB	101815	ISTD	d10-Acenaphthene
2)	8.72	8.69	8.77	0.078	BV	67109	CMPD	Phenol-D6
5)	10.78	10.75	10.85	0.092	BB	66690	CMPD	Nitrobenzene-D5
9)	19.18	19.13	19.28	0.156	BB	34056	CMPD	2,4,6-Tribromophenol
10)	20.78	20.74	20.81	0.070	BB	19128	ISTD	d10-Phenanthrene
11)	24.91	24.87	24.95	0.079	BB	16125	CMPD	Terphenyl-D14

Data File: C:\BNAP\BNAPB126.MSS
Quant Output File: c:\bnap\bnapb126.q
Injection Time: 09/19/81 10:00
Misc: MB-2549#3,BB399,L,1000.0,1.00,1.0,0,



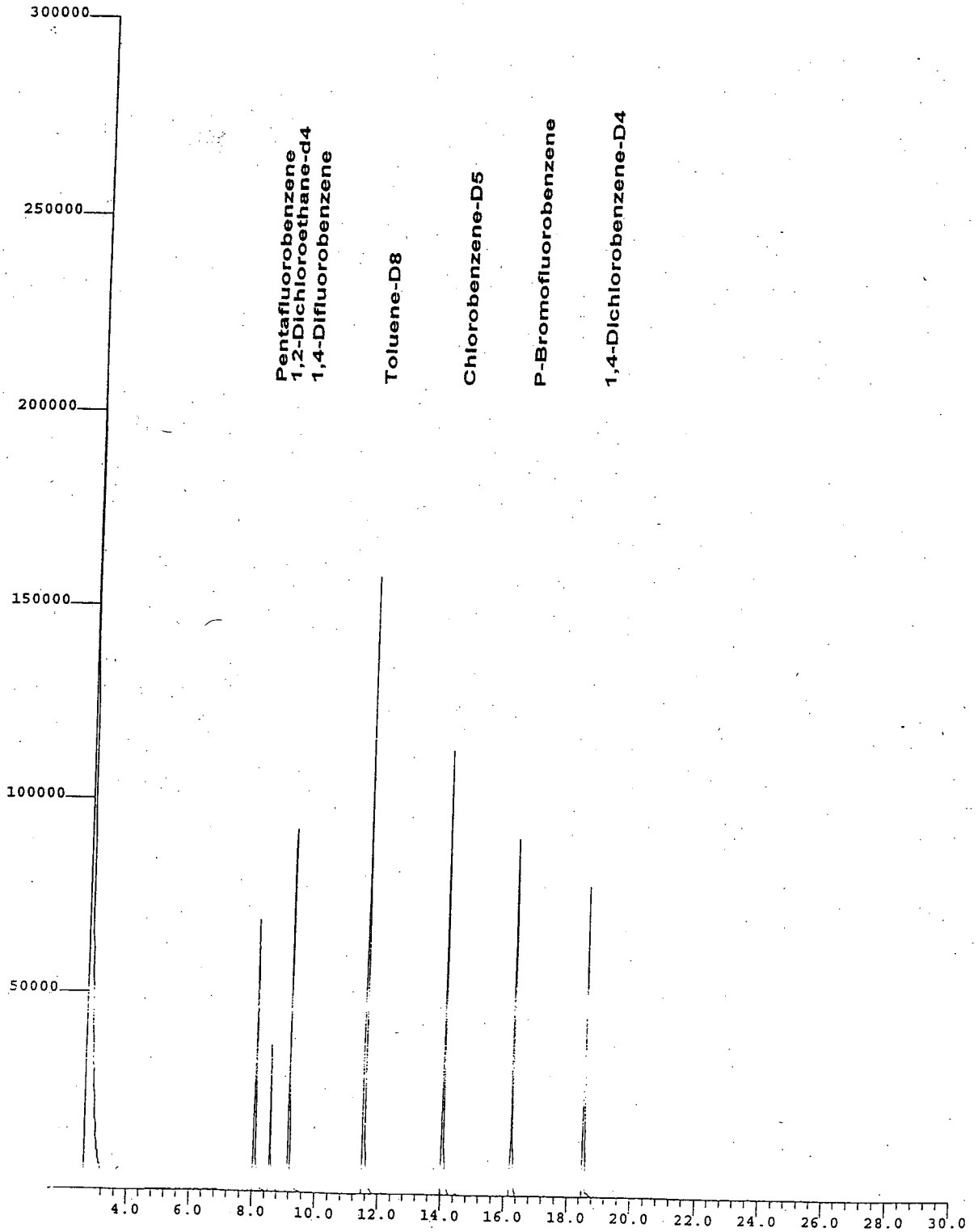
000198

Scan: 791 RT (min): 8.80



Data File: C:\BNAP\BNAPB126.MSS
Name: MBLK_8270_SBNA_(2) 1
Misc Data: MB-2549#3,BB399,L,1000.0,1.00,1.0,C,
RT (min): 8.80 Scan: 791
Area: 281614 Rank: 1
Semi-quantitative Conc(uncorrected): 31.30 ug/l
Calculated Using Istd: d4-1,4-Dichlorobenzene@ 9.26
No library Matches Found

Data File: C:\DATA\VOB\VOB051.MSS
Quant Output File: C:\DATA\VOB\VOB051.Q
Injection Time: 09/20/81 08:41
Misc: BLANK,BB716,L,5.00,5.00,1.0,0,



QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB051.Q
Data File: c:\data\vob\vob051.mss
Name: MBLK_8260_S_(1) 0)
Misc: BLANK,BB716,L,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 01/97/20 36:00
Injected at : 09/20/81 08:41
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*Pentafluorobenzene	8.06	168	133534	50.00	ppb	100
25)	1,2-Dichloroethane-d4	8.56	65	76754	113.03	ppb	91
27)	*1,4-Difluorobenzene	9.17	114	211053	50.00	ppb	92
39)	Toluene-D8	11.52	98	282011	94.36	ppb	92
44)	*Chlorobenzene-D5	14.05	117	157093	50.00	ppb	100
56)	P-Bromofluorobenzene	16.24	95	101004	92.90	ppb	100
58)	*1,4-Dichlorobenzene-D4	18.52	152	62980	50.00	ppb	99

* Compound is Internal Standard

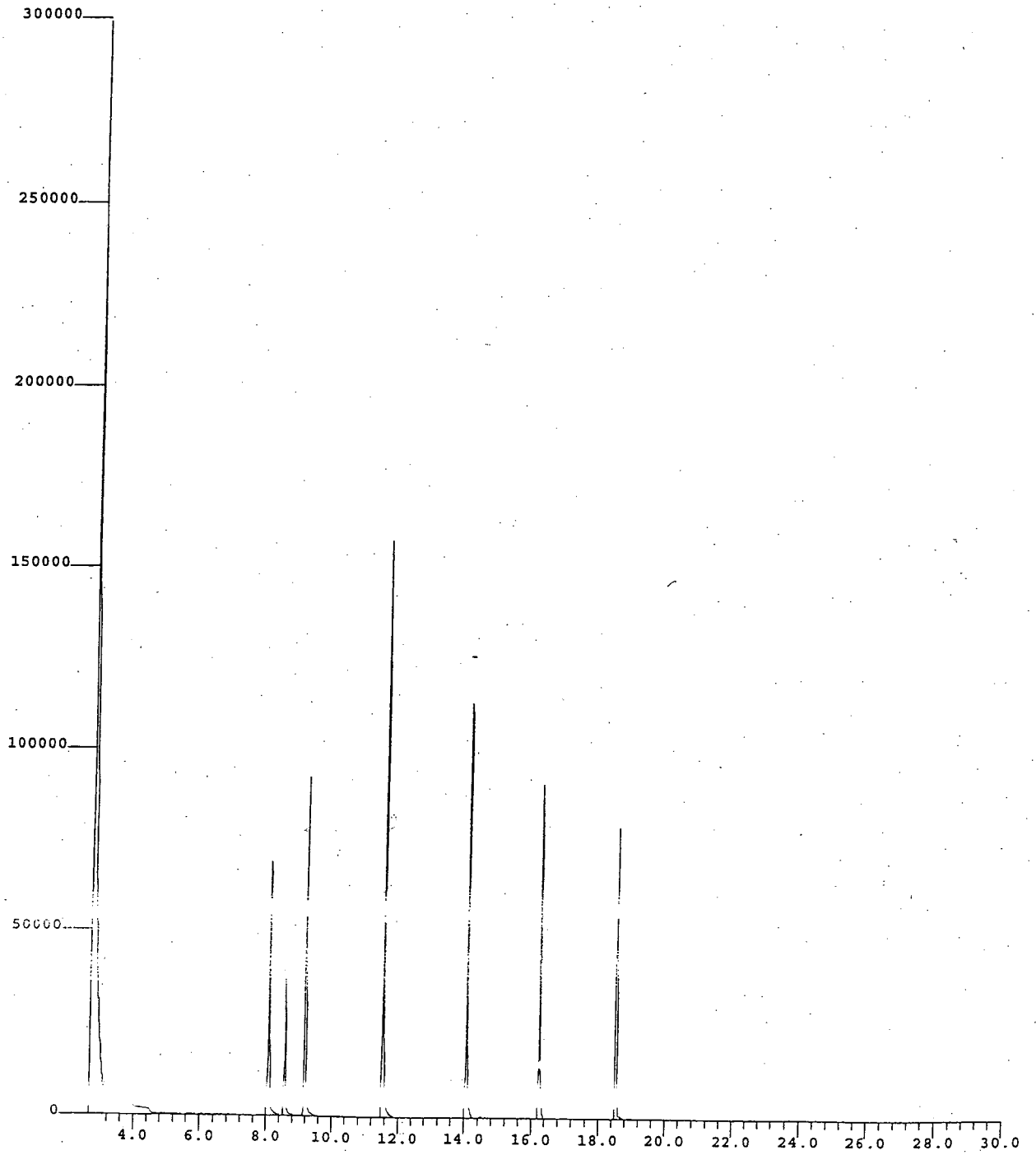
Int report for Plus Analysis ..... Plus version 5.0

Quant Output File: c:\data\vob\vob051.q
Data File Name: C:\DATA\VOB\VOB051.MSS
Name: MBLK_8260_S_(1) 0)
Misc Data: BLANK,BB716,L,5.00,5.00,1.0,0,
Plus Method File: C:\AQUARIUS\FILES\VOA.NIS
Parameters Minimum % Istd Area to Report: 10.00
Absolute maximum Number of Peaks: 10
Which Istd from Output file(1st,2nd)..: 2
Maximum Hits for graphics: 3

Rank Order
Date: 09-21-2001
Time: 12:35:30
Delta Rt: 0.05

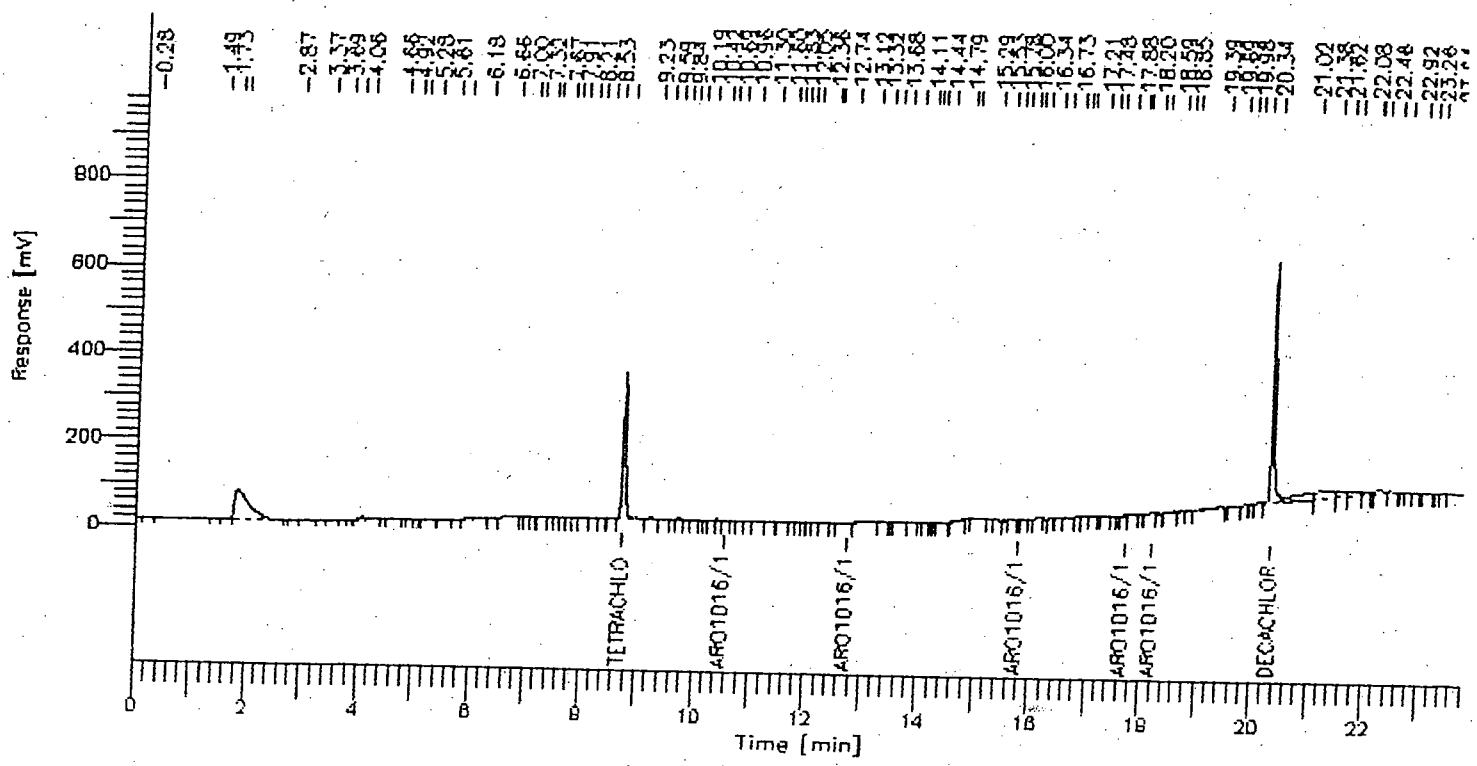
#	R.T. (min.)	Start Time	End Time	Width	Type	Area	Rank	
4)	11.52	11.46	11.63	0.174	BB	712080	CMPD	Toluene-D8
5)	14.05	14.00	14.16	0.165	BB	511000	ISTD	Chlorobenzene-D5
3)	9.17	9.11	9.29	0.174	BB	457759	ISTD	1,4-Difluorobenzene
6)	16.24	16.18	16.37	0.192	BB	412701	CMPD	P-Bromofluorobenzene
7)	18.52	18.46	18.62	0.156	BB	389719	ISTD	1,4-Dichlorobenzene-D4
1)	8.06	8.01	8.16	0.156	BB	374905	ISTD	Pentafluorobenzene
2)	8.56	8.52	8.65	0.137	BB	181442	CMPD	1,2-Dichloroethane-d4

Data File: C:\DATA\VOB\VOB051.MSS
Quant Output File: c:\data\vob\vob051.q
Injection Time: 09/20/81 08:41
Misc: BLANK,BB716,L,5.00,5.00,1.0,0,



000203

Software Version: 4.1<2F12>
Date: 9/20/01 07:56 AM
Sample Name : MB-2664
Data File : C:\TC4\PCB\PCBB457.RAW Date: 9/19/01 06:19 PM
Sequence File: C:\TC4\PCB\PCB2.SEQ Cycle: 457 Channel : B
Instrument : PE_AUTOSYS_PEST/PCB Rack/Vial: 0/0 Operator:
Sample Amount : 1.0000 Dilution Factor : 1.00

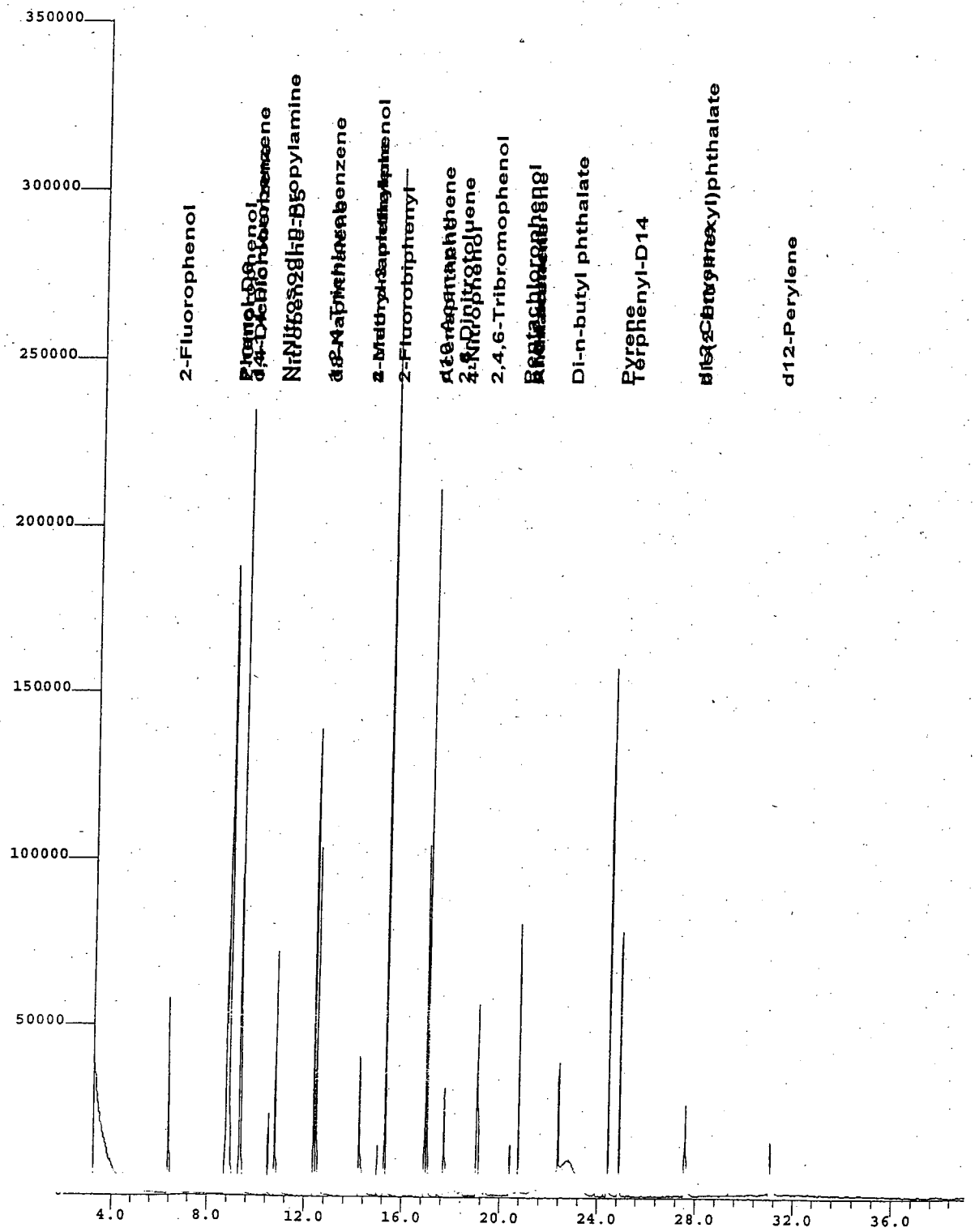


VAL ASSOCIATES LABORATORY

AROCHLOR 1016/1260 ANALYSIS REPORT

Peak #	Ret Time [min]	Component Name	BL	Area [uV-sec]	Height [µV]	Response Factor	Concentration ppb
29	8.729	Tetrachloro m Xylene	BV	1211169.92	337980.79	12361.2627	97.9811
	16.197	AROCLOR 1016/1260		34427.66	6063.98	-1282.7509	-26.8389
89	20.335	Decachlorobiphenyl	VE	1780610.75	554269.61	19991.9813	89.0662
				3026208.34	898314.38		160.2084

Data File: C:\BNAP\BNAPB059.MSS
Quant Output File: C:\BNAP\BNAPB059.Q
Injection Time: 08/29/81 16:42
Misc: 0108123-015A,BB393,S,30.00,1.00,1.0,0,



000205

QUANT REPORT
Quant Rev: 10

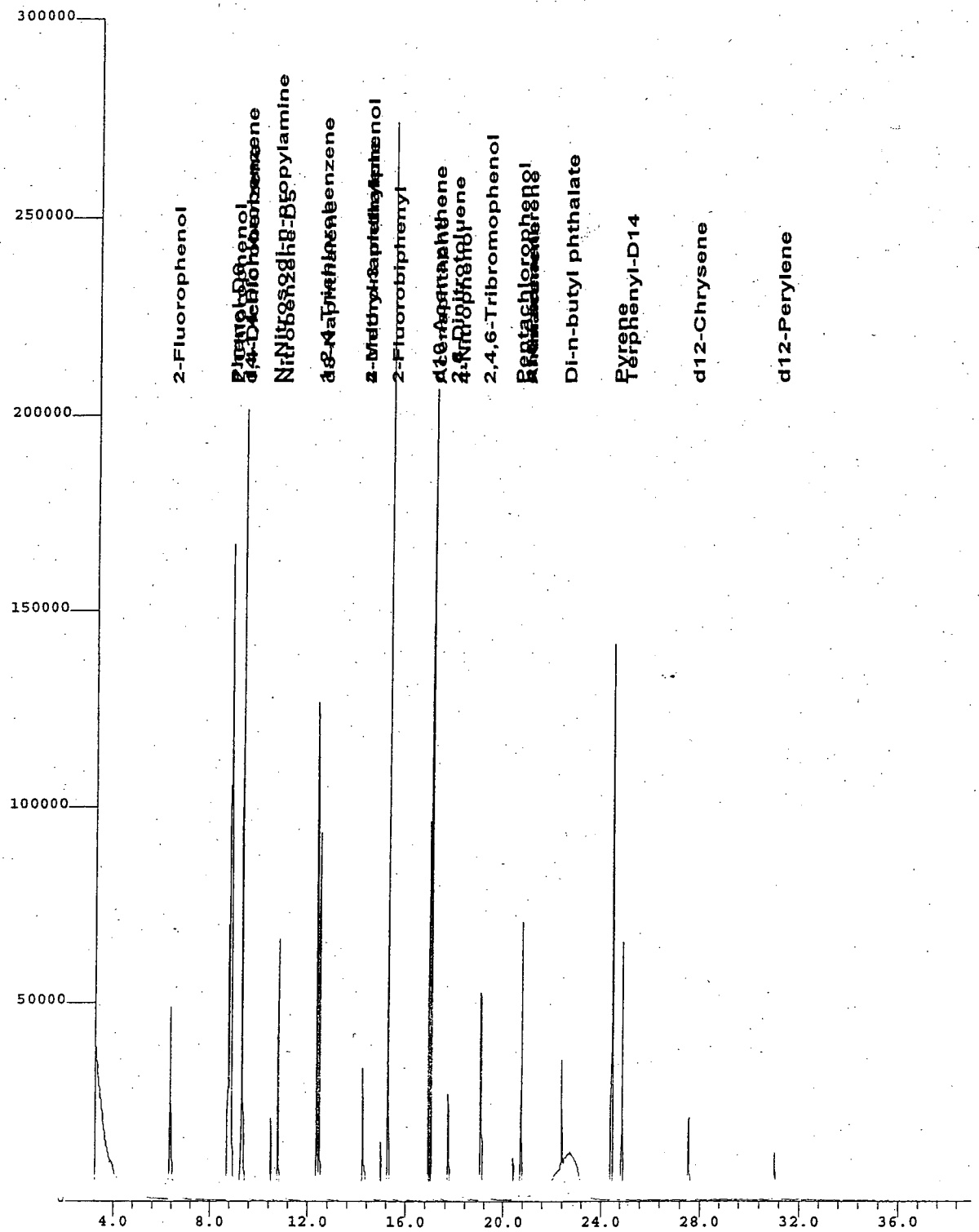
Operator Id:
Dilution Factor:<None>
Output File: C:\BNAP\BNAPB059.Q
Data File: c:\bnap\bnapb059.mss
Name: MS _8270_S_BNA (9)
Misc: 0108123-015A,BB393,S,30.00,1.00,1.0,0,
ID File: c:\bnap\hsl\8270b.i
Title: SW-846 Method 8270 Semi-Volatile Quant ID File
Last Calib: 08/23/01 06:59

Quant Time : 01/81/20 01:00
Injected at : 08/29/81 16:42
Last Qcal Date: None

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*d4-1,4-Dichlorobenzene	9.29	152	70049	40.00	ug/l	98
4)	2-Fluorophenol	6.33	112	141692	61.35	ug/l	100
7)	Phenol-D6	8.75	99	97219	56.09	ug/l	100
8)	Phenol	8.78	94	130953	69.82	ug/l	100
9)	2-Chlorophenol	8.86	128	213290	78.02	ug/l	90
11)	1,4-Dichlorobenzene	9.33	148	133310	74.54	ug/l	100
18)	N-Nitrosodi-n-propylamine	10.50	70	35100	47.78	ug/l	100
22)	*d8-Naphthalene	12.47	136	200812	40.00	ug/l	100
23)	Nitrobenzene-D5	10.80	54	80939	50.42	ug/l	100
29)	1,2,4-Trichlorobenzene	12.36	180	104297	80.62	ug/l	93
35)	2-Methylnaphthalene	14.22	142	70092	21.65	ug/l	100
36)	4-chloro-3-methylphenol	14.22	107	80802	83.26	ug/l	100
37)	*d10-Acenaphthene	16.95	162	101565	40.00	ug/l	90
42)	2-Fluorobiphenyl	15.29	172	255011	83.71	ug/l	100
51)	2,6-Dinitrotoluene	17.72	63	16696	39.06	ug/l	100
52)	Acenaphthene	17.05	153	242203	76.61	ug/l	92
54)M	2,4-Dinitrotoluene	17.72	165	61060	63.74	ug/l	0
55)M	4-Nitrophenol	18.07	139	27339	11.15	ug/l	0
62)M	2,4,6-Tribromophenol	19.05	332	53816	105.18	ug/l	0
63)	*d10-Phenanthrene	20.75	188	109484	40.00	ug/l	98
68)M	Pentachlorophenol	20.42	266	5493	66.71	ug/l	0
69)	Phenanthrene	20.80	178	4471	1.37	ug/l	88
70)	Anthracene	20.80	178	4471	1.37	ug/l	87
72)	Di-n-butyl phthalate	22.39	149	69801	11.64	ug/l	97
74)	Pyrene	24.46	202	290170	103.79	ug/l	92
75)	*d12-Chrysene	27.57	240	42256	40.00	ug/l	100
77)	Terphenyl-D14	24.89	244	44753	70.73	ug/l	92
82)	bis(2-Ethylhexyl)phthalate	27.65	149	4711	1.21	ug/l	87
83)	*d12-Perylene	31.04	264	18556	40.00	ug/l	100

* Compound is Internal Standard

Data File: C:\BNAP\BNAPB061.MSS
Quant Output File: C:\BNAP\BNAPB061.Q
Injection Time: 08/29/81 18:25
Misc: 0108123-015A,BB393,S,30.00,1.00,1.0,0,



000207

QUANT REPORT
Quant Rev: 10

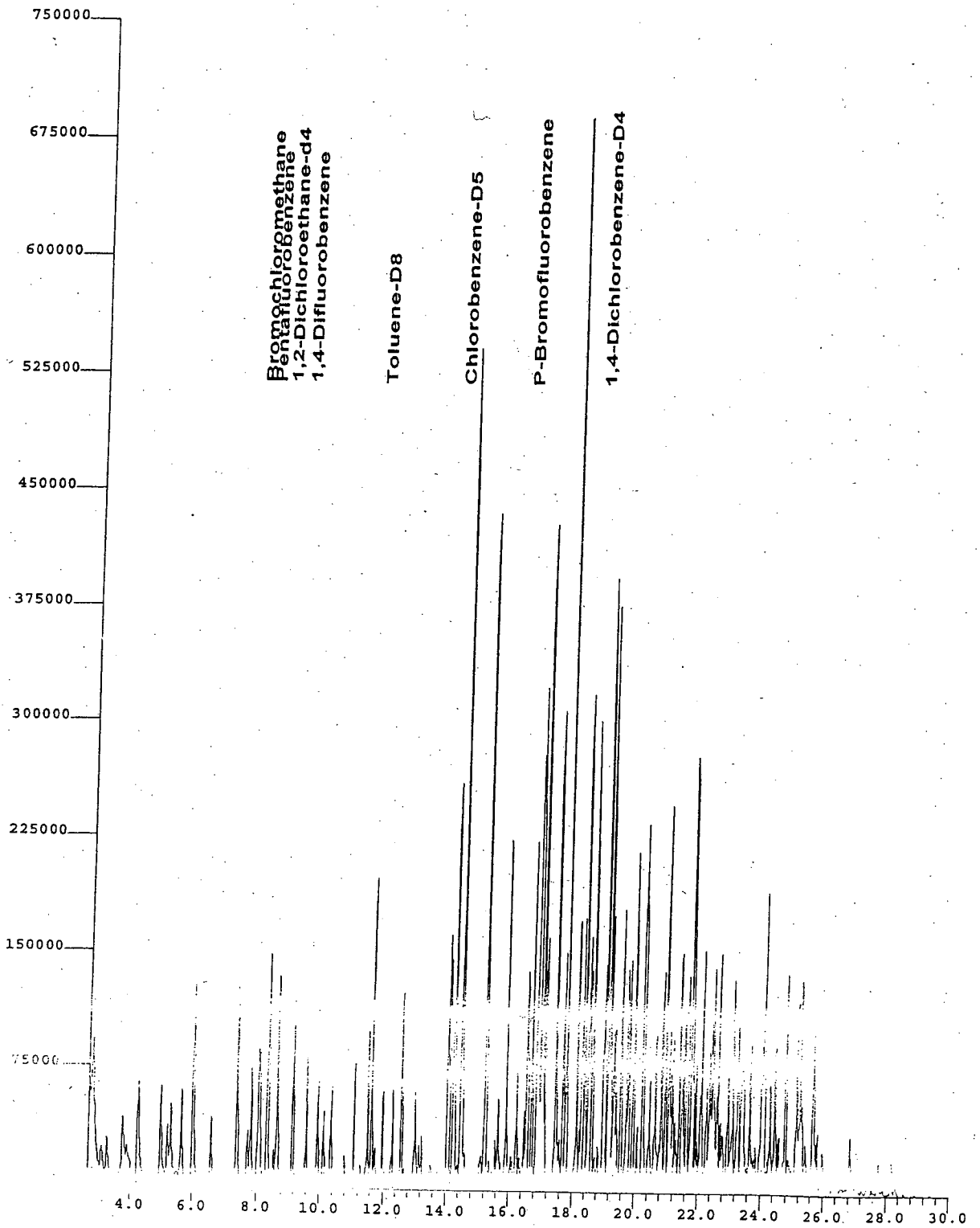
Operator Id:
Dilution Factor: <None>
Output File: C:\BNAP\BNAPB061.Q
Data File: c:\bnap\bnapb061.mss
Name: MDS__8270_SBNA_(11)
Misc: 0108123-015A,BB393,S,30.00,1.00,1.0,0,
ID File: c:\bnap\hsl\8270b.i
Title: SW-846 Method 8270 Semi-Volatile Quant ID File
Last Calib: 08/23/01 06:59

Quant Time : 01/81/20 01:00
Injected at : 08/29/81 18:25
Last Qcal Date: None

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*d4-1,4-Dichlorobenzene	9.28	152	61945	40.00	ug/l	99
4)	2-Fluorophenol	6.32	112	125489	61.45	ug/l	100
7)	Phenol-D6	8.73	99	91082	59.42	ug/l	100
8)	Phenol	8.76	94	110996	66.92	ug/l	100
9)	2-Chlorophenol	8.85	128	181642	75.14	ug/l	91
11)	1,4-Dichlorobenzene	9.32	148	115290	72.90	ug/l	100
18)	N-Nitrosodi-n-propylamine	10.48	70	31343	48.25	ug/l	100
22)	*d8-Naphthalene	12.45	136	185766	40.00	ug/l	100
23)	Nitrobenzene-D5	10.78	54	70969	47.79	ug/l	100
29)	1,2,4-Trichlorobenzene	12.35	180	94205	78.72	ug/l	94
35)	2-Methylnaphthalene	14.21	142	32973	11.01	ug/l	100
36)	4-chloro-3-methylphenol	14.21	107	79241	88.26	ug/l	100
37)	*d10-Acenaphthene	16.94	162	91977	40.00	ug/l	91
42)	2-Fluorobiphenyl	15.28	172	233519	84.65	ug/l	100
51)	2,6-Dinitrotoluene	17.71	63	12940	33.43	ug/l	100
52)	Acenaphthene	17.03	153	224317	78.35	ug/l	91
54)M	2,4-Dinitrotoluene	17.70	165	49472	57.03	ug/l	0
55)M	4-Nitrophenol	18.00	139	24883	11.21	ug/l	0
62)M	2,4,6-Tribromophenol	19.04	332	49887	107.66	ug/l	0
63)	*d10-Phenanthrene	20.73	188	103311	40.00	ug/l	96
68)M	Pentachlorophenol	20.40	266	4337	55.82	ug/l	0
69)	Phenanthrene	20.79	178	4305	1.40	ug/l	99
70)	Anthracene	20.79	178	4305	1.40	ug/l	98
72)	Di-n-butyl phthalate	22.37	149	63799	11.28	ug/l	98
74)	Pyrene	24.44	202	255574	96.88	ug/l	92
75)	*d12-Chrysene	27.55	240	39025	40.00	ug/l	100
77)	Terphenyl-D14	24.87	244	40789	69.80	ug/l	89
83)M	*d12-Perylene	31.02	264	19188	40.00	ug/l	0

* Compound is Internal Standard

Data File: C:\DATA\VOB\VOB059.MSS
Quant Output File: C:\DATA\VOB\VOB059.Q
Injection Time: 09/20/81 14:10
Misc: 0109076-014A,BB716,S,5.00,5.00,1.0,0,



QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB059.Q
Data File: c:\data\vob\vob059.mss
Name: MS___8260_S_(8) 7)
Misc: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 01/98/20 40:00
Injected at : 09/20/81 14:10
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*Pentafluorobenzene	8.04	168	145023	50.00	ppb	100
2)	Dichlorodifluoromethane	2.76	85	211426	49.88	ppb	96
3)	Chloromethane	3.06	50	16111	7.18	ppb	81
4)	Vinyl Chloride	3.23	62	104204	45.16	ppb	100
5)	Bromomethane	3.72	94	98241	27.06	ppb	87
6)	Chloroethane	3.86	64	24615	28.08	ppb	100
7)	Trichlorofluoromethane	4.23	101	260222	45.16	ppb	100
8)	Acrolein	6.00	56	7673	45.29	ppb	100
9)	Acetone	5.50	43	29998	105.89	ppb	100
10)M	1,1-Dichloroethene	4.97	61	169828	48.07	ppb	0
11)	Iodomethane	5.19	142	172683	63.84	ppb	93
12)	Carbon Disulfide	5.29	76	230516	45.66	ppb	100
13)	Methylene Chloride	5.63	84	95408	46.88	ppb	99
14)	Acrylonitrile	6.00	53	13237	51.73	ppb	100
15)	Tertiary butyl alcohol	5.99	59	3876	41.23	ppb	100
16)	Methyl tertiary butyl ether	6.00	73	123347	39.92	ppb	100
17)	1,2-Trans-Dichloroethene	6.00	61	151969	44.80	ppb	100
18)	1,1-Dichloroethane	6.57	63	140633	41.99	ppb	93
19)	Vinyl Acetate	11.27	43	25057	51.21	ppb	100
20)	Methyl Ethyl Ketone	7.38	43	12846	53.13	ppb	100
21)	2,2-Dichloropropane	7.37	77	108173	42.45	ppb	100
22)	1,2-Cis-Dichloroethene	7.37	61	83483	41.19	ppb	100
23)	Chloroform	7.81	83	137117	44.58	ppb	92
24)	Bromochloromethane	7.72	49	46198	48.42	ppb	100
25)M	1,2-Dichloroethane-d4	8.55	65	37929	51.43	ppb	0
26)	1,1,1-Trichloroethane	8.09	97	144913	36.95	ppb	100
27)	*1,4-Difluorobenzene	9.15	114	264379	50.00	ppb	97
28)	1,1-Dichloro-1-Propene	8.32	110	31658	31.95	ppb	88
29)	Carbon Tetrachloride	8.33	117	96693	33.49	ppb	90
30)	1,2-Dichloroethane	8.65	62	87938	48.89	ppb	92
31)M	Benzene	8.64	78	289758	44.63	ppb	0
32)M	Trichloroethene	9.57	130	48475	47.06	ppb	0
33)	1,2-Dichloropropane	9.94	63	48889	39.82	ppb	91
34)	Dichlorobromomethane	10.35	83	93224	38.61	ppb	88
35)	Dibromomethane	10.13	93	56293	44.05	ppb	91
36)	2-Chloroethylvinyl Ether	10.78	63	13761	52.28	ppb	100
37)	Mehtyl-Iso-Butyl-Ketone	11.27	43	25057	46.52	ppb	100
38)	Cis-1,3-Dichloropropene	11.05	75	89014	44.73	ppb	98
39)	Toluene-D8	11.50	98	181406	48.46	ppb	94
40)M	Toluene	11.62	92	243707	43.46	ppb	0
41)	Trans-1,3-Dichloropropene	11.96	75	64711	47.43	ppb	100
42)	1,1,2-Trichloroethane	12.29	97	69431	58.82	ppb	100
43)	1,2-Dibromoethane	13.23	107	59922	55.45	ppb	99
44)	*Chlorobenzene-D5	14.03	117	213467	50.00	ppb	100
45)	2-Hexanone	12.68	43	16042	48.59	ppb	100
46)	1,3-Dichloropropane	12.59	41	56966	47.29	ppb	65
47)	Tetrachloroethene	12.56	164	51706	36.97	ppb	93
48)	Chlorodibromomethane	12.99	129	57419	47.98	ppb	98
49)	Chlorobenzene	14.09	112	210350	41.67	ppb	100
50)	1,1,1,2-Tetrachloroethane	14.22	131	35008	43.38	ppb	100
51)	Ethylbenzene	14.26	106	151635	47.11	ppb	100
52)	M+P-Xylenes	14.47	106	437219	78.89	ppb	85
53)	O-Xylene	15.22	106	261395	65.46	ppb	86
54)	Styrene	15.24	104	276871	40.87	ppb	78
55)	Bromoform	15.63	173	42507	61.46	ppb	91
56)M	P-Bromofluorobenzene	16.22	95	76771	51.96	ppb	0
57)	Trans-1,4-Dichloro-2-Butene	16.58	75	59517	55.48	ppb	100
58)	*1,4-Dichlorobenzene-D4	18.51	152	95047	50.00	ppb	97
59)	[illegible]	[illegible]	105	456543	[illegible]	[illegible]	81
60)	1,1,2,2-Tetrachloroethane	[illegible]	83	51112	[illegible]	ppb	88
61)	1,2,3-Trichloropropane	16.58	110	11208	54.73	ppb	100
62)	N-Propylbenzene	16.87	120	104370	65.33	ppb	100
63)	Bromobenzene	16.54	156	72990	42.84	ppb	97
64)	O-Chlorotoluene	16.90	126	60594	40.09	ppb	100
65)	1,3,5-Trimethylbenzene	17.78	105	1133500	137.84	ppb	82
66)	P-Chlorotoluene	17.11	126	50846	34.01	ppb	100
67)	Tert-Butylbenzene	17.69	119	157202	33.36	ppb	76
68)	1,2,4-Trimethylbenzene	17.78	105	1133500	146.32	ppb	82
69)	Sec-Butylbenzene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
71)	1,3-Dichlorobenzene	18.38	146	118122	41.05	ppb	91
72)	1,4-Dichlorobenzene	18.38	146	118122	42.43	ppb	82

* Compound is Internal Standard

QUANT REPORT
Quant Rev: 10

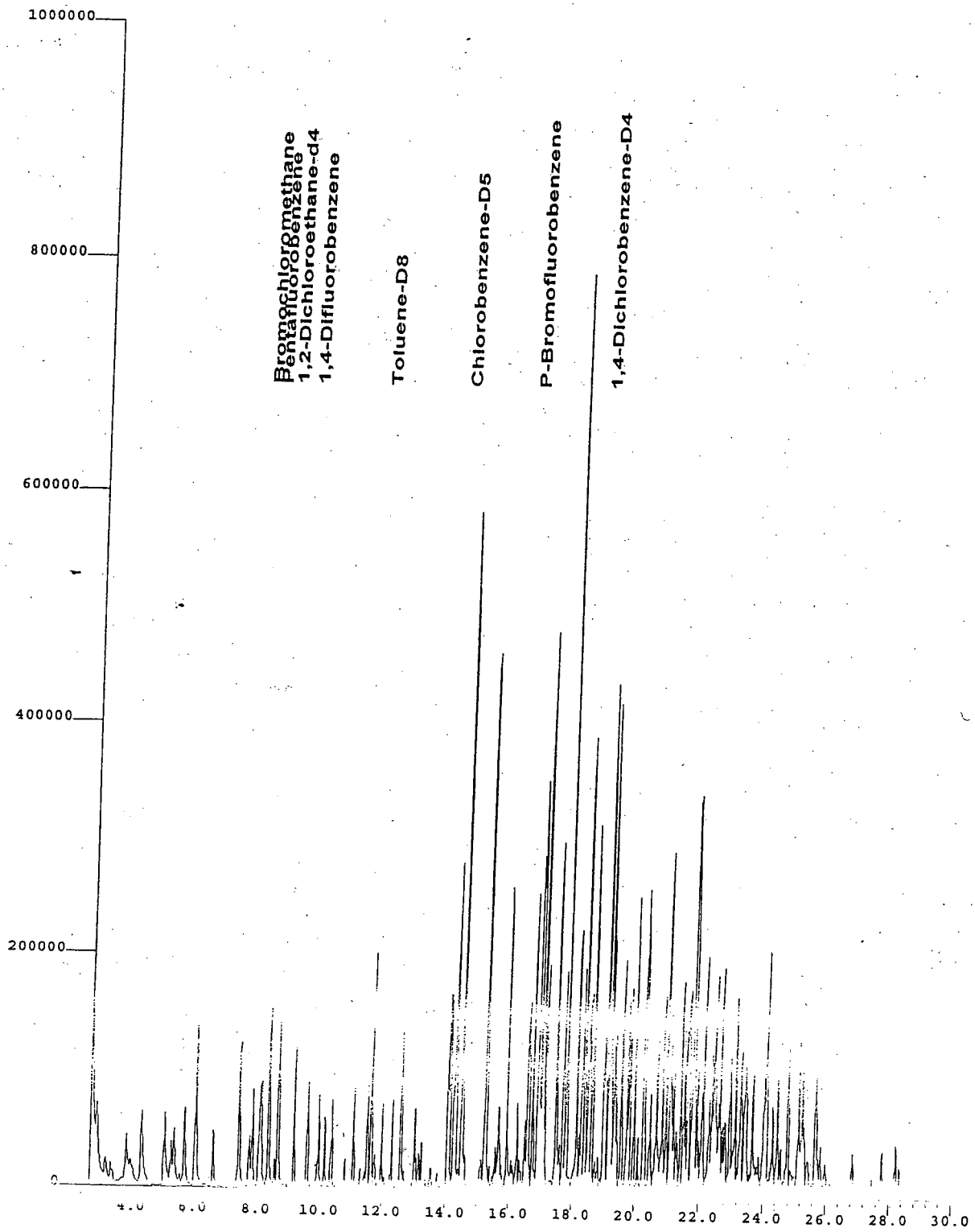
Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB059.Q
Data File: c:\data\vob\vob059.mss
Name: MS___8260_S_(8) 7)
Misc: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 01/98/20 40:00
Injected at : 09/20/81 14:10
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
73)	Butylbenzene	19.23	91	266226	27.40	ppb	84
74)	1,2-Dichlorobenzene	19.31	146	84214	37.28	ppb	83
75)	1,2-Dibromo-3-Chloropropane	20.97	157	5349	46.21	ppb	100
76)	1,2,4-Trichlorobenzene	22.51	180	29937	24.26	ppb	91
77)	Hexachlorobutadiene	22.79	225	6416	9.39	ppb	96
78)	Naphthalene	22.97	128	66750	51.67	ppb	100
79)	1,2,3-Trichlorobenzene	23.43	180	23151	27.90	ppb	88
80)	1-Methylnaphthalene	25.66	142	119737	368.23	ppb	100

* Compound is Internal Standard

Data File: C:\DATA\VOB\VOB060.MSS
Quant Output File: C:\DATA\VOB\VOB060.Q
Injection Time: 09/20/81 14:51
Misc: 0109076-014A,BB716,S,5.00,5.00,1.0,0,



000212

QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB060.Q
Data File: c:\data\vob\vob060.mss
Name: MDS__8260_S_(9) 8)
Misc: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 01/98/20 41:00
Injected at : 09/20/81 14:51
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*Pentafluorobenzene	8.07	168	147178	50.00	ppb	100
2)	Dichlorodifluoromethane	2.83	85	170950	39.74	ppb	96
3)	Chloromethane	3.12	50	69377	30.48	ppb	84
4)	Vinyl Chloride	3.30	62	38723	16.54	ppb	100
5)	Bromomethane	3.79	94	106513	28.91	ppb	98
6)	Chloroethane	3.93	64	19310	21.70	ppb	100
7)	Trichlorofluoromethane	4.30	101	254446	43.51	ppb	100
8)	Acrolein	6.05	56	8162	47.47	ppb	100
9)	Acetone	5.55	43	40445	140.68	ppb	100
10)	1,1-Dichloroethene	5.02	61	180489	50.34	ppb	100
11)	Iodomethane	5.25	142	179211	65.28	ppb	99
12)	Carbon Disulfide	5.35	76	226732	44.25	ppb	100
13)	Methylene Chloride	5.68	84	103041	49.89	ppb	92
14)	Acrylonitrile	6.03	53	18490	71.20	ppb	100
15)	Tertiary butyl alcohol	6.05	59	3696	38.73	ppb	100
16)	Methyl tertiary butyl ether	6.05	73	136203	43.44	ppb	100
17)	1,2-Trans-Dichloroethene	6.05	61	141731	41.17	ppb	100
18)	1,1-Dichloroethane	6.62	63	152392	44.84	ppb	96
19)	Vinyl Acetate	11.28	43	33355	67.16	ppb	100
20)	Methyl Ethyl Ketone	7.43	43	16915	68.94	ppb	100
21)	2,2-Dichloropropane	7.41	77	116605	45.09	ppb	100
22)	1,2-Cis-Dichloroethene	7.40	61	106487	51.77	ppb	100
23)	Chloroform	7.84	83	157023	50.30	ppb	89
24)	Bromochloromethane	7.75	49	56605	58.46	ppb	100
25)	1,2-Dichloroethane-d4	8.57	65	43758	58.46	ppb	94
26)	1,1,1-Trichloroethane	8.12	97	159942	40.19	ppb	100
27)	*1,4-Difluorobenzene	9.18	114	232166	50.00	ppb	97
28)	1,1-Dichloro-1-Propene	8.35	110	35508	40.80	ppb	99
29)	Carbon Tetrachloride	8.36	117	112717	44.46	ppb	90
30)	1,2-Dichloroethane	8.68	62	96423	61.05	ppb	99
31)	Benzene	8.66	78	282915	49.62	ppb	96
32)	Trichloroethene	9.60	130	49070	54.25	ppb	100
33)	1,2-Dichloropropane	9.95	63	55610	51.58	ppb	91
34)	Dichlorobromomethane	10.36	83	110260	52.00	ppb	82
35)	Dibromomethane	10.15	93	59642	53.15	ppb	98
36)	2-Chloroethylvinyl Ether	10.79	63	18300	79.17	ppb	100
37)	Mehtyl-Iso-Butyl-Ketone	11.28	43	33355	70.51	ppb	100
38)	Cis-1,3-Dichloropropene	11.07	75	93487	53.49	ppb	99
39)	Toluene-D8	11.52	98	165889	50.46	ppb	88
40)	Toluene	11.63	92	245013	49.75	ppb	88
41)	Trans-1,3-Dichloropropene	11.97	75	76471	63.82	ppb	100
42)	1,1,2-Trichloroethane	12.30	97	76469	73.76	ppb	100
43)	1,2-Dibromoethane	13.23	107	61255	64.54	ppb	89
44)	*Chlorobenzene-D5	14.04	117	221584	50.00	ppb	100
45)	2-Hexanone	12.68	43	22503	65.67	ppb	100
46)	1,3-Dichloropropane	12.59	41	67500	53.99	ppb	64
47)	Tetrachloroethene	12.57	164	57989	39.95	ppb	91
48)	Chlorodibromomethane	13.01	129	68977	55.52	ppb	98
49)	Chlorobenzene	14.09	112	222878	42.53	ppb	100
50)	1,1,1,2-Tetrachloroethane	14.22	131	47576	56.79	ppb	100
51)	Ethylbenzene	14.26	106	160805	48.13	ppb	100
52)	M+P-Xylenes	14.48	106	457838	79.58	ppb	87
53)	O-Xylene	15.23	106	278270	67.14	ppb	87
54)	Styrene	15.25	104	316957	45.07	ppb	80
55)	Bromoform	15.63	173	47967	66.81	ppb	93
56)	P-Bromofluorobenzene	16.23	95	81907	53.41	ppb	100
57)	Trans-1,4-Dichloro-2-Butene	16.58	75	74753	67.12	ppb	100
58)	*1,4-Dichlorobenzene-D4	18.51	152	96388	50.00	ppb	94
59)	Isopropylbenzene	15.91	105	516676	40.26	ppb	95
60)	1,1,2,2-Tetrachloroethane	16.48	83	64766	61.55	ppb	[illegible]
61)	1,2,3-Trichloropropane	16.58	110	14153	68.15	ppb	100
62)	N-Propylbenzene	16.87	120	98979	61.09	ppb	100
63)	Bromobenzene	16.54	156	81854	48.36	ppb	[illegible]
64)	O-Chlorotoluene	16.91	126	72147	47.07	ppb	100
65)	1,3,5-Trimethylbenzene	17.79	105	1217119	145.95	ppb	81
66)	P-Chlorotoluene	17.11	126	65155	42.97	ppb	100
67)	Tert-Butylbenzene	17.69	119	195205	40.84	ppb	79
68)	1,2,4-Trimethylbenzene	17.79	105	1217119	154.93	ppb	81
69)	Sec-Butylbenzene	18.13	105	460798	51.23	ppb	75
71)	1,3-Dichlorobenzene	18.38	146	141749	46.56	ppb	87
72)	1,4-Dichlorobenzene	18.38	146	141749	50.20	ppb	84

* Compound is Internal Standard

QUANT REPORT
Quant Rev: 10

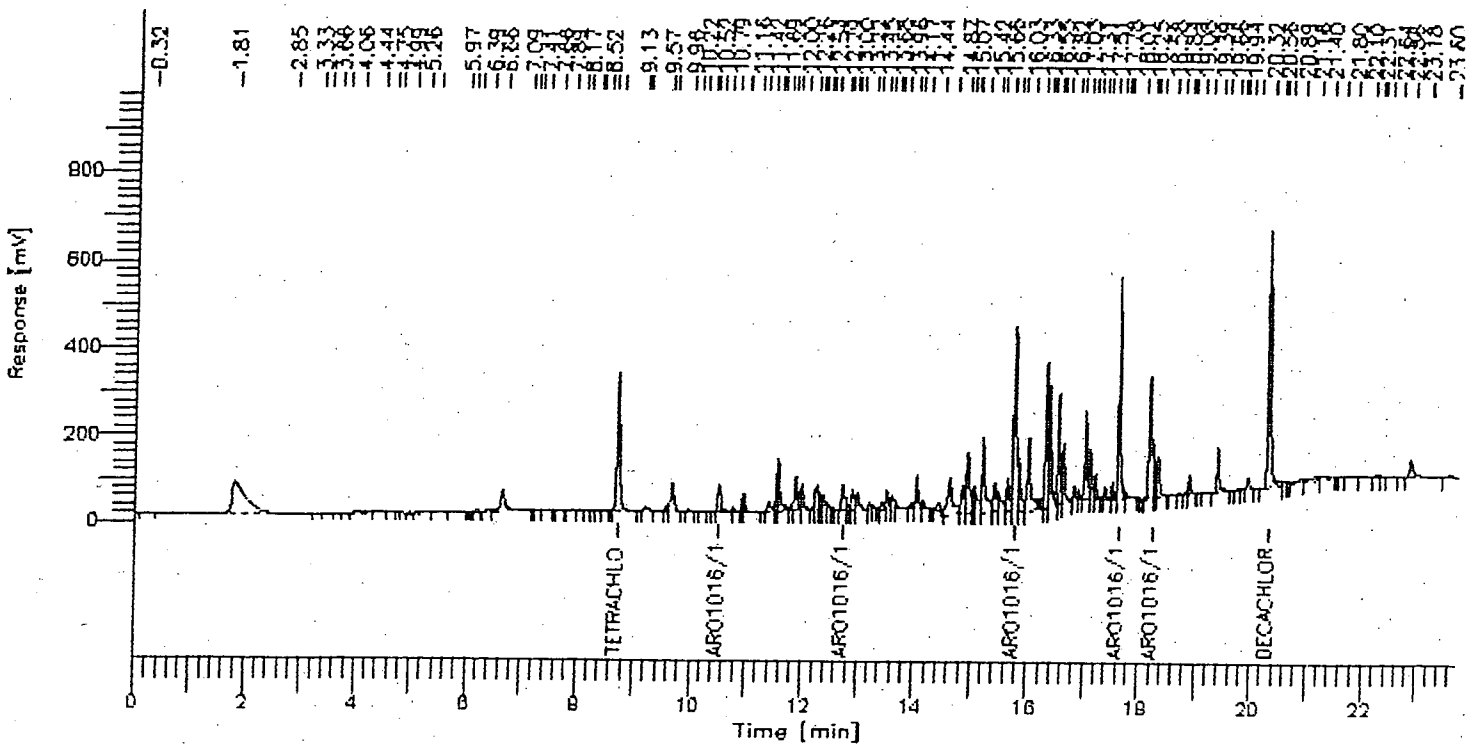
Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB060.Q
Data File: c:\data\vob\vob060.mss
Name: MDS__8260_S_(9) 8)
Misc: 0109076-014A,BB716,S,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 01/98/20 41:00
Injected at : 09/20/81 14:51
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
73)	Butylbenzene	19.23	91	328734	33.36	ppb	86
74)	1,2-Dichlorobenzene	19.32	146	104652	45.68	ppb	85
75)	1,2-Dibromo-3-Chloropropane	20.96	157	7893	67.24	ppb	100
76)	1,2,4-Trichlorobenzene	22.51	180	53597	42.83	ppb	92
77)	Hexachlorobutadiene	22.79	225	10544	15.21	ppb	86
78)	Naphthalene	22.97	128	104535	79.79	ppb	100
79)	1,2,3-Trichlorobenzene	23.43	180	41937	49.83	ppb	95
80)	1-Methylnaphthalene	25.66	142	127723	387.32	ppb	100

* Compound is Internal Standard

Software Version: 4.1<2F12>
Date: 9/20/01 08:03 AM
Sample Name : 0109103-001AMS
Data File : C:\TC4\PCB\PCBB473.RAW Date: 9/20/01 02:13 AM
Sequence File: C:\TC4\PCB\PCB2.SEQ Cycle: 473 Channel : B
Instrument : PE_AUTOSYS_PEST/PCB Rack/Vial: 0/0 Operator:
Sample Amount : 1.0000 Dilution Factor : 1.00



VAL ASSOCIATES LABORATORY

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ARCCHLOR 1016/1260 ANALYSIS REPORT

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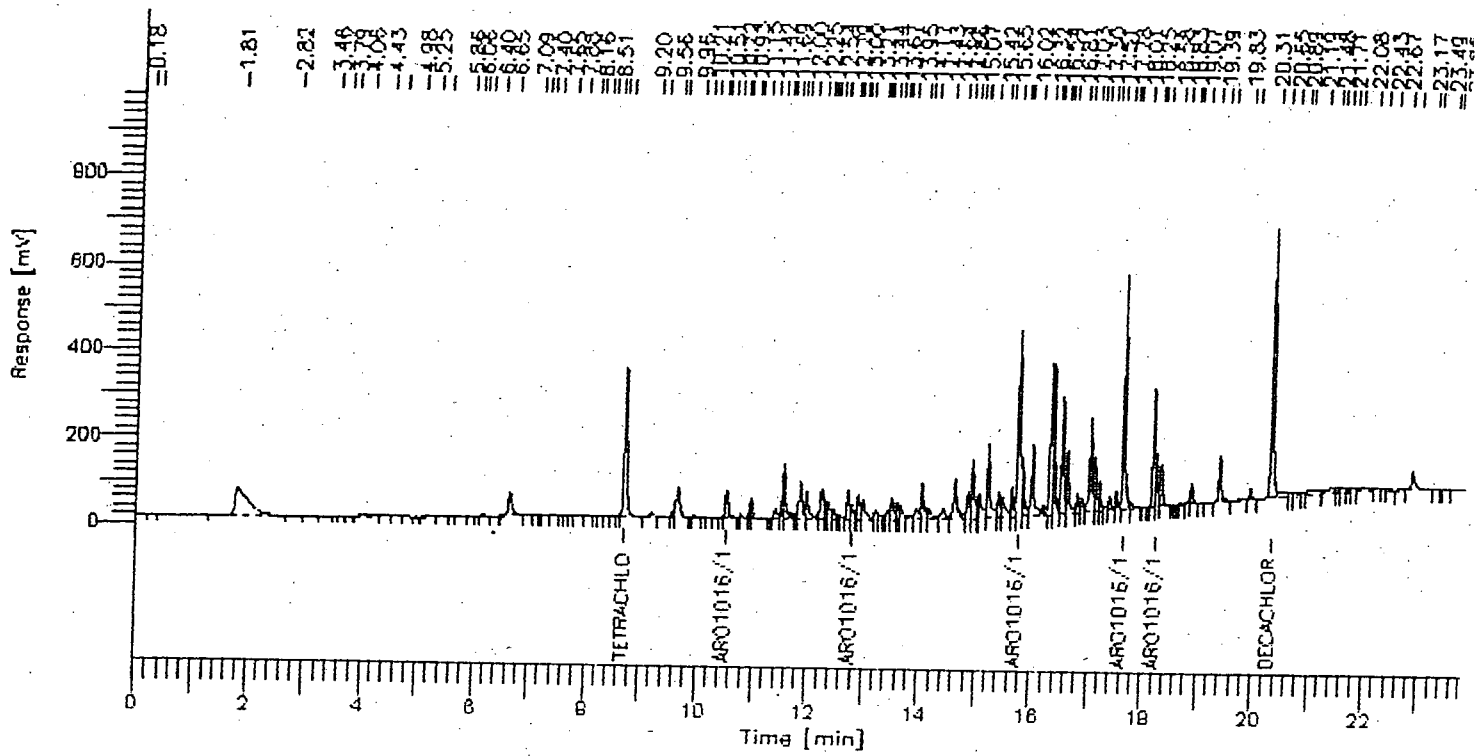
Peak #	Ret Time (min)	Component Name	PE	Area (uV-sec)	Height (uV)	Response Factor	Concentration ppb
32	8.716	Tetrachloro m Xylene	VB	1166066.57	322960.00	12361.2627	94.3323
	17.635	ARCCLOR 1016/1260		3574904.63	1.19e+06	6685.7819	534.7026
125	20.315	Decachlorobiphenyl	BE	1772650.25	591176.71	19991.9813	88.6681
				6513621.46	2.10e+06		717.7029

Software Version: 4.1<2F12>
Date: 9/20/01 08:04 AM
Sample Name : 0109103-001AMSD
Data File : C:\TC4\PCB\PCBB474.RAW Date: 9/20/01 02:43 AM
Sequence File: C:\TC4\PCB\PCB2.SEQ Cycle: 474 Channel : B
Instrument : PE_AUTOSYS_PEST/PCB Rack/Vial: 0/0 Operator:
Sample Amount : 1.0000 Dilution Factor : 1.00



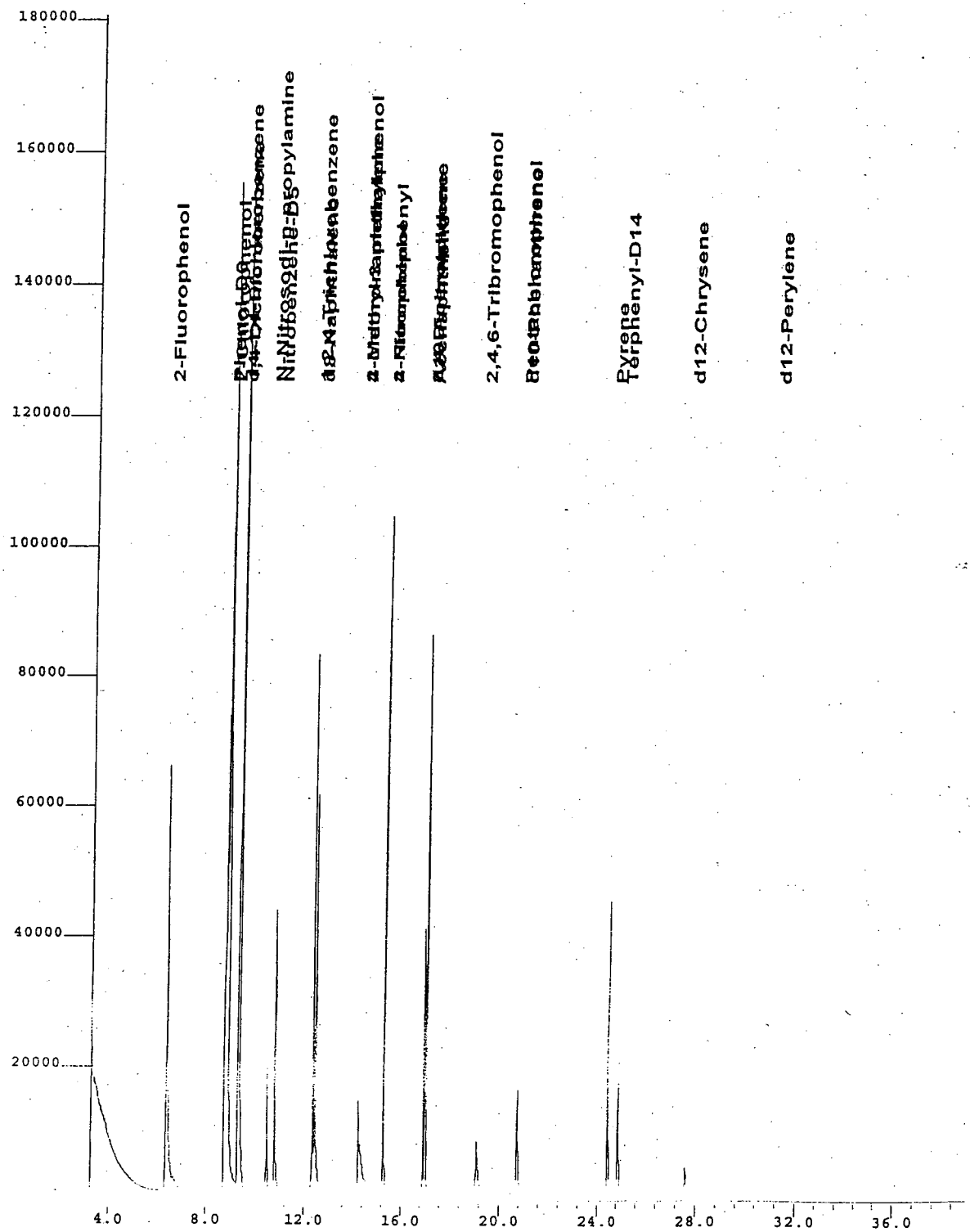
VAL ASSOCIATES LABORATORY

AROCHLOR 1016/1260 ANALYSIS REPORT

Peak #	Ret Time [min]	Component Name	BL	Area [uV-sec]	Height [uV]	Response Factor	Concentration ppb
32	8.711	Tetrachloro m Xylene	VV	1247243.48	345509.64	12361.2627	100.8094
	17.631	AROCLOR 1016/1260		3551294.02	1.20e+06	6083.9393	537.3020
125	20.312	Decachlorobiphenyl	VE	1861471.84	621433.78	19991.5813	93.1109
				6700009.35	2.16e+06		731.3123

000216

Data File: C:\BNAP\BNAPB138.MSS
Quant Output File: C:\BNAP\BNAPB138.Q
Injection Time: 09/19/81 20:20
Misc: 100PPBSTD,BB399,S,30.00,1.00,1.0,0,



000217

QUANT REPORT
Quant Rev: 10

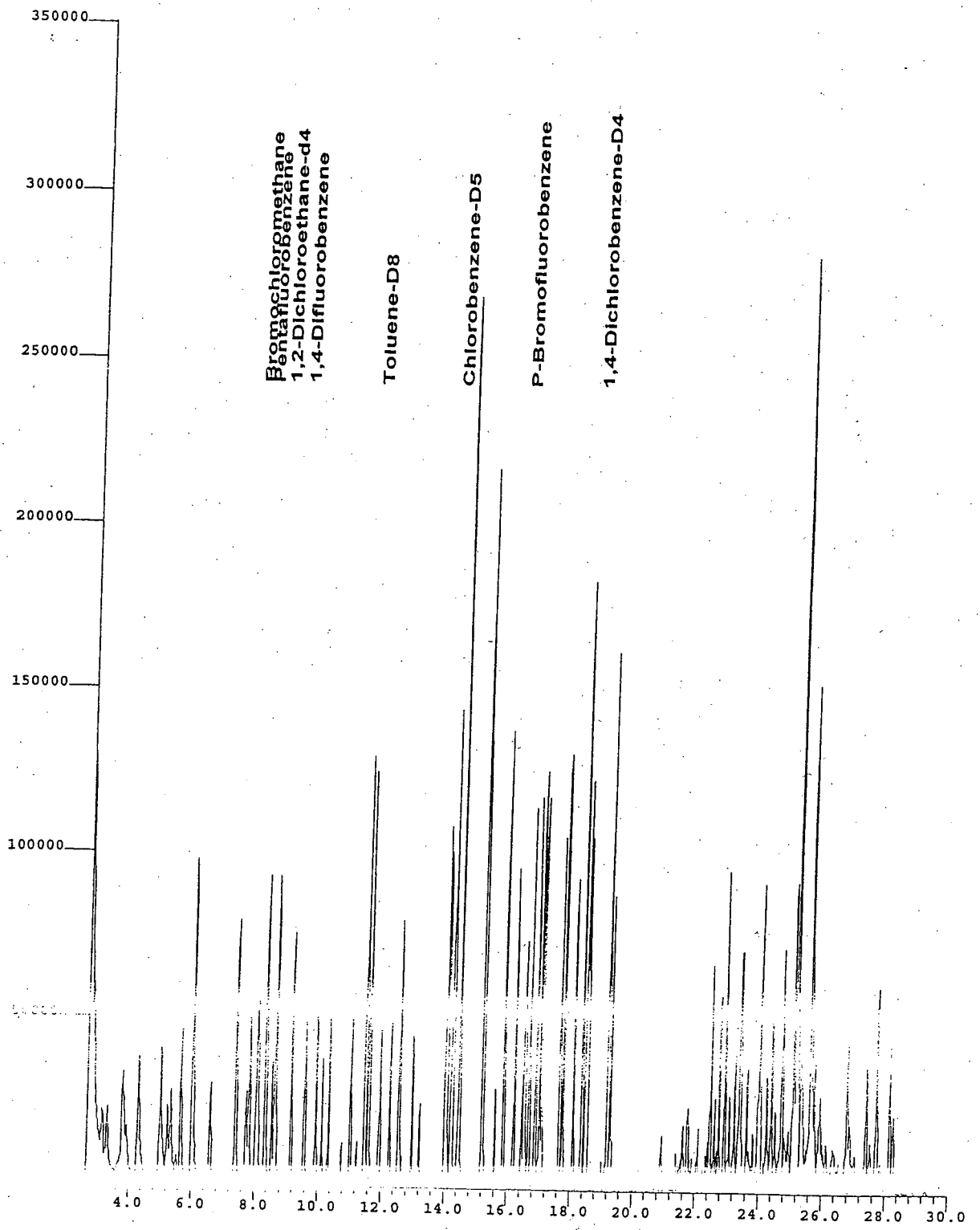
Operator Id:
Dilution Factor:<None>
Output File: C:\BNAP\BNAPB138.Q
Data File: c:\bnap\bnapb138.mss
Name: LCS_8270_SBNA_(14)
Misc: 100PPBSTD,BB399,S,30.00,1.00,1.0,0,
ID File: c:\bnap\hsl\8270b.i
Title: SW-846 Method 8270 Semi-Volatile Quant ID File
Last Calib: 08/23/01 06:59

Quant Time : 01/91/20 05:00
Injected at : 09/19/81 20:20
Last Qcal Date: None

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*d4-1,4-Dichlorobenzene	9.26	152	51455	40.00	ug/l	97
4)M	2-Fluorophenol	6.32	112	168618	99.40	ug/l	0
7)	Phenol-D6	8.72	99	98210	77.13	ug/l	100
8)	Phenol	8.76	94	149905	108.80	ug/l	100
9)	2-Chlorophenol	8.84	128	220666	109.89	ug/l	92
11)	1,4-Dichlorobenzene	9.31	148	121257	92.30	ug/l	100
18)	N-Nitrosodi-n-propylamine	10.47	70	29529	54.73	ug/l	100
22)	*d8-Naphthalene	12.44	136	143798	40.00	ug/l	100
23)	Nitrobenzene-D5	10.77	54	68567	59.65	ug/l	100
29)	1,2,4-Trichlorobenzene	12.34	180	75895	81.92	ug/l	96
35)	2-Methylnaphthalene	14.21	142	14317	6.18	ug/l	100
36)M	4-chloro-3-methylphenol	14.21	107	73168	105.28	ug/l	0
37)	*d10-Acenaphthene	16.92	162	49272	40.00	ug/l	96
42)	2-Fluorobiphenyl	15.26	172	148558	100.53	ug/l	100
52)	Acenaphthene	17.02	153	128174	83.57	ug/l	98
54)M	2,4-Dinitrotoluene	16.92	165	16239	34.94	ug/l	0
55)M	4-Nitrophenol	15.27	139	6079	5.11	ug/l	0
62)	2,4,6-Tribromophenol	19.06	332	21097	84.99	ug/l	92
63)M	*d10-Phenanthrene	20.72	188	45111	40.00	ug/l	0
68)M	Pentachlorophenol	20.68	266	379	11.17	ug/l	0
74)	Pyrene	24.42	202	137105	119.02	ug/l	95
75)	*d12-Chrysene	27.57	240	18695	40.00	ug/l	100
77)	Terphenyl-D14	24.86	244	25234	90.14	ug/l	91
83)M	*d12-Perylene	31.08	264	7027	40.00	ug/l	0

* Compound is Internal Standard

Data File: C:\DATA\VOB\VOB069.MSS
Quant Output File: C:\DATA\VOB\VOB069.Q
Injection Time: 09/20/81 21:05
Misc: 50PPBSTD,BB716,S,5.00,5.00,1.0,0,



QUANT REPORT
Quant Rev: 10

Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB069.Q
Data File: c:\data\vob\vob069.mss
Name: LCS__8260_S_(18) 17)
Misc: 50PPBSTD,BB716,S,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 01/98/20 42:00
Injected at : 09/20/81 21:05
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
1)	*Pentafluorobenzene	8.03	168	90554	50.00	ppb	100
2)	Dichlorodifluoromethane	2.81	85	74899	28.30	ppb	94
3)	Chloromethane	3.11	50	33521	23.94	ppb	98
4)	Vinyl Chloride	3.28	62	73810	51.23	ppb	100
5)	Bromomethane	3.77	94	63597	28.06	ppb	89
6)	Chloroethane	3.91	64	16663	30.44	ppb	100
7)	Trichlorofluoromethane	4.28	101	113816	31.63	ppb	100
8)	Acrolein	6.00	56	5520	52.18	ppb	100
9)	Acetone	5.51	43	34388	194.41	ppb	100
10)	1,1-Dichloroethene	5.00	61	103337	46.84	ppb	100
11)	Iodomethane	5.22	142	114542	67.81	ppb	94
12)	Carbon Disulfide	5.32	76	110945	35.19	ppb	100
13)	Methylene Chloride	5.65	84	69824	54.95	ppb	81
14)	Acrylonitrile	6.00	53	10449	65.39	ppb	100
15)	Tertiary butyl alcohol	6.02	59	2936	50.01	ppb	100
16)	Methyl tertiary butyl ether	6.00	73	115714	59.98	ppb	100
17)	1,2-Trans-Dichloroethene	6.01	61	101476	47.91	ppb	100
18)	1,1-Dichloroethane	6.58	63	92075	44.03	ppb	98
19)	Vinyl Acetate	11.25	43	28180	92.23	ppb	100
20)	Methyl Ethyl Ketone	7.38	43	12848	85.11	ppb	100
21)	2,2-Dichloropropane	7.37	77	68154	42.84	ppb	100
22)	1,2-Cis-Dichloroethene	7.37	61	60355	47.69	ppb	100
23)	Chloroform	7.80	83	101934	53.07	ppb	96
24)	Bromochloromethane	7.72	49	36384	61.08	ppb	100
25)M	1,2-Dichloroethane-d4	8.54	65	52691	114.42	ppb	0
26)	1,1,1-Trichloroethane	8.09	97	98469	40.21	ppb	100
27)	*1,4-Difluorobenzene	9.14	114	159746	50.00	ppb	95
28)	1,1-Dichloro-1-Propene	8.31	110	22744	37.98	ppb	99
29)	Carbon Tetrachloride	8.33	117	68805	39.45	ppb	85
30)	1,2-Dichloroethane	8.65	62	69757	64.19	ppb	92
31)	Benzene	8.63	78	159387	40.63	ppb	94
32)	Trichloroethene	9.56	130	27407	44.03	ppb	100
33)	1,2-Dichloropropane	9.92	63	38373	51.73	ppb	97
34)	Dichlorobromomethane	10.33	83	73456	50.35	ppb	91
35)	Dibromomethane	10.11	93	47129	61.04	ppb	97
36)	2-Chloroethylvinyl Ether	10.76	63	11728	73.74	ppb	100
37)	Mehtyl-Iso-Butyl-Ketone	11.25	43	28180	86.58	ppb	100
38)	Cis-1,3-Dichloropropene	11.03	75	56377	46.88	ppb	97
39)	Toluene-D8	11.48	98	231054	102.14	ppb	92
40)	Toluene	11.60	92	142361	42.01	ppb	92
41)	Trans-1,3-Dichloropropene	11.94	75	53822	65.29	ppb	100
42)	1,1,2-Trichloroethane	12.26	97	42240	59.22	ppb	100
43)	1,2-Dibromoethane	13.20	107	43620	66.80	ppb	90
44)	*Chlorobenzene-D5	14.01	117	150299	50.00	ppb	100
45)	2-Hexanone	12.65	43	16238	69.86	ppb	100
46)	1,3-Dichloropropane	12.56	41	41042	48.39	ppb	73
47)	Tetrachloroethene	12.53	164	36404	36.97	ppb	92
48)	Chlorodibromomethane	12.97	129	42591	50.54	ppb	92
49)M	Chlorobenzene	14.06	112	147220	41.42	ppb	0
50)	1,1,1,2-Tetrachloroethane	14.19	131	26383	46.43	ppb	100
51)	Ethylbenzene	14.23	106	79963	35.29	ppb	100
52)	M+P-Xylenes	14.44	106	215813	55.30	ppb	86
53)	O-Xylene	15.19	106	108639	38.64	ppb	86
54)	Styrene	15.21	104	186897	39.18	ppb	82
55)	Bromoform	15.60	173	31404	64.49	ppb	96
56)	P-Bromofluorobenzene	16.20	95	108410	104.22	ppb	100
57)	Trans-1,4-Dichloro-2-Butene	16.55	75	50181	66.43	ppb	100
58)	*1,4-Dichlorobenzene-D4	18.47	152	72267	50.00	ppb	95
59)	Isopropylbenzene	15.88	105	276905	38.21	ppb	83
60)	1,1,2,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	ppb	84
61)	1,2,3-Trichloropropane	16.55	110	9282	59.61	ppb	100
62)	N-Propylbenzene	16.67	120	40485	33.33	ppb	100
63)	Bromobenzene	16.51	156	[illegible]	[illegible]	ppb	95
64)	O-Chlorotoluene	17.08	126	39697	34.54	ppb	100
65)	1,3,5-Trimethylbenzene	17.75	105	228111	36.48	ppb	79
66)	P-Chlorotoluene	17.08	126	39697	34.92	ppb	100
67)	Tert-Butylbenzene	17.65	119	109312	30.51	ppb	76
68)	1,2,4-Trimethylbenzene	17.75	105	228111	38.73	ppb	79
69)	Sec-Butylbenzene	18.09	105	197371	29.27	ppb	75
70)	p-Isopropyltoluene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
72)	1,4-Dichlorobenzene	[illegible]	[illegible]	80377	36.74	ppb	84
		18.52	146	82932	39.18	ppb	81

* Compound is Internal Standard

000220

QUANT REPORT
Quant Rev: 10

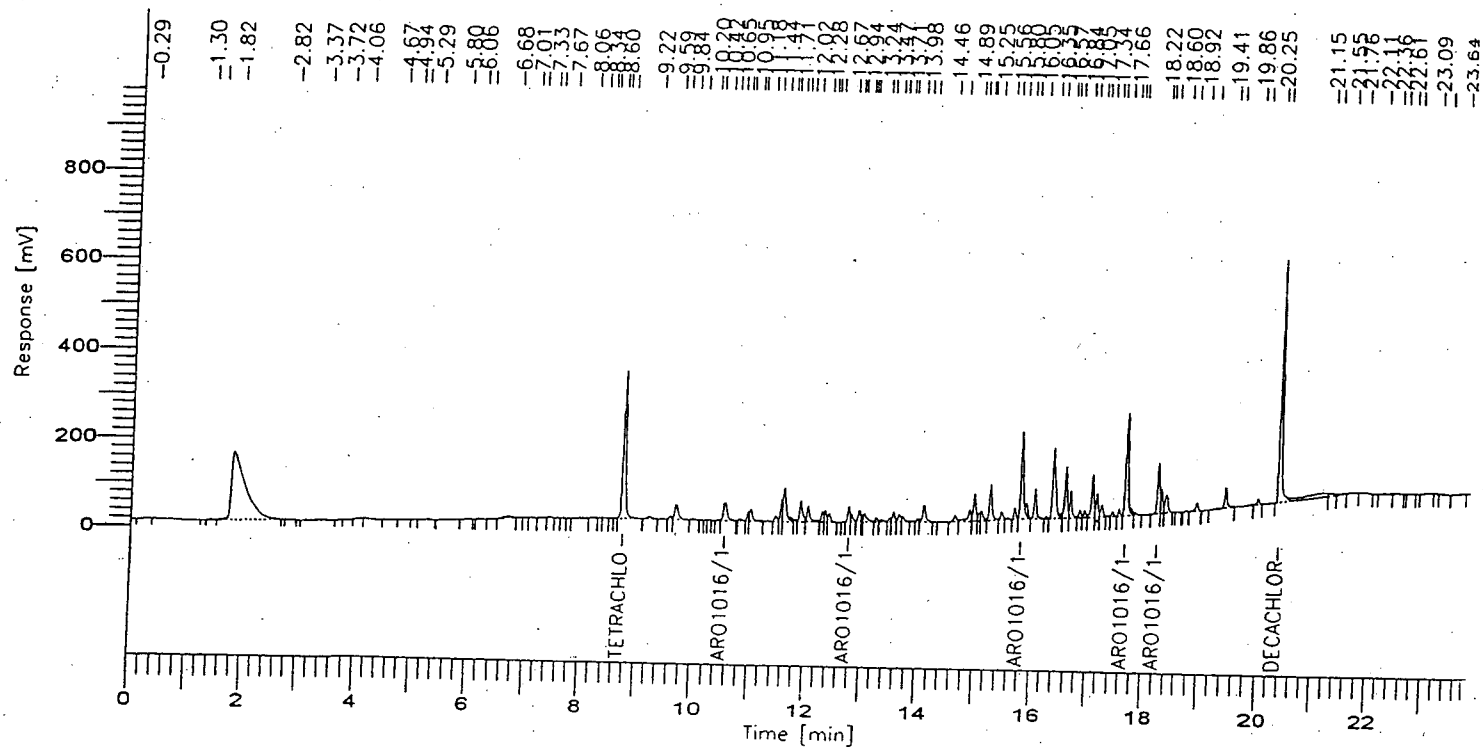
Operator Id:
Dilution Factor:<None>
Output File: C:\DATA\VOB\VOB069.Q
Data File: c:\data\vob\vob069.mss
Name: LCS__8260_S_(18) 17)
Misc: 50PPBSTD,BB716,S,5.00,5.00,1.0,0,
ID File: c:\data\8260p\v8260.i
Title: SW-846 Method 8260 Volatile Organic Quant ID File
Last Calib: 08/21/01 07:54

Quant Time : 01/98/20 42:00
Injected at : 09/20/81 21:05
Last Qcal Date: 12/14/94 09:50

Num	Compound	R.T.	Q Ion	Area	Conc	Units	Q
73)	Butylbenzene	19.19	91	270099	36.56	ppb	89
74)	1,2-Dichlorobenzene	19.28	146	72964	42.48	ppb	82
75)	1,2-Dibromo-3-Chloropropane	20.93	157	5962	67.74	ppb	100
76)	1,2,4-Trichlorobenzene	22.47	180	47372	50.49	ppb	90
77)	Hexachlorobutadiene	22.75	225	20657	39.74	ppb	91
78)	Naphthalene	22.93	128	116212	118.31	ppb	100
79)	1,2,3-Trichlorobenzene	23.39	180	40133	63.60	ppb	94
80)	1-Methylnaphthalene	25.62	142	163734	662.26	ppb	100
81)	1,2-Dimethylnaphthalene	29.33	156	5086	48.98	ppb	100

* Compound is Internal Standard

Software Version: 4.1<2F12>
Date: 12/13/01 02:26 PM
Sample Name : LCS-2664
Data File : C:\TC4\PCBOLDDA\SEP01P&P\PCBB458.RAW Date: 9/19/01 06:49 PM
Sequence File: C:\TC4\PCB\PCB2.SEQ Cycle: 458 Channel : B.
Instrument : PE_AUTOSYS_PEST/PCB Rack/Vial: 0/0 Operator:
Sample Amount : 1.0000 Dilution Factor : 1.00



VAL ASSOCIATES LABORATORY

AROCHLOR 1016/1260 ANALYSIS REPORT

Peak #	Ret Time [min]	Component Name	BL	Area [uV-sec]	Height [µV]	Response Factor	Concentration ppb
28	8.733	Tetrachloro m Xylene	VB	1218922.31	336582.24	12361.2627	98.6082
	17.658	AROCLOR 1016/1260		1903807.61	622356.99	3974.2440	479.0364
112	20.338	Decachlorobiphenyl	BE	1684975.51	544302.56	19991.9813	84.2826
				4807705.43	1.50e+06		661.9272

(856) 354-1337

VAL ASSOCIATES LABORATORY INC.

FAX: (856)354-1586

Water,Air & Soil Analysis

PHILIP V. DATZ, JR.
Chemist

N.J. Cert. # 04174

Seven Deer Tree
Professional Center
600 Deer Road
Cherry Hill, NJ 08034

Non-Conformance Summary
Total Petroleum Hydrocarbons Analysis

	YES	NO
1. Blank Contamination If yes, list the concentration and corresponding samples		X
2. Matix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list the sample and corresponding recovery 0 out of 2 outside QC limits; see pages	X	
3. IR Spectra submitted for all standards, blanks & samples		X
4. Chromatographs submitted for all standards, blanks & samples if GC fingerprinting was conducted.	N/A	
5. Extraction Holding Time Met If not met, list sample and number of days exceeded See laboratory chronicle; page	X	
6. Analysis Holding Time Met If not met, list sample and number of days exceeded See laboratory chronicle; page	X	

7. Additional Comments:
Instrument used to read TPH extracts does not provide a IR spectra.

Laboratory Manager: Philip V. Datz Jr. Date: 12/11/01

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Seven Deer Tree
Professional Center
600 Deer Road
Cherry Hill, NJ 08034

Non-Conformance Summary
Metals Analysis

	YES	NO
1. Calibration Summary Meets Criteria	X	
2. ICP Interference Check Sample Results Summary Submitted (if applicable) / Meet Criteria	X	
3. Serial Dilution Summary Submitted (if applicable) / Meet Criteria		
4. Laboratory Control Sample Summary Submitted (if applicable) / Meet Criteria	X	
5. Blank Contamination If yes list compounds and concentrations		X
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries 0 out of 32 outside QC limits; see pages	X	
7. Extraction Holding Times Met If not met, list samples and number of days exceeded	X	
8. Analysis Holding Time Met If not met, list samples and number of days exceeded	X	

9. Additional Comments:

Laboratory Manager: Philip V. Datz Jr.

Date December 11, 2001

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600 Deer Road
Cherry Hill, NJ 08034

Non-Conformance Summary
GC/MS Analysis

		YES	NO
1. Chromatographs Labeled/Compounds Identified (Field Samples and Method Blanks)		X	
2. GC/MS Tune Specifications			
a. BFB meets criteria		X	
b. DFTPP meets criteria		X	
3. GC/MS Tuning Frequency - Performed every 24 hrs. for 600 series and 12 hrs. for 8000 series		X	
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hrs. of sample analysis for 600 series and 12 hrs. for 8000 series.		X	
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds		X	
b. System Performance Check Compounds		X	
6. Blank Contamination - If yes, list compounds and concentrations			
a. VOA Fractions:	See pages for details		X
b. B/N Fraction:	See pages for details		
c. Acid Fraction:	See pages for details		
7. Surrogate Recoveries meet Criteria			
a. VOA Fractions:	0 out of 9 outside limits; see pages	X	
b. B/N Fraction:	0 out of 6 outside limits; see pages	X	
c. Acid Fraction:	out of outside limits; see pages		
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria			
a. VOA Fractions:	0 out of 10 outside limits; see pages	X	
9. Laboratory Control Spike Recoveries Meet Criteria			
a. VOA Fractions:	0 out of 5 outside limits; see pages	X	
b. B/N Fraction:	0 out of 45 outside limits; see pages	X	
c. Acid Fraction:	0 out of 10 outside limits; see pages	X	
10. Internal Standard Area/Retention Time Meets Criteria		X	
11. Extraction Holding Times Met If not met, list samples and number of days exceeded		X	
12. Analysis Holding Time Met If not met, list samples and number of days exceeded		X	

Laboratory Manager: Philip V. Datz Jr.

Date: 12/11/01