SITE ASSESSMENT REPORT
FOR
AMERICAN POUCH/DEPT. OF COMMERCE

U.S. EPA ID: ILD984807669
SS ID: LJ
TDD: T05-9011-013
PAN: EIL0722SAA

EPA Region 5 Records Ctr.
236947

FEBRUARY 26, 1991

Prepared by: Karen M. Spangler Date: 2/27/91
Reviewed by: Brenda R. Jones Date: 2/27/91
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ecology and environment, inc.
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International Specialists in the Environment

recycled paper

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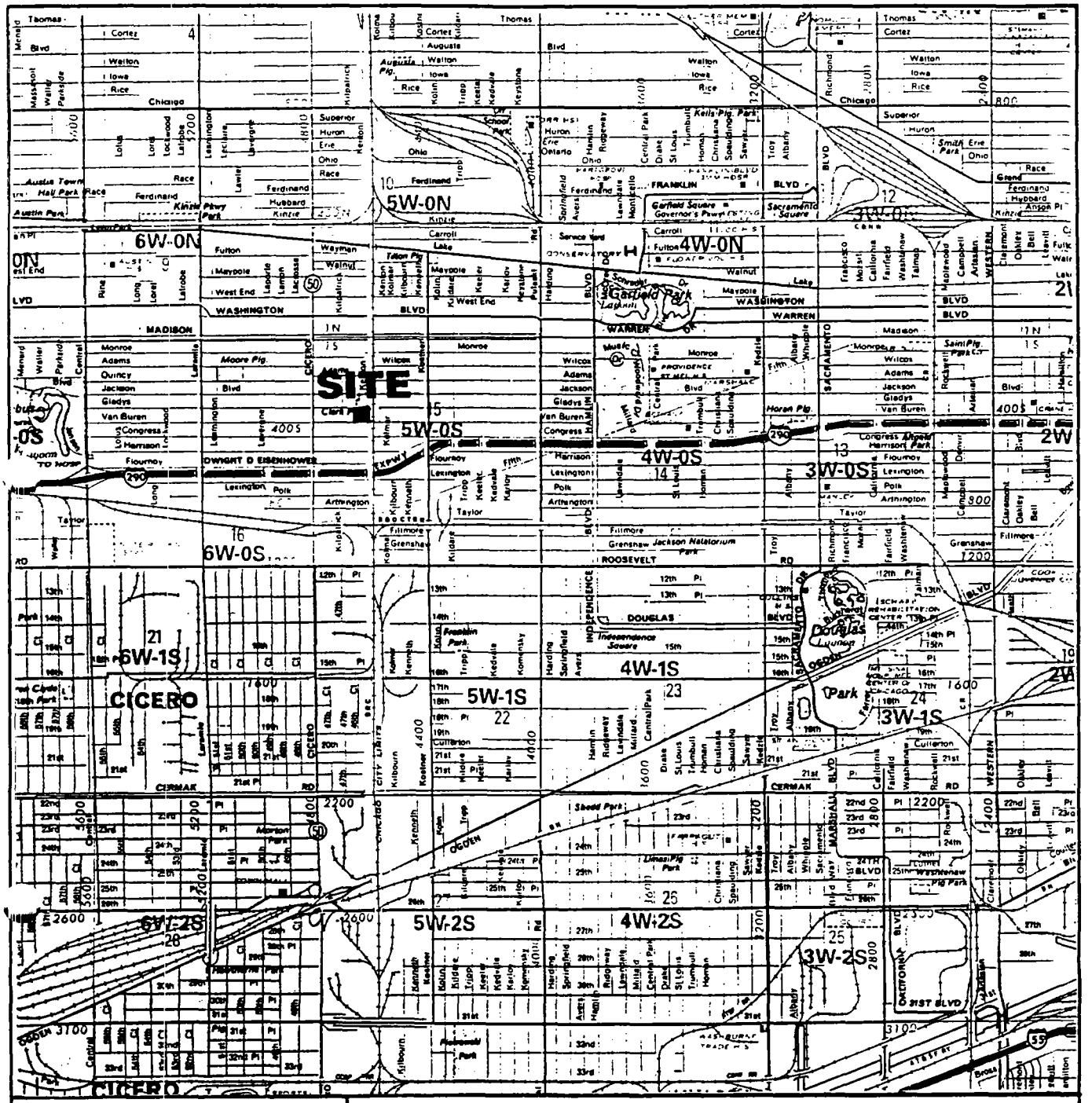
INTRODUCTION

The Ecology and Environment, Inc. (E & E) Technical Assistance Team (TAT) was tasked by the U.S. Environmental Protection Agency (U.S. EPA) to respond to a release investigation and sample at the American Pouch/Department of Commerce (American Pouch) site, Chicago, Cook County, Illinois, under Technical Directive Document (TDD) T05-9011-013. According to the U.S. EPA On-Scene Coordinator (OSC) Peter Guria, the Chicago Hazard Investigation Team (HIT) previously responded to an investigation request by the Chicago Fire Department after a fire had occurred at the site, an abandoned warehouse and production facility. The City of Chicago Energy and Environment Division requested U.S. EPA assistance to assess threats to human health and the environment posed by drums and laboratory-size containers at the site.

BACKGROUND

The American Pouch site is located at 4603 West Gladys Avenue on the west side of Chicago, Illinois (see Figure 1 for site location). The area surrounding the site is primarily residential with some industrial zones. Chicago and Northwestern railroad tracks are located adjacent to the site on the east. A parking lot borders the site to the west, and Gladys Avenue borders the site to the north. Another building, as well as a private residence, are directly south of the site. The site is easily accessible as no fence is present and, the doors and windows to the facility have been broken out. A playground is located on the north side of Gladys Avenue, across the street from the site.

The site is an abandoned three-story building which was used by American Pouch Food Company, Inc., until 1983 to produce C-rations for the U.S. Army. The building was the location of a small fire on October 28, 1990. Subsequent investigations by the Chicago Fire Department and



QUADRANGLE LOCATION

ecology and environment, inc.

208 SOUTH LASALLE STREET, SUITE 1300, CHICAGO, ILLINOIS 60604

TITLE **SITE LOCATION MAP**	FIGURE # 1
SITE AMERICAN POUCH	SCALE 1 IN. = 1/2 MI.
CITY CHICAGO STATE ILLINOIS	P.A.N. EIL0722SAA
SOURCE RAND MCNALLY MAPFINDER CHICAGO AND COOK COUNTY	DATE 1/16/91 REVISED

HIT led to the discovery of several drums and laboratory-size containers indicating the presence of such chemicals as sulfuric acid, sodium hydroxide, ammonium chloride, xylol, and a compressed gas cylinder of acetylene. The current owner of the site is believed to be the American Pouch Food Company, Inc.

SITE ACTIVITIES

November 15, 1990: TAT members mobilized equipment and arrived on-site along with the U.S. EPA and City of Chicago officials to conduct a site assessment at the American Pouch site. Personnel on-site and their affiliations are listed below:

Personnel	Affiliation
Peter Guria	U.S. EPA OSC
Karen Spangler	TAT Team Leader
Mike Clonts	TAT Team Member/SSO
Jeff Ferg	City of Chicago
Ben Nwigwe	City of Chicago

Upon arrival at the site, TAT, the OSC, and City of Chicago officials discussed the site's history and the details of the fire which had occurred at the site, as well as the proposed activities for the day. Due to the presence of 4 to 5 dogs at the northeast entrance to the site, the City of Chicago officials phoned the Animal Control Department prior to site entry.

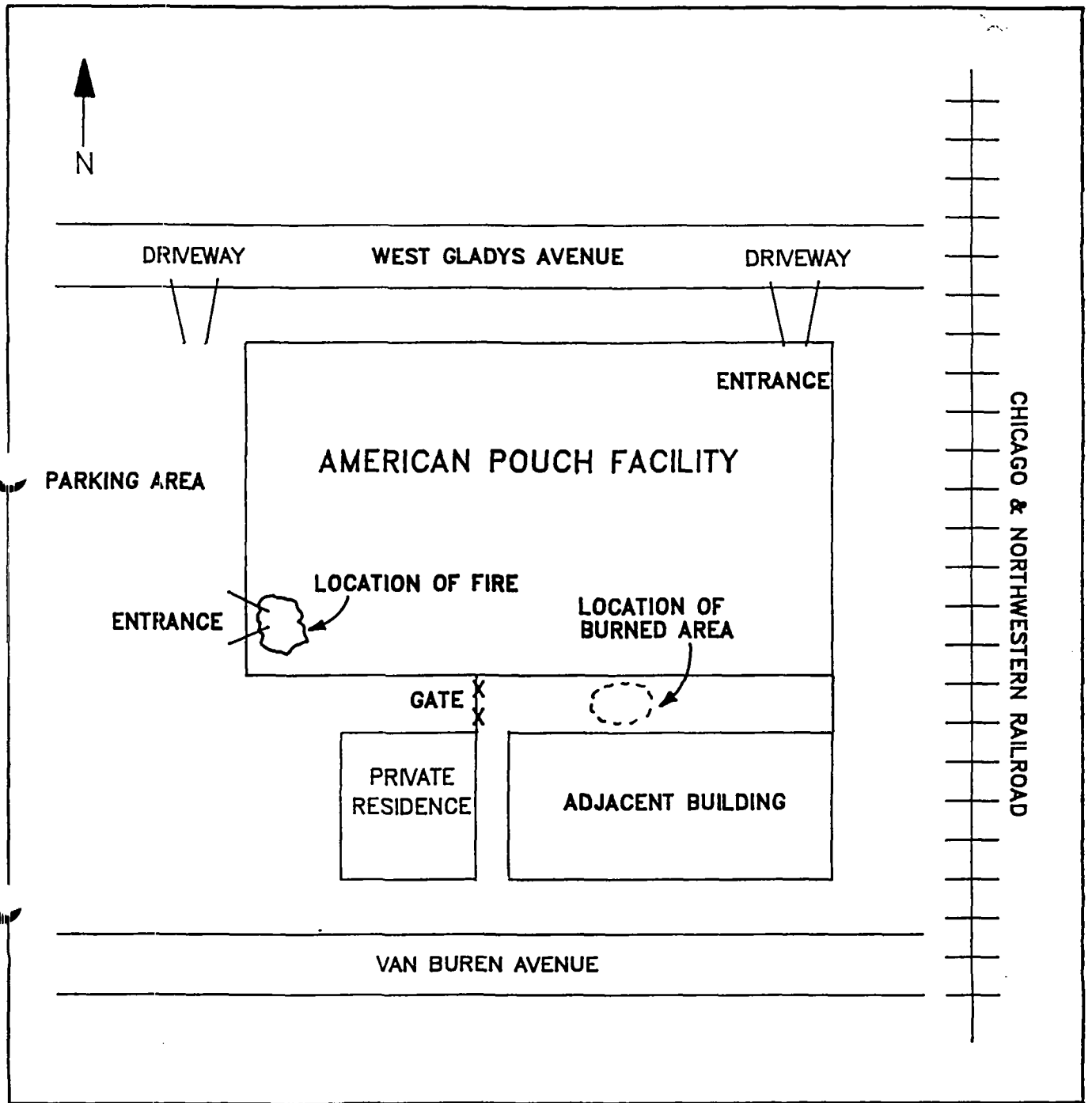
After arrival of the Animal Control Department personnel, TAT and the OSC initiated an on-site reconnaissance in level B protection. No readings above background were noted on the site entry/air monitoring equipment carried by TAT during the reconnaissance inspection. The equipment consisted of an HNu (photoionization detector), a combustible gas indicator (CGI), and a Draeger pump with colorimetric tubes for cyanide.

TAT observed several areas of waste storage scattered throughout the building, as well as evidence of use of portions of the building as shelter by vagrants. One room on the second floor of the building contained approximately 20 to 30 laboratory-size containers of varying volumes. The labels of these containers indicated materials such as hydrochloric acid, sulfuric acid, ammonium hydroxide, sodium thiosulfate, and iodine-bromine solution. The containers were in varying conditions, and some were tipped on their sides. Additionally, drums were observed scattered throughout the facility. Labels on some of the drums included XYLOL (flammable solvent) and ZEP Formula 777-EC (weed killer). Other drums contained unknown materials and were unlabeled. Some of the drums were open, containing no bungs. A compressed gas cylinder labeled as containing acetylene was also observed on-site. Refer to the site photographs in Appendix A and Figure 2 for a sketch of the site.

After completion of the initial site reconnaissance, TAT and the OSC discussed their observations, as well as the proposed sampling scheme. Because the majority of the laboratory-size containers observed on-site were original packings with intact labels, it was determined that these containers would not require sampling at this time.

Samples were collected from two drums on-site. TAT conducted sampling activities in level B protection. The two drum samples were each collected, using a 1/2-inch diameter glass drum thief, into two 8-ounce glass jars, which were then labeled and sealed. After use, the drum thieves were broken into the sampled drums. Outer sampling gloves were changed between sampling locations.

Sample D1 was collected from a drum located on the first floor of the building, near the east side. TAT observed a label on the drum that read ZEP Formula 777-EC. The material in the drum was a light brown-colored viscous liquid. TAT recorded a reading of 25 ppm on an HNu at the bung hole of this open drum. Sample D2 was obtained from a drum located in the south center room on the first floor of the building. This closed drum was not labeled, and no readings were



QUADRANGLE LOCATION

ILLINOIS

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208 SOUTH LASALLE STREET, SUITE 1300, CHICAGO, ILLINOIS 60604

TITLE SITE SKETCH	FIGURE # 2
SITE AMERICAN POUCH	SCALE NOT TO SCALE
CITY CHICAGO STATE ILLINOIS	P.A.N. FIL0722SAA
SOURCE ONSITE OBSERVATIONS	DATE 1/14/91 REVISED 2/26/91

recorded on the HNu during the sampling. The material sampled appeared similar to an oil.

Following sample collection, photographs of the site were obtained and sample management activities were completed. Dry decontamination activities were conducted and the potentially contaminated personal protective clothing was bagged and left inside the northeast entrance to the site. All personnel left the site at approximately 1430 hours.

November 16, 1990: At 0915 hours, TAT member Karen Spangler relinquished the samples to D. Saleh of Suburban Laboratories in Hillside, Illinois. The chain-of-custody form was completed at this time. The two drum samples were analyzed for Hazardous Substance List (HSL) parameters (PCB, volatile organics, semivolatile organics, pesticides) and TCLP metals with a 3-week turnaround time, under TDD# T05-9011-806.

ANALYTICAL RESULTS

Drum sample D1 indicated the presence of barium at 358 ppm and bis(2-ethylhexyl)phthalate at 3,000 ppb. Drum sample D2 contained xylenes at a total of 1,475,000 ppb, ethyl benzene at a concentration of 35,000 ppb, phenanthrene at a concentration of 215,000 ppb, and other HSL parameters. A summary of the data analysis results is included as Table 1. A copy of the data package submitted by the laboratory is included in Appendix B.

DISCUSSION OF POTENTIAL THREATS

Paragraph (b) (2) of Part 300.415 of the National Contingency Plan lists factors to be considered when determining the appropriateness of a potential removal action at a site. The following discussion presents a summary of those factors which are applicable to the American Pouch site.

TABLE 1

RESULTS OF CHEMICAL ANALYSIS OF

TAT - COLLECTED DRUM SAMPLES

Sample Collection Information and Parameters	Sample Number D1	D2
Date	11/15/90	11/15/90
Time	1315	1420
Lab Sample Number	14893	14894
Compound Detected (values in µg/L)		
ethylbenzene	--	35,000
toluene	--	17,000
m-xylene	--	102,000
o,p-xylenes	--	1,373,000
bis(2-ethylhexyl)phthalate	3,000	--
phenanthrene	--	215,000
endosulfan sulfate	--	109.0J
Analyte Detected (values in mg/L)		
barium	358	--
total chromium	0.43	0.20
lead	1.83	0.38

--Not detected.

Data Qualifier Identification

J - Indicates an estimated value, compound may be semi-quantitative.

Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chain. Analytical results of the two drum samples collected by TAT indicate the presence of hazardous substances such as xylenes, phenanthrene, ethylbenzene, and toluene at the American Pouch site. Labels on the drums and laboratory-size containers also indicate the presence of acids, bases, flammable solvents, and herbicides. Drums and other laboratory-size containers at the site were open and could potentially leak or spill. Additionally, the site is located in a residential area and is unsecured. TAT observed evidence of use of the site by vagrants, and dogs were observed in the building. In addition, a playground is located across the street from the site and a private residence is located adjacent to the site. These factors, when combined, could lead to direct contact by the nearby human populations or animals, to hazardous substances present at the site.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, other bulk storage containers that may pose a threat of release. TAT observed a number of drums at the American Pouch site during its investigation. Some of these drums were open and did not have bungs. Because of the evidence of use of the site by vagrants, a potential does exist for these drums to be knocked over, posing a potential threat of release to the environment.

Threat of fire or explosion. The site was the scene of a fire on October 28, 1990. According to fire officials, this fire may have been set by vandals or vagrants in the area. Because evidence of use of the site by vagrants exists, and hazardous substances, including a cylinder of acetylene and drums labelled as containing flammable solvents, were documented to be present at the site, a potential for fire or explosion exists at the American Pouch site. In addition, containers of sodium hydroxide, which reacts violently with water, as well as oxidizers and acids were observed on-site, all of which add to the potential for a fire or explosion at the site. This presents not only an immediate threat to health and the environment, but may cause the spread of other hazardous materials through a release of vapors into the air.

SUMMARY

Upon receipt of verbal analytical results from the TAT samples collected, and in consideration of the evidence of use of the site by vagrants, the unrestricted access, and the threats posed by the site, the U.S. EPA initiated removal activities at the American Pouch site on November 19, 1990.

APPENDIX A

SITE PHOTOGRAPHS

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: American Pouch/Dept. of Commerce PAGE 1 OF 5

U.S. EPA ID: NA TDD: T05-9011-013 PAN: EIL0722SAA

DATE: 11/15/90

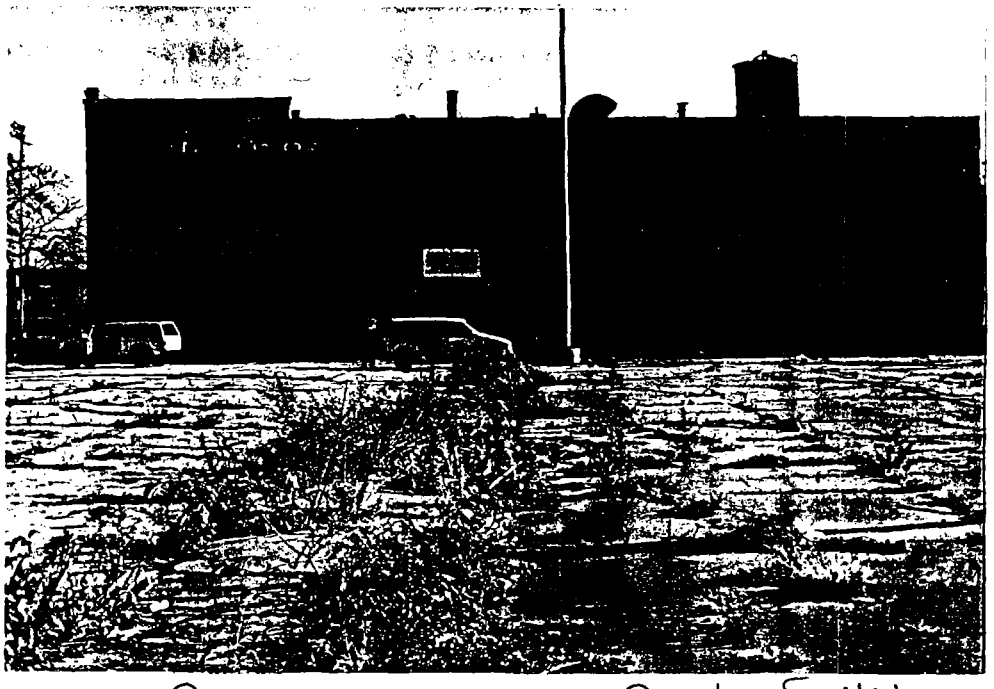
TIME: 1415

DIRECTION OF PHOTOGRAPH: South

WEATHER CONDITIONS: Sunny ~50°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA



DESCRIPTION: Overview of the north side of the facility.

DATE: 11/15/90

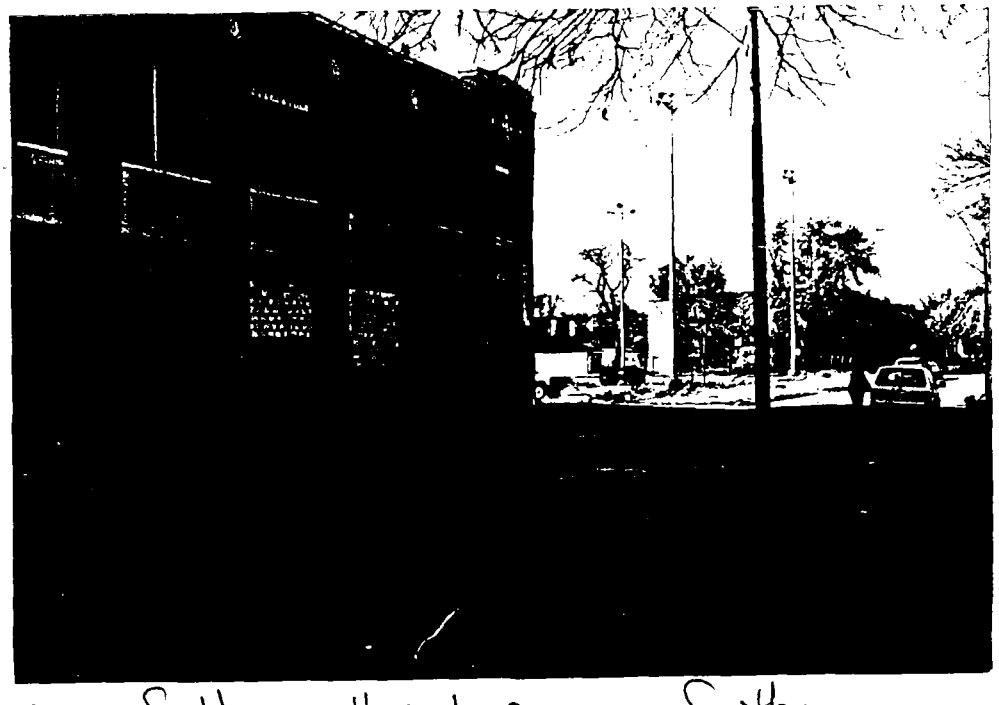
TIME: 1415

DIRECTION OF PHOTOGRAPH: Southwest

WEATHER CONDITIONS: Sunny ~60°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA



DESCRIPTION: Overview of the northwest corner of the facility.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: American Pouch / Dept. of Commerce PAGE 2 OF 5

U.S. EPA ID: NA TDD: T05-9011-013 PAN: EIL0722SAA

DATE: 11/15/90

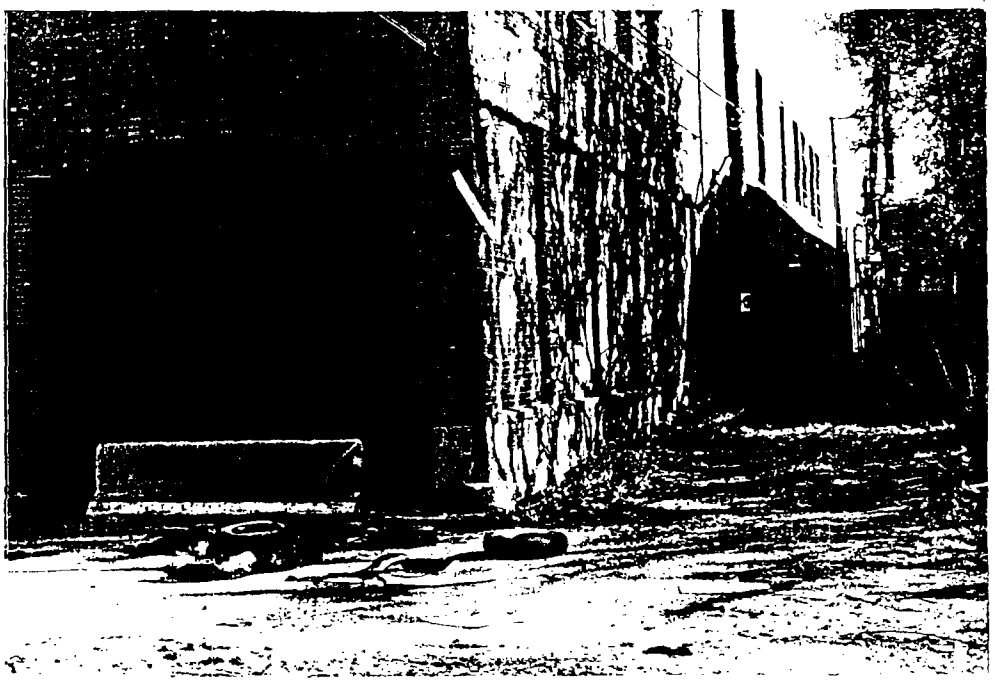
TIME: 1405

DIRECTION OF PHOTOGRAPH: Northeast

WEATHER CONDITIONS: Sunny ~50°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA



DESCRIPTION: Overview of the southwest corner of the facility where the fire onsite occurred.

DATE: 11/15/90

TIME: 1355

DIRECTION OF PHOTOGRAPH: South

WEATHER CONDITIONS: Sunny ~50°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA

DESCRIPTION: View of the interior of the building from an entrance at the northeast corner.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: American Pouch / Dept. of Commerce PAGE 3 OF 5

U.S. EPA ID: NA TDD: T05-9011-013 PAN: EIL0722SAA

DATE: 11/15/90

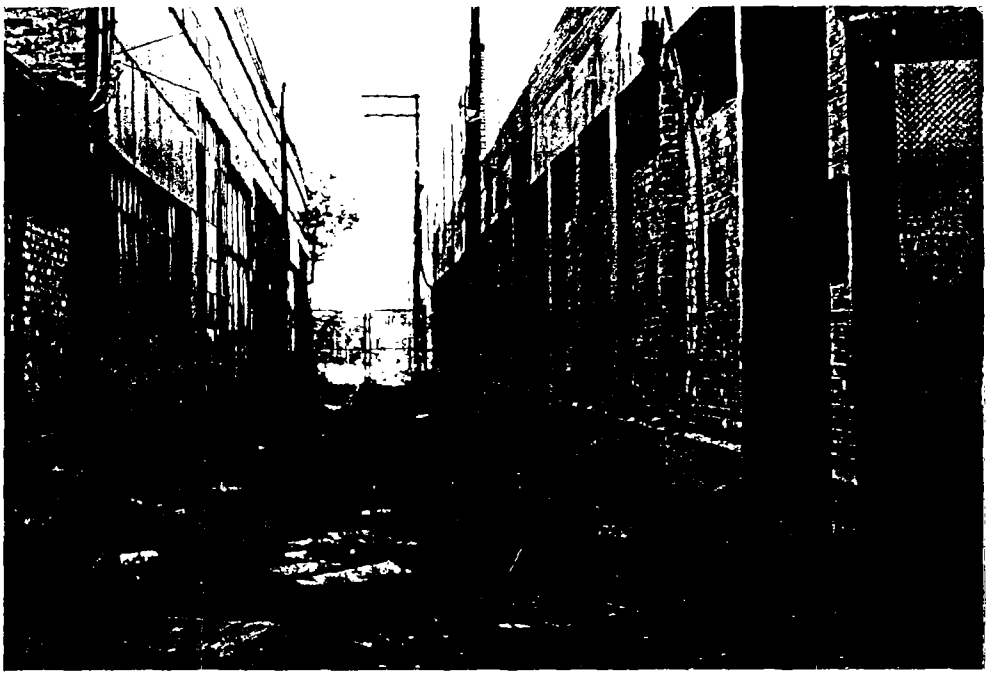
TIME: 1350

DIRECTION OF PHOTOGRAPH: West

WEATHER CONDITIONS: Sunny ~50°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA



DESCRIPTION: View of the south side of the facility.

DATE: 11/15/90

TIME: 1350

DIRECTION OF PHOTOGRAPH: Northwest

WEATHER CONDITIONS: Sunny ~50°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA

DESCRIPTION: View of transformers located at the south side of the facility.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: American Pouch/Dept. of Commerce PAGE 4 OF 5

U.S. EPA ID: NA TDD: T05-9011-013 PAN: EIL0722SAA

DATE: 11/15/90

TIME: 1350

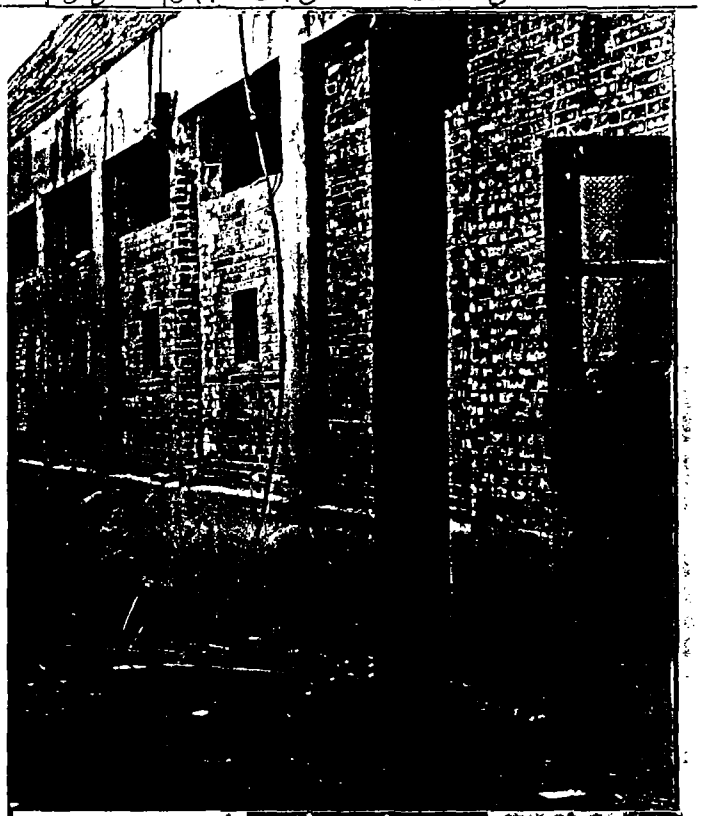
DIRECTION OF PHOTOGRAPH: NW

WEATHER CONDITIONS: Sunny, ~50°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA

DESCRIPTION: Overview of burned area beneath transformer at the south side of the facility.



DATE: 11/15/90

TIME: 1350

DIRECTION OF PHOTOGRAPH: NW

WEATHER CONDITIONS: Sunny, ~50°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA

DESCRIPTION: Close-up view of the burned area beneath transformer at the south side of the facility.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: American Pouch/Dept. of Commerce PAGE 5 OF 5

U.S. EPA ID: NA TDD: T05-9011-013 PAN: EIL072ZSAA

DATE: 11/15/90

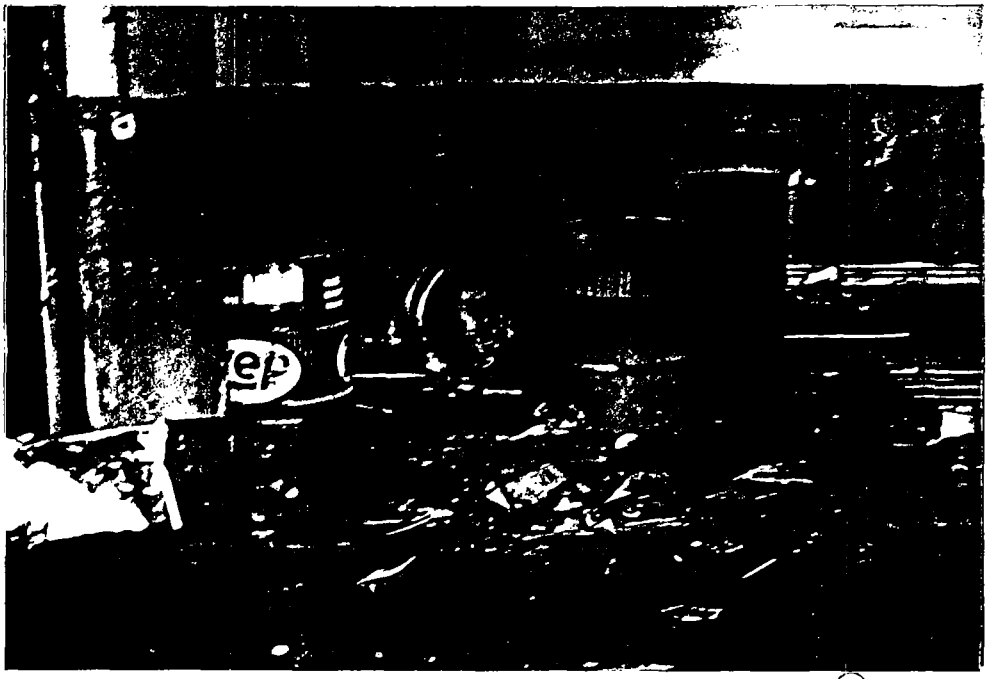
TIME: 1355

DIRECTION OF PHOTOGRAPH: Southeast

WEATHER CONDITIONS: Sunny ~50°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA



DESCRIPTION: Drums located in the eastern portion of the facility.

DATE: 11/15/90

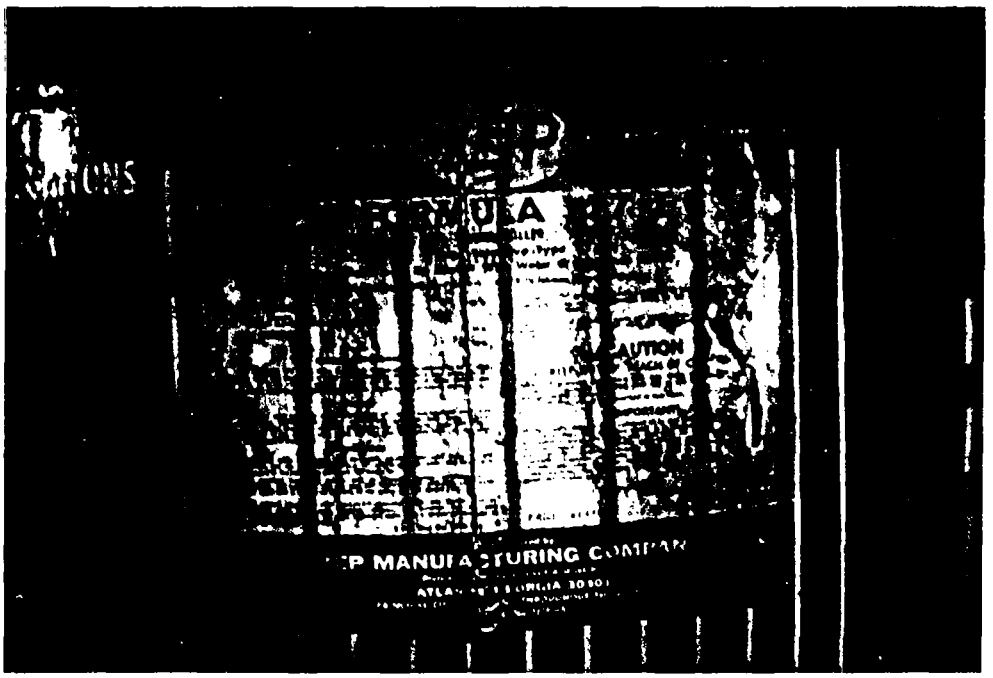
TIME: 1400

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny ~50°F

PHOTOGRAPHED BY: Mike Clonts

SAMPLE ID (if applicable): NA



DESCRIPTION: Close-up of label on drum located in the left foreground of the above photo.

APPENDIX B

ANALYTICAL RESULTS

Telephone (708) 544-3260
FAX (708) 544-8587
#1-800-783-LABS

SUBURBAN LABORATORIES, Inc.

"Analytical Testing"
Environmental, Microbiological, Nutritional
4140 Litt Drive • Hillside, Illinois 60162 - 1183

GAS CHROMATOGRAPHY / MASS SPECTROMETRY TECHNICAL REPORT

FOR

ECOLOGY AND ENVIRONMENT, INC.

111 WEST JACKSON BLVD., 12TH FLOOR

CHICAGO, IL 60604

ATTENTION: MS. KAREN SPANGLER

DATE REPORTED: 12/20/90

ENCLOSED YOU WILL FIND THE FINAL REPORT(S). INCLUDED IN THE REPORT(S): CLIENT REFERENCE #(S), QUANT REPORT(S), CHROMATOGRAM(S), AND MASS SPECTRAL DATA.

S/L REFERENCE #	ANAYLSES	METHOD
1. 0-14893 TO 0-14894.....	VOLATILES.....	8240
	SEMI-VOLATILES.....	8270
	PEST/PCB'S.....	8080

PLEASE NOTE: CHAIN OF CUSTODY REQUIRED FOR ALL GC/MS ANALYSIS. SAMPLES WILL BE DISCARDED ONE MONTH AFTER REPORTING DATE UNLESS WE ARE OTHERISE INSTRUCTED.

A FAXED COPY OF THE REPORT WAS ISSUED ON 12/21/90.

Lazaro Lopez III
Associate Director

LL/ld

Telephone (708) 544-3260
FAX (708) 544-8587
#1-800-783-LABS

SUBURBAN LABORATORIES, Inc.

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[illegible]

[illegible]

Note: Upon visual review of the total ion chromatogram, unidentified peaks were observed which are outside these parameters that are listed below.

[illegible]

COMPOUND	RT	RS	RQ	SAMPLE CONC.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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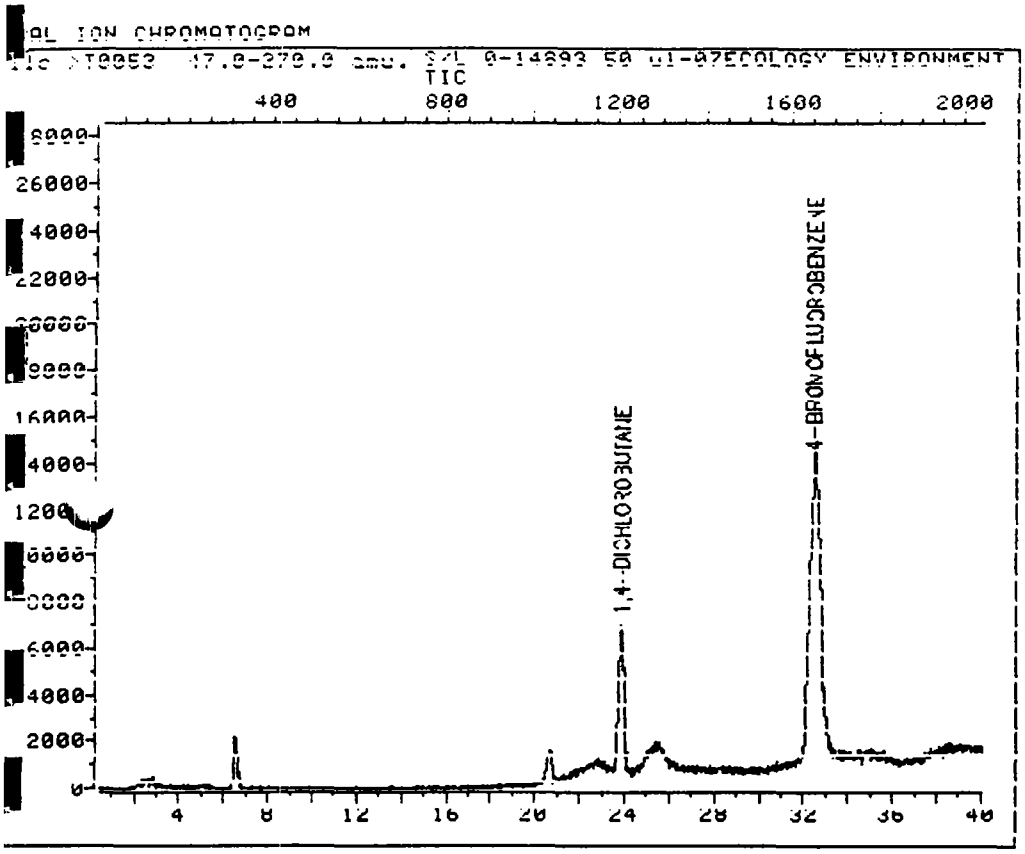
QUANT REPORT

Operator ID: LOPEZ Quant Rev: 6 Quant Time: 901128 22:07
Output File: ^T0053::D1 Injected at: 901128 21:26
Data File: >T0053::D2 Dilution Factor: 100.0000
Name: S/L 0-14893 50 ul-07
Misc: ECOLOGY ENVIRONMENT D1 11-15-90 13:15 [ECE-112090-2-A]

ID File: ID_VOT::D4
Title: VOLATILE ORGANIC COMPOUNDS GC/MS #4
Last Calibration: 901128 14:28

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*4-BROMOFLUOROBENZENE	32.40	1652	105710M	695.00	ug/kg	88
38)	1,4-DICHLOROBUTANE	23.81	1208	47570	8637.36	ug/kg	96

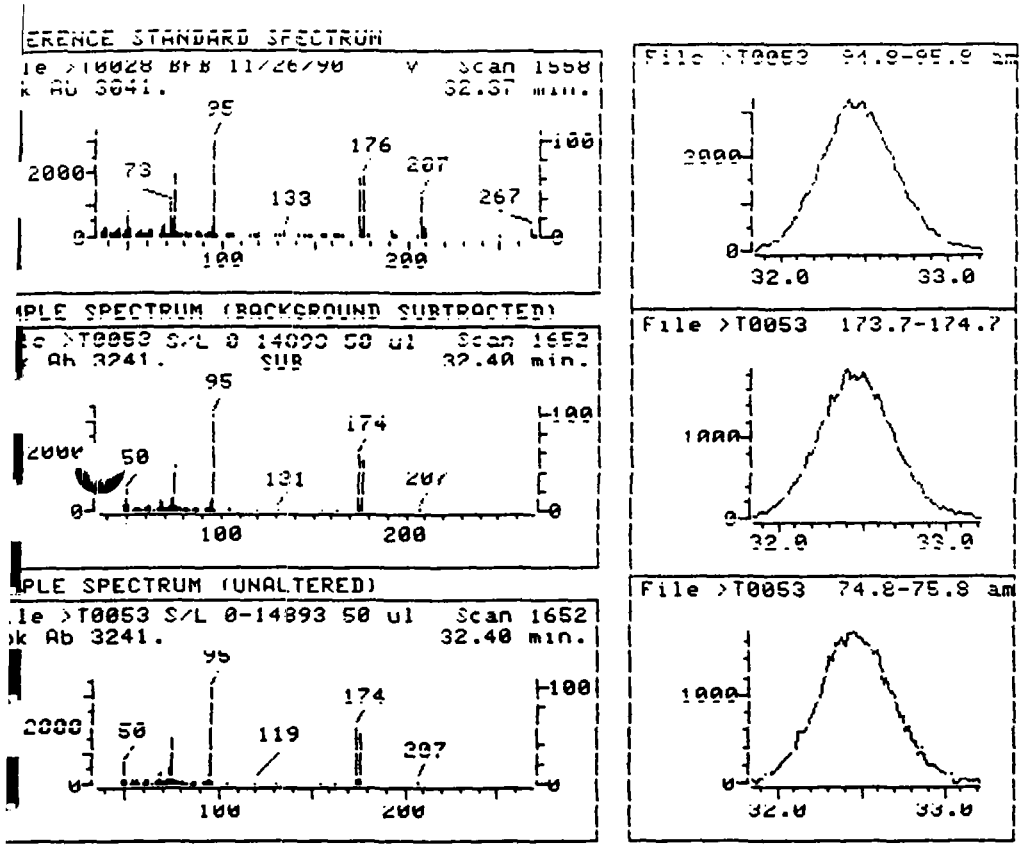
* Compound is ISTD



Data File: >T0053::D2 Quant Output File: ^T0053::D1
Name: S/L 0-14893 50 ul-07
Misc: ECOLOGY ENVIRONMENT D1 11-15-90 13:15 [ECE-112090-2-A]

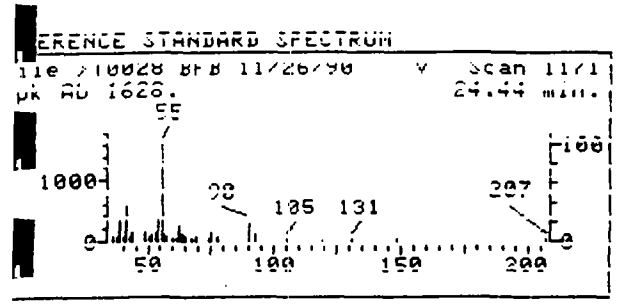
Id File: ID_VOT::D4
Title: VOLATILE ORGANIC COMPOUNDS GC/MS #4
Last Calibration: 901128 14:28

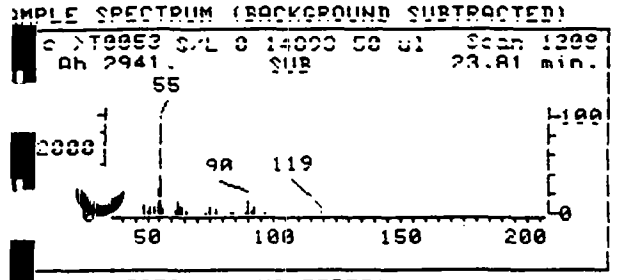
Operator ID: LOPEZ
Quant Time: 901128 22:07
Injected at: 901128 21:26

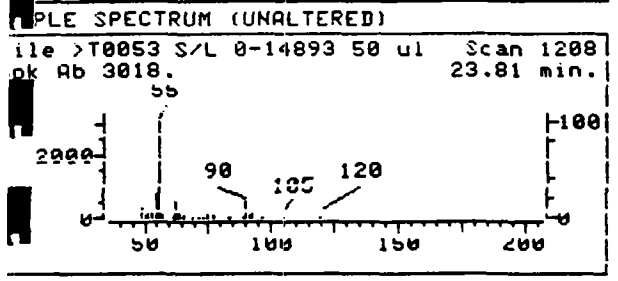


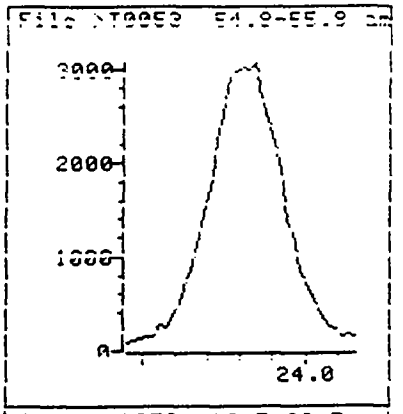
Data File: >T0053::D2 Quant Output File: ^T0053::D1
Name: S/L 0-14893 50 ul-07
Misc: ECOLOGY ENVIRONMENT D1 11-15-90 13:15 [ECE-112090-2-A]
Quant Time: 901128 22:07 Quant ID File: ID_VOT::D4
Injected at: 901128 21:26 Last Calibration: 901128 14:28

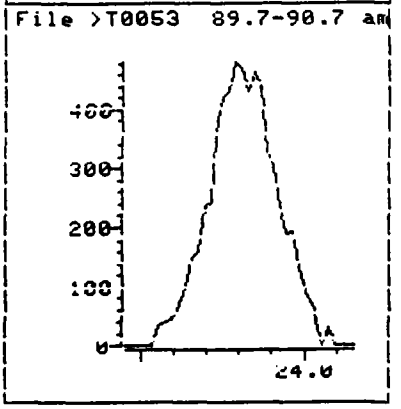
Compound No: 1 (ISTD)
Compound Name: 4-BROMOFLUOROBENZENE
Scan Number: 1652
Retention Time: 32.40 min.
Quant Ion: 95.1
Area: 105710M
Concentration: 695.00 ug/kg
q-value: 88











Data File: >T0053::D2 Quant Output File: ^T0053::D1
Name: S/L 0-14893 50 ul-07
Misc: ECOLOGY ENVIRONMENT D1 11-15-90 13:15 (ECE-112090-2-A)
Quant Time: 901128 22:07 Quant ID File: ID_VOT::D4
Injected at: 901128 21:26 Last Calibration: 901128 14:28

Compound No: 38
Compound Name: 1,4-DICHLOROBUTANE
Scan Number: 1208
Retention Time: 23.81 min.
Quant Ion: 55.1
Area: 47570
Concentration: 8637.36 ug/kg
q-value: 96

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#1-800-783-LABS

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4140 Litt Drive • Hillside, Illinois 60162 - 1183

FINAL REPORT OF ANALYSIS FOR ORGANIC CHEMICAL COMPOUNDS BY GC/MS

S/L #0-14893

GC/MS FILE # >S1456::E8

DATE SAMPLED: NA

DATE RECEIVED: 11/16/90

DATE EXTRACTED: 11/20/90

pH: 5.0

FINAL REPORT BY: JB

CLIENT: ECOLOGY AND ENVIRONMENT

PROJECT NAME: NA

PROJECT #EIL07225AA

SAMPLE:" D1 11/15/90 13:15 "

MATRIX: OTHER

S/L MATRIX CODE:

DILUTION FACTOR: 1000.0

Note: Upon visual review of the Total Ion Chromatogram, unidentified peaks were observed which are outside these parameters that are listed below.

>>>>>>>> BASE / NEUTRAL EXTRACTABLES METHOD 8270 SOLID MATRICES <<<<<<<<<<

	COMPOUND	MDL uq/kq- uq/l	CAS NUMBER	PQL LOW LEVEL SOIL/SEDIMENT uq/kq	SAMPLE CONC. (wet weight) uq/kq- uq/l
1.	Acenaphthene	1.0	83-32-9	660.0	*1000.0
2.	Acenaphthylene	1.0	208-96-8	660.0	*1000.0
3.	Anthracene	1.0	120-12-7	660.0	*1000.0
4.	Benzo(a)anthracene	1.0	56-55-3	660.0	*1000.0
5.	Benzo(b)fluoranthene	1.0	205-99-2	660.0	*1000.0
6.	Benzo(k)fluoranthene	1.0	207-08-9	660.0	*1000.0
7.	Benzo(a)pyrene	1.0	50-32-8	660.0	*1000.0
8.	Benzo(g,h,i)perylene	1.0	191-24-2	660.0	*1000.0
9.	Benzyl butyl phthalate	1.0	85-68-7	660.0	*1000.0
10.	bis(2-Chloroethyl)ether	1.0	111-44-4	660.0	*1000.0
11.	bis(2-Chloroethoxy)methane	1.0	111-91-1	660.0	*1000.0
12.	bis(2-Ethylhexyl)phthalate	1.0	117-81-7	660.0	3000.0
13.	bis(2-Chloroisopropyl)ether	1.0	39638-32-9	660.0	*1000.0
14.	4-Bromophenyl phenyl ether	1.0	101-55-3	660.0	*1000.0
15.	2-Chloronaphthalene	1.0	91-58-7	660.0	*1000.0
16.	4-Chlorophenyl phenyl ether	1.0	7005-72-3	660.0	*1000.0
17.	Chrysene	1.0	218-01-9	660.0	*1000.0
18.	Dibenzo(a,h)anthracene	1.0	53-70-3	660.0	*1000.0
19.	Dimethyl phthalate	1.0	131-11-3	660.0	*1000.0
20.	Di-n-butylphthalate	1.0	84-74-2	660.0	*1000.0
21.	1,3-Dichlorobenzene	1.0	541-73-1	660.0	*1000.0
22.	1,2-Dichlorobenzene	1.0	95-50-1	660.0	*1000.0
23.	1,4-Dichlorobenzene	1.0	106-46-7	660.0	*1000.0

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PAGE TWO OF S/L #0-14893

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25.	Diethyl phthalate	1.0	84-66-2	660.0	*1000.0
26.	2,4-Dinitrotoluene	1.0	121-14-2	660.0	*1000.0
27.	2,6-Dinitrotoluene	1.0	606-20-2	660.0	*1000.0
28.	Di-n-octylphthalate	1.0	117-84-0	660.0	*1000.0
29.	Fluoranthene	1.0	206-44-0	660.0	*1000.0
30.	Fluorene	1.0	86-73-7	660.0	*1000.0
31	Hexachlorobenzene	1.0	118-74-1	660.0	*1000.0
32.	Hexachlorobutadiene	1.0	87-68-3	660.0	*1000.0
33.	Hexachloroethane	1.0	67-72-1	660.0	*1000.0
34.	Indeno(1,2,3-cd)pyrene	1.0	193-39-5	660.0	*1000.0
35.	Isophorone	1.0	78-59-1	660.0	*1000.0
36.	Naphthalene	1.0	91-20-3	660.0	*1000.0
37.	Nitrobenzene	1.0	98-95-3	660.0	*1000.0
38.	N-Nitroso-di-n-propylamine		621-64-7	1300.0	*1300.0
39.	Phenanthrene	1.0	85-01-8	660.0	*1000.0
40.	Pyrene	1.0	129-00-0	660.0	*1000.0
41.	Pyridine	1.0	120-86-1	660.0	*1000.0
42.	1,2,4-Trichlorobenzene	1.0	120-82-1	660.0	*1000.0
43.	+d10-Anthracene	1.0			190.00
44.	++d8-Napthalene Surrogate Standard				97%
45.	2-Fluorobiphenyl(temp.surr.)	1.0	321-60-8		NI
46.	d5-Nitrobenzene (temp.surr.)	1.0	4165-60-0		NI
47.	d14-4-Terphenyl (temp.surr.)	1.0			NI
	ADDITIONAL EXTRACTABLE PARAMETERS				
48.	Benzidine		92-87-5		CS
49.	1,2-Diphenylhydrazine	30.0	122-66-7	1300.0	*30000.0
50.	Hexachlorocyclopentadiene		77-47-4		CS
51.	Toxaphene		8001-35-2		CS
52.	N-Nitrosodimethylamine		62-75-9		CS
53.	N-Nitrosodiphenylamine	1.0	86-30-6	660.0	*1000.0

+.....INTERNAL STANDARD ++.....SURROGATE STANDARD % RECOVERY

MDL....METHOD DETECTION LIMIT MI.....MATRIX INTERFERENCE

NI.....SURROGATE STD. NOT INJECTED NA.....NOT APPLICABLE

CS.....DUE TO COMPOUND INSTABILITY UNDER REGULAR GAS CHROMATOGRAPHY CONDITIONS THESE COMPOUNDS ARE SCREENED FOR IN THIS ANALYSIS

*.....SAMPLE CONCENTRATIONS ARE LESS THAN OR EQUAL TO THE REPORTED VALUE

PQL.....PRACTICAL QUANTITATION LIMIT
THE LOWEST LEVEL THAT CAN BE RELIABLY ACHIEVED WITHIN THE SPECIFIED LIMITS OF PRECISION AND ACCURACY DURING ROUTINE LABORATORY OPERATING CONDITIONS. THE PQL's LISTED HEREIN ARE PROVIDED FOR GUIDANCE AND MAY NOT ALWAYS BE ACHIEVABLE. PQL's ARE HIGHLY MATRIX DEPENDENT. DETERMINATION OF PQL's FOR VARIOUS MATRICES IS THE PQL FOR LOW LEVEL SOIL/SEDIMENT x FACTOR: HIGH LEVEL SOIL AND SLUDGES x 7.5; NON-WATER

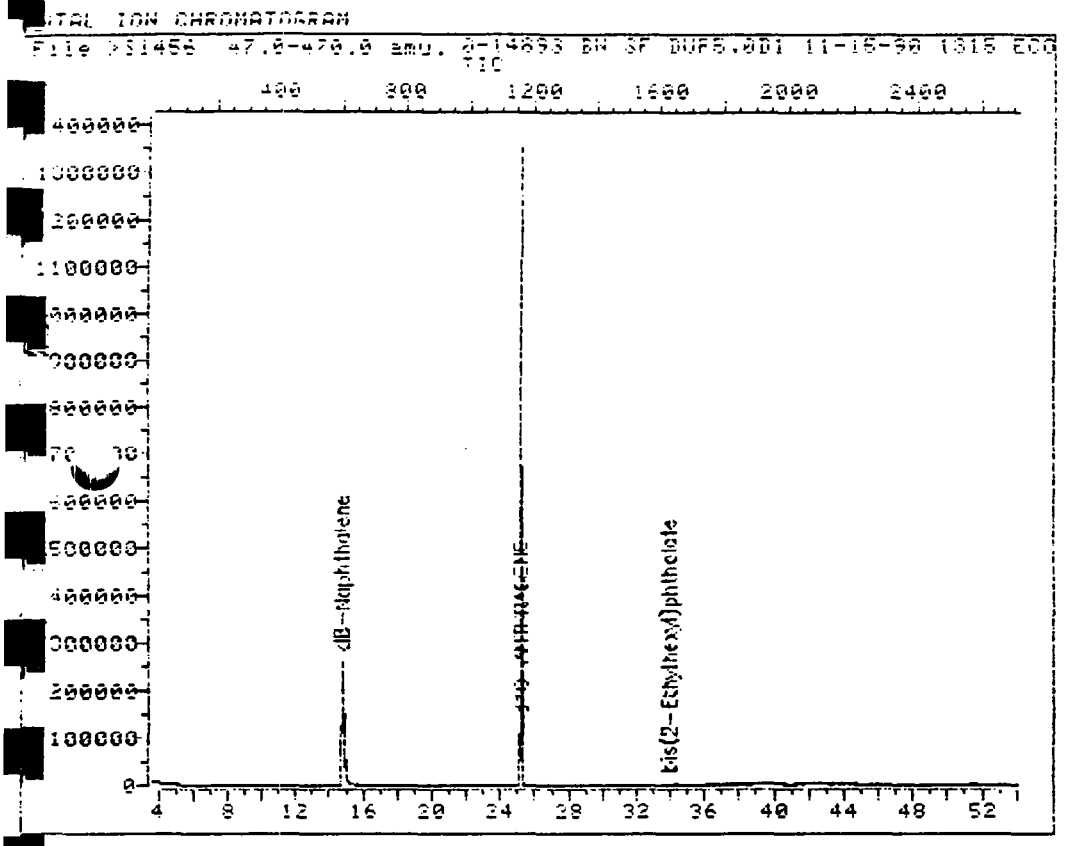
QUANT REPORT

Operator ID: [illegible] Quant Rev: 6 Quant Time: [illegible] 14:[illegible]
Output File: [illegible]S1456::E1 Injected at: 901212 13:55
Data File: [illegible]S1456::F8 Dilution Factor: [illegible]000.000
Name: 0-14893 BN SF DUP5.0
Misc: D1 11-15-90 1315 ECOLOGY ENVIRONMENT [illegible]CE-[illegible]-G-2 ABIT # 8

ID File: ID_SBN::E1
Title: BASE/NEUTRAL EXTRACTABLES MSD #2
Last Calibration: 901217 09:12

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d10-ANTHRACENE	25.18	1160	359708	190.00	ug/l	94
(6)	bis(2-Ethylhexyl)phthalate	33.89	1630	4357	[illegible]466.02	ug/l	[illegible]
54)	d8-Naphthalene	14.72	592	1159762	485334.6	ug/l	80

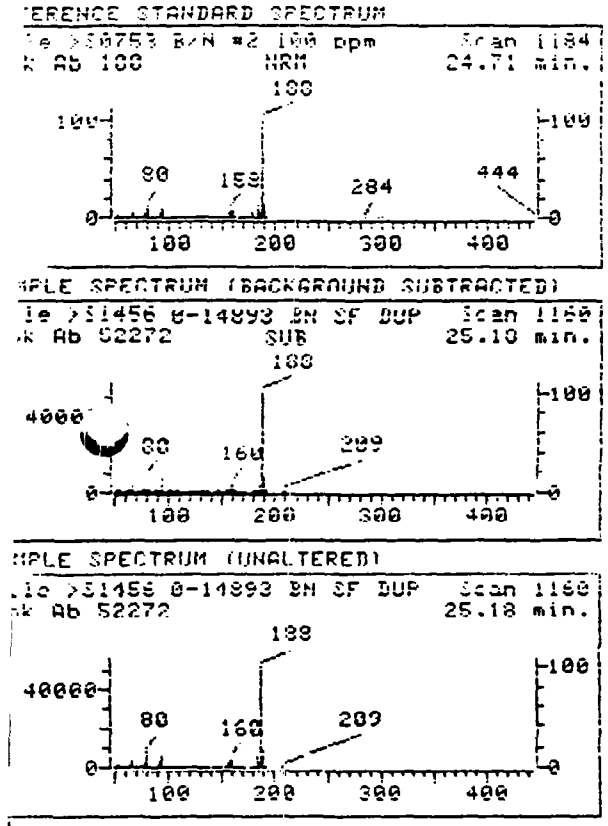
* Compound is ISTD

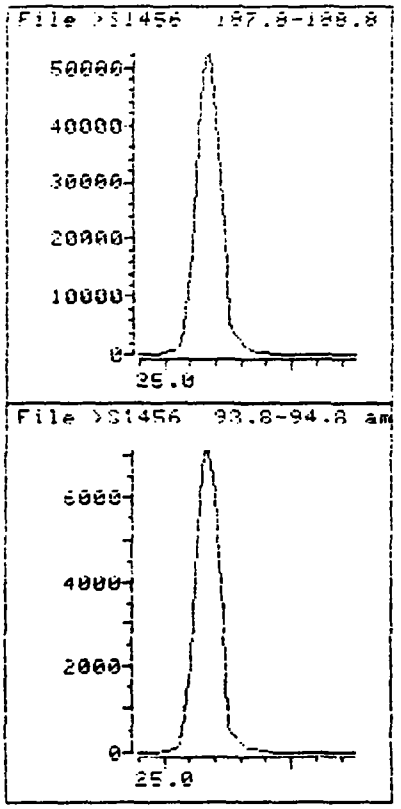


Data File: >S1456::E8 Quant Output File: ^S1456::E1
Name: 0-14893 BN SF DUP5.0
Misc: D1 11-15-90 1315 ECOLOGY ENVIRONMENT (ECE-102890-G-2-ARTL# 8

Id File: ID_SRN::FL
Title: BASE/NEUTRAL EXTRACTABLES MSD #2
Last Calibration: 901217 09:12

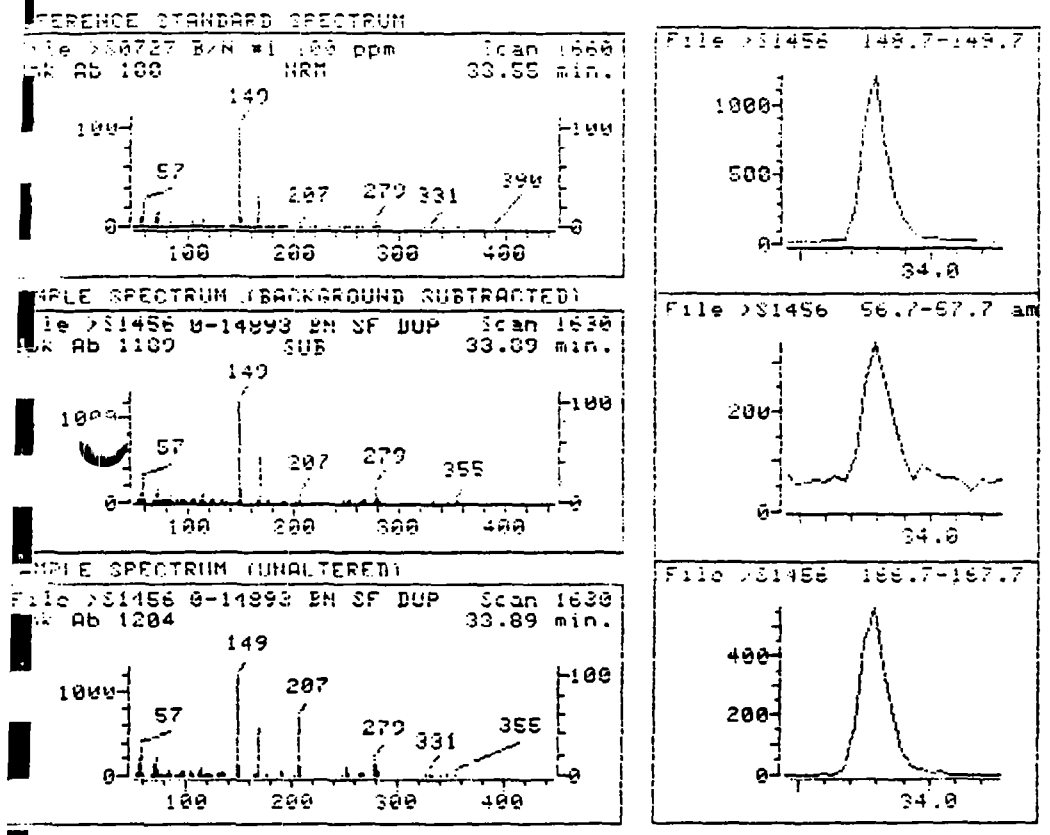
Operator ID: LESCH
Quant Time: 901220 14:18
Injected at: 901212 13:55





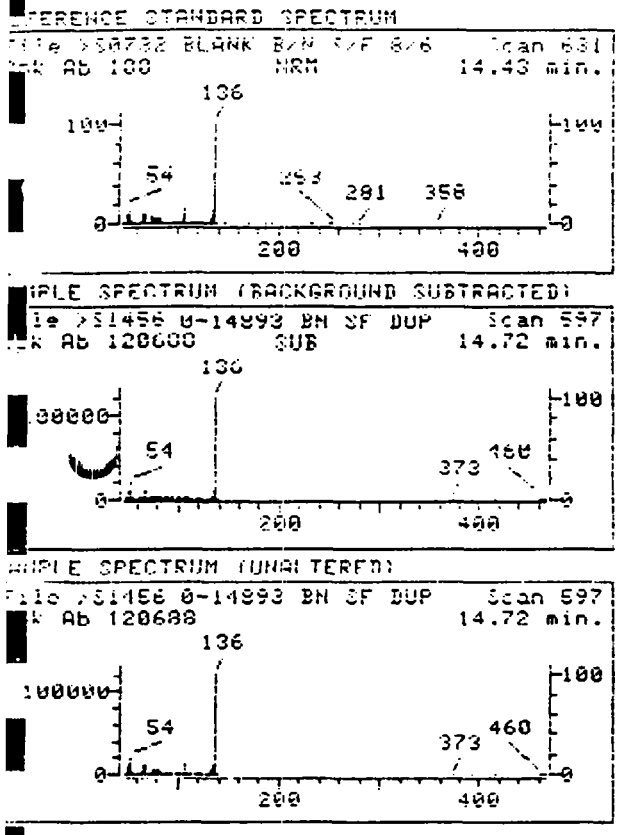
Data File: >S1456::E8 Quant Output File: ^S1456::E1
Name: 0-14893 BN SF DUP5.0
Misc: D1 11-15-90 1315 ECOLOGY ENVIRONMENT (ECE-102090-G-2-ARTL# 8
Quant Time: 901220 14:10 Quant ID File: [illegible]_SBN::E1
Injected at: 901212 13:55 Last Calibration: 901217 09:12

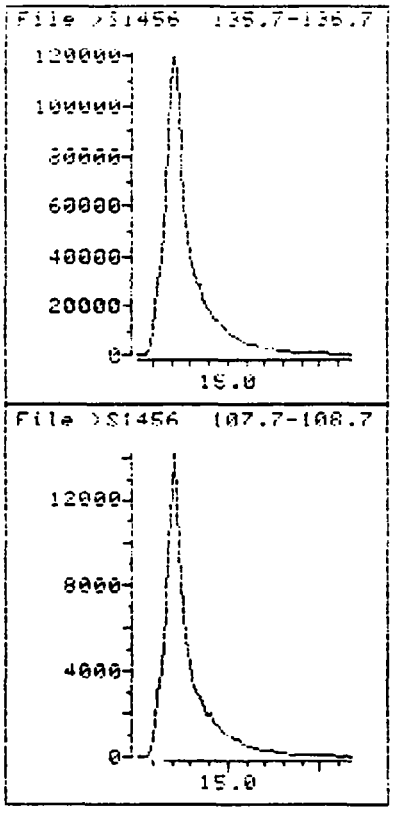
Compound No: 1 (ISTD)
Compound Name: d10-ANTHRACENE
Scan Number: 1160
Retention Time: 25.18 min.
Quant Ion: 188.1
Area: 359708
Concentration: 190.00 ng/l
q-value: 94



Data File: >S1456::E8 Quant Output File: ^S1456::E1
Name: 0-14893 BN SF DUP5.0
Misc: 01 11-15-90 1315 ECOLOGY ENVIRONMENT [ECE-102090-G-2-ARTL# 8
Quant Time: 901220 14:10 Quant ID File: ::_SBN::F1
Injected at: 901212 13:55 Last Calibration: 901217 09:12

Compound No: 16
Compound Name: bis(2-Ethylhexyl)phthalate
Scan Number: 1630
Retention Time: 33.89 min.
Quant Ion: 149.0
Area: 4357
Concentration: 1466.02 ug/l
q-value: 82





Data File: >S1456::S8 Quant Output File: ^S1456::S1
Name: 0-14893 BN SF DUP5.0
Misc: 01 11-15-90 1315 ECOLOGY ENVIRONMENT (ECE-102090-G-2-ARCL# 8
Quant Time: 901220 14:10 Quant ID File: ID_-BN::-1
Injected at: 901212 13:55 Last Calibration: 901217 09:12

Compound No: 54
Compound Name: d8-Naphthalene
Scan Number: 597
Retention Time: 14.72 min.
Quant Ion: 136.0
Area: 1159762
Concentration: 485634.6 ug/l
q-value: 80

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FINAL REPORT OF ANALYSIS FOR ORGANIC CHEMICAL COMPOUNDS BY GC/MS

S/L # 0-14893

GC/MS FILE # >S1453::E2

DATE SAMPLED: NA

DATE RECEIVED: 11/16/90

DATE EXTRACTED: 12/04/90

pH: 5.0

FINAL REPORT BY: JB

CLIENT: ECOLOGY AND ENVIRONMENT

PROJECT NAME: NA

PROJECT #EIL07225AA

SAMPLE:" 01 11/15/90 13:15 "

MATRIX: OTHER

S/L MATRIX CODE:

DILUTION FACTOR: 1000.0

Note: Upon visual review of the Total Ion Chromatogram, unidentified peaks were observed which are outside these parameters that are listed below.

****

>>>>>>>>>>>>>>>>>>>>> ACID EXTRACTABLES METHOD 8270 <<<<<<<<<<<<<<<<<<<<<<<<

****

	COMPOUND	MDL ug/l- ug/kg	CAS NUMBER	PQL LOW LEVEL SOIL/SEDIMENT ug/kg	SAMPLE CONC. ug/l- ug/kg (wet weight)
1.	4-Chloro-3-methylphenol	3.0	59-50-7	1300.0	* 3000.0
2.	2-Chlorophenol	1.0	95-57-8	660.0	* 1000.0
3.	2,4-Dichlorophenol	1.0	120-83-2	660.0	* 1000.0
4.	2,4-Dimethylphenol	2.0	105-67-9	660.0	* 2000.0
5.	2,4-Dinitrophenol	3.0	51-28-5	3300.0	* 3300.0
6.	2-Methyl-4,6-dinitrophenol	20.0	534-52-1	3300.0	*20000.0
7.	2-Nitrophenol	3.0	88-75-5	3300.0	* 3300.0
8.	4-Nitrophenol	2.0	100-02-7	3300.0	* 3300.0
9.	Pentachlorophenol	30.0	87-86-5	3300.0	*30000.0
10.	Phenol	1.0	108-95-2	660.0	* 1000.0
11.	2,4,6-Trichlorophenol	2.0	88-06-2	660.0	* 2000.0
12.	+2-Fluorophenol		367-12-4		150.00
13.	++d6-Phenol.(s.std)	1.0	13127-88-3		116%

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+....INTERNAL STANDARD

++....SURROGATE STANDARD % RECOVERY

MDL..METHOD DETECTION LIMIT

MI....MATRIX INTERFERENCE

NI....SURROGATE STANDARD NOT INJECTED

NA....NOT APPLICABLE

*.....SAMPLE CONCENTRATION LESS THAN OR EQUAL TO THE REPORTED VALUE.

PQL...PRACTICAL QUANTITATION LIMIT
THE LOWEST LEVEL THAT CAN BE RELIABLY ACHIEVED WITHIN THE SPECIFIED LIMITS OF PRECISION AND ACCURACY DURING ROUTINE LABORATORY OPERATING CONDITIONS. THE PQL's LISTED HEREIN ARE PROVIDED FOR GUIDANCE AND MAY NOT ALWAYS BE ACHIEVABLE PQL's ARE HIGHLY MATRIX DEPENDENT. DETERMINATION OF PQL's FOR VARIOUS MATRICES IS THE PQL FOR LOW LEVEL SOIL/SLUDGE xFACTOR: MEDIUM LEVEL SOIL AND SLUDGES x7.5: NON-WATER MISCIBLE WASTE x75.

REV 021490

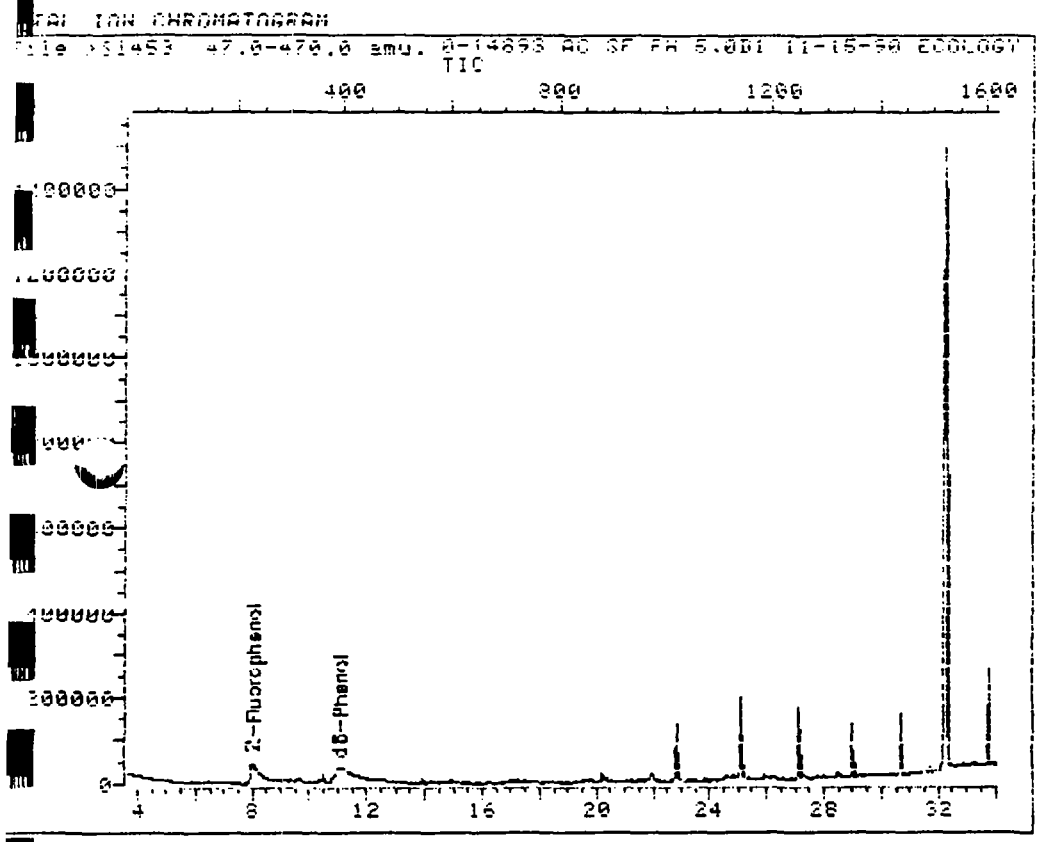
QUANT REPORT

Operator ID: LOPEZ Quant Rev: A Quant Time: 901210 22:40
Output File: ^S1453::01 Injected at: 901210 22:03
Data File: S1453::02 Dilution Factor: 1000.000
Name: 0-14893 AC SF PH 5.0
Misc: DI 11-15-90 ECOLOGY ENVIRONMENT (ECE-112090-G-2 A) BIL# 5

ID File: ID_SAC::E1
Title: ACID EXTRACTABLES
Last Calibration: 901208 15:32

	Compound	R.T.	Scan#	Area	Conc	Units	q
[illegible]	*2-Fluorophenol	8.01	231	318075	150.00	ug/l	95
130	d6-Phenol	1[illegible].06	[illegible]4	148522	6[illegible]8.31	ug/l	[illegible]

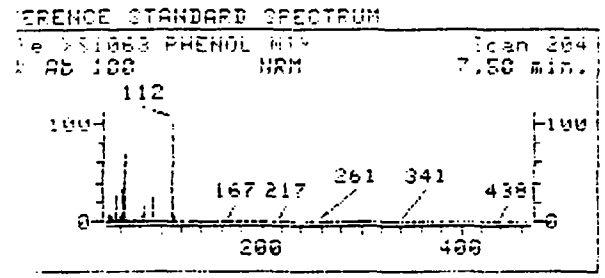
* Compound is ISTD

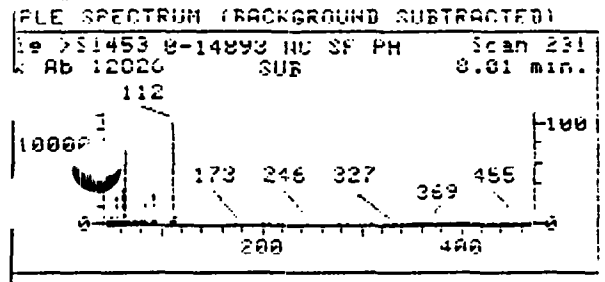


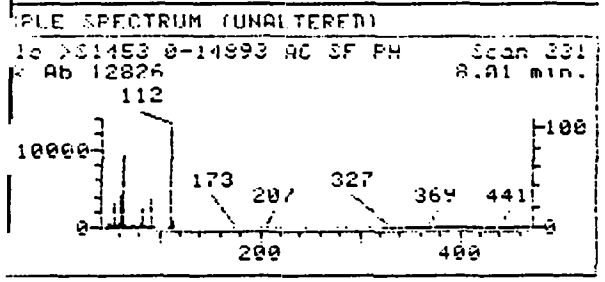
Data File: >S1453::D2 Quant Output File: ^S1453::D1
Name: 0-14893 AC SF PH 5.0
Misc: D1 11-15-90 ECOLOGY ENVIRONMENT (ECF-112090-G-2-A) BTL# 5

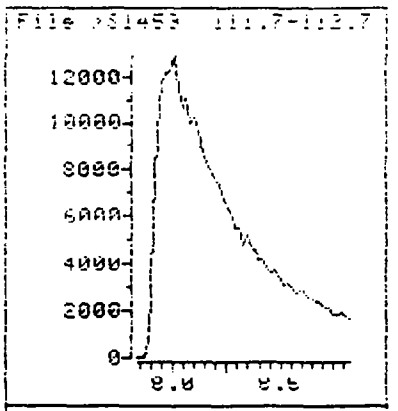
Id File: ID_SAC::F1
Title: ACID EXTRACTABLES
Last Calibration: 901208 14:32

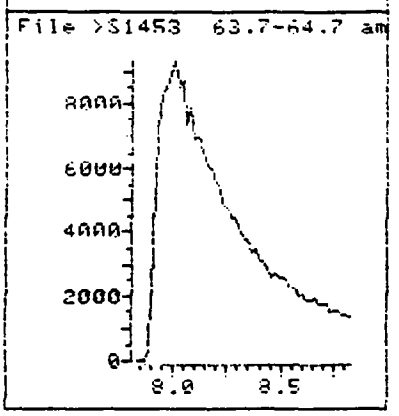
Operator ID: LOPEZ
Quant Time: 901210 22:40
Injected at: 901210 22:03





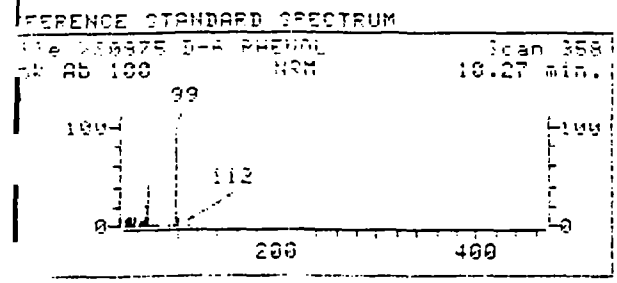


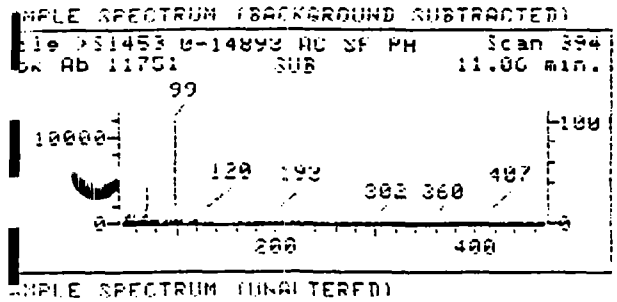


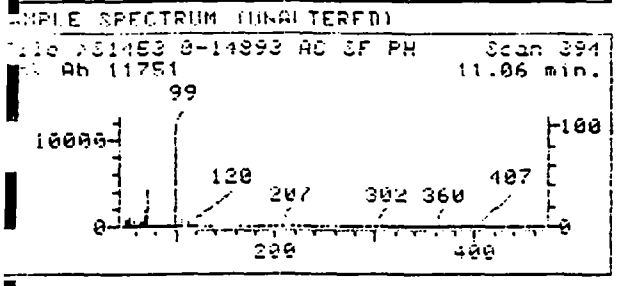


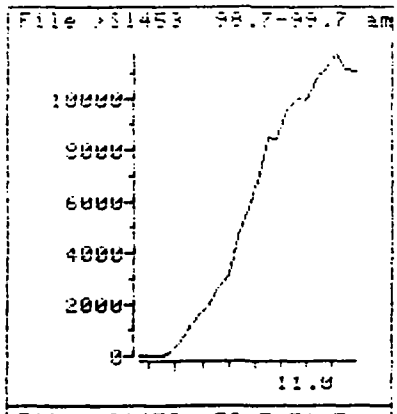
Data File: >S1453::D2 Quant Output File: >S1453::D1
Name: 0-14893 AC SF PH 5.0
Misc: D1 11-15-90 ECOLOGY ENVIRONMENT (ECE-112090-G-2-A) BIL# 5
Quant Time: 901210 22:40 Quant ID File: ID_SAL::F1
Injected at: 901210 22:03 Last Calibration: 901208 15:32

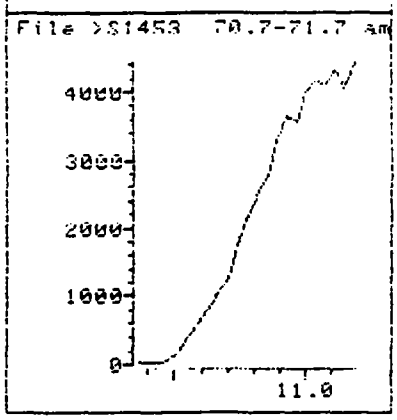
Compound No: 1 (TSID)
Compound Name: 2-Fluorophenol
Scan Number: 231
Retention Time: 8.01 min.
Quant Ion: 112.0
Area: 318075
Concentration: 150.00 ug/l
q-value: 95











Data File: >S1453::02 Quant Output File: ^S1453::01
Name: 0- 4893 AC SF PH 5.0
Misc: 01 11-15-90 ECOLOGY ENVIRONMENT [ECE-112090-G-2-A] BTL# 5
Quant Time: 901210 22:40 Quant ID File: ID_SAC::F1
Injected at: 901210 22:03 Last Calibration: 901208 15:32

Compound No: 13
Compound Name: d6-Phenol
Scan Number: 394
Retention Time: 11.06 min.
Quant Ion: 99.0
Area: 148577
Concentration: 6[illegible].31 ug/l
q-value: 87

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FINAL REPORT OF ANALYSIS FOR ORGANIC CHEMICAL COMPOUNDS BY GC/MS

S/L #0-14893

SIGNAL FILE F:Q1C660A1.BNC

DATE SAMPLED: NA

DATE RECEIVED: 11/16/90

DATE EXTRACTED: 12/04/90

pH: 4.5

FINAL REPORT BY: LD

CLIENT: ECOLOGY AND ENVIRONMENT

PROJECT NAME: EILO7225AA

PROJECT # NA

SAMPLE " D1 11/15/90 1315 ""

MATRIX: WATER

S/L MATRIX CODE:

DILUTION FACTOR: 100.0

Note: Upon visual review of the Chromatogram, (un)identified peaks were observed outside of those parameters which are listed below.

****

>>>>>>>>>>>>>>>>>>>>>> PESTICIDES / PCB'S METHOD 8080 <<<<<<<<<<<<<<<<<<<<<<<

****

	COMPOUND	MDL ug/kg-ug/l	CAS NUMBER	PQL ug/kg-ug/l	SAMPLE CONC. (wet weight) ug/kg-ug/l 1st Column	2nd Column	AVE. CONC. (wet wt) ug/kg-ug/l
1.	Aldrin.....	0.004	309-00-2	2.68	ND	NI	* 2.68
2.	alpha-BHC.....	0.003	319-84-6	2.01	ND	NI	* 2.01
3.	beta-BHC.....	0.006	319-85-7	4.02	ND	NI	* 4.02
4.	delta-BHC.....	0.009	319-86-8	6.03	ND	NI	* 6.03
5.	gamma-BHC ..... (Lindane)	0.004	58-89-9	2.68	ND	NI	* 2.68
6.	**Chlordane.....	0.014	57-74-9	9.38	ND	NI	* 9.38
7.	4,4'-DDD.....	0.011	72-54-8	7.37	ND	NI	* 7.37
8.	4,4'-DDE.....	0.004	72-55-9	2.68	ND	NI	* 2.68
9.	4,4'-DDT.....	0.012	50-29-3	8.04	ND	NI	* 8.04
10.	Dieldrin.....	0.002	60-57-1	1.34	ND	NI	* 1.34
11.	Endosulfan I.....	0.014	959-98-8	9.38	ND	NI	* 9.38
12.	Endosulfan II.....	0.004	33213-65-9	2.68	ND	NI	* 2.68
13.	Endosulfan Sulfate...	0.066	1031-07-8	44.22	ND	NI	*44.22
14.	Endrin.....	0.006	72-20-8	4.02	ND	NI	* 4.02
15.	Endrin Aldehyde.....	0.023	7421-93-4	15.41	ND	NI	*15.41
16.	Heptachlor.....	0.003	76-44-8	2.01	ND	NI	* 2.01
17.	Heptachlor Epoxide...	0.083	1024-57-3	55.61	ND	NI	*55.61

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18.	PCB-1016.....	0.10	12674-11-2	67.0	ND	NI	*67.0
19.	PCB-1221.....	0.10	1104-28-2	67.0	ND	NI	*67.0
20.	PCB-1232.....	0.10	11141-16-5	67.0	ND	NI	*67.0
21.	PCB-1242.....	0.10	53469-21-9	67.0	ND	NI	*67.0
22	PCB-1248.....	0.10	12672-29-6	67.0	ND	NI	*67.0
23.	PCB-1254.....	0.10	11097-69-1	67.0	ND	NI	*67.0
24.	PCB-1260.....	0.10	11096-82-5	67.0	ND	NI	*67.0
25.	Toxaphene.....	0.24	8001-35-2	67.0	ND	NI	*67.0

NI.....NOT INJECTED ND....NOT DETECTED

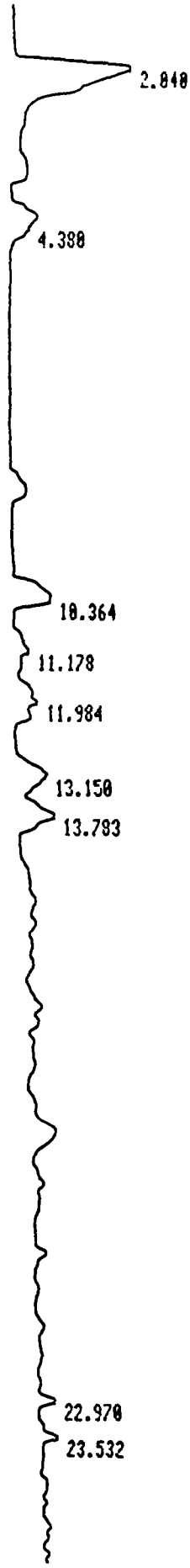
NA.....NOT APPLICABLE NR....NOT REPORTED / NOT REQUESTED

*.....SAMPLE CONCENTRATION IS LESS THAN, OR EQUAL TO REPORTED VALUE

PQL.....PRACTICAL QUANTITATION LIMIT
THE LOWEST LEVEL THAT CAN BE RELIABLY ACHIEVED WITHIN THE SPECIFIED LIMITS OF PRECISION AND ACCURACY DURING ROUTINE LABORATORY OPERATING CONDITIONS. THE PQL'S LISTED HEREIN ARE PROVIDED FOR GUIDANCE AND MAY NOT BE ACHIEVABLE. PQL' ARE HIGHLY MATRIX DEPENDENT. DETERMINATION OF PQL'S FOR VARIOUS MATRICES IS THE MDL LOW-LEVEL SOIL BY SONICATION WITH GPC CLEANUP x 670; HIGH-LEVEL SOIL AND SLUDGES BY SONICATION x 10,000; NON-WATER MISCIBLE WASTE x100,000.

GC PARAMETERS: DB-5 fused silica capillary column 30m x 0.25mm; ID Film thickness: 0.25um; Col. Temp.: hold 4 min. at 180'C, then to 230'C at 3'C/min.; Make-up Gas: Nitrogen 60 ml/min.; Det.: ECD; Split Ratio: 5:1;.

REV 120790



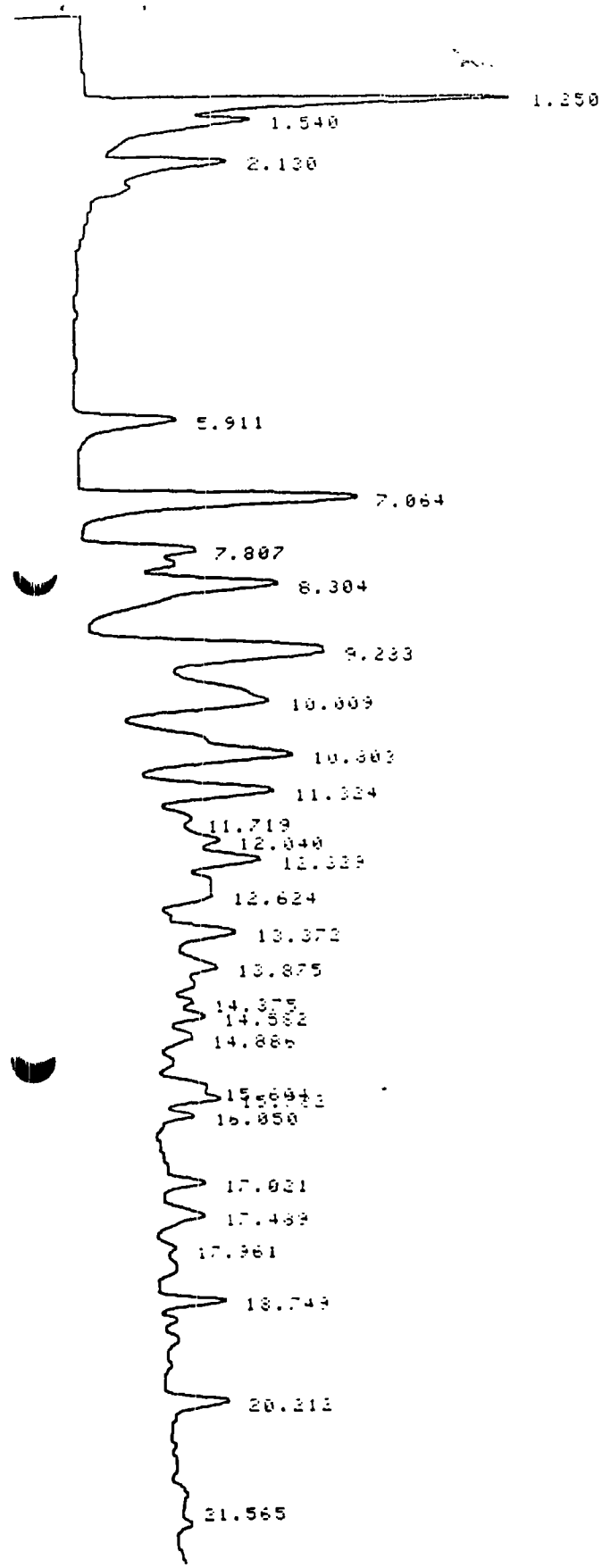
Error storing signal to F:Q1C660A1.BNC
DISC DOES NOT EXIST

RUN# 596 DEC 4, 1990 15:41:20

SAMPLE NAME: 0-14893

* RUN # 1701 DEC 4, 1990 15:23:09

START



Closing signal file A:01C65C5E.BNC

RUN# 1701 DEC 4, 1990 15:23:09

SAMPLE NAME: 0-14893

D1:100

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FINAL REPORT OF ANALYSIS FOR ORGANIC CHEMICAL COMPOUNDS BY GC/MS

S/L #0-14893

SIGNAL FILE # A:Q1C67A65.BNC

DATE SAMPLED: NA

DATE RECEIVED: 11/16/90

DATE EXTRACTED: 12/04/90

pH: 5.0

FINAL REPORT BY: JB

CLIENT: ECOLOGY AND ENVIRONMENT

PROJECT NAME: NA

PROJECT #EIL07225AA

SAMPLE:" 01 11/15/90 13:15 "

MATRIX: OTHER

S/L MATRIX CODE:

DILUTION FACTOR: 100.0

Note: Upon visual review of the Chromatogram, unidentified peaks were observed outside of those parameters which are listed below.

****

>>>>>>>>>>>>> TARGET COMPOUNDS BY GC/ECD METHOD 8150/509R <<<<<<<<<<<<<<<

****

	COMPOUND	MDL ug/l-ug/kg	CAS NUMBER	PQL ug/l-ug/kg	SAMPLE CONC. ug/l - ug/kg (wet weight) 1st Column	2nd Column	AVERERAGE CONC. ug/l-ug/kg (wet weight)
1.	2,4,-D.....	1.20 ..	94-75-7	12.0 ...	ND	NI ...	*120.0
2.	2,4,5,-TP SILVEX..	0.17 ..	73-72-1	1.7 ...	ND	NI ...	* 17.0

1st Column: RTX-35 2nd Column: DB-5

MDL....METHOD DETECTION LIMIT

NI....SURROGATE STANDARD NOT INJECTED ND....NOT DETECTED

*.....SAMPLE CONTAINERS ARE LESS THAN OR EQUAL TO THE REPORTED VALUE

PQL...PRACTICAL QUANTITATION LIMIT
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FACTOR:		
	GROUND WATER	x 10
	SOIL/SEDIMENT	x 200
	WASTE SAMPLES	x 100,000

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FINAL REPORT OF ANALYSIS FOR ORGANIC CHEMICAL COMPOUNDS BY GC/MS

S/L #0-14894

GC/MS FILE # >T0062::D2

DATE SAMPLED: NA

DATE RECEIVED: 11/16/90

DATE ANALYZED: 11/29/90

FINAL REPORT BY: JB

DILUTION FACTOR: 1000.0

CLIENT: ECOLOGY AND ENVIRONMENT

PROJECT: NA

PROJECT #EIL07225AA

SAMPLE:" D2 11/15/90 14:20 "

MATRIX: OTHER

S/L MATRIX CODE:

Note: Upon visual review of the Total Ion Chromatogram, unidentified peaks were observed which are outside these parameters that are listed below.

****

>>>>>>>>>>>>>>>> VOLATILE ORGANIC COMPOUNDS METHOD 8240 <<<<<<<<<<<<<<<<<<

****

	COMPOUND	MDL ug/kg-ug/l	CAS NUMBER	PQL ug/kg-ug/l	SAMPLE CONC. ug/kg - ug/l (wet weight)
1.	Acrolein		107-02-8		CS
2.	Acrylonitrile		107-13-1		CS
3.	Acetone	1.0	67-64-1	100.0	*1000.0
4.	Benzene	1.0	71-43-2	5.0	*1000.0
5.	Bromodichloromethane	1.0	75-27-4	5.0	*1000.0
6.	Bromoform	1.0	75-25-2	5.0	*1000.0
7.	Bromomethane	1.0	74-83-9	10.0	*1000.0
8.	Carbon Disulfide	1.0	75-15-0	5.0	*1000.0
9.	Carbon Tetrachloride	1.0	56-23-5	5.0	*1000.0
10.	Chlorobenzene	1.0	108-90-7	5.0	*1000.0
11.	Chloroethane	1.0	75-00-3	10.0	*1000.0
12.	2-Chloroethylvinyl Ether	1.0	110-75-8	10.0	*1000.0
13.	Chloroform	1.0	67-66-3	5.0	*1000.0
14.	Chloromethane	1.0	74-87-3	10.0	*1000.0
15.	Dibromochloromethane	1.0	124-48-1	5.0	*1000.0
16.	1,2-Dichlorobenzene	1.0	95-50-1	5.0	*1000.0
17.	1,3-Dichlorobenzene	1.0	541-73-1	5.0	*1000.0
18.	1,4-Dichlorobenzene	1.0	106-46-7	5.0	*1000.0
19.	1,1-Dichloroethane	1.0	75-34-3	5.0	*1000.0
20.	1,2-Dichloroethane	1.0	107-06-2	5.0	*1000.0
21.	1,1-Dichloroethene	1.0	75-35-4	5.0	*1000.0
22.	trans-1,2-Dichloroethene	1.0	156-60-5	5.0	*1000.0
23.	1,2-Dichl[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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24.	cis-1,3-Dichloropropene..	1.0	10061-01-5	5.0	*1000.0
25.	trans-1,3-Dichloropropene	1.0	10061-02-6	5.0	*1000.0
26.	Ethyl Benzene.....	1.0	100-41-4	5.0	35000.0
27.	Ethanol.....	1.0	64-10-5	50.0	*1000.0
28.	Hexane.....	1.0	110-54-3	50.0	*1000.0
29.	2-Hexanone.....	1.0	591-78-6	50.0	*1000.0
30	Methylene Chloride.....	1.0	75-09-2	5.0	*1000.0
31.	Methyl ethyl ketone.....	1.0	78-93-3	5.0	*1000.0
32.	4-Methyl-2-pentanone.....	1.0	108-10-1	50.0	*1000.0
33.	Styrene.....	1.0	100-42-5	5.0	*1000.0
34.	1,1,2,2-Tetrachloroethane	1.0	79-34-5	5.0	*1000.0
35.	Tetrachloroethene.....	1.0	127-18-4	5.0	*1000.0
36.	Toluene.....	1.0	108-88-3	5.0	17000.0
37.	1,1,1-Trichloroethane....	1.0	71-55-6	5.0	*1000.0
38.	1,1,2-Trichloroethane....	1.0	79-00-5	5.0	*1000.0
39.	Trichloroethene.....	1.0	79-01-6	5.0	*1000.0
40.	Trichlorofluoromethane...	1.0	75-69-4	5.0	*1000.0
41.	Vinyl Acetate.....	1.0	108-05-4	50.0	*1000.0
42.	Vinyl Chloride.....	1.0	75-01-4	10.0	*1000.0
43.	m-Xylene.....	1.0	108-38-3	5.0	102000.0
44.	**o-Xylene/p-Xylene.....	1.0	95-47-6/106-42-3	5.0	1373000.0
45.	+4-Bromofluorobenzene.....	1.0	460-00-4		695.00
46.	++1,4-Dichlorobutane.....	1.0	110-56-5		94%

+.....INTERNAL STANDARD

++.....SURROGATE STANDARD % RECOVERY

MDL....METHOD DETECTION LIMIT

MI.....MATRIX INTERFERENCE

NI.....SURROGATE STANDARD NOT INJECTED

NA.....NOT APPLICABLE

CS....DUE TO COMPOUND INSTABILITY UNDER REGULAR GAS CHROMATOGRAPHY CONDITIONS THESE COMPOUNDS ARE SCREENED FOR IN THIS ANALYSIS.

*.....SAMPLE CONCENTRATIONS ARE LESS THAN, OR EQUAL TO THE REPORT VALUE

**.....o-XYLENE / p-XYLENE ARE CO-ELUTING (UNDER PRESENT CONDITIONS WE ARE UNABLE TO DISCERN BETWEEN THE TWO, HENCE THE QUANTITATION IS PLUS OR MINUS THAT VALUE).

PQL....PRACTICAL QUANTITATION LIMIT
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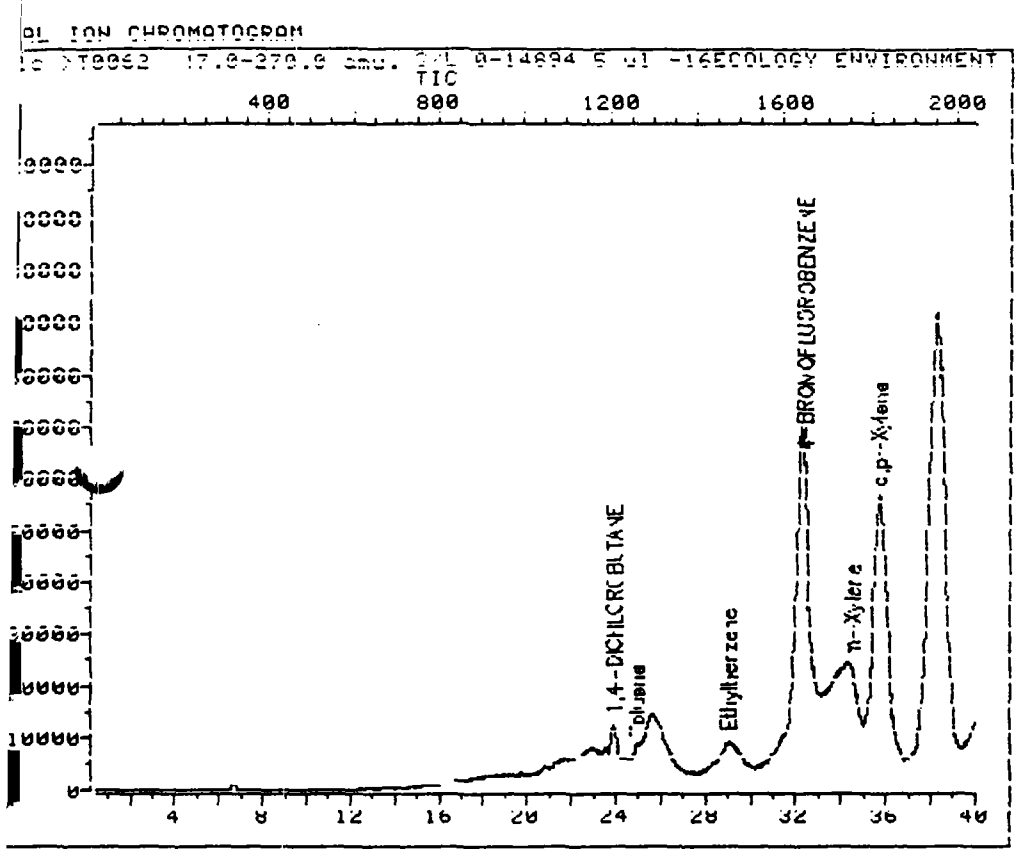
QUANT REPORT

Operator ID: LOPEZ Quant Rev: 6 Quant Time: 901129 04:56
Output File: ^T0062::D1 Injected at: 901129 04:16
Data File: >T0062::D2 Dilution Factor: 1000.000
Name: S/L 0-14894 5 ul -16
Misc: ECOLOGY ENVIRONMENT D2 11-15-90 14:20 [ECE-112090-2-A]

ID File: ID_VOT::D4
Title: VOLATILE ORGANIC COMPOUNDS GC/MS #4
Last Calibration: 901128 14:28

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*4-BROMOFLUOROBENZENE	32.37	1649	104960M	695.00	ug/kg	88
38)	1,4-DICHLOROBUTANE	23.90	1212	51538	94247.08	ug/kg	90
39)	Toluene	24.95	1266	10061	16854.43	ug/kg	98
44)	Ethylbenzene	29.03	1477	22696	35211.48	ug/kg	86
46)	m-Xylene	34.48	1758	67040M	101758.5	ug/kg	96
47)	o,p-Xylene	35.66	1819	781600	1373308.	ug/kg	95

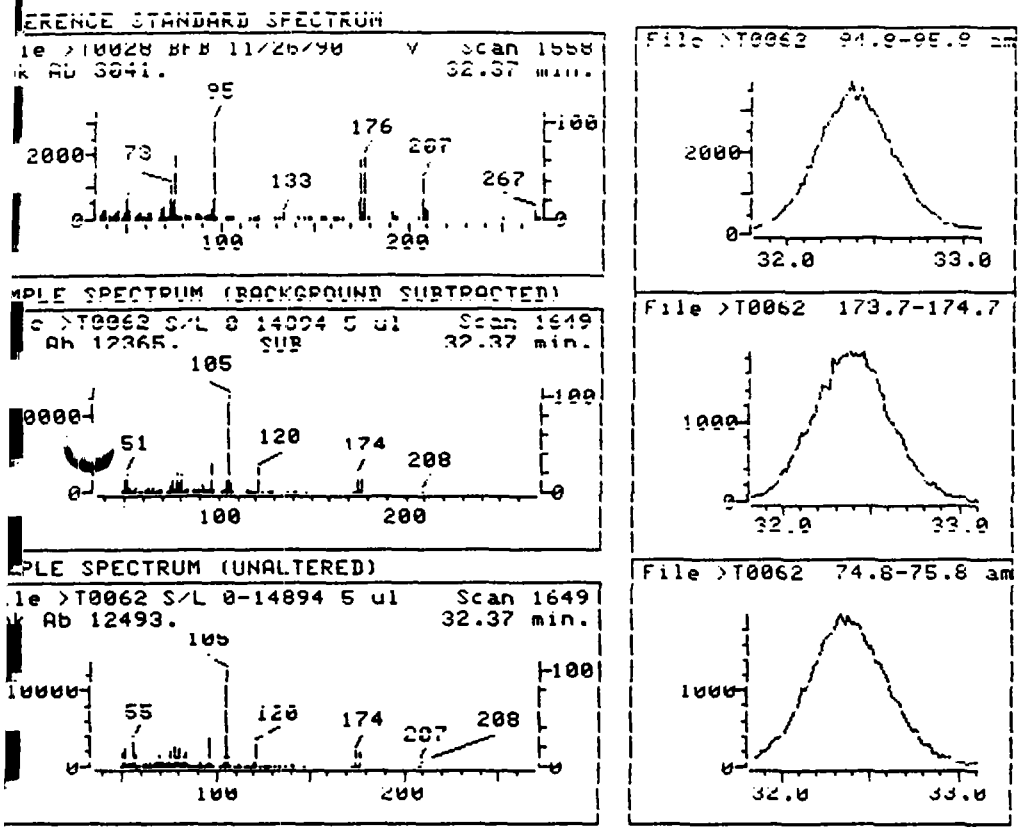
* Compound is ISTD



Data File: >T0062::D2 Quant Output File: ^T0062::D1
Name: S/L 0-14894 5 ul -16
Misc: ECOLOGY ENVIRONMENT D2 11-15-90 14:20 [ECE-112090-2-A]

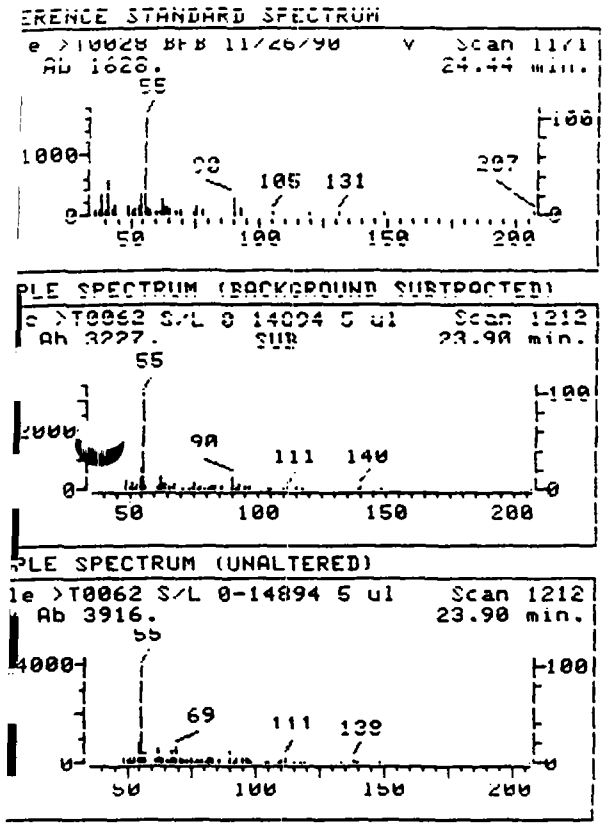
Id File: ID_VOT::D4
Title: VOLATILE ORGANIC COMPOUNDS GC/MS #4
Last Calibration: 901128 14:28

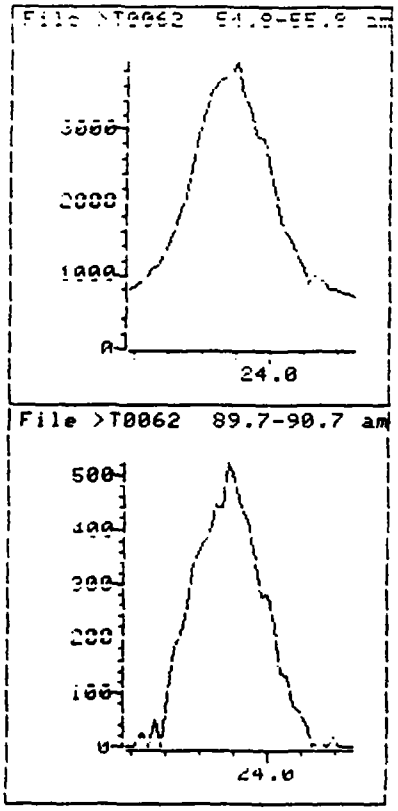
Operator ID: LOPEZ
Quant Time: 901129 04:56
Injected at: 901129 04:16



Data File: >T0062::D2 Quant Output File: ^T0062::D1
Name: S/L 0-14894 5 ul -16
Misc: ECOLOGY ENVIRONMENT D2 11-15-90 14:20 [ECE-112090-2-A]
Quant Time: 901129 04:56 Quant ID File: ID_VOT::D4
Injected at: 901129 04:16 Last Calibration: 901128 14:28

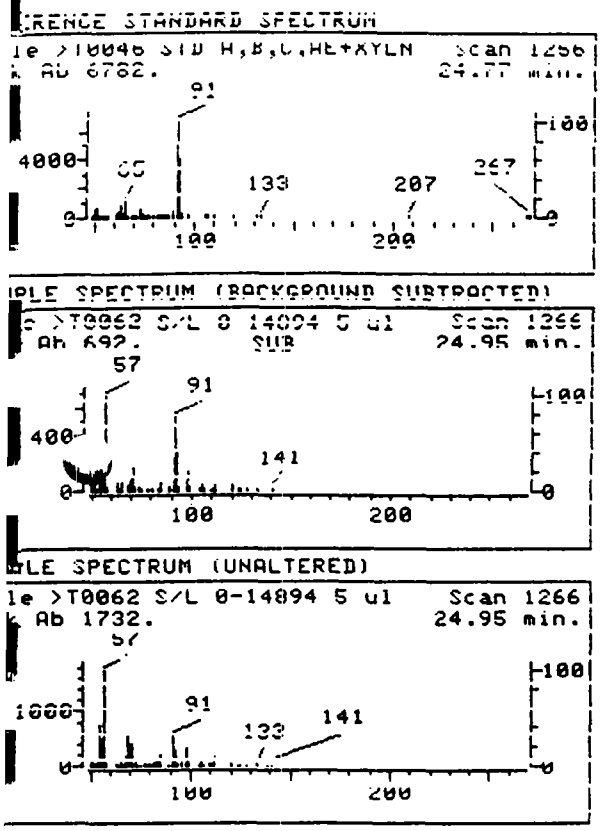
Compound No: 1 (ISTD)
Compound Name: 4-BROMOFLUOROBENZENE
Scan Number: 1649
Retention Time: 32.37 min.
Quant Ion: 95.1
Area: 104960M
Concentration: 695.00 ug/kg
q-value: 88

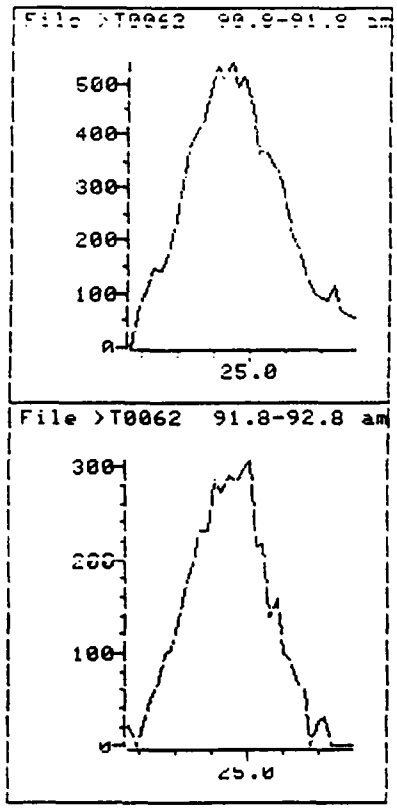




Data File: >T0062::D2 Quant Output File: ^T0062::D1
Name: S/L 0-14894 5 ul -16
Misc: ECOLOGY ENVIRONMENT D2 11-15-90 14:20 (ECE-112090-2-A)
Quant Time: 901129 04:56 Quant ID File: ID_VOT::D4
Injected at: 901129 04:16 Last Calibration: 901128 14:28

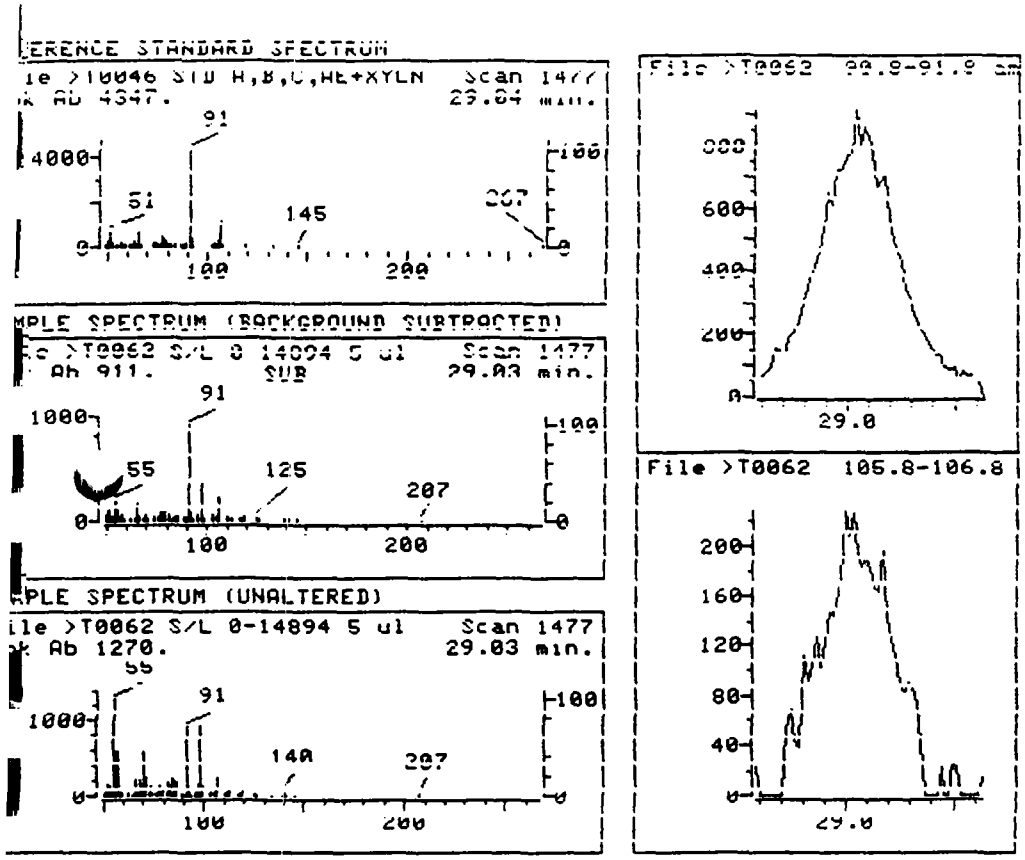
Compound No: 38
Compound Name: 1,4-DICHLOROBUTANE
Scan Number: 1212
Retention Time: 23.90 min.
Quant Ion: 55.1
Area: 51538
Concentration: 94247.08 ug/kg
q-value: 90





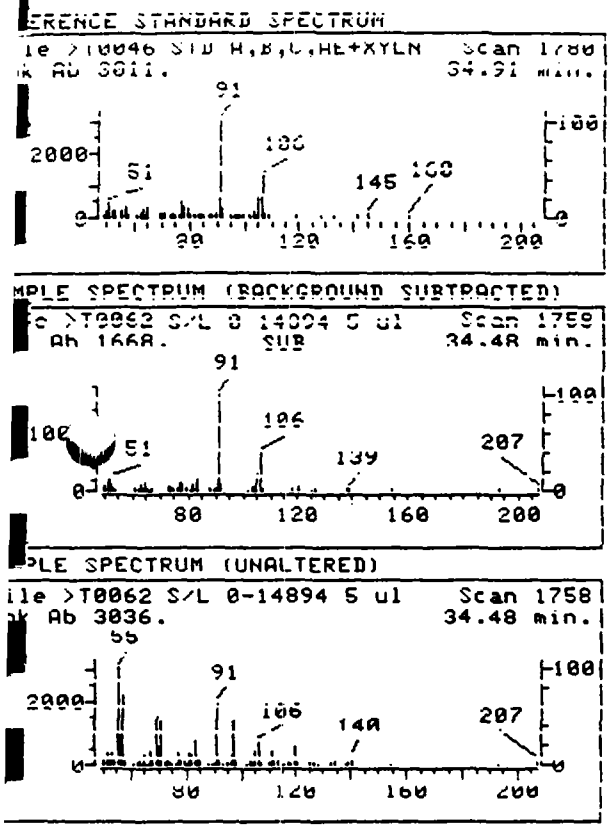
Data File: >T0062::D2 Quant Output File: ^T0062::D1
Name: S/L 0-14894 5 ul -16
Misc: ECOLOGY ENVIRONMENT D2 11-15-90 14:20 [ECE-112090-2-A]
Quant Time: 901129 04:56 Quant ID File: ID_VOT::D4
Injected at: 901129.04:16 Last Calibration: 901128 14:28

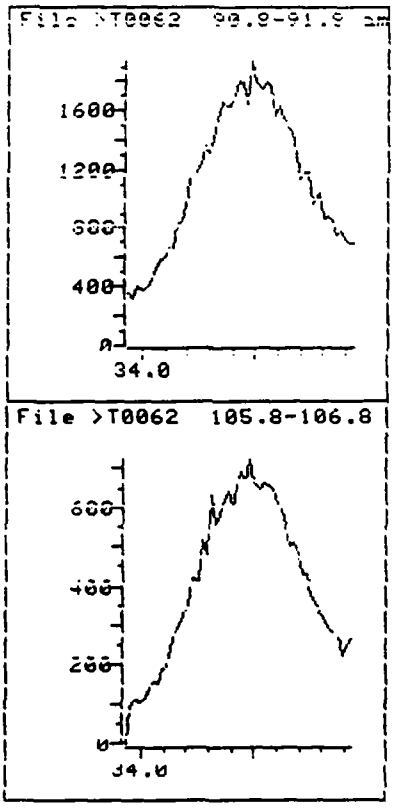
Compound No: 39
Compound Name: Toluene
Scan Number: 1266
Retention Time: 24.95 min.
Quant Ion: 91.1
Area: 10061
Concentration: 16854.43 ug/kg
q-value: 98



Data File: >T0062::D2 Quant Output File: ^T0062::D1
Name: S/L 0-14894 5 ul -16
Misc: ECOLOGY ENVIRONMENT D2 11-15-90 14:20 [ECE-112090-2-A]
Quant Time: 901129 04:56 Quant ID File: ID_VOT::D4
Injected at: 901129 04:16 Last Calibration: 901128 14:28

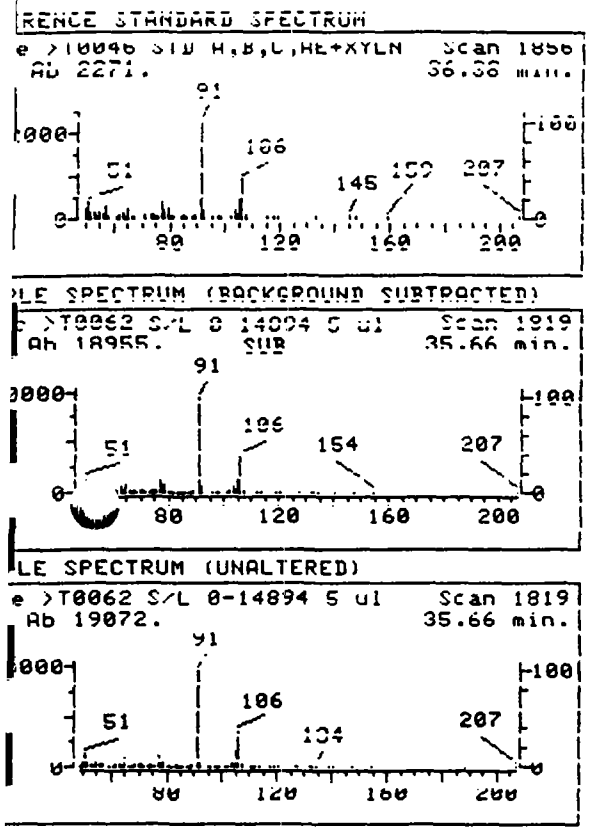
Compound No: 44
Compound Name: Ethylbenzene
Scan Number: 1477
Retention Time: 29.03 min.
Quant Ion: 91.1
Area: 22696
Concentration: 35211.48 ug/kg
q-value: 86

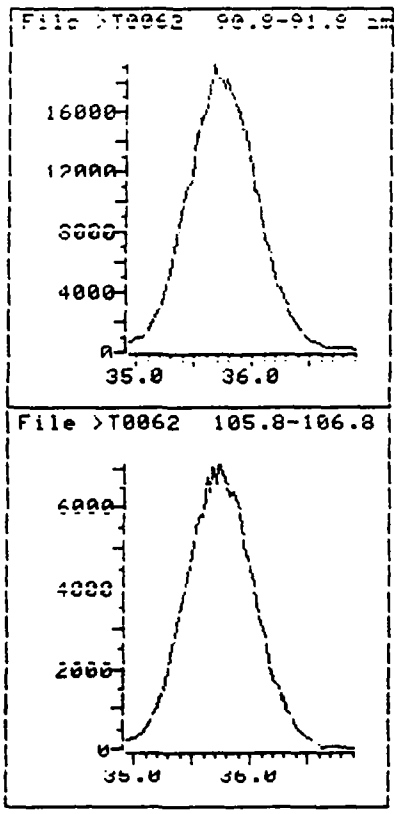




Data File: >T0062::D2 Quant Output File: ^T0062::D1
Name: S/L 0-14894 5 ul -16
Misc: ECOLOGY ENVIRONMENT D2 11-15-90 14:20 [ECE-112090-2-A]
Quant Time: 901129 04:56 Quant ID File: ID_VOT::D4
Injected at: 901129 04:16 Last Calibration: 901128 14:28

Compound No: 46
Compound Name: m-Xylene
Scan Number: 1758
Retention Time: 34.48 min.
Quant Ion: 91.1
Area: 67040M
Concentration: 101758.5 ug/kg
q-value: 96





Data File: >T0062::D2 Quant Output File: ^T0062::D1
Name: S/L 0-14894 5 ul -16
Misc: ECOLOGY ENVIRONMENT D2 11-15-90 14:20 [ECE-112090-2-A]
Quant Time: 901129 04:56 Quant ID File: ID_VOT::D4
Injected at: 901129 04:16 Last Calibration: 901128 14:28

Compound No: 47
Compound Name: o,p-Xylene
Scan Number: 1819
Retention Time: 35.66 min.
Quant Ion: 91.1
Area: 781600
Concentration: 1373308. ug/kg
q-value: 95

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FINAL REPORT OF ANALYSIS FOR ORGANIC CHEMICAL COMPOUNDS BY GC/MS

S/L # U-14894

GC/MS FILE # >S1458::E7

DATE SAMPLED: NA

DATE RECEIVED: 11/16/90

DATE EXTRACTED: 11/20/90

pH: 6.0

FINAL REPORT BY: ID

CLIENT: ECOLOGY AND ENVIRONMENT

PROJECT NAME: NA

PROJECT #EIL07225AA

SAMPLE: " D2 11/15/90 14:20 "

MATRIX: OTHER

S/L MATRIX CODE:

DILUTION FACTOR: 600.0

Note: Upon visual review of the Total Ion Chromatogram, unidentified peaks were observed which are outside these parameters that are listed below.

****

>>>>>>>>>>>>>>>>> BASE / NEUTRAL EXTRACTABLES METHOD 8270 <<<<<<<<<<<<<<<<

****

	COMPOUND	MDL ug/kg-ug/l	CAS NUMBER	PQL LOW LEVEL SOIL/SEDIMENT ug/kg	SAMPLE CONC. (wet weight) ug/kg-ug/l
1.	Acenaphthene	1.0	83-32-9	660.0	*660.0
2.	Acenaphthylene	1.0	208-96-8	660.0	*660.0
3.	Anthracene	1.0	120-12-7	660.0	*660.0
4.	Benzo(a)anthracene	1.0	56-55-3	660.0	*660.0
5.	Benzo(b)fluoranthene	1.0	205-99-2	660.0	*660.0
6.	Benzo(k)fluoranthene	1.0	207-08-9	660.0	*660.0
7.	Benzo(a)pyrene	1.0	52-32-8	660.0	*660.0
8.	Benzo(g,h,i)perylene	1.0	191-24-2	660.0	*660.0
9.	Benzyl butyl phthalate	1.0	85-68-7	660.0	*660.0
10.	bis(2-Chloroethyl)ether	1.0	111-44-4	660.0	*660.0
11.	bis(2-Chloroethoxy)methane	1.0	111-91-1	660.0	*660.0
12.	bis(2-Ethylhexyl)phthalate	1.0	117-81-7	660.0	*660.0
13.	bis(2-Chloroisopropyl)ether	1.0	39638-32-9	660.0	*660.0
14.	4-Bromophenyl phenyl ether	1.0	101-55-3	660.0	*660.0
15.	2-Chloronaphthalene	1.0	91-58-7	660.0	*660.0
16.	4-Chlorophenyl phenyl ether	1.0	7005-72-3	660.0	*660.0
17.	Chrysene	1.0	218-01-9	660.0	*660.0
18.	Dibenzo(a,h)anthracene	1.0	53-70-3	660.0	*660.0
19.	Dimethyl phthalate	1.0	131-11-3	660.0	*660.0
20.	Di-n-butylphthalate	1.0	84-74-2	660.0	*660.0
21.	1,3-Dichlorobenzene	1.0	541-73-1	660.0	*660.0
22.	1,2-Dichlorobenzene	1.0	95-50-1	660.0	*660.0
23.	1,4-Dichlorobenzene	1.0	106-46-7	660.0	*660.0
24.	3,3'-Dichlorobenzidine	1.0	91-94-1	1300.0	*1300.0

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25. Diethyl phthalate	1.0	84-66-2	660.0		*660.0
26. 2,4-Dinitrotoluene	1.0	121-14-2	660.0		*660.0
27. 2,6-Dinitrotoluene	1.0	606-20-2	660.0		*660.0
28. Di-n-octylphthalate	1.0	117-84-0	660.0		*660.0
29. Fluoranthene	1.0	206-44-0	660.0		*660.0
30. Fluorene	1.0	86-73-7	660.0		*660.0
31. Hexachlorobenzene	1.0	118-74-1	660.0		*660.0
32. Hexachlorobutadiene	1.0	87-68-3	660.0		*660.0
33. Hexachloroethane	1.0	67-72-1	660.0		*660.0
34. Indeno(1,2,3-cd)pyrene	1.0	193-39-5	660.0		*660.0
35. Isophorone	1.0	78-59-1	660.0		*660.0
36. Naphthalene	1.0	91-20-3	660.0		*660.0
37. Nitrobenzene	1.0	98-95-3	660.0		*660.0
38. N-Nitroso-di-n-propylamine		621-64-7	1300.0		*1300.0
39. Phenanthrene	1.0	85-01-8	660.0		215000.0
40. Pyrene	1.0	129-00-0	660.0		*660.0
41. Pyridine	1.0	120-82-1	660.0		*660.0
42. 1,2,4-Trichlorobenzene	1.0	120-82-1	660.0		*660.0
43. +d10-Anthracene	1.0				190.00
44. ++d8-Napthalene Surrogate Standard					99%
45. 2-Fluorobiphenyl (temp.surr.)	1.0	321-60-8			NI
46. d5-Nitrobenzene (temp.surr.)	1.0	4165-60-0			NI
47. d14-4-Terphenyl (temp.surr.)	1.0				NI
ADDITIONAL EXTRACTABLE PARAMETERS					
48. Benzidine		92-87-5			CS
49. 1,2-Diphenylhydrazine	30.0	122-66-7	1300.0		*1300.0
50. Hexachlorocyclopentadiene		77-47-4			CS
51. Toxaphene		8001-35-2			CS
52. N-Nitrosodimethylamine		62-75-9			CS
53. N-Nitrosodiphenylamine	1.0	86-30-6	660.0		*660.0

+.....INTERNAL STANDARD ++.....SURROGATE STANDARD % RECOVERY

MDL....METHOD DETECTION LIMIT MI.....MATRIX INTERFERENCE

NI.....SURROGATE STD. NOT INJECTED NA.....NOT APPLICABLE

CS.....DUE TO COMPOUND INSTABILITY UNDER REGULAR GAS CHROMATOGRAPHY CONDITIONS THESE COMPOUNDS ARE SCREENED FOR IN THIS ANALYSIS.

*.....SAMPLE CONCENTRATIONS ARE LESS THAN OR EQUAL TO THE REPORTED VALUE.

PQL....PRACTICAL QUANTITATION LIMIT
THE LOWEST LEVEL THAT CAN BE RELIABLY ACHIEVED WITHIN THE SPECIFIED LIMITS OF PRECISION AND ACCURACY DURING ROUTINE LABORATORY OPERATING CONDITIONS. THE PQL's LISTED HEREIN ARE PROVIDED FOR GUIDANCE AND MAY NOT ALWAYS BE ACHIEVABLE PQL's ARE HIGHLY MATRIX DEPENDENT. DETERMINATION OF PQL's FOR VARIOUS MATRICES IS THE PQL FOR LOW LEVEL SOIL /SEDIMENT x FACTOR : MEDIUM LEVEL SOIL AND SLUDGES x 7.5 : NON WATER MISICBLE WASTE x75.

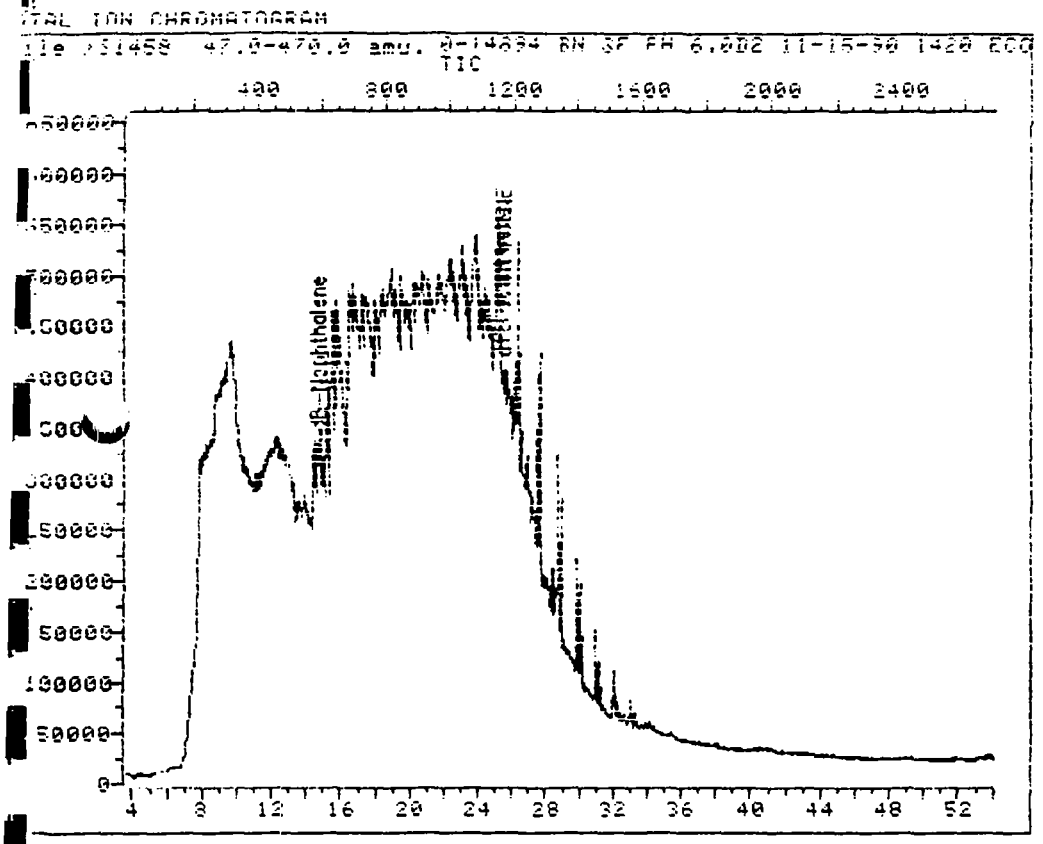
QUANT REPORT

Operator ID: [illegible] Quant Rev: 6 Quant Time: 901213 08:01
Output File: [illegible]S1458::E1 Injected at: 901212 19:10
Data File: [illegible]S1458::E7 Dilution Factor: 600.0000
Name: 0-14893 BN SF PH 6.0
Misc: D2 11-15-90 1420 ECOLOGY ENVIRONMENT ECE-112090-G-2-A [illegible] #11

ID File: ID_SBN::E1
Title: BASE/NEUTRAL EXTRACTABLES MSD #2
Last Calibration: 901203 17:13

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d10-ANTHRACENE	25.37	1163	53340	190.00	ug/kg	99
41)	Phenanthrene	25.29	[illegible]	136319	215001.8	ug/kg	[illegible]
54)	d8-Naphthalene	14.61	587	1246	2109.79	ug/kg	66

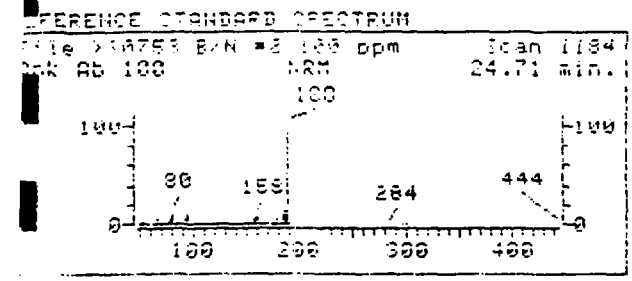
* Compound is ISTD

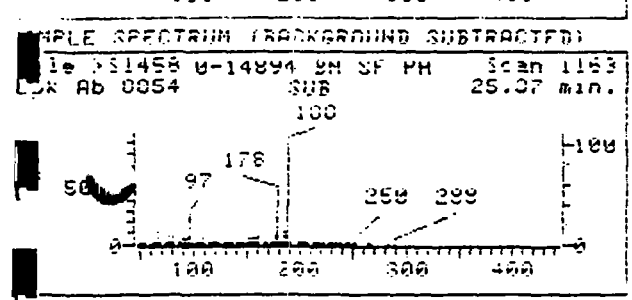


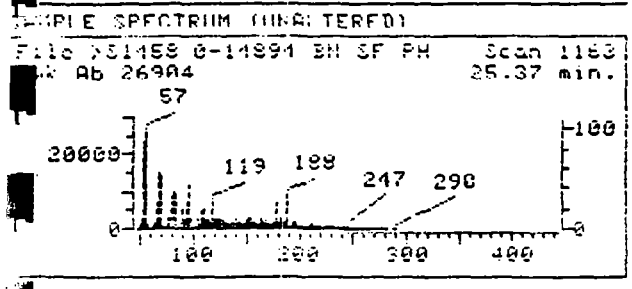
Data File: >S1458::E7 Quant Output File: ^S1458::E1
Name: 0-14894 BN SF PH 6.0
Misc: D2 11-15-90 1420 ECOLOGY ENVIRONMENT ECE-112090-G-2-A BTL #11

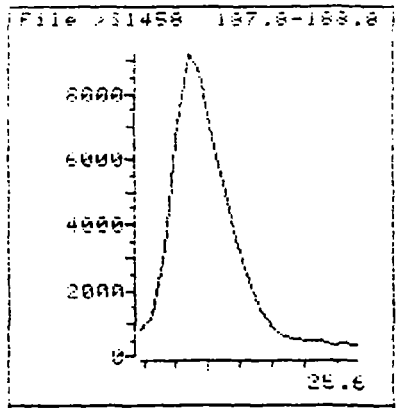
Id File: ID_SRN::E1
Title: BASE/NEUTRAL EXTRACTABLES MSD #7
Last Calibration: 901203 17:13

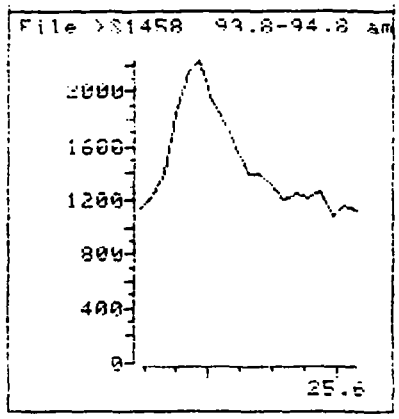
Operator ID: LESCH
Quant Time: 901213 08:01
Injected at: 901212 19:10





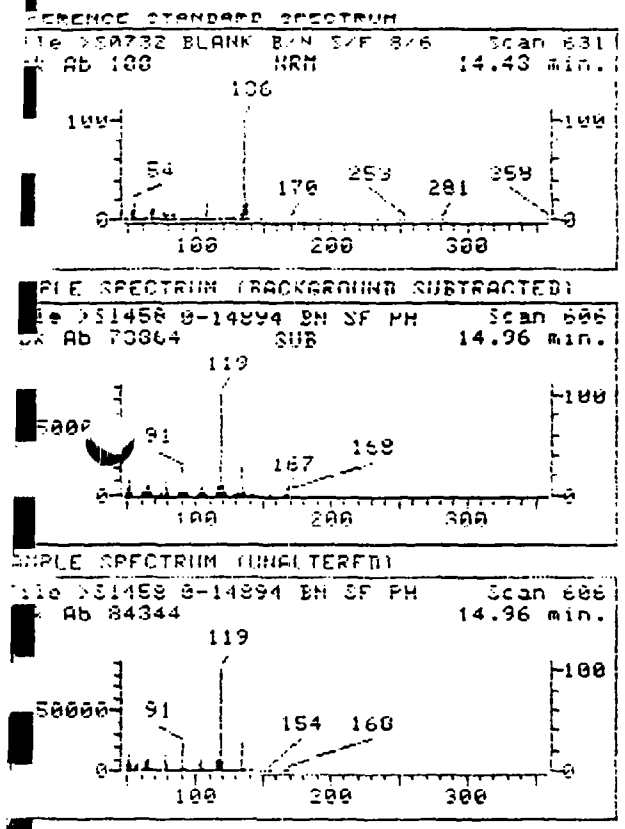


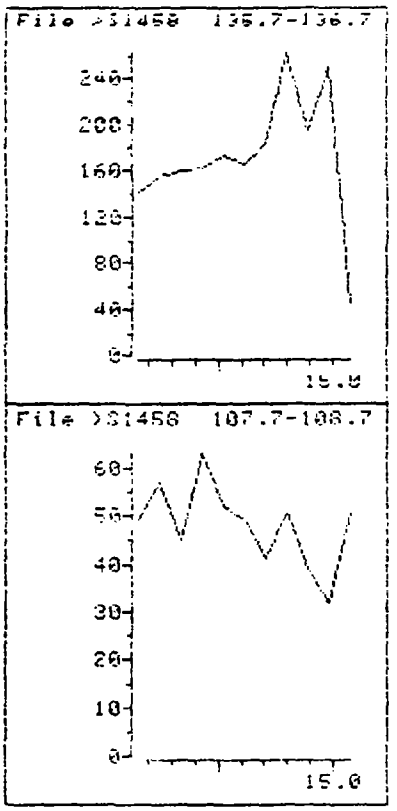




Data File: >S1458::F7 Quant Output File: >S1458::E1
Name: 0-14894 BN SF PH 6.0
Misc: D2 11-15-90 1420 ECOLOGY ENVIRONMENT ECE-112090-G-2-A BTL #11
Quant Time: 901213 08:01 Quant ID File: [illegible]
Injected at: 901212 19:10 Last Calibration: 901203 17:13

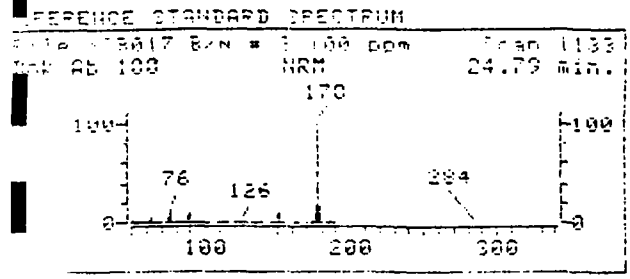
Compound No: 1 (ISID)
Compound Name: d10-ANTHRACENE
Scan Number: 1163
Retention Time: 25.37 min.
Quant Ion: 188.1
Area: 53340
Concentration: 190.00 ug/kg
q-value: 99

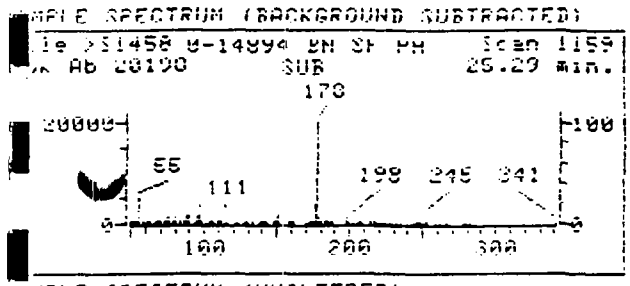


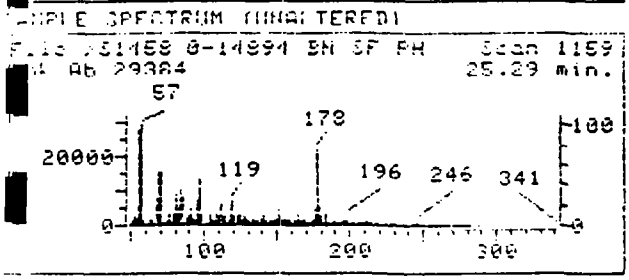


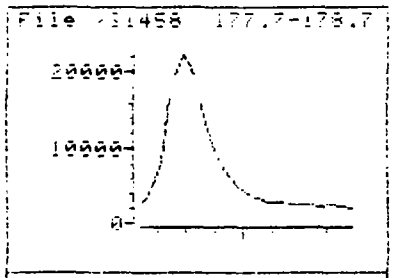
Data File: >S1458::E2 Quant Output File: ^S1458::E1
Name: 0-14894 BN SF PH A.0
Misc: 02 11-15-90 1400 ECOLOGY ENVIRONMENT EDF-112090-G-2-A BTL#11
Quant Time: 901213 08:01 Quant ID File: ID_BN::E1
Injected at: 901212 19:10 Last Calibration: 901203 17:13

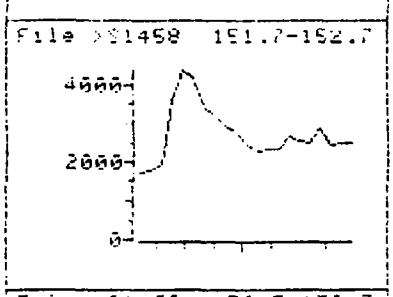
Compound No: 54
Compound Name: d8-Naphthalene
Scan Number: 606
Retention Time: 14.96 min.
Quant Ion: 136.0
Area: 1423
Concentration: 9494.16 ug/kg
q-value: 56

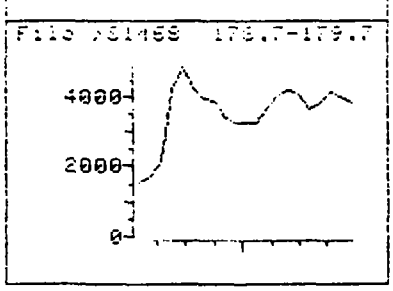












Data File: >S1458::F7 Quant Output File: >S1458::E1
Name: 0-14894 BN SF PH 6.0
Misc: D2 11-15-90 1420 ECOLOGY ENVIRONMENT ECF-112090-G-2-A BTL #11
Quant Time: 901213 08:01 Quant ID File: ID_BN:[illegible]
Injected at: 901212 19:10 Last Calibration: 901204 17:13

Compound No: 41
Compound Name: Phenanthrene
Scan Number: 1159
Retention Time: 25.29 min.
Quant Ion: 178.0
Area: 136319
Concentration: [illegible].8 ug/kg
q value: 93

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FINAL REPORT OF ANALYSIS FOR ORGANIC CHEMICAL COMPOUNDS BY GC/MS

S/L # 0-14894

GC/MS FILE # >S1460::E8

DATE SAMPLED: NA

DATE RECEIVED: 11/16/90

DATE EXTRACTED: 12/04/90

pH: 6.0

FINAL REPORT BY: JB

CLIENT: ECOLOGY AND ENVIRONMENT

PROJECT NAME: NA

PROJECT #EIL07225AA

SAMPLE:" 02 11/15/90 14:20 "

MATRIX: OTHER

S/L MATRIX CODE:

DILUTION FACTOR: 400.0

Note: Upon visual review of the Total Ion Chromatogram, unidentified peaks were observed which are outside these parameters that are listed below.

****

>>>>>>>>>>>>>>>>>>>> ACID EXTRACTABLES METHOD 8270 <<<<<<<<<<<<<<<<<<<<<<<<

****

	COMPOUND	MDL ug/l- ug/kg	CAS NUMBER	PQL LOW LEVEL SOIL/SEDIMENT ug/kg	SAMPLE CONC. ug/l- ug/kg (wet weight)
1.	4-Chloro-3-methylphenol	3.0	59-50-7	1300.0	* 1300.0
2.	2-Chlorophenol	1.0	95-57-8	660.0	* 660.0
3.	2,4-Dichlorophenol	1.0	120-83-2	660.0	* 660.0
4.	2,4-Dimethylphenol	2.0	105-67-9	660.0	* 800.0
5.	2,4-Dinitrophenol	3.0	51-28-5	3300.0	* 3300.0
6.	2-Methyl-4,6-dinitrophenol	20.0	534-52-1	3300.0	* 8000.0
7.	2-Nitrophenol	3.0	88-75-5	3300.0	* 3300.0
8.	4-Nitrophenol	2.0	100-02-7	3300.0	* 3300.0
9.	Pentachlorophenol	30.0	87-86-5	3300.0	*12000.0
10.	Phenol	1.0	108-95-2	660.0	* 660.0
11.	2,4,6-Trichlorophenol	2.0	88-06-2	660.0	* 800.0
12.	+2-Fluorophenol		367-12-4		150.00
13.	++d6-Phenol.(s.std)	1.0	13127-88-3		91%

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*.....INTERNAL STANDARD

++.....SURROGATE STANDARD % RECOVERY

MDL....METHOD DETECTION LIMIT

MI....MATRIX INTERFERENCE

NI....SURROGATE STD. NOT INJECTED

NA....NOT APPLICABLE

*.....SAMPLE CONCENTRATION LESS THAN OR EQUAL TO THE REPORTED VALUE.

PQL...PRACTICAL QUANTITATION LIMIT
THE LOWEST LEVEL THAT CAN BE RELIABLY ACHIEVED WITHIN THE SPECIFIED LIMITS OF PRECISION AND ACCURACY DURING ROUTINE LABORATORY OPERATING CONDITIONS. THE PQL's LISTED HEREIN ARE PROVIDED FOR GUIDANCE AND MAY NOT ALWAYS BE ACHIEVABLE PQL's ARE HIGHLY MATRIX DEPENDENT. DETERMINATION OF PQL's FOR VARIOUS MATRICES IS THE PQL FOR LOW LEVEL SOIL/SLUDGE xFACTOR: MEDIUM LEVEL SOIL AND SLUDGES x7.5: NON-WATER MISCIBLE WASTE x25.

REV 021490

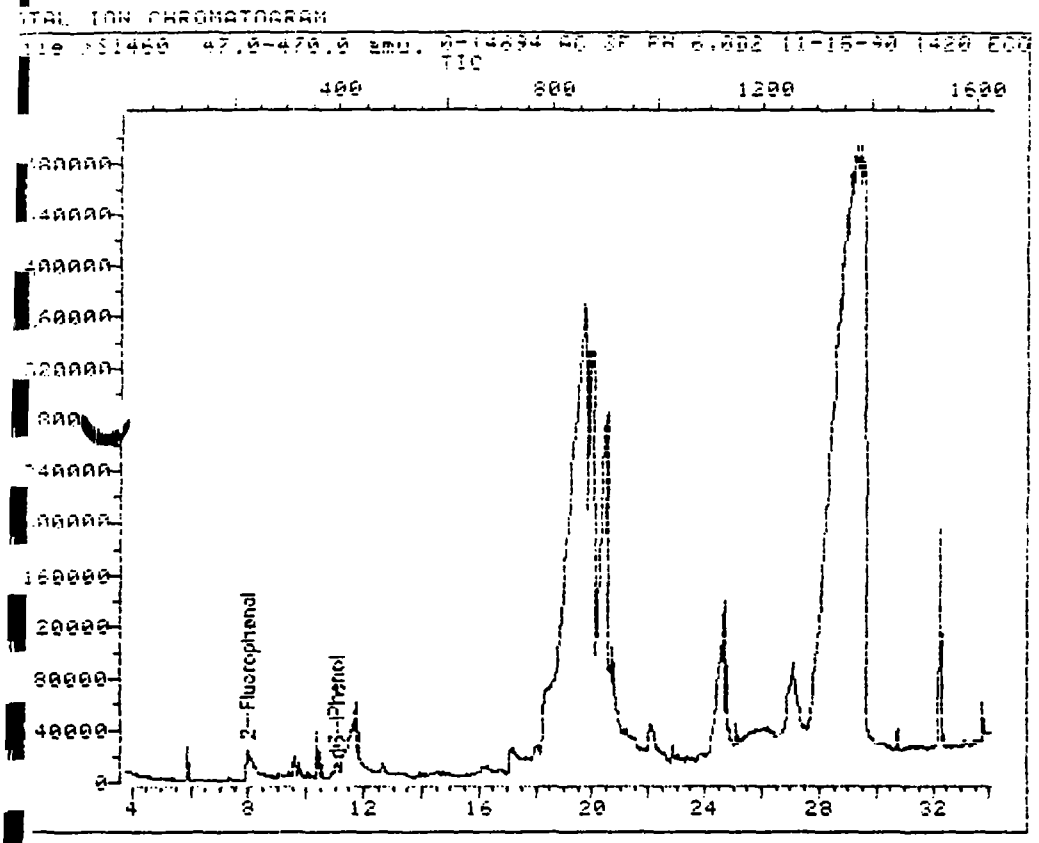
QUANT REPORT

Operator ID: [illegible] Quant Rev: 6 Quant Time: 901212 15:[illegible]
Output File: [illegible]S1460::D2 Injected at: 901212 14:59
Data File: [illegible]S1460::[illegible]8 Dilution Factor: 400.0000
Name: 0-14894 AC SF PH 6.0
Misc: D2 11-15-90 1420 ECOLOGY ENVIRONMENT [illegible] ABIT # 9

ID File: ID_SAC::E1
Title: ACID EXTRACTABLES
Last Calibration: 901208 15:32

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*2-Fluorophenol	7.95	229	122012	150.00	ug/l	92
5)	2,4-Dimethylphenol	14.45	[illegible]29	10626	332.29	ug/l	[illegible]
13)	d6-Phenol	11.04	395	86094M40652.13		ug/l	[illegible]

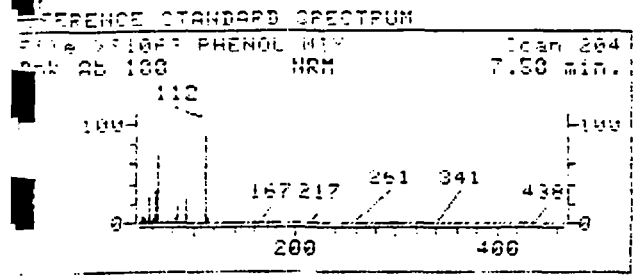
* Compound is ISTD

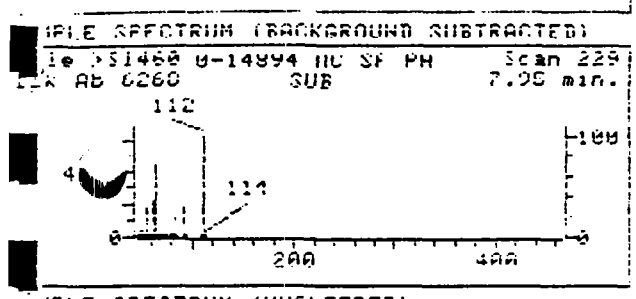


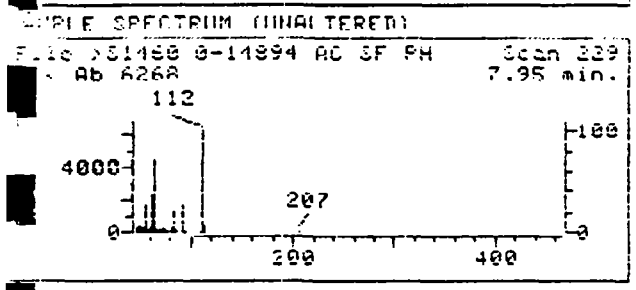
Data File: >S1460::F8 Quant Output File: ^S1460::D2
Name: 0-14894 AC SF PH 6.0
Misc: D2 11-15-90 1420 ECOLOGY ENVIRONMENT (ECE-112090-G-2-ARIL# 9

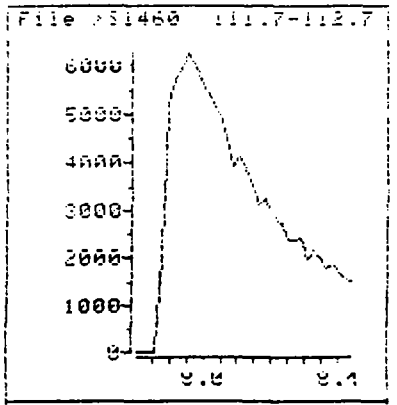
Id File: ID_SAC::S1
Title: ACID EXTRACTABLES
Last Calibration: 901208 15:40

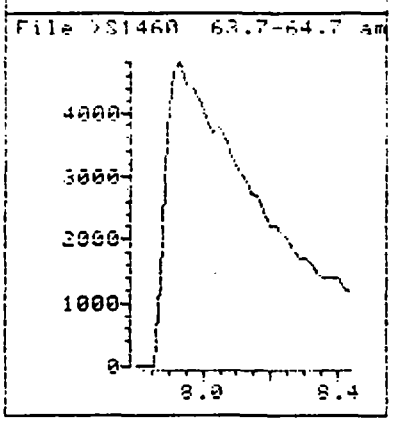
Operator ID: LESCH
Quant Time: 901212 15:46
Injected at: 901212 14:59





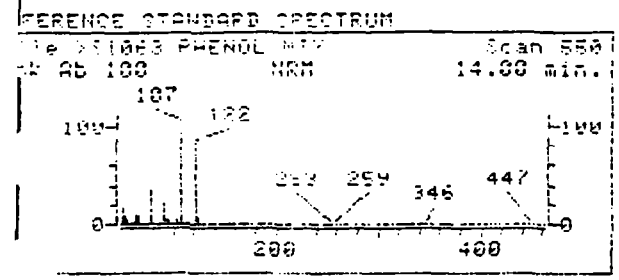


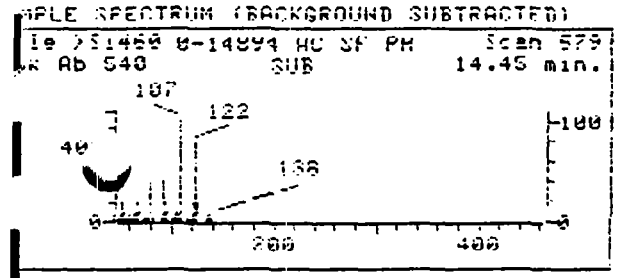


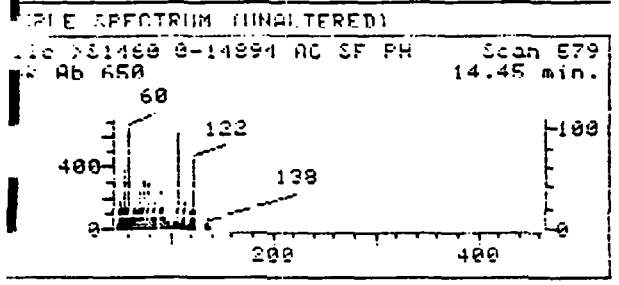


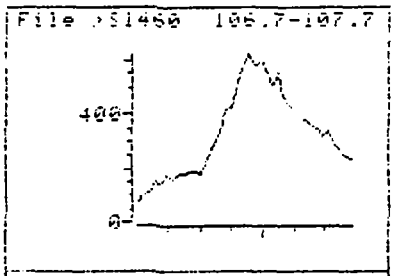
Data File: >S1460::E8 Quant Output File: ^S1460::D2
Name: 0-14894 AC SF PH 6.0
Misc: D2 11-15-90 1420 ECOLOGY ENVIRONMENT [ECE-112090-G-2-ARTL# 9
Quant Time: 901212 [illegible] Quant ID File: [illegible]
Injected at: 901212 14:59 Last Calibration: 901208 15:32

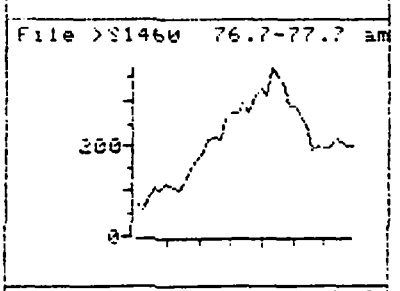
Compound No: 1 [illegible]
Compound Name: 2-Fluorophenol
Scan Number: 229
Retention Time: 7.95 min.
Quant Ion: 112.0
Area: 122012
Concentration: 150.00 ug/l
q value: 92

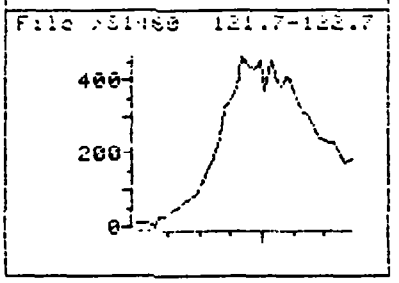






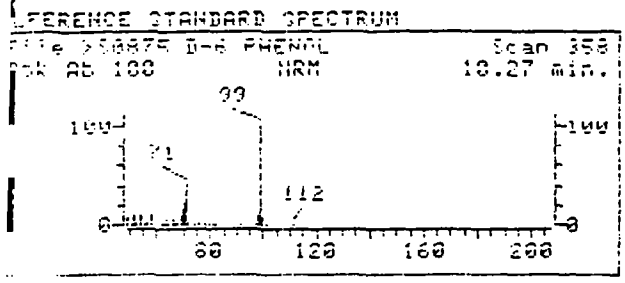


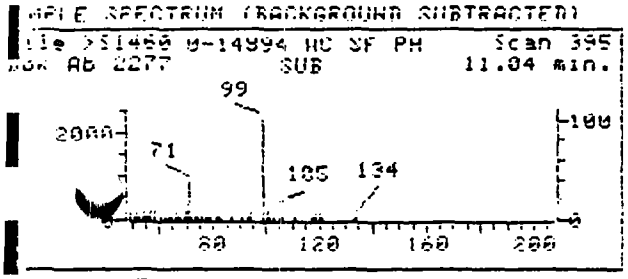


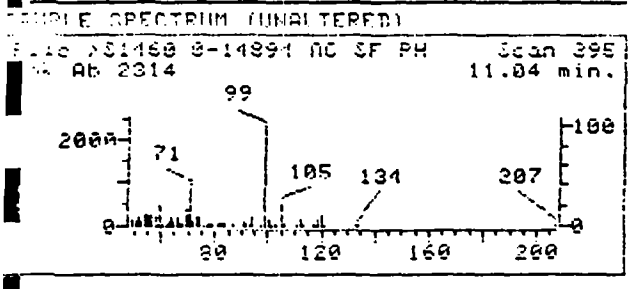


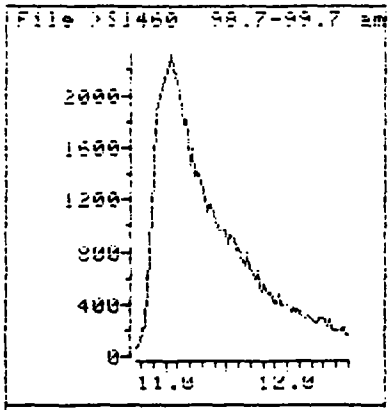
Data File: >S1460::F8 Quant Output File: ^S1460::D2
Name: 0-14894 AC SF PH 6.0
Misc: D2 11-15-90 1420 ECOLOGY ENVIRONMENT [ECE-112090-G-2-ABIL# 9
Quant Time: 901212 15:36 Quant ID File: ID_SAC::F1
Injected at: 901212 14:59 Last Calibration: 901208 15:32

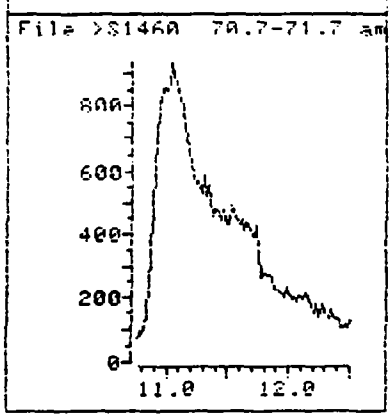
Compound No: 5
Compound Name: 2,4-Dimethylphenol
Scan Number: 579
Retention Time: 14.45 min.
Quant Ion: 107.0
Area: 10626
Concentration: 337.29 ug/l
q-value: 92











Data File: >S1460::E8 Quant Output File: ^S1460::D2
Name: 0-14894 AC SF PH 6.0
Misc: D2 11-15-90 1420 ECOLOGY ENVIRONMENT [ECF-112090-G-2-ABTL# 9
Quant Time: 901212 15:36 Quant ID File: [illegible]
Injected at: 901212 14:59 Last Calibration: 901208 15:32

Compound No: 13
Compound Name: d6-Phenol
Scan Number: 395
Retention Time: 11.04 min.
Quant Ion: 99.0
Area: 86094M
Concentration: 40652.13 ug/l
q-value: 93

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FINAL REPORT OF ANALYSIS FOR ORGANIC CHEMICAL COMPOUNDS BY GC/MS

S/L #0-14994

CLIENT: ECOLOGY AND ENVIRONMENT

SIGNAL FILE F:Q1C67937.BNC

PROJECT NAME: EIL07225AA

DATE SAMPLED: NA

PROJECT # NA

DATE RECEIVED: 11/16/90

SAMPLE " 02 11/15/90 1420 "

DATE EXTRACTED: 12/04/90

MATRIX: WATER

pH: 4.5

S/L MATRIX CODE:

FINAL REPORT BY: LD

DILUTION FACTOR: 1000.0

Note: Upon visual review of the Chromatogram, (un)identified peaks were observed outside of those parameters which are listed below.

****

>>>>>>>>>>>>>>>>>>>>>>> PESTICIDES / PCB'S METHOD 8080 <<<<<<<<<<<<<<<<<<<<<<<

****

	COMPOUND	MDL ug/kg-ug/l	CAS NUMBER	PNL ug/kg-ug/l	SAMPLE CONC. (wet weight) ug/kg-ug/l 1st Column	2nd Column	AVE. CONC. (wet wt) ug/kg-ug/l
1.	Aldrin.....	0.0004	309-00-2	2.68	ND	NI	* 4.00
2.	alpha-BHC.....	0.003	319-84-6	2.01	ND	NI	* 3.00
3.	beta-BHC.....	0.0006	319-85-7	4.02	ND	NI	* 6.00
4.	delta-BHC.....	0.009	319-86-8	6.03	ND	NI	* 9.00
5.	gamma-BHC ..... (Lindane)	0.0004	58-89-9	2.68	ND	NI	* 4.00
6.	**Chlordane.....	0.014	57-74-9	9.38	ND	NI	* 14.0
7.	4,4'-DDD.....	0.011	72-54-8	7.37	ND	NI	* 11.0
8.	4,4'-DDE.....	0.004	72-55-9	2.68	ND	NI	* 4.00
9.	4,4'-DDT.....	0.012	50-29-3	8.04	ND	NI	* 12.0
10.	Dieldrin.....	0.002	60-57-1	1.34	ND	NI	* 2.00
11.	Endosulfan I.....	0.014	959-98-8	9.38	ND	NI	* 14.0
12.	Endosulfan II.....	0.004	33213-65-9	2.68	ND	NI	* 4.00
13.	Endosulfan Sulfate...	0.066	1031-07-8	44.22	123.0	95.0	109.0
14.	Endrin.....	0.006	72-20-8	4.02	ND	NI	* 6.00
15.	Endrin Aldehyde.....	0.023	7421-93-4	15.41	ND	NI	* 23.0
16.	Heptachlor.....	0.003	76-44-8	2.01	ND	NI	* 3.00
17.	Heptachlor Epoxide...	0.083	1024-57-3	55.61	ND	NI	* 83.0

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18.	PCB-1016.....	0.10	12674-11-2	67.0	ND	NI	*100.0
19.	PCB-1221.....	0.10	11104-28-2	67.0	ND	NI	*100.0
20.	PCB-1232.....	0.10	11141-16-5	67.0	ND	NI	*100.0
21.	PCB-1242.....	0.10	53469-21-9	67.0	ND	NI	*100.0
22.	PCB-1248.....	0.10	12672-29-6	67.0	ND	NI	*100.0
23.	PCB-1254.....	0.10	11097-69-1	67.0	ND	NI	*100.0
24.	PCB-1260.....	0.10	11096-82-5	67.0	ND	NI	*100.0
25.	Toxaphene.....	0.24	8001-35-2	67.0	ND	NI	* 240.0

NI.....NOT INJECTED ND....NOT DETECTED

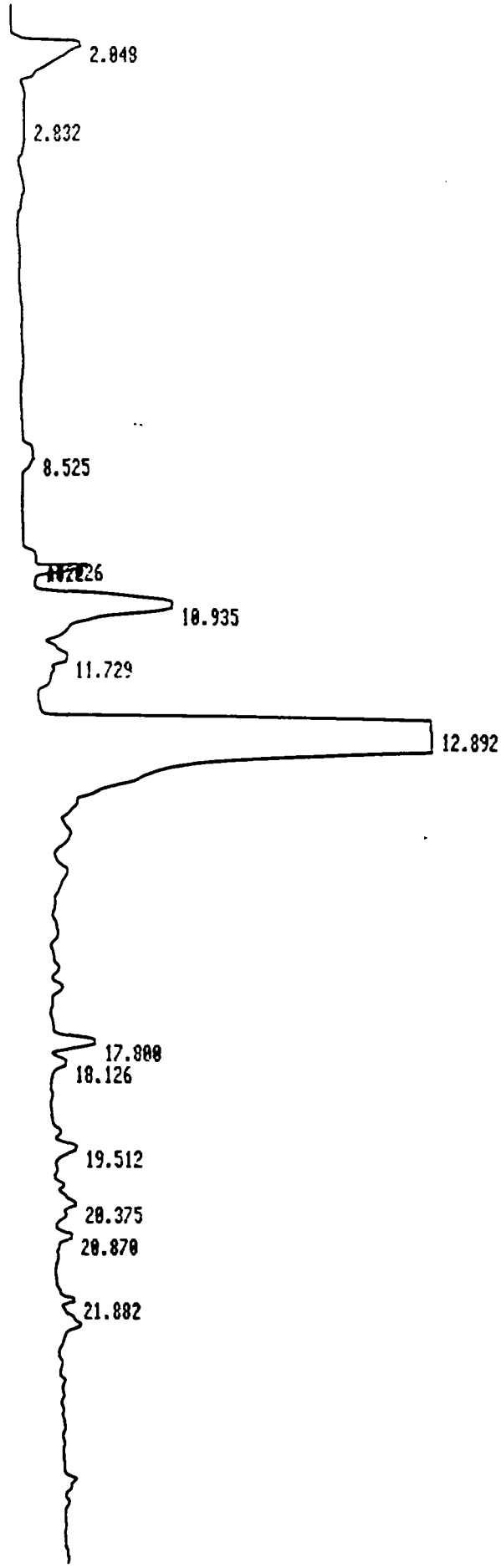
NA.....NOT APPLICABLE NR....NOT REPORTED / NOT REQUESTED

*.....SAMPLE CONCENTRATION IS LESS THAN, OR EQUAL TO REPORTED VALUE

PQL.....PRACTICAL QUANTITATION LIMIT
THE LOWEST LEVEL THAT CAN BE RELIABLY ACHIEVED WITHIN THE SPECIFIED LIMITS OF PRECISION AND ACCURACY DURING ROUTINE LABORATORY OPERATING CONDITIONS. THE PQL'S LISTED HEREIN ARE PROVIDED FOR GUIDANCE AND MAY NOT BE ACHIEVABLE. PQL' ARE HIGHLY MATRIX DEPENDENT. DETERMINATION OF PQL'S FOR VARIOUS MATRICES IS THE MDL LOW-LEVEL SOIL BY SONICATION WITH GPC CLEANUP x 670; HIGH-LEVEL SOIL AND SLUDGES BY SONICATION x 10,000; NON-WATER MISCIBLE WASTE x100,000.

GC PARAMETERS: DB-5 fused silica capillary column 30m x 0.25mm; ID Film thickness: 0.25um; Col. temp.: hold 4 min. at 180°C, then to 230°C at 3°C/min.; Make-up Gas: Nitrogen 60 ml/min.; Det.: ECD; Split Ratio: 5:1;.

REV 120790



Error storing signal to F:Q1C67937.BNC
DISC DOES NOT EXIST

RUN# 598 DEC 4, 1990 17:26:15

SAMPLE NAME: 0-14894
D1:1000

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FINAL REPORT OF ANALYSIS FOR ORGANIC CHEMICAL COMPOUNDS BY GC/MS

S/L # 0-14894 | CLIENT: ECOLOGY AND ENVIRONMENT

SIGNAL FILE # A:QIC67A65.BNC | PROJECT NAME: ETLO7225AA

DATE SAMPLED: NA | PROJECT # NA

DATE RECEIVED: 11/16/90 | SAMPLE " D-2 11/15/90 1420 "

DATE EXTRACTED: 12/04/90 | MATRIX: WATER

pH: 4.5 | S/L MATRIX CODE:

FINAL REPORT BY: LD | DILUTION FACTOR: 1000.0

Note: Upon visual review of the Chromatogram, unidentified peaks were observed outside of those parameters which are listed below.

****

>>>>>>>>>>>>> TARGET COMPOUNDS BY GC/ECD METHOD 8150/509B <<<<<<<<<<<<<<

****

COMPOUND	MDL ug/l-ug/kg	CAS NUMBER	PQL ug/l-ug/kg	SAMPLE CONC. ug/l - ug/kg (wet weight) 1st Column	2nd Column	AVERAGE CONC. ug/l ug/kg (wet weight)
1. 2,4,-D.....	1.20	94-75-7	12.0	ND	NI	*1200.0
2. 2,4,5,-TP SILVEX..	0.12	93-72-1	1.2	ND	NI	*120.

1st Column: RTX-35 2nd Column: DB-5

MDL...METHOD DETECTION LIMIT

NI....SURROGATE STANDARD NOT INJECTED ND....NOT DETECTED

*.....SAMPLE CONTAINERS ARE LESS THAN OR EQUAL TO THE REPORTED VALUE

PQL...PRACTICAL QUANTITATION LIMIT
THE LOWEST LEVEL THAT CAN BE RELIABLY ACHIEVED WITHIN THE SPECIFIED LIMITS OF PRECISION AND ACCURACY DURING ROUTINE LABORATORY OPERATING CONDITIONS. THE PQL's LISTED HEREIN ARE PROVIDED FOR GUIDANCE AND MAY NOT ALWAYS BE ACHIEVABLE. PQL's ARE HIGHLY MATRIX DEPENDENT. DETERMINATION OF PQL's FOR VARIOUS MATRICES IS THE MDL x FACTOR LISTED BELOW.

FACTOR:	GROUND WATER	x 10
	SOIL/SEDIMENT	x 200
	WASTE SAMPLES	x 100,000

REV 12/07/90

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December 10, 1990

Ecology and Environment
111 West Jackson Boulevard
Chicago, Illinois 60604

Re: Project #EIL07225AA

Attention: Ms. Karen Spangler

Samples Received: 11/16/90

Source: S/L #0-14893 - #D-1, Grab Sample, 1315, 11/15/90

Arsenic	(ppm)	< 0.10
Barium	(ppm)	358
Cadmium	(ppm)	< 0.10
Chromium, Total	(ppm)	0.43
Lead	(ppm)	1.83
Mercury	(ppm)	< 0.01
Selenium	(ppm)	< 0.10
Silver	(ppm)	< 0.10

ANALYSIS CERTIFIED BY: H R Thomas Jr, Director (HRT:lh)

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December 10, 1990

Ecology and Environment
111 West Jackson Boulevard
Chicago, Illinois 60604

Re: Project #EIL07225AA

Attention: Ms. Karen Spangler

Samples Received: 11/16/90

Source: S/L #0-14894 - #D-2, Grab Sample, 1420, 11/15/90

Arsenic	(ppm)	< 0.10
Barium	(ppm)	< 0.10
Cadmium	(ppm)	< 0.10
Chromium, Total	(ppm)	0.20
Lead	(ppm)	0.38
Mercury	(ppm)	< 0.01
Selenium	(ppm)	< 0.10
Silver	(ppm)	< 0.10

ANALYSIS CERTIFIED BY: _____, Director (HRT:lh)

SUBURBAN LABORATORIES INC
4140 LITT DRIVE
HILLSIDE ILL 60162

****

INORGANIC DATA QA/QC DATA SHEET

****

CLIENT: ECOLOGY AND ENVIRONMENT, INC DATE: 12/05/90

SL# 0-14689, 0-14690 DATE RECEIVED: 11/14/90
SL# 0-14894, 0-14895 DATE RECEIVED: 11/16/90

INSTRUMENTATION: PERKIN ELMER PLASMA 40 EMISSION SPECTROMETER
PERKIN ELMER 2380 AA/ COLD VAPOR ANALYZER

METHOD REFERENCE: USEPA SW-846/ TEST METHODS FOR EVALUATING SOLID WASTE

PARAMETER	METHOD #	PREPARATION METHOD WATER	WASTE	HOLDING TIME
AS,BA,CD,CR PB,SE,AG	6010	3005	3050	30 DAYS
HG	7470			

SL#	METAL	ORIGINAL WT./VOL.	FINAL VOL.	RESULTS	DUP.	SPIKED	RECOVERED
0-14689	AS	50 ML	50 ML	<0.10	<0.10	2.50	2.179
	BA	50 ML	50 ML	<0.10	<0.10	2.50	2.102
	CD	50 ML	50 ML	<0.10	<0.10	2.50	1.888
	CR	50 ML	50 ML	0.22	0.21	2.50	1.909
	PB	50 ML	50 ML	<0.10	<0.10	2.50	2.040
	SE	50 ML	50 ML	<0.10	<0.10	2.50	2.075
	AG	50 ML	50 ML	<0.10	<0.10		
0-15097	AG					4.00	3.383
0-14690		5.0 G	100 ML				
0-14893		3.0 G	100 ML				
0-14894		5.0 G	100 ML				
0-14893	HG	2.2 G	100 ML	<0.01	<0.01		
0-15055	HG	100 ML	100 ML			1.00	1.03

ISMA 40 Analysis Ver. 1.01 Wed 28/11/90 - 13:31:28

ethod File Name: 11M Replicates:1 Read Delay: 25
arks: WATER & SLUDGE SAMPLES Data File: 0K28E

STANDARD #1

As193	EM	9364	CONC	5.000
Se196	EM	2970	CONC	5.000
Se203	EM	1960	CONC	5.000
Pb	EM	19263	CONC	5.000
As	EM	98523	CONC	5.000
Ni	EM	48175	CONC	5.000

STANDARD #2

As193	EM	2139	CONC	1.000
Se196	EM	644	CONC	1.000
Se203	EM	400	CONC	1.000
Cr	EM	14346	CONC	1.000
Zn	EM	12701	CONC	1.000
Cd	EM	69779	CONC	1.000
Pb	EM	4010	CONC	1.000
As	EM	20166	CONC	1.000
Ni	EM	10258	CONC	1.000
Fe	EM	18907	CONC	1.000
Cu	EM	43543	CONC	1.000
Ba	EM	3015	CONC	1.000

STANDARD #3

Cr	EM	1423	CONC	0.100
Zn	EM	1343	CONC	0.100
Cd	EM	6801	CONC	0.100
Pb	EM	512	CONC	0.100
As	EM	2089	CONC	0.100
Ni	EM	1028	CONC	0.100
Fe	EM	2101	CONC	0.100
Cu	EM	4679	CONC	0.100
Ba	EM	295	CONC	0.100

STANDARD #4

Ag	EM	60267	CONC	1.000

STANDARD #5

Ag	EM	6143	CONC	0.100

BLANK

As193	EM	192	CONC	0.000
Se196	EM	99	CONC	0.000
Se203	EM	31	CONC	0.000
Cr	EM	123	CONC	0.000
Zn	EM	58	CONC	0.000
Cd	EM	228	CONC	0.000
Pb	EM	62	CONC	0.000
As	EM	87	CONC	0.000
Ni	EM	185	CONC	0.000
Fe	EM	532	CONC	0.000
Cu	EM	551	CONC	0.000

As193	CC	0.9994	SLOPE	1826.3572	INT	245.6190
Se196	CC	0.9993	SLOPE	576.2857	INT	85.0953
Se203	CC	0.9999	SLOPE	387.0000	INT	23.0000
Cr	CC	1.0000	SLOPE	14276.738	INT	62.5217
Zn	CC	1.0000	SLOPE	12633.901	INT	68.2361
Cd	CC	1.0000	SLOPE	69718.960	INT	39.0471
Pb	CC	0.9999	SLOPE	3831.1853	INT	119.1925
As	CC	1.0000	SLOPE	19672.050	INT	216.3730
Ni	CC	0.9999	SLOPE	9593.0361	INT	282.1201
Fe	CC	0.9995	SLOPE	18493.021	INT	399.2253
Cu	CC	0.9999	SLOPE	43067.250	INT	466.3413
Ag	CC	1.0000	SLOPE	60150.003	INT	117.9981
Ba	CC	0.9997	SLOPE	2973.7363	INT	37.2967

LANK

As193	-0.080	peak-noisy
Se196	-0.035	peak-noisy
Se203	-0.114	
Cr	0.004	
Zn	-0.002	
Cd	0.002	
Pb	-0.008	
As	-0.006	peak-noisy
Ni	-0.017	peak-noisy
Fe	0.004	
Cu	-0.001	peak-noisy
Ag	0.002	
Ba	0.010	peak-noisy

C 1.0 PPM

As193	1.033	
Se196	1.060	
Se203	1.078	peak-noisy
Cr	1.038	
Zn	1.015	
Cd	1.017	
Pb	1.038	
As	1.028	
Ni	1.111	
Fe	1.050	
Cu	1.007	
Ag	-0.006	peak-noisy
Ba	1.027	

IC AG 1.0 PPM

As193	0.007	window-edge
Se196	-0.023	peak-noisy
Se203	0.093	
Cr	-0.001	peak-noisy
Zn	0.003	
Cd	0.002	
Pb	0.011	
As	-0.005	window-edge
Ni	-0.014	peak-noisy
Fe	-0.004	
Cu	0.003	peak-noisy
Ag	0.983	
Ba	-0.006	

4689

As193	0.014	<0.10
Se196	-0.059	<0.10
Se203	0.036	peak-noisy

Pb	0.021	peak-noisy	<0.10
As	-0.005		
Ni	0.056		
Fe	0.819		
Cu	0.018		
Ag	-0.001	peak-noisy	<0.10
Ba	0.016	<0.10	

689 DUP

As193	-0.027	peak-noisy	<0.10
Se196	0.024	peak-noisy	<0.10
Se203	0.031		
Cr	0.212	0.21	
Zn	4.958		
Cd	0.007	peak-noisy	<0.10
Pb	0.014	peak-noisy	<0.10
As	0.002	peak-noisy	
Ni	0.049		
Fe	0.780		
Cu	0.019		
Ag	-0.003	peak-noisy	<0.10
Ba	0.013	<0.10	

689 SPK 2.5 ppm added. (1:1 Ratio)

As193	2.179
Se196	2.075
Se203	1.979
Cr	2.119
Zn	4.846
Cd	1.888
Pb	2.040
As	1.983
Ni	2.153
Fe	2.524
Cu	2.110
Ag	-0.006 peak-noisy
Ba	2.102

69[illegible] DIL 100/5

As193	0.013	peak-noisy	
Se196	-0.040	window-edge	<0.10
Se203	0.070	peak-noisy	
Cr	0.011	0.22	
Zn	0.052		
Cd	0.004	peak-noisy	<0.10
Pb	-0.006	peak-noisy	<0.10
As	-0.007	peak-noisy	<0.10
Ni	-0.014	peak-noisy	
Fe	1.618		
Cu	0.009	peak-noisy	
Ag	-0.001	<0.10	
Ba	0.032	peak-noisy	0.64

893 DIL 100/3

As193	-0.027	window-edge	<0.10
Se196	-0.031	<0.10	
Se203	-0.067		
Cr	0.013	0.43	
Zn	0.046		
Cd	0.003	<0.10	
Pb	0.055	window-edge	1.83
As	-0.010	peak-noisy	
Ni	-0.004	peak-noisy	

Ag	0.002	peak-noisy	<0.10
Ba	10.766	358	

4894 DIL 100/5

As193	0.044	peak-noisy	
Se196	-0.050	peak-noisy	<0.10
Se203	0.059		
Cr	0.010	0.20	
Zn	0.040		
Cd	0.004	window-edge	<0.10
Pb	0.019	0.38	
As	-0.020	peak-noisy	<0.10
Ni	-0.018	peak-noisy	
Fe	46.722		
Cu	0.002		
Ag	0.002	peak-noisy	<0.10
Ba	-0.000	<0.10	

5097

As193	0.014	window-edge	
Se196	-0.035	window-edge	
Se203	-0.018	window-edge	
Cr	0.009	<0.10	
Zn	0.014	<0.10	
Cd	0.001	<0.10	
Pb	0.048	<0.10	
As	-0.006	peak-noisy	
Ni	0.000	peak-noisy	<0.10
Fe	0.074	<0.10	
Cu	0.036	<0.10	
Ag	-0.005	peak-noisy	<0.10
Ba	0.005		

5097 AG SPK 4.00ppm added.

As193	-0.025	peak-noisy	
Se196	-0.016		
Se203	0.078		
Cr	0.007		
Zn	0.011		
Cd	0.003		
Pb	0.015		
As	-0.006	window-edge	
Ni	-0.004	window-edge	
Fe	0.042		
Cu	0.026		
Ag	3.383		
Ba	0.009	peak-noisy	

5098

As193	-0.038		
Se196	-0.009	peak-noisy	
Se203	-0.044	peak-noisy	
Cr	0.001	peak-noisy	<0.10
Zn	0.027	<0.10	
Cd	0.002	peak-noisy	<0.10
Pb	-0.004	<0.10	
As	-0.006	peak-noisy	
Ni	-0.006	peak-noisy	<0.10
Fe	0.034	<0.10	
Cu	0.008	peak-noisy	<0.10
Ag	0.006	peak-noisy	<0.10
Ba	0.015		

QA-QC MERCURY DEC. 4, 1990

				BLANK CORRECTED	
BLANK	3 mm	3 mm	27 mm	25 mm	1 mg/l
1 mg/l	30 mm	28 mm	53 mm	50 mm	2 mg/l
2 mg/l	56 mm	53 mm	81 mm	74 mm	3 mg/l
3 mg/l	84 mm	77 mm	98 mm	92 mm	4 mg/l
4 mg/l	101 mm	95 mm	115 mm	104 mm	5 mg/l
5 mg/l	118 mm	107 mm	151 mm	145 mm	6 mg/l
6 mg/l	154 mm	148 mm			

QC (2.5 mg/l): $\frac{64-3}{77} \times 3$ mg/l $= 2.47$ mg/l $\frac{2.47}{2.5}(100) = 99\%$ recovery

QC (3.5 mg/l): $\frac{87-3}{98} \times 4$ mg/l $= 3.43$ mg/l $\frac{3.43}{3.5}(100) = 98\%$ recovery

DUPLICATES:

[redacted]

0-15053 $\frac{6-3}{25} \times 1$ mg/l $\times \frac{100}{100} \times 0.001 =$ <0.0002 mg/l

0-15057 $\frac{87-3}{98} \times 4$ mg/l $\times \frac{100}{10.4} \times 0.001 =$ 0.033 ppm

0-15058 $\frac{123-3}{151} \times 6$ mg/l $\times \frac{100}{10.6} \times \frac{100}{90} \times 0.001 =$ 0.070 ppm

0-15058 $\frac{81-3}{74} \times 3$ mg/l $\times \frac{100}{10.6} \times \frac{100}{50} \times 0.001 =$ 0.034 ppm

[redacted]

0-15098 $\frac{3-3}{25}$ (1 mg/l) $\times \frac{100}{100} \times 0.001 =$ <0.0002 mg/l

[redacted]

0-15175 $\frac{3-3}{25} \times 1$ mg/l $\times \frac{100}{100} \times 0.001 =$ <0.0002 mg/l

ECOLOGY & ENVIRONMENT

0-14690 $3-3/25 \times 1$ mg/l $\times \frac{100}{2.5} \times 0.001 =$ <0.010 ppm

0-14893 $4/25 \times 1$ mg/l $\times \frac{100}{2.2} \times 0.001 =$ <0.010 ppm

0-14894 $3/25 \times 1$ mg/l $\times \frac{100}{2.2} \times 0.001 =$ <0.010 ppm

PA - QC MERCURY DEC. 4, 1990

SPIKES

[redacted]

0-15055 $\frac{42-3}{50} \times 2$ mg/l $\times \frac{100}{100} \times 0.001$: $\frac{42-3}{38}(100) = 103\%$ Recovery

[redacted]

0-14178 $45/50 \times 2$ mg/l $\times 100/100 \times 0.001$: $\frac{45-6}{38}(100) = 103\%$ Recovery

[redacted]

0-15268 $\frac{31-3}{50}$ (2 mg/l) $\times \frac{100}{100} \times 0.001$: $\frac{31-3}{38}(100) = 74\%$ Recovery

SAMPLES MERCURY DEC. 4, 1990

[redacted]

0-14806 TCLP $\frac{3-3}{25}$ (1 mg/l) $\times \frac{100}{100} \times 0.001 =$ < 0.0002 mg/l

0-14807 TCLP 3-3/25 (1 mg/l) $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

[redacted]

0-15044 TCLP $\frac{3-3}{25} \times 1$ mg/l $\times \frac{100}{100} \times 0.001 =$ < 0.0002 mg/l

0-15045 TCLP 41/25 $\times 1$ mg/l $\times \frac{100}{100} \times 0.001 =$ < 0.0002 mg/l

[redacted]

0-15053 $\frac{6-3}{25} \times 1$ mg/l $\times \frac{100}{100} \times 0.001 =$ < 0.0002 mg/l

0-15055 3-3/25 $\times 1$ mg/l $\times \frac{100}{100} \times 0.001 =$ < 0.0002 mg/l

0-15057 47-3/50 $\times 2$ mg/l $\times \frac{100}{5.2g} \times 0.001 =$ 0.034 ppm

0-15058 117-3/151 $\times 6$ mg/l $\times 100/5.3g \times 0.001 =$ 0.085 ppm

[redacted]

0-15097 3-3/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

0-15098 3-3/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

0-15268 3-3/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

0-15269 3-3/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

[redacted]

0-15174 41/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

0-15175 3-3/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

0-15176 6-3/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

0-15177 3-3/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

0-15178 6-3/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

0-15179 6-3/25 $\times 1$ mg/l $\times 100/100 \times 0.001 =$ < 0.0002 mg/l

SAMPLES MERCURY DEC. 4, 1990

[redacted]

0-14536 3-3/25 × 1 µg/l × 100/2.3 g × 0.001 = <0.010 ppm
0-14537 <1/25 1 µg/l × 100/2.3 g × 0.001 = <0.010 ppm
0-15343 11-3/25 × 1 µg/l × 100/2.32 × 0.001 = 0.014 ppm
0-15344 6-3/25 × 1 µg/l × 100/2.3 g × 0.001 = <0.010 ppm
0-15345 5-3/25 × 1 µg/l × 100/2.3 g × 0.001 = <0.010 ppm
0-15346 <1/25 × 1 µg/l × 100/2.3 g × 0.001 = <0.010 ppm

ECOLOGY & ENVIRONMENT

0-14689 <1/25 × 1 µg/l × 100/2.0 g × 0.001 = <0.0100 mg/l (ppm)

0-14690 <1/25 × 1 µg/l × 100/2.5 g × 0.001 = <0.010 ppm
0-14893 <1/25 × 1 µg/l × 100/2.2 g × 0.001 = <0.010 ppm
0-14894 5/25 × 1 µg/l × 100/2.2 g × 0.001 = <0.010 ppm