State of Illinois
ENVIRONMENTAL PROTECTION AGENCY 141576

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

MEMORANDUM

Date: December 30, 1994

From: Paul E. Takács, IEPA/BOL/NPL

To: Monica Rebbe, IDPH

Subject: L1630200005 -- St. Clair County
Sauget Sites (Area 1, Area 2) -- Sauget
Superfund/Technical Reports

The primary purpose of this memorandum is to present and interpret the results from a sampling event that IEPA was tasked to perform on November 9 and 10, 1994 at the Sauget Area 1 and Area 2 Sites. This sampling entailed the collection of sixteen surface soil samples within Site Q and near Site G (see Attachment A).

As outlined in the September 6 proposal to the Illinois Department of Public Health (IDPH) (see Attachment B), the objective of the sampling event was to gather data on areas in the Sauget and Cahokia area that were impacted by last year's flooding. This project represents a cooperative effort between IEPA and IDPH. All analytical costs were paid for by IDPH.

Actual field sampling was performed by Tom Miller and Doug Hayward of IEPA's Collinsville office with Monica Rebbe (IDPH) and Paul Takacs (IEPA) providing general oversight and assistance. The sixteen soil samples were sent to Applied Research and Development Laboratory (ARDL) in Mt. Vernon for analysis. ARDL was picked because of its proximity to the site.

Each sample was collected with a stainless steel spoon, sealed in a glass jar and packed with blue ice before shipping as per normal IEPA guidelines. One trip blank was sent to ARDL along with each group of samples that were taken on both days. All samples arrived at ARDL on the same day they were taken. Analyses were then run for volatile and semivolatile organic compounds, pesticides, PCBs and inorganics. As per the Health and Safety Plan (Attachment C), the sampling was performed in Level C protection.

Inorganics

In general, the samples ranged from very low to high levels of contamination. The first group of samples were taken in the east borrow pit of Site Q. Previous site visits have noted two large mounded areas near the west-central portion of this pit. Two soil samples each were taken around the edges of both mounds where drums and waste piles were exposed. Sample X101 was a grayish waste

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material that had fairly high levels of antimony (157ppm), cadmium (2,260ppm), chromium (3,650ppm), lead (7,690ppm), mercury (4.9ppm), nickel (153ppm), selenium (59.9ppm) and cyanide (3.3ppm). Sample X102 was a white crumbly waste. It had only low levels of inorganic contamination with magnesium (4,259ppm) being most significant. The next sample, X103 was a bluish-grey waste that had high levels of antimony (17,900ppm), arsenic (216ppm), copper (1,630ppm), lead (195,000ppm) and silver (30.2ppm). Sample X104, similar to X102, contained the white crumbly substance that had similar contaminants (magnesium @ 4,600ppm). Samples X105 and X106 were both located in waste piles near the northern portion of the borrow pit along the west boundary. X105 was a grayish crystalline substance, which did not appear to have inorganic contamination (although the sample did have a pH of 2.6). X106 was a light blue flaky material that also did not appear to have significant inorganic contamination. Samples X107 and X108 were also taken at the northern portion of the pit. X107 was taken on a ridge of what appeared to be waste material, although the reddish material resembling clay in this sample did not appear to have significant inorganic contamination. X108 was the northernmost sample taken in the east borrow pit. It was dark grey in color and had rather significant concentrations of lead (571ppm).

Samples X109, X110 and X111 were collected along the east bank of the west borrow pit with X109 and X110 taken from one waste pile that resembled the one X105 and X106 came from in the other borrow pit. X109 was a reddish grey waste that did not contain high levels of organics, while X110 contained antimony (47.6ppm), arsenic (19.3ppm), copper (226ppm), lead (5,320ppm), nickel (371ppm), and silver (28.9ppm). Both samples also had pH's (3.6 and 3.7, respectively). Sample X111 was a grayish-white material collected south of the above-mentioned samples and contained nickel (25.9ppm) and vanadium (23.1ppm).

Samples X112 and X113 were taken along the river bank, just south of Site R. Both samples contained a hard blackish substance that appeared to have been disposed of in drums. X112 contained notable levels of cadmium (56.2ppm) and zinc (10,300ppm), while X113 was found to contain magnesium (4,710ppm).

The remaining samples (X114, X115 and X116) were collected around Site G. Both X114 and X115 were soil samples collected in lower elevation areas to the south of the southern Site G fence that could have received runoff from Site G. These samples showed rather high levels of copper (675ppm in X114 and 1,150ppm in X115), lead (172ppm in X114), nickel (32.7ppm in X114 and 38.5ppm in X115) and vanadium (23.3ppm in X114 and 22.7ppm in X115). The last sample (X116) was located in a ridge off of the southwest corner of Site G. X116 which was a brownish waste material containing significant levels of copper (515ppm), mercury (4.7ppm) and high levels of zinc (38,200ppm).

Volatile Organic Contaminants

Only X101, X106, X115 and X116 showed any significant measurable

levels of VOCs. VOCs at X101 consisted of chlorinated solvents and associated degradation products (1,2-DCA @ 240ppb, 1,1-DCE @ 24ppb and 1,1,1-TCA @ 10Jppb). There were also minor levels of BTX compounds, methylene chloride and acetone in this sample and a few others. X106 had a 1,1,1-TCA concentration of 18ppb. X115 and X116 had methylene chloride concentrations of 28ppb and 630Eppb, respectively (analyses at these locations did not flag these compounds as laboratory contaminants).

Semivolatile Compounds

With the exception of PNAs and the tentatively identified compounds (TICs), most of the samples did not show high measurable levels of semivolatile compounds. The analytical results may be somewhat misleading, however, because of the presence of very high levels of BEHP in the laboratory blanks. Because of these levels (up to 110,000,000Bppb), detection levels were very high and the presence of certain semivolatile compounds could have been masked. Sample X107 had a total concentration of 1030Jppb of 2-methylphenol, 4-methylphenol, isophorone and 2,4-dimethylphenol. As far as PNAs were concerned; X108 had PNAs at 310Jppb, X109 at 1182Jppb, X110 at 380Jppb and X111 at 723Jppb. Most of the TICs consisted of phthalates and unknown compounds. X115 had 55,200Jppb of TICs and X116 had 66,100,000Jppb. Many of the other samples had various phthalates on TIC sheets that ranged from 0 to 83,890,000Jppb.

Pesticides and PCBs

ARDL did not note any measurable levels of pesticides, but PCBs did show up with high levels at several locations. The more significant total PCB concentrations were 223,000ppb at X101, 26,000ppb at X104, 31,900ppb at X105DL, 39,000ppb at X107DL, 79,000ppb at X108DL and 90,000ppb at X116DL. Aroclors 1254 and 1260 were prevalent in most samples and Aroclor 1248 showed up at X103, X107, X108 and X116. Various PCB precursors also were noted on the semivolatile TIC sheets for several samples.

Conclusions

In general, the presence of the phthalate compounds caused very high detection limits in many of the samples that most likely masked the presence of sample contaminants. Also, given the appearance of the sample materials, the contaminant levels appeared to be lower than what was expected.

Samples of the mounded waste materials were rather high in metals, indicating the possible presence of paint sludge materials. Samples here also showed high levels of PCBs which indicated that the source of PCBs found in sediments of the east borrow pit might have originated from the mound or drums around the mound.

The presence of rather low pH levels at several of the sample

might indicate the presence of an acid-type waste. Samples that had low pH levels had high sulfate concentrations as well as a yellowish color. This may indicate a sulfuric acid waste residue.

Although not initially a part if the sampling plan, the sampling at X116 showed the presence of a waste material with very high levels of unknown compounds. The significant levels of PCBs (total 90ppm and nearly identical Aroclors) may indicate similar waste generators/transporters or landfill operators associated with Site G. Aerial photos from the 1950s appear to indicate waste disposal occurred outside of the fenced areas of Site G.

Recommendations

Further sampling should be performed in many of the areas that were sampled because of lab contaminants causing interference.

Because of the presence of waste materials in areas that were impacted by last year's flood, further sampling should be performed in the borrow pits at Site Q. The above conclusions note the sampled waste materials at Site Q as probable sources of contamination within both borrow pits, however all sources within these pits have not yet been fully characterized.

Sampling at X116 shows PCB concentrations in excess of removal action levels and because of this, a recommendation should be made to either have the wastes removed or fenced in. At minimum, further sampling should be performed along the "ridge of waste material" having the same visual characteristics of X116.

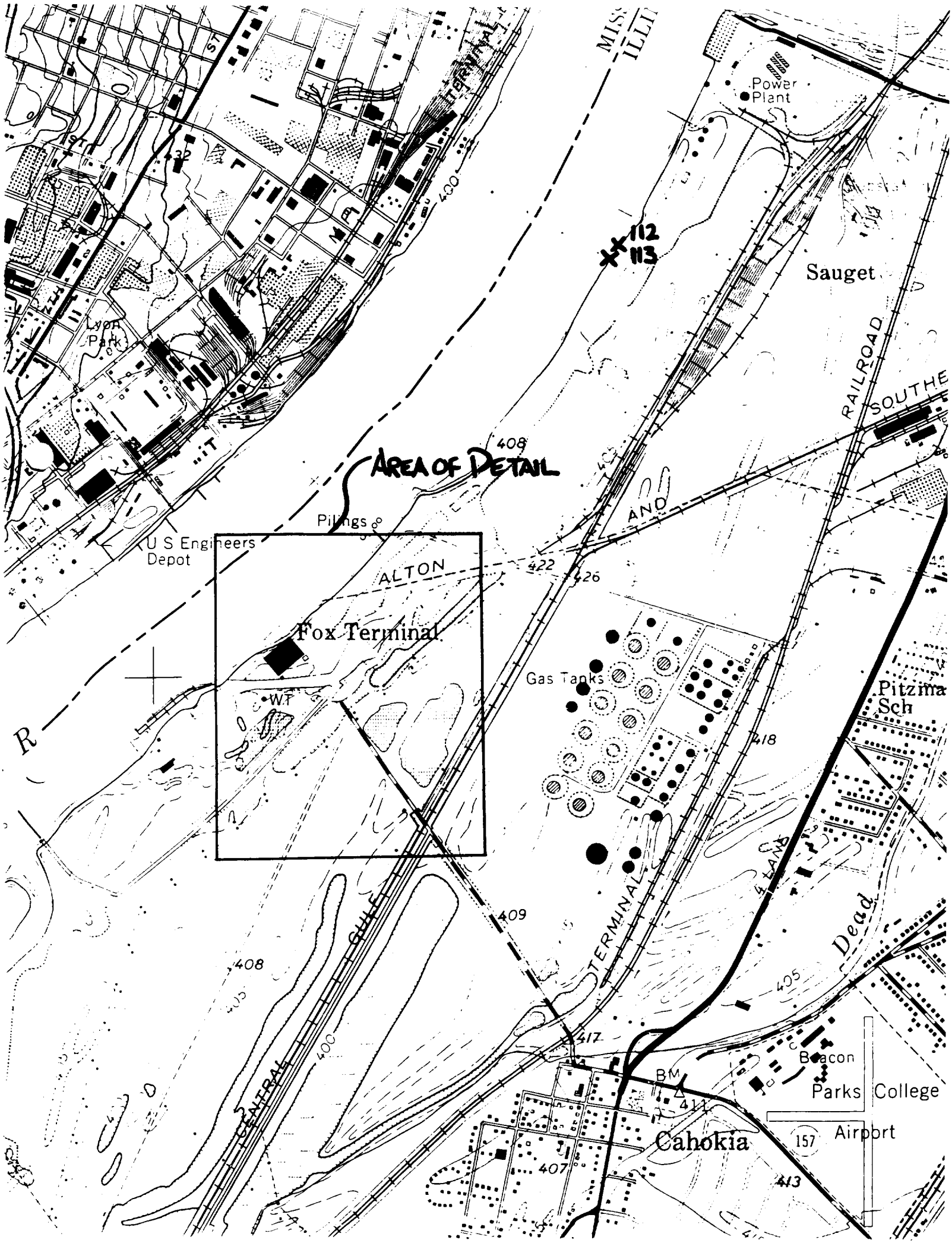
Further sampling should be performed in the low-lying areas south of the Site G fence. Two samples revealing only minor PCB contamination do not indicate a "clean" area given the PCB levels (74,000,000ppb) that were found in soils at Site G.

If you have questions or concerns about the above, please give me a call at 5-3912.

Attachments - Attachment A (Sampling Map)
Attachment B (IDPH Proposal/SAP)
Attachment C (Health and Safety Plan)
Attachment D (Analytical Results)

cc: Terry Ayers (w/o attachments)
Larry Eastep (w/o attachments)
Kim Hubbert
Tom Miller
David Webb, IDPH
Division File

ATTACHMENT A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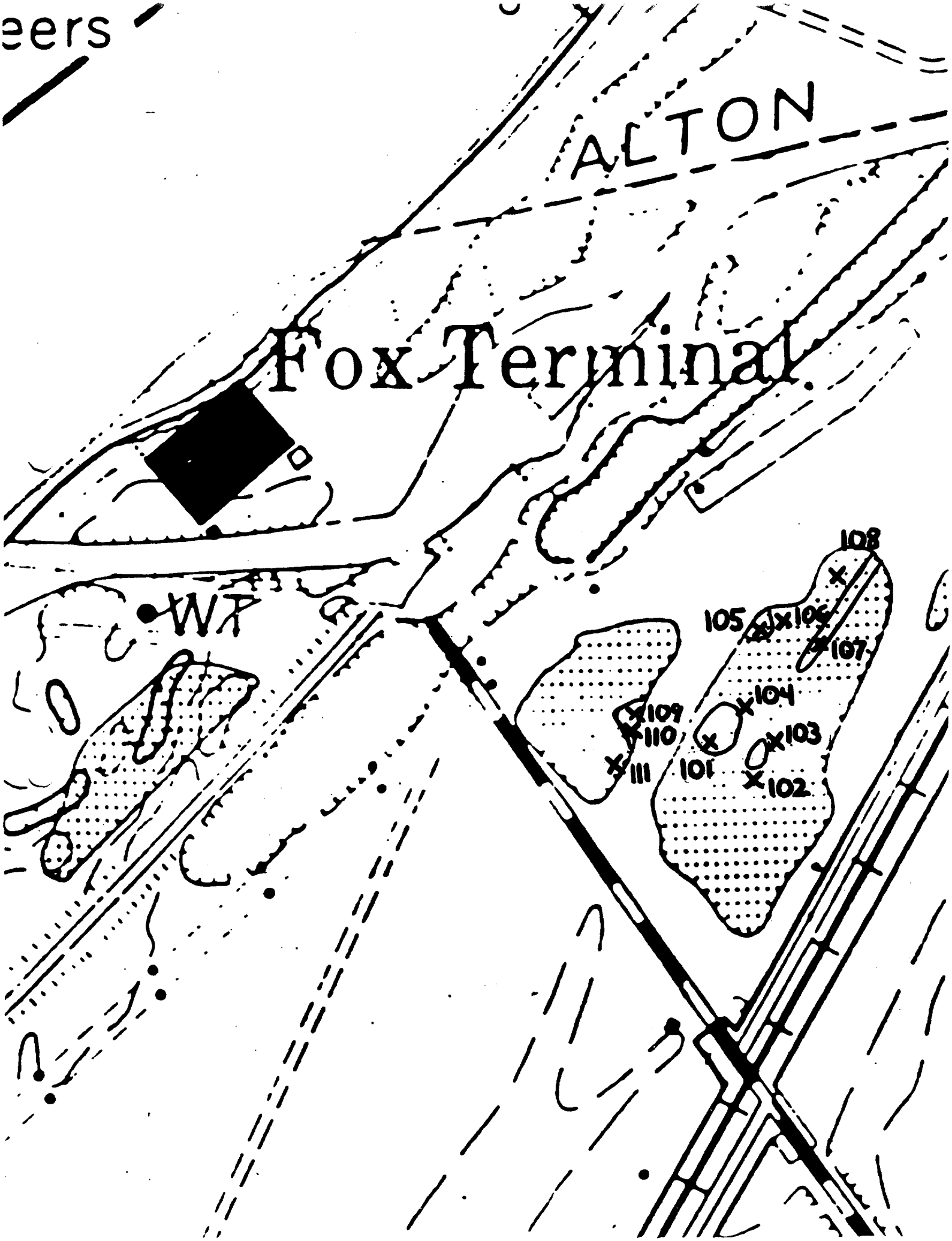
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-8

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4086

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 20 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	2000.	U
100-02-7	4-Nitrophenol	2000.	U
132-64-9	Dibenzofuran	830.	U
121-14-2	2,4-Dinitrotoluene	830.	U
84-66-2	Diethylphthalate	830.	U
7005-72-3	4-Chlorophenyl-phenylether	830.	U
86-73-7	Fluorene	830.	U
100-01-6	4-Nitroaniline	2000.	U
534-52-1	4,6-Dinitro-2-methylphenol	2000.	U
86-30-6	N-Nitrosodiphenylamine (1)	830.	U
101-55-3	4-Bromophenyl-phenylether	830.	U
118-74-1	Hexachlorobenzene	830.	U
87-86-5	Pentachlorophenol	2000.	U
85-01-8	Phenanthrene	830.	U
120-12-7	Anthracene	830.	U
86-74-8	Carbazole	830.	U
84-74-2	Di-n-butylphthalate	340.	J
206-44-0	Fluoranthene	830.	U
129-00-0	Pyrene	830.	U
85-68-7	Butylbenzylphthalate	830.	U
91-94-1	3,3'-Dichlorobenzidine	830.	U
56-55-3	Benzo(a)anthracene	830.	U
218-01-9	Chrysene	830.	U
117-81-7	bis(2-Ethylhexyl)phthalate	3800.	B
117-84-0	Di-n-octylphthalate	830.	U
205-99-2	Benzo(b)fluoranthene	830.	U
207-08-9	Benzo(k)fluoranthene	830.	U
50-32-8	Benzo(a)pyrene	830.	U
193-39-5	Indeno(1,2,3-cd)pyrene	830.	U
53-70-3	Dibenz(a,h)anthracene	830.	U
191-24-2	Benzo(g,h,i)perylene	830.	U

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X108

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-8

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4086

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.6

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	15.21	600.	J
2.	UNKNOWN	15.57	500.	J
3.	UNKNOWN	17.31	500.	J
4.	UNKNOWN	19.93	1000.	J
5.	1,1'-BIPHENYL, TRICHLORO-	21.75	400.	J
6.	1,1'-BIPHENYL, TRICHLORO-	22.33	1000.	J
7.	1,1'-BIPHENYL, TETRACHLORO-	22.56	300.	J
8.	1,1'-BIPHENYL, TETRACHLORO-	23.19	1000.	J
9.	1,1'-BIPHENYL, TETRACHLORO-	23.26	700.	J
10.	1,1'-BIPHENYL, TETRACHLORO-	23.54	1000.	J
11.	1,1'-BIPHENYL, TETRACHLORO-	23.79	1000.	J
12.	1,1'-BIPHENYL, TETRACHLORO-	24.28	700.	J
13.	1,1'-BIPHENYL, TETRACHLORO-	24.37	2000.	J
14.	1,1'-BIPHENYL, TETRACHLORO-	24.44	1000.	J
15.	UNKNOWN	24.70	700.	J
16.	1,1'-BIPHENYL, TETRACHLORO-	24.79	700.	J
17.	1,1'-BIPHENYL, PENTACHLORO-	24.90	1000.	J
18.	1,1'-BIPHENYL, PENTACHLORO-	25.01	400.	J
19.	UNKNOWN	26.51	1000.	J
20.	UNKNOWN	29.10	700.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X109

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-9

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4087

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 27 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	450.	U
111-44-4	bis(2-Chloroethyl)ether	450.	U
95-57-8	2-Chlorophenol	450.	U
541-73-1	1,3-Dichlorobenzene	450.	U
106-46-7	1,4-Dichlorobenzene	450.	U
95-50-1	1,2-Dichlorobenzene	450.	U
95-48-7	2-Methylphenol	450.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	450.	U
106-44-5	4-Methylphenol	450.	U
621-64-7	N-Nitroso-Di-n-propylamine	450.	U
67-72-1	Hexachloroethane	450.	U
98-95-3	Nitrobenzene	450.	U
78-59-1	Isophorone	450.	U
88-75-5	2-Nitrophenol	450.	U
105-67-9	2,4-Dimethylphenol	450.	U
111-91-1	bis(2-Chloroethoxy)methane	450.	U
120-83-2	2,4-Dichlorophenol	450.	U
120-82-1	1,2,4-Trichlorobenzene	450.	U
91-20-3	Naphthalene	450.	U
106-47-8	4-Chloroaniline	450.	U
87-68-3	Hexachlorobutadiene	450.	U
59-50-7	4-Chloro-3-methylphenol	450.	U
91-57-6	2-Methylnaphthalene	450.	U
77-47-4	Hexachlorocyclopentadiene	450.	U
88-06-2	2,4,6-Trichlorophenol	450.	U
95-95-4	2,4,5-Trichlorophenol	1100.	U
91-58-7	2-Chloronaphthalene	450.	U
88-74-4	2-Nitroaniline	1100.	U
131-11-3	Dimethylphthalate	450.	U
208-96-8	Acenaphthylene	450.	U
606-20-2	2,6-Dinitrotoluene	450.	U
99-09-2	3-Nitroaniline	1100.	U
83-32-9	Acenaphthene	450.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X109

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-9

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4087

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 27 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100.	U
100-02-7	4-Nitrophenol	1100.	U
132-64-9	Dibenzofuran	450.	U
121-14-2	2,4-Dinitrotoluene	450.	U
84-66-2	Diethylphthalate	450.	U
7005-72-3	4-Chlorophenyl-phenylether	450.	U
86-73-7	Fluorene	450.	U
100-01-6	4-Nitroaniline	1100.	U
534-52-1	4,6-Dinitro-2-methylphenol	1100.	U
86-30-6	N-Nitrosodiphenylamine (1)	450.	U
101-55-3	4-Bromophenyl-phenylether	450.	U
118-74-1	Hexachlorobenzene	450.	U
87-86-5	Pentachlorophenol	1100.	U
85-01-8	Phenanthrene	76.	J
120-12-7	Anthracene	450.	U
86-74-8	Carbazole	450.	U
84-74-2	Di-n-butylphthalate	310.	J
206-44-0	Fluoranthene	160.	J
129-00-0	Pyrene	170.	J
85-68-7	Butylbenzylphthalate	450.	U
91-94-1	3,3'-Dichlorobenzidine	450.	U
56-55-3	Benzo(a)anthracene	89.	J
218-01-9	Chrysene	110.	J
117-81-7	bis(2-Ethylhexyl)phthalate	310.	JB
117-84-0	Di-n-octylphthalate	450.	U
205-99-2	Benzo(b)fluoranthene	87.	J
207-08-9	Benzo(k)fluoranthene	96.	J
50-32-8	Benzo(a)pyrene	84.	J
193-39-5	Indeno(1,2,3-cd)pyrene	450.	U
53-70-3	Dibenz(a,h)anthracene	450.	U
191-24-2	Benzo(g,h,i)perylene	450.	U

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X109

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-9

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4087

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 27 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.6

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 3658808	TRISULFIDE, DIMETHYL	9.22	300.	JN
2.	UNKNOWN	10.73	400.	J
3.	UNKNOWN	13.75	600.	J
4.	UNKNOWN	15.20	200.	J
5.	UNKNOWN	22.82	400.	J
6.	UNKNOWN	24.13	200.	J
7.	1,1'-BIPHENYL, TETRACHLORO-	24.23	200.	J
8.	1,1'-BIPHENYL, TETRACHLORO-	24.30	500.	J
9.	1,1'-BIPHENYL, TETRACHLORO-	24.72	400.	J
10.	1,1'-BIPHENYL, PENTACHLORO-	24.84	400.	J
11.	UNKNOWN	25.25	200.	J
12.	1,1'-BIPHENYL, PENTACHLORO-	26.09	200.	J
13.	1,1'-BIPHENYL, HEXACHLORO-	26.51	200.	J
14.	1,1'-BIPHENYL, PENTACHLORO-	26.62	200.	J
15.	1,1'-BIPHENYL, HEXACHLORO-	27.06	200.	J
16.	UNKNOWN ALKANE	27.84	300.	J
17.	UNKNOWN	29.41	700.	J
18.	UNKNOWN	30.15	200.	J
19.	UNKNOWN ALKANE	30.89	800.	J
20.	UNKNOWN ALKANE	32.53	700.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X110

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4088

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 29 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.7 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	460.	U
111-44-4	bis(2-Chloroethyl)ether	460.	U
95-57-8	2-Chlorophenol	460.	U
541-73-1	1,3-Dichlorobenzene	460.	U
106-46-7	1,4-Dichlorobenzene	460.	U
95-50-1	1,2-Dichlorobenzene	460.	U
95-48-7	2-Methylphenol	460.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	460.	U
106-44-5	4-Methylphenol	460.	U
621-64-7	N-Nitroso-Di-n-propylamine	460.	U
67-72-1	Hexachloroethane	460.	U
98-95-3	Nitrobenzene	460.	U
78-59-1	Isophorone	460.	U
88-75-5	2-Nitrophenol	460.	U
105-67-9	2,4-Dimethylphenol	460.	U
111-91-1	bis(2-Chloroethoxy)methane	460.	U
120-83-2	2,4-Dichlorophenol	460.	U
120-82-1	1,2,4-Trichlorobenzene	460.	U
91-20-3	Naphthalene	460.	U
106-47-8	4-Chloroaniline	460.	U
87-68-3	Hexachlorobutadiene	460.	U
59-50-7	4-Chloro-3-methylphenol	460.	U
91-57-6	2-Methylnaphthalene	460.	U
77-47-4	Hexachlorocyclopentadiene	460.	U
88-06-2	2,4,6-Trichlorophenol	460.	U
95-95-4	2,4,5-Trichlorophenol	1100.	U
91-58-7	2-Chloronaphthalene	460.	U
88-74-4	2-Nitroaniline	1100.	U
131-11-3	Dimethylphthalate	460.	U
208-96-8	Acenaphthylene	460.	U
606-20-2	2,6-Dinitrotoluene	460.	U
99-09-2	3-Nitroaniline	1100.	U
83-32-9	Acenaphthene	460.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X110

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4088

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 29 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.7 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100.	U
100-02-7	4-Nitrophenol	1100.	U
132-64-9	Dibenzofuran	460.	U
121-14-2	2,4-Dinitrotoluene	460.	U
84-66-2	Diethylphthalate	460.	U
7005-72-3	4-Chlorophenyl-phenylether	460.	U
86-73-7	Fluorene	460.	U
100-01-6	4-Nitroaniline	1100.	U
534-52-1	4,6-Dinitro-2-methylphenol	1100.	U
86-30-6	N-Nitrosodiphenylamine (1)	460.	U
101-55-3	4-Bromophenyl-phenylether	460.	U
118-74-1	Hexachlorobenzene	460.	U
87-86-5	Pentachlorophenol	1100.	U
85-01-8	Phenanthrene	460.	U
120-12-7	Anthracene	460.	U
86-74-8	Carbazole	460.	U
84-74-2	Di-n-butylphthalate	380.	J
206-44-0	Fluoranthene	460.	U
129-00-0	Pyrene	460.	U
85-68-7	Butylbenzylphthalate	460.	U
91-94-1	3,3'-Dichlorobenzidine	460.	U
56-55-3	Benzo(a)anthracene	460.	U
218-01-9	Chrysene	460.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000.	B
117-84-0	Di-n-octylphthalate	460.	U
205-99-2	Benzo(b)fluoranthene	460.	U
207-08-9	Benzo(k)fluoranthene	460.	U
50-32-8	Benzo(a)pyrene	460.	U
193-39-5	Indeno(1,2,3-cd)pyrene	460.	U
53-70-3	Dibenz(a,h)anthracene	460.	U
191-24-2	Benzo(g,h,i)perylene	460.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X110

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4088

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 29 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.7

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.94	100.	J
2.	UNKNOWN	10.73	100.	J
3.	UNKNOWN	12.58	200.	J
4.	UNKNOWN	13.75	100.	J
5.	UNKNOWN	14.44	200.	J
6.	UNKNOWN	21.08	100.	J
7.	UNKNOWN	24.98	500.	J
8.	UNKNOWN ALKANE	25.25	100.	J
9.	UNKNOWN	25.82	400.	J
10.	UNKNOWN ALKANE	26.15	200.	J
11.	UNKNOWN	26.88	100.	J
12.	UNKNOWN ALKANE	27.02	200.	J
13.	UNKNOWN ALKANE	27.85	400.	J
14.	UNKNOWN	28.31	200.	J
15.	UNKNOWN ALKANE	28.66	400.	J
16.	UNKNOWN ALKANE	29.42	500.	J
17.	UNKNOWN ALKANE	30.17	600.	J
18.	UNKNOWN ALKANE	30.90	800.	J
19.	UNKNOWN ALKANE	32.54	800.	J
20.	UNKNOWN ALKANE	33.54	400.	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X111

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-11

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4089

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 29 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	460.	U
111-44-4	bis(2-Chloroethyl)ether	460.	U
95-57-8	2-Chlorophenol	460.	U
541-73-1	1,3-Dichlorobenzene	460.	U
106-46-7	1,4-Dichlorobenzene	460.	U
95-50-1	1,2-Dichlorobenzene	460.	U
95-48-7	2-Methylphenol	460.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	460.	U
106-44-5	4-Methylphenol	460.	U
621-64-7	N-Nitroso-Di-n-propylamine	460.	U
67-72-1	Hexachloroethane	460.	U
98-95-3	Nitrobenzene	460.	U
78-59-1	Isophorone	460.	U
88-75-5	2-Nitrophenol	460.	U
105-67-9	2,4-Dimethylphenol	460.	U
111-91-1	bis(2-Chloroethoxy)methane	460.	U
120-83-2	2,4-Dichlorophenol	460.	U
120-82-1	1,2,4-Trichlorobenzene	460.	U
91-20-3	Naphthalene	460.	U
106-47-8	4-Chloroaniline	460.	U
87-68-3	Hexachlorobutadiene	460.	U
59-50-7	4-Chloro-3-methylphenol	460.	U
91-57-6	2-Methylnaphthalene	460.	U
77-47-4	Hexachlorocyclopentadiene	460.	U
88-06-2	2,4,6-Trichlorophenol	460.	U
95-95-4	2,4,5-Trichlorophenol	1100.	U
91-58-7	2-Chloronaphthalene	460.	U
88-74-4	2-Nitroaniline	1100.	U
131-11-3	Dimethylphthalate	460.	U
208-96-8	Acenaphthylene	460.	U
606-20-2	2,6-Dinitrotoluene	460.	U
99-09-2	3-Nitroaniline	1100.	U
83-32-9	Acenaphthene	460.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X111

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-11

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4089

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 29 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100.	U
100-02-7	4-Nitrophenol	1100.	U
132-64-9	Dibenzofuran	460.	U
121-14-2	2,4-Dinitrotoluene	460.	U
84-66-2	Diethylphthalate	460.	U
7005-72-3	4-Chlorophenyl-phenylether	460.	U
86-73-7	Fluorene	460.	U
100-01-6	4-Nitroaniline	1100.	U
534-52-1	4,6-Dinitro-2-methylphenol	1100.	U
86-30-6	N-Nitrosodiphenylamine (1)	460.	U
101-55-3	4-Bromophenyl-phenylether	460.	U
118-74-1	Hexachlorobenzene	460.	U
87-86-5	Pentachlorophenol	1100.	U
85-01-8	Phenanthrene	73.	J
120-12-7	Anthracene	62.	J
86-74-8	Carbazole	460.	U
84-74-2	Di-n-butylphthalate	250.	J
206-44-0	Fluoranthene	140.	J
129-00-0	Pyrene	140.	J
85-68-7	Butylbenzylphthalate	460.	U
91-94-1	3,3'-Dichlorobenzidine	460.	U
56-55-3	Benzo(a)anthracene	460.	U
218-01-9	Chrysene	110.	J
117-81-7	bis(2-Ethylhexyl)phthalate	1500.	
117-84-0	Di-n-octylphthalate	460.	U
205-99-2	Benzo(b)fluoranthene	110.	J
207-08-9	Benzo(k)fluoranthene	88.	J
50-32-8	Benzo(a)pyrene	460.	U
193-39-5	Indeno(1,2,3-cd)pyrene	460.	U
53-70-3	Dibenz(a,h)anthracene	460.	U
191-24-2	Benzo(g,h,i)perylene	460.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X111

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-11

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4089

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 29 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.8

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.72	300.	J
2.	UNKNOWN	15.20	600.	J
3.	UNKNOWN	16.41	300.	J
4.	UNKNOWN ALKANE	20.07	600.	J
5.	UNKNOWN	20.88	600.	J
6.	UNKNOWN	21.66	400.	J
7.	UNKNOWN	21.95	300.	J
8.	UNKNOWN	22.34	700.	J
9.	UNKNOWN	22.78	500.	J
10.	UNKNOWN	22.92	3000.	J
11.	UNKNOWN	22.99	900.	J
12.	UNKNOWN	24.13	300.	J
13.	UNKNOWN	24.20	300.	J
14.	UNKNOWN	24.84	3000.	J
15.	UNKNOWN	26.88	800.	J
16.	UNKNOWN ALKANE	27.86	600.	J
17.	UNKNOWN	29.43	1000.	J
18.	UNKNOWN ALKANE	30.91	900.	J
19.	UNKNOWN ALKANE	32.56	900.	J
20.	UNKNOWN	33.42	700.	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 26 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.6

Contract: SAUGET SA 1+2
SDG No.: X101
Lab Sample ID : 2343-1
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/24/94
Dilution Factor: 200.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	460	U
319-85-7	beta-BHC	460	U
319-86-8	delta-BHC	460	U
58-89-9	gamma-BHC(Lindane)	460	U
76-44-8	Heptachlor	460	U
309-00-2	Aldrin	460	U
1024-57-3	Heptachlor Epoxide	460	U
959-98-8	Endosulfan I	460	U
60-57-1	Dieldrin	880	U
72-55-9	4,4'-DDE	880	U
72-20-8	Endrin	880	U
33213-65-9	Endosulfan II	880	U
72-54-8	4,4'-DDD	880	U
1013-07-8	Endosulfan sulfate	880	U
50-29-3	4,4'-DDT	880	U
72-43-5	Methoxychlor	4600	U
53494-70-5	Endrin ketone	880	U
7421-36-3	Endrin aldehyde	880	U
5103-71-9	alpha-Chlordane	460	U
5103-74-2	gamma-Chlordane	460	U
8001-35-2	Toxaphene	46000	U
12674-11-2	Aroclor 1016	8800	U
11104-28-2	Aroclor 1221	18000	U
11141-16-5	Aroclor 1232	8800	U
53469-21-9	Aroclor 1242	8800	U
12672-29-6	Aroclor 1248	8800	U
11097-69-1	Aroclor 1254	140000	E
11096-82-5	Aroclor 1260	83000	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101DL

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 26 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.6

Contract: SAUGET SA 1+2
SDG No.: X101
Lab Sample ID : 2343-1DL
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/24/94
Dilution Factor: 500.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	1200	U
319-85-7	beta-BHC	1200	U
319-86-8	delta-BHC	1200	U
58-89-9	gamma-BHC(Lindane)	1200	U
76-44-8	Heptachlor	1200	U
309-00-2	Aldrin	1200	U
1024-57-3	Heptachlor Epoxide	1200	U
959-98-8	Endosulfan I	1200	U
60-57-1	Dieldrin	2200	U
72-55-9	4,4'-DDE	2200	U
72-20-8	Endrin	2200	U
33213-65-9	Endosulfan II	2200	U
72-54-8	4,4'-DDD	2200	U
1013-07-8	Endosulfan sulfate	2200	U
50-29-3	4,4'-DDT	2200	U
72-43-5	Methoxychlor	12000	U
53494-70-5	Endrin ketone	2200	U
7421-36-3	Endrin aldehyde	2200	U
5103-71-9	alpha-Chlordane	1200	U
5103-74-2	gamma-Chlordane	1200	U
8001-35-2	Toxaphene	120000	U
12674-11-2	Aroclor 1016	22000	U
11104-28-2	Aroclor 1221	45000	U
11141-16-5	Aroclor 1232	22000	U
53469-21-9	Aroclor 1242	22000	U
12672-29-6	Aroclor 1248	22000	U
11097-69-1	Aroclor 1254	110000	P
11096-82-5	Aroclor 1260	72000	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 23 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.6

Contract: SAUGET SA 1+2
SDG No.: X101
Lab Sample ID : 2343-2
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/23/94
Dilution Factor: 1.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	beta-BHC	2.2	U
319-86-8	delta-BHC	2.2	U
58-89-9	gamma-BHC(Lindane)	2.2	U
76-44-8	Heptachlor	2.2	U
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor Epoxide	2.2	U
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	4.3	U
72-55-9	4,4'-DDE	4.3	U
72-20-8	Endrin	4.3	U
33213-65-9	Endosulfan II	4.3	U
72-54-8	4,4'-DDD	4.3	U
1013-07-8	Endosulfan sulfate	4.3	U
50-29-3	4,4'-DDT	4.3	U
72-43-5	Methoxychlor	22	U
53494-70-5	Endrin ketone	4.3	U
7421-36-3	Endrin aldehyde	4.3	U
5103-71-9	alpha-Chlordane	2.2	U
5103-74-2	gamma-Chlordane	2.2	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor 1016	43	U
11104-28-2	Aroclor 1221	87	U
11141-16-5	Aroclor 1232	43	U
53469-21-9	Aroclor 1242	43	U
12672-29-6	Aroclor 1248	43	U
11097-69-1	Aroclor 1254	730	PE
11096-82-5	Aroclor 1260	460	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102DL

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 23 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.6

Contract: SAUGET SA 1+2
SDG No.: X101
Lab Sample ID : 2343-2DL
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/23/94
Dilution Factor: 5.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	11	U
319-85-7	beta-BHC	11	U
319-86-8	delta-BHC	11	U
58-89-9	gamma-BHC(Lindane)	11	U
76-44-8	Heptachlor	11	U
309-00-2	Aldrin	11	U
1024-57-3	Heptachlor Epoxide	11	U
959-98-8	Endosulfan I	11	U
60-57-1	Dieldrin	22	U
72-55-9	4,4'-DDE	22	U
72-20-8	Endrin	22	U
33213-65-9	Endosulfan II	22	U
72-54-8	4,4'-DDD	22	U
1013-07-8	Endosulfan sulfate	22	U
50-29-3	4,4'-DDT	22	U
72-43-5	Methoxychlor	110	U
53494-70-5	Endrin ketone	22	U
7421-36-3	Endrin aldehyde	22	U
5103-71-9	alpha-Chlordane	11	U
5103-74-2	gamma-Chlordane	11	U
8001-35-2	Toxaphene	1100	U
12674-11-2	Aroclor 1016	220	U
11104-28-2	Aroclor 1221	440	U
11141-16-5	Aroclor 1232	220	U
53469-21-9	Aroclor 1242	220	U
12672-29-6	Aroclor 1248	220	U
11097-69-1	Aroclor 1254	1100	P
11096-82-5	Aroclor 1260	820	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 26 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.8

Contract: SAUGET SA 1+2
SDG No.: X101
Lab Sample ID : 2343-3
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/24/94
Dilution Factor: 1.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	2.3	U
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
58-89-9	gamma-BHC(Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
60-57-1	Dieldrin	4.4	U
72-55-9	4,4'-DDE	4.4	U
72-20-8	Endrin	4.4	U
33213-65-9	Endosulfan II	4.4	U
72-54-8	4,4'-DDD	4.4	U
1013-07-8	Endosulfan sulfate	4.4	U
50-29-3	4,4'-DDT	4.4	U
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin ketone	4.4	U
7421-36-3	Endrin aldehyde	4.4	U
5103-71-9	alpha-Chlordane	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
8001-35-2	Toxaphene	230	U
12674-11-2	Aroclor 1016	44	U
11104-28-2	Aroclor 1221	90	U
11141-16-5	Aroclor 1232	44	U
53469-21-9	Aroclor 1242	44	U
12672-29-6	Aroclor 1248	500	
11097-69-1	Aroclor 1254	1400	E
11096-82-5	Aroclor 1260	960	E

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103DL

Lab Name: ARDL, INC. Contract: SAUGET SA 1+2
Lab Code: Case No.: 2343 SDG No.: X101
Matrix(soil/water) : SOIL Lab Sample ID : 2343-3DL
Sample(wt/vol) : 30.0 (g/mL) g Lab File ID :
% Moisture: 26 decanted:(Y/N) N Date Received : 11/09/94
Extraction(Sepf/Cont/Sonc) SONC Date Extracted : 11/16/94
Concentrated Extract Volume:5000(uL) Date Analyzed : 11/23/94
Injection Volume: 1 (uL) Dilution Factor: 10.0
GPC Cleanup:(Y/N) Y pH: 6.8 Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	23	U
319-85-7	beta-BHC	23	U
319-86-8	delta-BHC	23	U
58-89-9	gamma-BHC(Lindane)	23	U
76-44-8	Heptachlor	23	U
309-00-2	Aldrin	23	U
1024-57-3	Heptachlor Epoxide	23	U
959-98-8	Endosulfan I	23	U
60-57-1	Dieldrin	44	U
72-55-9	4,4'-DDE	44	U
72-20-8	Endrin	44	U
33213-65-9	Endosulfan II	44	U
72-54-8	4,4'-DDD	44	U
1013-07-8	Endosulfan sulfate	44	U
50-29-3	4,4'-DDT	44	U
72-43-5	Methoxychlor	230	U
53494-70-5	Endrin ketone	44	U
7421-36-3	Endrin aldehyde	44	U
5103-71-9	alpha-Chlordane	23	U
5103-74-2	gamma-Chlordane	23	U
8001-35-2	Toxaphene	2300	U
12674-11-2	Aroclor 1016	440	U
11104-28-2	Aroclor 1221	900	U
11141-16-5	Aroclor 1232	440	U
53469-21-9	Aroclor 1242	440	U
12672-29-6	Aroclor 1248	720	
11097-69-1	Aroclor 1254	2300	
11096-82-5	Aroclor 1260	1500	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC. Contract: SAUGET SA 1+2
Lab Code: Case No.: 2343 SDG No.: X101
Matrix(soil/water) : SOIL Lab Sample ID : 2343-4
Sample(wt/vol) : 30.0 (g/mL) g Lab File ID :
% Moisture: 28 decanted:(Y/N) N Date Received : 11/09/94
Extraction(Sepf/Cont/Sonc) SONC Date Extracted : 11/16/94
Concentrated Extract Volume:5000(uL) Date Analyzed : 11/23/94
Injection Volume: 1 (uL) Dilution Factor: 50
GPC Cleanup:(Y/N) Y pH: 6.7 Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	120	U
319-85-7	beta-BHC	120	U
319-86-8	delta-BHC	120	U
58-89-9	gamma-BHC(Lindane)	120	U
76-44-8	Heptachlor	120	U
309-00-2	Aldrin	120	U
1024-57-3	Heptachlor Epoxide	120	U
959-98-8	Endosulfan I	120	U
60-57-1	Dieldrin	230	U
72-55-9	4,4'-DDE	230	U
72-20-8	Endrin	230	U
33213-65-9	Endosulfan II	230	U
72-54-8	4,4'-DDD	230	U
1013-07-8	Endosulfan sulfate	230	U
50-29-3	4,4'-DDT	230	U
72-43-5	Methoxychlor	1200	U
53494-70-5	Endrin ketone	230	U
7421-36-3	Endrin aldehyde	230	U
5103-71-9	alpha-Chlordane	120	U
5103-74-2	gamma-Chlordane	120	U
8001-35-2	Toxaphene	12000	U
12674-11-2	Aroclor 1016	2300	U
11104-28-2	Aroclor 1221	4600	U
11141-16-5	Aroclor 1232	2300	U
53469-21-9	Aroclor 1242	2300	U
12672-29-6	Aroclor 1248	2300	U
11097-69-1	Aroclor 1254	14000	P
11096-82-5	Aroclor 1260	12000	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 24 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 2.6

Contract: SAUGET 1+2
SDG No.: X101
Lab Sample ID : 2343-5
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/24/94
Dilution Factor: 10.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	22	U
319-85-7	beta-BHC	22	U
319-86-8	delta-BHC	22	U
58-89-9	gamma-BHC(Lindane)	22	U
76-44-8	Heptachlor	22	U
309-00-2	Aldrin	22	U
1024-57-3	Heptachlor Epoxide	22	U
959-98-8	Endosulfan I	22	U
60-57-1	Dieldrin	43	U
72-55-9	4,4'-DDE	43	U
72-20-8	Endrin	43	U
33213-65-9	Endosulfan II	43	U
72-54-8	4,4'-DDD	43	U
1013-07-8	Endosulfan sulfate	43	U
50-29-3	4,4'-DDT	43	U
72-43-5	Methoxychlor	220	U
53494-70-5	Endrin ketone	43	U
7421-36-3	Endrin aldehyde	43	U
5103-71-9	alpha-Chlordane	22	U
5103-74-2	gamma-Chlordane	22	U
8001-35-2	Toxaphene	2200	U
12674-11-2	Aroclor 1016	430	U
11104-28-2	Aroclor 1221	880	U
11141-16-5	Aroclor 1232	430	U
53469-21-9	Aroclor 1242	430	U
12672-29-6	Aroclor 1248	430	U
11097-69-1	Aroclor 1254	14000	E
11096-82-5	Aroclor 1260	6500	P

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105DL

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 24 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 2.6

Contract: SAUGET 1+2
SDG No.: X101
Lab Sample ID : 2343-5DL
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/24/94
Dilution Factor: 100.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	220	U
319-85-7	beta-BHC	220	U
319-86-8	delta-BHC	220	U
58-89-9	gamma-BHC(Lindane)	220	U
76-44-8	Heptachlor	220	U
309-00-2	Aldrin	220	U
1024-57-3	Heptachlor Epoxide	220	U
959-98-8	Endosulfan I	220	U
60-57-1	Dieldrin	430	U
72-55-9	4,4'-DDE	430	U
72-20-8	Endrin	430	U
33213-65-9	Endosulfan II	430	U
72-54-8	4,4'-DDD	430	U
1013-07-8	Endosulfan sulfate	430	U
50-29-3	4,4'-DDT	430	U
72-43-5	Methoxychlor	2200	U
53494-70-5	Endrin ketone	430	U
7421-36-3	Endrin aldehyde	430	U
5103-71-9	alpha-Chlordane	220	U
5103-74-2	gamma-Chlordane	220	U
8001-35-2	Toxaphene	22000	U
12674-11-2	Aroclor 1016	4300	U
11104-28-2	Aroclor 1221	8800	U
11141-16-5	Aroclor 1232	4300	U
53469-21-9	Aroclor 1242	4300	U
12672-29-6	Aroclor 1248	4300	U
11097-69-1	Aroclor 1254	22000	
11096-82-5	Aroclor 1260	9900	P

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X106

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 20 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.1

Contract: SAUGET 1+2
SDG No.: X101
Lab Sample ID : 2343-6
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/23/94
Dilution Factor: 50.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	100	U
319-85-7	beta-BHC	100	U
319-86-8	delta-BHC	100	U
58-89-9	gamma-BHC(Lindane)	100	U
76-44-8	Heptachlor	100	U
309-00-2	Aldrin	100	U
1024-57-3	Heptachlor Epoxide	100	U
959-98-8	Endosulfan I	100	U
60-57-1	Dieldrin	200	U
72-55-9	4,4'-DDE	200	U
72-20-8	Endrin	200	U
33213-65-9	Endosulfan II	200	U
72-54-8	4,4'-DDD	200	U
1013-07-8	Endosulfan sulfate	200	U
50-29-3	4,4'-DDT	200	U
72-43-5	Methoxychlor	1000	U
53494-70-5	Endrin ketone	200	U
7421-36-3	Endrin aldehyde	200	U
5103-71-9	alpha-Chlordane	200	U
5103-74-2	gamma-Chlordane	200	U
8001-35-2	Toxaphene	10000	U
12674-11-2	Aroclor 1016	2000	U
11104-28-2	Aroclor 1221	4200	U
11141-16-5	Aroclor 1232	2000	U
53469-21-9	Aroclor 1242	2000	U
12672-29-6	Aroclor 1248	2000	U
11097-69-1	Aroclor 1254	1700	P
11096-82-5	Aroclor 1260	2300	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 24 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.0

Contract: SAUGET 1+2
SDG No.: X101
Lab Sample ID : 2343-7
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/24/94
Dilution Factor: 10.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	22	U
319-85-7	beta-BHC	22	U
319-86-8	delta-BHC	22	U
58-89-9	gamma-BHC(Lindane)	22	U
76-44-8	Heptachlor	22	U
309-00-2	Aldrin	22	U
1024-57-3	Heptachlor Epoxide	22	U
959-98-8	Endosulfan I	22	U
60-57-1	Dieldrin	43	U
72-55-9	4,4'-DDE	43	U
72-20-8	Endrin	43	U
33213-65-9	Endosulfan II	43	U
72-54-8	4,4'-DDD	43	U
1013-07-8	Endosulfan sulfate	43	U
50-29-3	4,4'-DDT	43	U
72-43-5	Methoxychlor	220	U
53494-70-5	Endrin ketone	43	U
7421-36-3	Endrin aldehyde	43	U
5103-71-9	alpha-Chlordane	22	U
5103-74-2	gamma-Chlordane	22	U
8001-35-2	Toxaphene	2200	U
12674-11-2	Aroclor 1016	430	U
11104-28-2	Aroclor 1221	880	U
11141-16-5	Aroclor 1232	430	U
53469-21-9	Aroclor 1242	430	U
12672-29-6	Aroclor 1248	4800	P
11097-69-1	Aroclor 1254	11000	E
11096-82-5	Aroclor 1260	8800	PE

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107DL

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 24 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.0

Contract: SAUGET 1+2
SDG No.: X101
Lab Sample ID : 2343-7DL
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/24/94
Dilution Factor: 100.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	220	U
319-85-7	beta-BHC	220	U
319-86-8	delta-BHC	220	U
58-89-9	gamma-BHC(Lindane)	220	U
76-44-8	Heptachlor	220	U
309-00-2	Aldrin	220	U
1024-57-3	Heptachlor Epoxide	220	U
959-98-8	Endosulfan I	220	U
60-57-1	Dieldrin	430	U
72-55-9	4,4'-DDE	430	U
72-20-8	Endrin	430	U
33213-65-9	Endosulfan II	430	U
72-54-8	4,4'-DDD	430	U
1013-07-8	Endosulfan sulfate	430	U
50-29-3	4,4'-DDT	430	U
72-43-5	Methoxychlor	2200	U
53494-70-5	Endrin ketone	430	U
7421-36-3	Endrin aldehyde	430	U
5103-71-9	alpha-Chlordane	220	U
5103-74-2	gamma-Chlordane	220	U
8001-35-2	Toxaphene	22000	U
12674-11-2	Aroclor 1016	4300	U
11104-28-2	Aroclor 1221	8800	U
11141-16-5	Aroclor 1232	4300	U
53469-21-9	Aroclor 1242	4300	U
12672-29-6	Aroclor 1248	11000	P
11097-69-1	Aroclor 1254	17000	
11096-82-5	Aroclor 1260	11000	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 20 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.6

Contract: SAUGET 1+2
SDG No.: X101
Lab Sample ID : 2343-8
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/24/94
Dilution Factor: 10.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	21	U
319-85-7	beta-BHC	21	U
319-86-8	delta-BHC	21	U
58-89-9	gamma-BHC(Lindane)	21	U
76-44-8	Heptachlor	21	U
309-00-2	Aldrin	21	U
1024-57-3	Heptachlor Epoxide	21	U
959-98-8	Endosulfan I	21	U
60-57-1	Dieldrin	41	U
72-55-9	4,4'-DDE	41	U
72-20-8	Endrin	41	U
33213-65-9	Endosulfan II	41	U
72-54-8	4,4'-DDD	41	U
1013-07-8	Endosulfan sulfate	41	U
50-29-3	4,4'-DDT	41	U
72-43-5	Methoxychlor	210	U
53494-70-5	Endrin ketone	41	U
7421-36-3	Endrin aldehyde	41	U
5103-71-9	alpha-Chlordane	21	U
5103-74-2	gamma-Chlordane	21	U
8001-35-2	Toxaphene	2100	U
12674-11-2	Aroclor 1016	410	U
11104-28-2	Aroclor 1221	840	U
11141-16-5	Aroclor 1232	410	U
53469-21-9	Aroclor 1242	410	U
12672-29-6	Aroclor 1248	16000	PE
11097-69-1	Aroclor 1254	21000	E
11096-82-5	Aroclor 1260	9300	PE

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108DL

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 20 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 6.6

Contract: SAUGET 1+2
SDG No.: X101
Lab Sample ID : 2343-8DL
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/24/94
Dilution Factor: 100.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	210	U
319-85-7	beta-BHC	210	U
319-86-8	delta-BHC	210	U
58-89-9	gamma-BHC(Lindane)	210	U
76-44-8	Heptachlor	210	U
309-00-2	Aldrin	210	U
1024-57-3	Heptachlor Epoxide	210	U
959-98-8	Endosulfan I	210	U
60-57-1	Dieldrin	410	U
72-55-9	4,4'-DDE	410	U
72-20-8	Endrin	410	U
33213-65-9	Endosulfan II	410	U
72-54-8	4,4'-DDD	410	U
1013-07-8	Endosulfan sulfate	410	U
50-29-3	4,4'-DDT	410	U
72-43-5	Methoxychlor	2100	U
53494-70-5	Endrin ketone	410	U
7421-36-3	Endrin aldehyde	410	U
5103-71-9	alpha-Chlordane	210	U
5103-74-2	gamma-Chlordane	210	U
8001-35-2	Toxaphene	21000	U
12674-11-2	Aroclor 1016	4100	U
11104-28-2	Aroclor 1221	8400	U
11141-16-5	Aroclor 1232	4100	U
53469-21-9	Aroclor 1242	4100	U
12672-29-6	Aroclor 1248	28000	
11097-69-1	Aroclor 1254	36000	
11096-82-5	Aroclor 1260	15000	P

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X109

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 27 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 3.6

Contract: SAUGET SA 1+2
SDG No.: X101
Lab Sample ID : 2343-9
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/23/94
Dilution Factor: 1.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	2.3	U
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
58-89-9	gamma-BHC(Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
60-57-1	Dieldrin	4.5	U
72-55-9	4,4'-DDE	4.5	U
72-20-8	Endrin	4.5	U
33213-65-9	Endosulfan II	4.5	U
72-54-8	4,4'-DDD	4.5	U
1013-07-8	Endosulfan sulfate	4.5	U
50-29-3	4,4'-DDT	4.5	U
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin ketone	4.5	U
7421-36-3	Endrin aldehyde	4.5	U
5103-71-9	alpha-Chlordane	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
8001-35-2	Toxaphene	230	U
12674-11-2	Aroclor 1016	45	U
11104-28-2	Aroclor 1221	92	U
11141-16-5	Aroclor 1232	45	U
53469-21-9	Aroclor 1242	45	U
12672-29-6	Aroclor 1248	45	U
11097-69-1	Aroclor 1254	72	P
11096-82-5	Aroclor 1260	140	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X110

Lab Name: ARDL, INC.
Lab Code: Case No.: 2343
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 29 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 3.7

Contract: SAUGET SA 1+2
SDG No.: X101
Lab Sample ID : 2343-10
Lab File ID :
Date Received : 11/09/94
Date Extracted : 11/16/94
Date Analyzed : 11/23/94
Dilution Factor: 1.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	2.4	U
319-85-7	beta-BHC	2.4	U
319-86-8	delta-BHC	2.4	U
58-89-9	gamma-BHC(Lindane)	2.4	U
76-44-8	Heptachlor	2.4	U
309-00-2	Aldrin	2.4	U
1024-57-3	Heptachlor Epoxide	2.4	U
959-98-8	Endosulfan I	2.4	U
60-57-1	Dieldrin	4.6	U
72-55-9	4,4'-DDE	4.6	U
72-20-8	Endrin	4.6	U
33213-65-9	Endosulfan II	4.6	U
72-54-8	4,4'-DDD	4.6	U
1013-07-8	Endosulfan sulfate	4.6	U
50-29-3	4,4'-DDT	4.6	U
72-43-5	Methoxychlor	24	U
53494-70-5	Endrin ketone	4.6	U
7421-36-3	Endrin aldehyde	4.6	U
5103-71-9	alpha-Chlordane	2.4	U
5103-74-2	gamma-Chlordane	2.4	U
8001-35-2	Toxaphene	240	U
12674-11-2	Aroclor 1016	46	U
11104-28-2	Aroclor 1221	94	U
11141-16-5	Aroclor 1232	46	U
53469-21-9	Aroclor 1242	46	U
12672-29-6	Aroclor 1248	46	U
11097-69-1	Aroclor 1254	410	P
11096-82-5	Aroclor 1260	390	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X111

Lab Name: ARDL, INC. Contract: SAUGET SA 1+2
Lab Code: Case No.: 2343 SDG No.: X101
Matrix(soil/water) : SOIL Lab Sample ID : 2343-11
Sample(wt/vol) : 30.0 (g/mL) g Lab File ID :
% Moisture: 29 decanted:(Y/N) N Date Received : 11/09/94
Extraction(Sepf/Cont/Sonc) SONC Date Extracted : 11/16/94
Concentrated Extract Volume:5000(uL) Date Analyzed : 11/23/94
Injection Volume: 1 (uL) Dilution Factor: 1.0
GPC Cleanup:(Y/N) Y pH: 5.8 Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	2.4	U
319-85-7	beta-BHC	2.4	U
319-86-8	delta-BHC	2.4	U
58-89-9	gamma-BHC(Lindane)	2.4	U
76-44-8	Heptachlor	2.4	U
309-00-2	Aldrin	2.4	U
1024-57-3	Heptachlor Epoxide	2.4	U
959-98-8	Endosulfan I	2.4	U
60-57-1	Dieldrin	4.6	U
72-55-9	4,4'-DDE	4.6	U
72-20-8	Endrin	4.6	U
33213-65-9	Endosulfan II	4.6	U
72-54-8	4,4'-DDD	4.6	U
1013-07-8	Endosulfan sulfate	4.6	U
50-29-3	4,4'-DDT	4.6	U
72-43-5	Methoxychlor	24	U
53494-70-5	Endrin ketone	4.6	U
7421-36-3	Endrin aldehyde	4.6	U
5103-71-9	alpha-Chlordane	2.4	U
5103-74-2	gamma-Chlordane	2.4	U
8001-35-2	Toxaphene	240	U
12674-11-2	Aroclor 1016	46	U
11104-28-2	Aroclor 1221	94	U
11141-16-5	Aroclor 1232	46	U
53469-21-9	Aroclor 1242	46	U
12672-29-6	Aroclor 1248	46	U
11097-69-1	Aroclor 1254	470	
11096-82-5	Aroclor 1260	300	

ATTACHMENT C

1630200005-
Sauget
SA 1 & 2

ARDL Inc.
applied research & development laboratory

CHEMISTRY · BIOLOGY · PHYSIOLOGY
ENGINEERING · ENVIRONMENTAL ANALYSIS

24 November 1994

Mr. Ron Turpin
Division of Laboratories # 4
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

SUBJECT: Data Package Submittal
Facility: Sauget SA 1 & 2
ARDL ID No.: 2343
Site Inventory No.: 1630200005
Due Date: 12/09/94

Dear Mr. Turpin:

Enclosed please find ARDL's data package for analyses performed on samples delivered to our laboratory on 11/09/94. The data package consists of the following:

1. Letter of Transmittal
2. Tabulated Analytical Results
3. Chain-of-Custody Documentation
4. Data Package - Paginated and submitted in the following order:

   a. Volume 1 - Inorganic Analysis Data Package
   b. Volume 2 - Organic Sample Data Summary Package
   c. Volume 3 - Volatiles Analysis Data Package
   d. Volume 4 - Semi-Volatiles Analysis Data Package
   e. Volume 5 - Pesticide/PCB Analysis Data Package

I have forwarded one (1) copy of the sample results for this package to Sue Doubet, IEPA.

We appreciate the opportunity to be of service to the IEPA.

Thank you

Sincerely yours,

Daniel J. Gillespie
Technical Services Manager

DJG/jcm

Enclosure

RECEIVED
DEC 09 1994
IEPA/DLPC

P.O. Box 1566 · Mt. Vernon Airport, Route 15 East · Mt. Vernon, Illinois 62864 · (618) 244-3235 · FAX (618) 244-1149

EPA - CLP
HAIN OF CUSTODY

Seal # 9957

Date Sealed: 11/8/94 By: [illegible]

acility
ame : SAUGI SITE AREA #1 + #2
egion: COLLINSVILLE
ounty: ST.CLAIR

Site Inventory # : 1630200005
Site Billing Code: IDPH-Rebbe
Project Manager : PAUL TACKACS

Laboratory #	Sample #	Sample Date	Time
ARDL 2343-2	X102	11-9-94	10:20 a.m.

ample Appearance : Dark + light Brown - waste material

ispatcher Comments:

ampler Signature : Tom Miller Division/Company IEPA\FOS

CONTAINER				ANALYSIS		
No.	Code	Size	Preser		(Y/N)	
2	14	2oz	N	VOA	N	
1	19	16ozO	N	BNA,PEST/PCB	N	
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N	
	287			SULFIDE,SULFATE		

CHAIN OF CUSTODY RECORD

certify that I received the sample shipping container with the shipping container sealed and [illegible]

Paul Takacs Signature: Paul [illegible]

11-9-94 10:05 a.m. 9957 [illegible] 0

certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

[illegible]: Monica Rebbe Signature: Monica Rebbe

11-9-94 2:10 p.m. 9958

[illegible] IEPA\ARDL

Courier - Sample Delivery [illegible]

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal [illegible] that each bottle in the shipping container was intact. After recording the sample in the official record book the sample [illegible] the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): Donna Cockrum Signature: [illegible]

Date: 11/9/94 Time: 1755 Seal # 9957-9958

Lab Name: ARDL INC

EPA - CLP
CHAIN OF CUSTODY

Seal # 9953

Date Sealed: 11/8/94 By: [illegible]

Facility
Name : SAUGET SITE AREA #1 + #2
Location: COLLINSVILLE
County: ST.CLAIR

Site Inventory # : 1630700005
Site Billing Code: JDPH/MONICAREBBE
Project Manager : PAUL TAKACS

Laboratory #	Sample #	Sample Date	Time
ARDL 2343-3	X103	11-9-94	10:25 AM

Sample Description: BROWNISH WASTE MATERIAL

Collector Company:

Print Name: TOM MILLER Division/Company: IEPA/FOS

CONTAINER				ANALYSIS	
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA,PEST/PCB	N
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N
	287		N	SULFIDE,SULFATE	N

CHAIN OF CUSTODY COMMENTS

I certify that I received the sample shipping container with the shipping container sealed and intact.

PAUL TAKACS Paul S. Takacs
11-9-94 10:20AM 9953 O

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Print Name (print): PAUL TAKACS Signature: Paul S. Takacs
11-9-94 2:10PM 9954
Company Name: IEPA/ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): DENNA COCKRUM Signature: Denna Cockrum

Date: 11-9-94 Time: 1755 Seal #: 9954 Intact: (Y) (N)

Lab Name: ARDL, INC. Comments: [illegible]

[illegible] - CLP
CHAIN OF CUSTODY

Seal # 9953

Date Sealed: 11/8/94 [illegible] Rb

Facility
Name : SAUGET SITE AREA #1 + #2
Region: COLLINSVILLE
County: ST.CLAIR

Site Inventory # : 1630200005
Site Billing Code: IDPH/MONICA REBBE
Project Manager : PAUL TACKACS

Laboratory #	Sample	Sample Date	Sample Time
ARDL 2343-4	X104	11-9-94	10:30AM

Matrix Description: WHITISH WASTE MATERIAL

Sampler Comments:

Sampler Signature: Tom Miller Division/Company: IEPA/FOS

CONTAINER				ANALYSIS	
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA,PEST/PCB	N
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N
	287		N	SULFIDE,SULFATE	N

CHAIN OF POSSESSION RECORD

I certify that I received the sample shipping container with the shipping container sealed and intact.

Name: PAUL TAKACS Signature: Paul S. Takacs

11-9-94 10:20AM Seal # 9953 Temp: 0

I certify that the bottle listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the bottle shipping container and that I sealed the sample shipping container at the date and time listed below.

Name: PAUL TAKACS Signature: Paul S. Takacs

11-9-94 2:10PM 9954

Agency: IEPA/ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seals intact and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): Donna Cockrum Signature: Donna Cockrum

Date: 11/9/94 Time: 1755 Seal #: 9954 Intact: (Y) N

Lab Name: ARDL INC Comments: [illegible]

EPA - CLP
CHAIN OF CUSTODY

Seal # 9949

Date Sealed: 11/8/94 By: [illegible]

Facility Name: SAUGET SITE AREA #1 + #2
Region: COLLINSVILLE
County: ST.CLAIR

Site Inventory #: IL0200005
Site Billing Code: IDPH - Rebbe
Project Manager: PAUL TAKACS

Laboratory #	Sample #	Sample Date	Sample Time
2343-5	X105	11-9-94	10:45am.

Sample Appearance: Brown - waste material

Additional Comments:

Sampler Signature: Tom Miller Division/Company: IEPA\FOS

CONTAINER				ANALYSIS	
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA,PEST/PCB	N
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N
	287			SULFIDE,SULFATE	

CHAIN OF CUSTODY CHRONICLE

I certify that I received the sample shipping container with the shipping container sealed and intact.

Print: Paul Takacs Signature: Paul Takacs

11-9-94 Time: 10:40 a.m. Seal #: 9949 Intact: O

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Print: Monica Rebbe Signature: Monica Rebbe

11-9-94 Time: 2:35p.m. Seal #: 9950

Relinquished:

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): Donna Cockrum Signature: Donna Cockrum

Date: 11-9-94 Time: 1755 Seal #: 9949 9950 Intact: (Y) N

Lab Name: ARDL, INC. Comments:

ATTACHMENT D

Illinois EPA
SAUGET SITES
Site Safety Plan

Attached is a site safety plan (SSP) written for the tasks performed by IEPA personnel on hazardous waste sites. It is divided into sections which correspond directly with OSHA 29 CFR 1910.120(b)(4)(ii) standard.

The health and safety protocols established in a SSP are based on the site conditions and chemical hazards known and/or anticipated to be present from available site data. The possibility of undocumented disposal within the site requires a conservative approach to on-site procedures. A SSP is intended solely for use during the proposed activities described in the site investigation work plan. Specifications therein are subject to review and revision based on actual conditions encountered in the field during site characterization activities.

Work to Begin : 11/09/94 End : 11/10/94

TABLE OF CONTENTS

INTRODUCTION

SECTION [A] Safety and Health Hazard Analysis

Job Tasks — Table A
- Health and Safety Hazards
- Levels of Protection
- Personal Protective Equipment
- Air Monitoring

Health Analysis — Table B
- Contaminants
- Standard Operating Procedures
- Personal Precautions

SECTION [B] Employee Training

SECTION [C] Personal Protective Equipment

SECTION [D] Medical Surveillance

SECTION [E] Air Monitoring/Sampling Procedures

SECTION [F] Site Security and Control

SECTION [G] Decontamination
- Equipment
- Procedures

SECTION [H] Contingency Plan

SECTION [I] Confined Space Entry

SECTION [J] Spill Containment Program

Appendix 1: Hazard Communication

Appendix 2: Heat and Cold Stress Monitoring

Appendix 3: Material Safety Date Sheets

Appendix 4: Site Access Authorization Forms

Project Name: SAUGET SITES (Area G and Q)
IEPA Identification Numbers: L1630200005
L1631210001

Location: SAUGET AND CAHOKIA, ST. CLAIR COUNTY (SF/TECH)

Date Plan Reviewed: November 3, 1994.

Reviewer Signature: MARK BRITTON OCS/HSU

Site Description and History:

One of the most highly contaminated areas in Illinois are the Sauget Sites. Area 1 comprises three hazardous waste disposal landfills, a formerly used waste impoundment, two abandoned gravel pits and five intermittent segments of Dead Creek. The contaminants found at the Sauget Area 1 Sites consist mainly of chlorobenzenes, chlorophenols, chloroanilines, nitrophenols, nitroanilines, naphthalene, PCB's and PNA's. These sites were aggregated together on the basis of their relative proximity to each other, shared watershed, nearly identical contaminants, and a common property owner at many of the sites during the periods of disposal. Potential residential exposure to site contaminants is the greatest concern in Area 1. The Area 2 sites comprise four separate sites that include a covered lagoon containing hazardous sludges (Site O), an industrial landfill suspected of containing hazardous wastes (Site P), a closed landfill used by Monsanto for the disposal of their liquid chemical wastes (Site R) and an uncovered closed municipal landfill that accepted hazardous wastes (Site Q). Environmental impacts within wetlands and leachates that flow into the Mississippi River are the more significant concerns of Area 2. Provided below are brief descriptions of the sites that are being proposed for this sampling event.

Site G

A former surface/subsurface hazardous waste disposal site which was originally used as a gravel pit. Site G occupies about 4.5 acres and is littered with demolition debris, metal wastes and corroded drums. Oily and tar-like wastes are found mainly in areas where drums are present; however, most of the landfill is only partially covered with fly ash and cinders. IEPA estimates that there is approximately 22,000 cubic yards of contaminated fill and about 60,000 cubic yards of saturated chemical waste materials. Past surface soils sampling revealed PCBs (74,000 ppm total), 1,4-dichlorobenzene (22,000 ppm), PCP (21,000 ppm), 4-nitrophenol (1000 ppm), 2-nitroaniline (220 ppm), and PNAs. The primary contaminants detected in subsurface soils included naphthalene (5,429 ppm), PCP (4,769 ppm) and 4-chloroaniline (231 ppm). Access to the site is restricted by a chain-link fence

installed by USEPA. Aerial photos show major disposal activities occurring at Site G from the early to mid-1950's to the mid-1960's, after which sporadic disposal occurred until it was fenced in 1982.

On a more recent note, IEPA was informed that an underground fire began at this site in early April and continued through June of this year. IEPA assisted USEPA last June in a sampling event in and around Site G. As would be expected in a scenario of burning PCBs and other chlorophenols, the sample results indicated widespread dioxin contamination on the site and outside the perimeter of the fence. The levels of 2,3,7,8-TCDD (137 ppb) were high enough to justify a time-critical action by USEPA even for an industrial area. An interview with an employee of the property owner said that the Sauget Fire Department was called to put out the fires. This employee noted the burning area was flooded with water 24 hours a day for two weeks, thereby creating a large pond in back of the burn area. Although water samples from the pond did not show contamination, it is suspected that the sediments of the low-lying area to the south of Site G are contaminated. In addition to this area, this site contributed to further contamination of Dead Creek last year during last year's flooding.

Site Q

Site Q, also known as the former Sauget & Company Landfill (e.g. the Sauget Municipal Landfill) had been completely submerged by flooding last summer. There are numerous uncovered waste disposal areas scattered throughout the site. Oil-saturated materials as well as drums with unknown wastes are present at many of these disposal areas. Limited soil sampling has indicated high levels of semivolatiles, pesticides and PCBs. Of greatest concern to IEPA is the presence of several waste piles and drums located in the two borrow pits to the south of the site. No sampling has ever been performed at these locations because they are normally submerged. In addition to these areas, several drums are present along the bank of the river - many of which have been exposed by last year's floods. Recent sampling of these drums showed PCBs (over 200,000 ppm), 2-chlorophenol (67 ppm), 1,4-dichlorobenzene (49 ppm), 1,2,4-trichlorobenzene (52 ppm), phenol (71 ppm) and 4-nitrophenol (45 ppm). There are also various isolated waste disposal areas located throughout the site. This site was operated by Sauget & Company as a "municipal landfill". Aerial photos show major activities beginning in the mid-1950's and continuing through the 1970's. 103(c) notifications to USEPA note that BFI hauled unidentified hazardous wastes and chemicals to this landfill from 1963 to 1970. Another notification points out a massive liquid waste and drum disposal area at an unknown location on this site.

Site Topography : Irregular Terrain
Soil Type : Silt/Sand
Site Zoning : Industrial

Work to Begin : 11/09/94 End : 11/10/94

All operations and equipment will comply with OSHA Regulations 29 CFR 1910.120 and applicable parts of OSHA 29 CFR 1910 and 1926.

Before site operations begin all employees involved in these operations will have read and understood this site safety plan and all of the subsequent revisions.

Key Personnel:

Designated Site Health and Safety Officer : Tom Miller
Alternate : Paul Takacs

IEPA Health and Safety Office: (217)-785-0830
Project Manager : Paul Takacs
Alternate : Monica Rebbe, IDPH

Field Team :
1. Tom Miller
2. Paul Takacs
3. Monica Rebbe
4. IEPA assistant (to be assigned)

The following individual(s) located on site will have the authority and responsibility to change levels of protection and, when necessary, shutdown the operation:

1. Tom Miller

Personnel trained in first aid/CPR:
1. Paul Takacs
2. Tom Miller

SECTION [A] HEALTH AND SAFETY HAZARD ANALYSIS

Refer to attached Table A (Health Risk Analysis) and Table B (Safety Risk Analysis), below.

Table A Health Risk Analysis

JOB TASK: **Surface soil sampling**
INITIAL LEVEL OF PROTECTION: C

AIR SAMPLING EQUIPMENT:

Equipment	Frequency	Location
PID (10.2) and FID	twice daily	Immediate Work Area

Hazards:
For the purposes of this hazard identification section, surface soil sampling will be considered any soil sampling completed by hand using a trowel, split spoon, shovel, auger, or other type of handheld tool. Hazards generally associated with surface soil sampling include:

- o Contact with or inhalation of contaminants in moderate concentrations in the sampling media.
- o Back strain and muscle fatigue due to lifting, shoveling and auguring techniques.

Standard Operating Procedures:

- o To minimize exposure to chemical contaminants, a thorough review of suspected contaminants should be completed and implementation of personal protective equipment and the use of air monitoring equipment according to the appropriate sections of this document shall be initiated.
- o Proper lifting (pre-lift weight assessment, use of legs, multiple personnel, etc.) techniques will prevent back strain. Use slow easy motions when shoveling, auguring, and digging to decrease muscle strain.
- o First aid equipment should be available based on job task and suspected chemical hazards.

PERSONAL PROTECTIVE EQUIPMENT:

Coverall : Double Laminated Tyvek (Saranex)
Boots : Chemical resistant boots
Boot Covers : Rubber booties Boot Liner : Thick socks
Head Protection: Warm Head Cover Liner: None Required
Respiratory : Full-face Air Purifying Respirator - Combination cartridge (HEPA filter with organic vapor cartridge)
Outer Gloves : Viton or Silvershield (Silvershield recommended)
Inner Gloves : Wool
Face/Eye Protection : None Required

NOTE: The preceding recommendations are based upon the reported hazards associated with the performance of this job task. They cannot be changed without the approval of the Health and Safety Officer.

ACTION LEVELS

See chart on page 13 for action level responses.

For generic information about action levels for specific pieces of equipment consult Section C.

Table B Safety Risk Analysis

The following is a listing of the contaminants and the safety risks associated with them. In order to understand the notations and abbreviations in that listing please use the following key.

KEY TO ABBREVIATIONS IN TABLE B

? Question mark notation given for this property in the NIOSH "Pocket Guide to Chemical Hazards."

CA: Carcinogen.

eV: Electron Volts.

F: Degrees Fahrenheit

IDLH: Immediately Dangerous to Life or Health. Maximum 30-minute exposure. Units given in parts per million or milligrams per cubic meter of air.

mm Hg: Millimeters of mercury.

mg/M3: Milligrams per cubic meter of air.

NA: Not applicable.

NONE: No information available.

PEL: Permissible Exposure Limit. Units given in parts per million or milligrams per cubic meter of air.

ppm: Parts per million.

TLV: Threshold Limit Value. Units given in parts per million or milligrams per cubic meter of air. Where relevant, affected areas of the body are indicated.

TLV-STEL: Threshold Limit Value -- Short Term Exposure Limit. Maximum 15-minute exposure. Units given in parts per million or milligrams per cubic meter of air.

Table B Safety Risk Analysis

Contaminant: **1,4-DICHLOROBENZENE**
CAS number: 106467

Exposure Limits: TLV: 75.000 ppm PEL: 75.000 ppm
IDLH: 1000 ppm CA TLV-STEL: 110.00 ppm

Symptoms of Overexposure: Headache; eye irritation, swelling, periorbital; Nose irritation; Anorexia, nausea, vomiting ; Weight loss, jaundice, cirrhosis; [Carcinogen]

Chemical Properties: Flashpoint: 150 F
Vapor Pressure: 0.4 mm Hg 77F
Specific Gravity of Vapor: 5.10 68F
Lower Explosive Limit: "?"%
Upper Explosive Limit: "?"%
Ionization Potential: 8.98 eV
Flame Ionization Detector: NONE% (percent Relative Response)
PID: 139.00% (percent Relative Response)

Contaminant: **AROCLOR 1254** [Chlorodiphenyl 54% Chlorine]
CAS number: 11097690

Exposure Limits: TLV: 0.500 mg/m3 SKIN PEL: 0.500 mg/m3
IDLH: 5 mg/m3 CA TLV-STEL: NONE

Symptoms of Overexposure: Irritation to eyes; acne-form dermatitis; liver damage; [Carcinogen]

Chemical Properties: Flashpoint:"?" F
Vapor Pressure: 0.0001 mm Hg 68 F
Specific Gravity of Vapor: NONE
Lower Explosive Limit: "?"%
Upper Explosive Limit: "?"%
Ionization Potential: "?")eV
Flame Ionization Detector: NA% (percent Relative Response)
PID: "?"% (percent Relative Response)

Contaminant: **PENTACHLOROPHENOL**
CAS number: 87865

Exposure Limits: TLV: 0.500 mg/m3 SKIN PEL: 0.500 mg/m3 SKIN
IDLH: 150 mg/m3 TLV-STEL: NONE

Symptoms of Overexposure: Irritation to eyes, nose and throat; Sneezing, coughing, weakness, anorexia, weight loss; Sweating,

headache, dizziness, nausea, vomiting; Chest pains; high fever, dermatitis;

Chemical Properties: Flashpoint: NA
Vapor Pressure: 0.0001 mm Hg 68 F
Specific Gravity of Vapor: 9.20 68 F
Lower Explosive Limit: NA%
Upper Explosive Limit: NA%
Ionization Potential: NA
Flame Ionization Detector: NA% (percent Relative Response)
PID: 118.00% (percent Relative Response)

SECTION [B] EMPLOYEE TRAINING

All employees involved in on-site operations must participate in routine health and safety education and training programs. These programs are designed to provide the employees with a thorough knowledge of hazardous materials and health and safety hazard potentials. This training must comply with federal OSHA 29 CFR 1910.120(e): 40-hour initial training, 8-hour annual refresher training, 8-hour supervisor training, and emergency response training where required.

General Topic Covered in Safety Training:

-Overview of the applicable paragraphs of 29 CFR 1910.120 and the elements of an employer's effective occupational safety and health program.

-Effect of chemical exposures to hazardous substance (i.e., toxicity, carcinogens, irritants, sensitizers, etc.).

-Effects of biological and radiological exposures.

-Fire and explosion hazards (i.e., flammable and combustible liquids, reactive materials).

-General Safety hazards, including electrical hazards, powered equipment hazards, walking-working surface hazards and those hazards associated with hot and cold temperature extremes.

-Confined space, tank and vault hazards and entry procedures.

-Specific safety, health and other hazards that are to be addressed at a site and in the site safety and health plan.

-Use of personal protective equipment and the implementation of the personal protective equipment program.

-Work practices that will minimize employee risk from site hazards.

-Safe use of engineering controls and equipment and any new relevant technology or procedure.

-Content of the medical surveillance program and requirements.

-The contents of an effective site safety and health plan.

-Use of monitoring equipment with "hands-on" experience and the implementation of the employee and site monitoring program.

-Decontamination program and procedures.

-Review of the applicable appendices to 29 CFR 1910.120.

-Sources of reference, additional information and efficient use of relevant manuals and hazard coding systems.

-Principles of toxicology and biological monitoring.

-Hands-on field exercises and demonstrations.

-Final examination.

SECTION [C] Personal Protective Equipment

Personal protective equipment (PPE) has been selected which will protect employees from the hazards and potential hazards they are likely to encounter and identified during the site characterization and facility records. Personal protective equipment selection is based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the site, the task-specific conditions and duration, and the hazards and potential hazards identified at the site.

Action Levels Based on PID or FID readings where petroleum products are the only contaminants of concern are as follows:

Readings are to be taken in the breathing zone of employee. Readings must be sustained one minute to be considered valid. Background readings should be taken before operations begin and upwind of site if possible.

All action levels are readings above background.

Detailed listings of personal protective equipment are provided on a task-by-task basis in Section A of this report.

SECTION [D] Medical Surveillance

All employees on site will have participated in a medical surveillance program under the direction of a licensed physician. The content of medical examinations or consultations made available to employees shall be determined by the attending physician. The guidelines in the "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities" should be consulted. The following identifies the types of tests that will be given:

1. Occupational and Medical History

2. Physical Examination

   - Height, weight, temperature, pulse, respiration, and blood pressure
   - Head, nose, and throat
   - Eyes. Include vision tests that measure refraction, depth perception and color vision.
   - Ears. Include audiometric tests, performed at 500, 1,000, 2,000, 3,000, 4,000, and 6,000 hertz (Hz) pure tone in an approved booth.
   - Chest (heart and lungs).
   - Peripheral vascular system.
   - Abdomen and rectum (including hernia exam).
   - Spine and other components of musculoskeletal system.
   - Genitourinary system.
   - Skin.
   - Nervous system.

3. Tests

   - Blood
   - Urine.
   - A 14 x 17 inch posterior/anterior view chest x-ray with lateral or oblique views only if indicated. The x-ray should be taken by a certified radiology technician and interpreted by a board-certified or board eligible radiologist.

4. Ability to Perform While Wearing Protective Equipment

   - Pulmonary function testing. Measurement should include forced expiratory volume in 1 second (FEV1), forced vital capacity (FVC), and FEV - to FVC ratio, with interpretation and comparison to normal predicted values corrected for age, height, race, and sex.

     Other factors such as FEF, MEFR, MVV, FRC, RV, and TLC may be included for additional information. A permanent

- record of flow curves should be placed in the worker's medical records. The tests should be conducted by a certified technician and the results interpreted by a physician.

- Electrocardiogram (EKG). At least one standard, 12 lead resting EKG should be performed at the discretion of the physician. A "stress test" (graded exercise) may be administered at the discretion of the examining physician, particularly where heat stress may occur.

The employee has been furnished with a copy of the medical results which would include the following:

1. The physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment of the employee's health from work in hazardous waste operations or emergency response, or from respirator.

2. The physician's recommended limitations upon the employee's assigned work.

3. The results of the medical examination and tests.

Medical examinations and consultations have been made available by the employer to each employee on the following schedule:

1. Prior to assignment;

2. At least once every twelve months for each employee covered unless the attending physician believes a longer interval (not greater than biannually) is appropriate;

3. At termination of employment or reassignment to an area where the employee would not be covered if the employee has not had an examination within the last six months.

4. As soon as possible upon notification by an employee that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards, or that the employee has been injured or exposed above the permissible exposure limits or published exposure levels in an emergency.

5. At more frequent times, if the examining physician determines that an increased frequency of examination is medically necessary.

An accurate record of the medical surveillance shall be

retained. This record shall be retained for the period specified and meet the criteria of 29 CFR 1910.120.

Location of Medical Records:
Up until 12/89
SIU Family Practice Center, Springfield
Dr. Daniel O'Brien
(217) 782-0215

CURRENTLY with:
Health Evaluation Programs, Park Ridge
Dr. Steven Bunting (IEPA's Contracted Occupational Doctor)
1-(800) 323-2178

ACTION LEVELS

Monitoring Equipment	Hazard	Level	Action
Photoionization Detector	Organic Vapors & Gases	50 m.u. or greater	Upgrade to Level B
Flame Ionization Detector	Organic Vapors & Gases	50 m.u. or greater	Upgrade to Level B

The following PID and FID equipment is recommended:

PID (10.2 eV) (HNU PI-101)
PID (10.2 eV) (HNU DL-101)
FID (Foxboro OVA-108)

SECTION [F] SITE SECURITY AND CONTROL

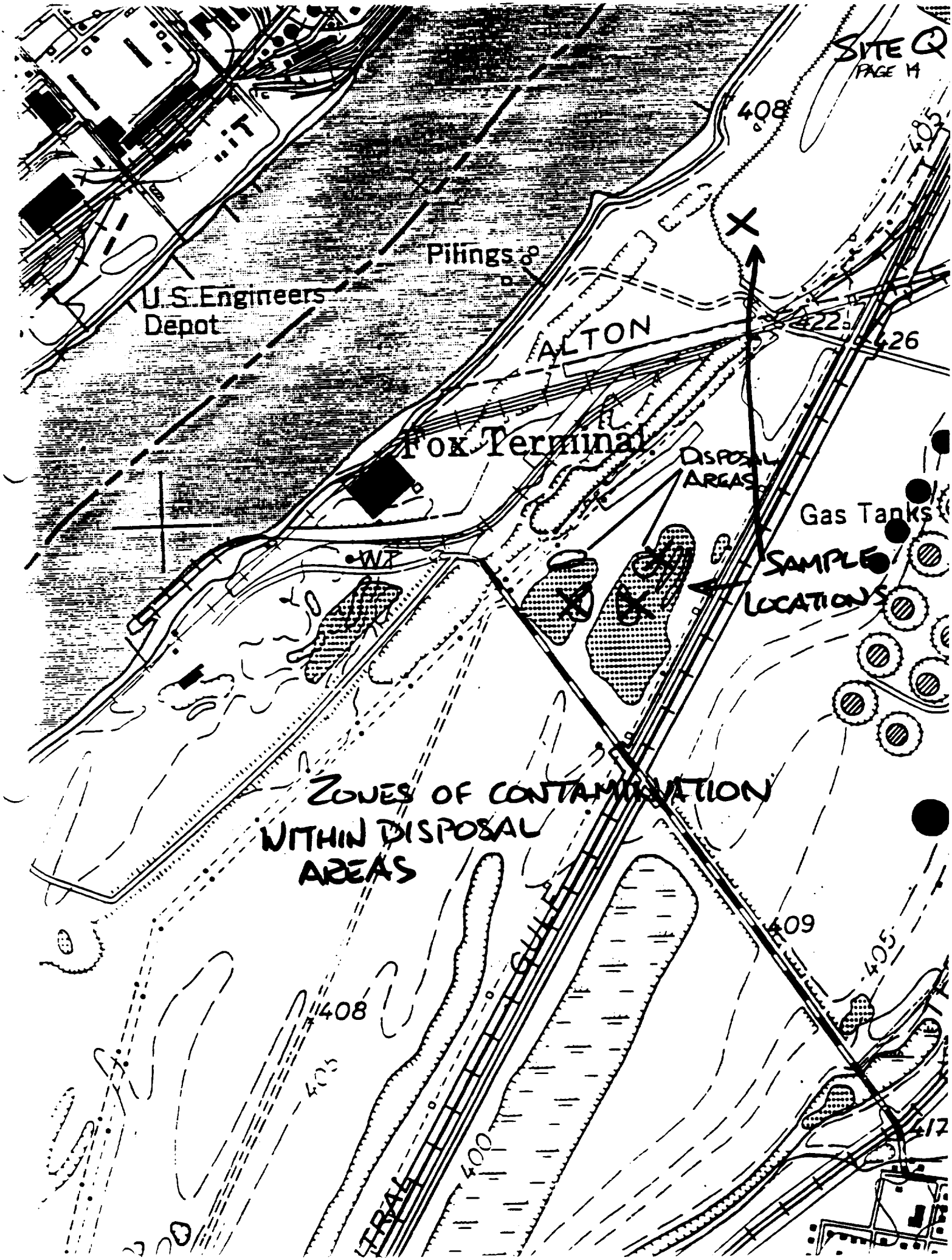
Appropriate control procedures shall be implemented to control employees (and the public) exposure to hazardous substances before work begins.

Access to the Site:

Site G - Park in the Wiese Engineering parking lot and enter site on west side.

Site Q - Park on the access road and enter from that area.

Site Map: The following is a map of the site indicating zones of contamination:


SITE Q
PAGE 14
408
405
Pilings
U.S. Engineers
Depot
ALTON
422
426
Fox Terminal
DISPOSAL
AREAS
Gas Tanks
SAMPLE
LOCATIONS
WP
ZONES OF CONTAMINATION
WITHIN DISPOSAL
AREAS
409
405
408
405
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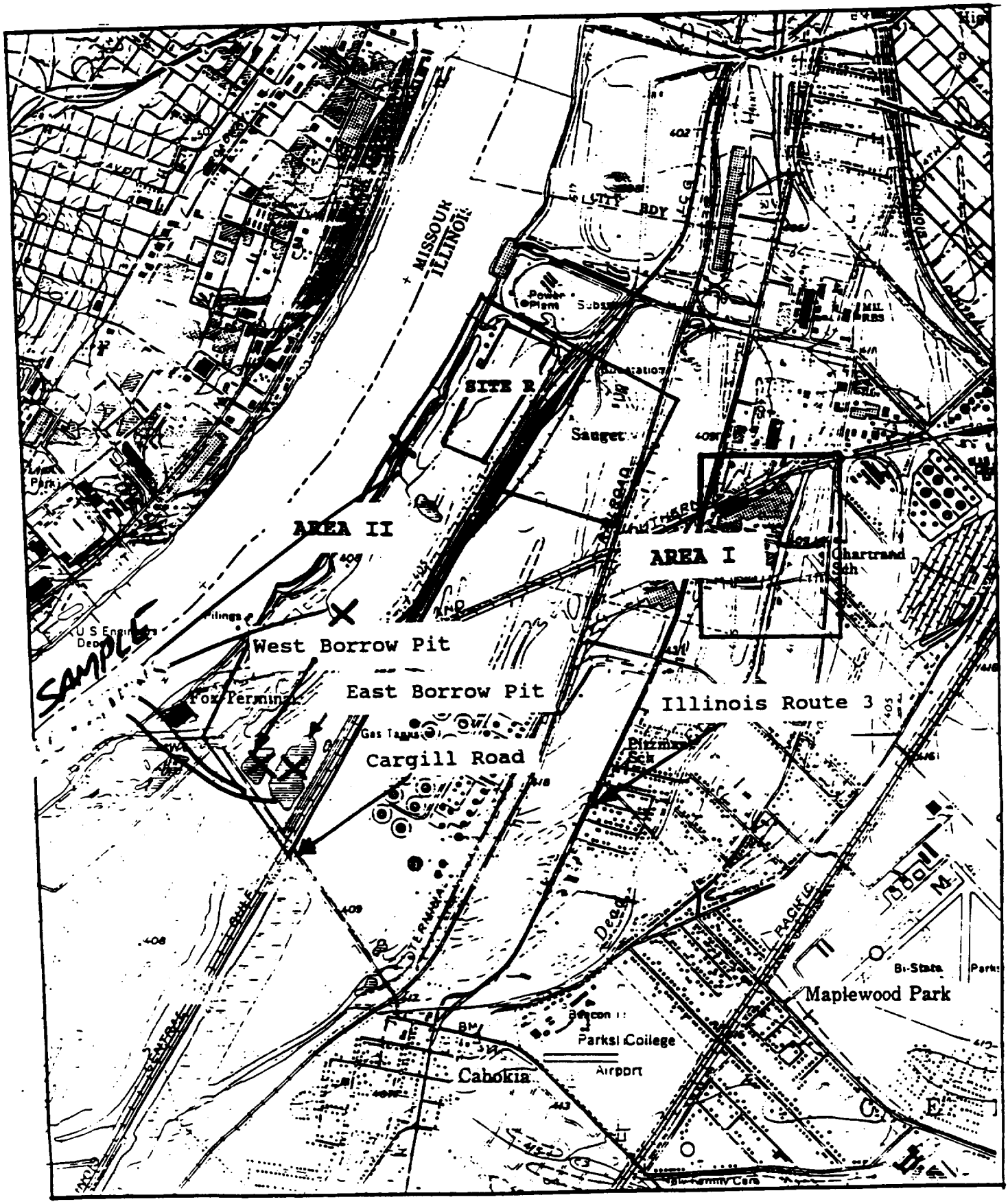
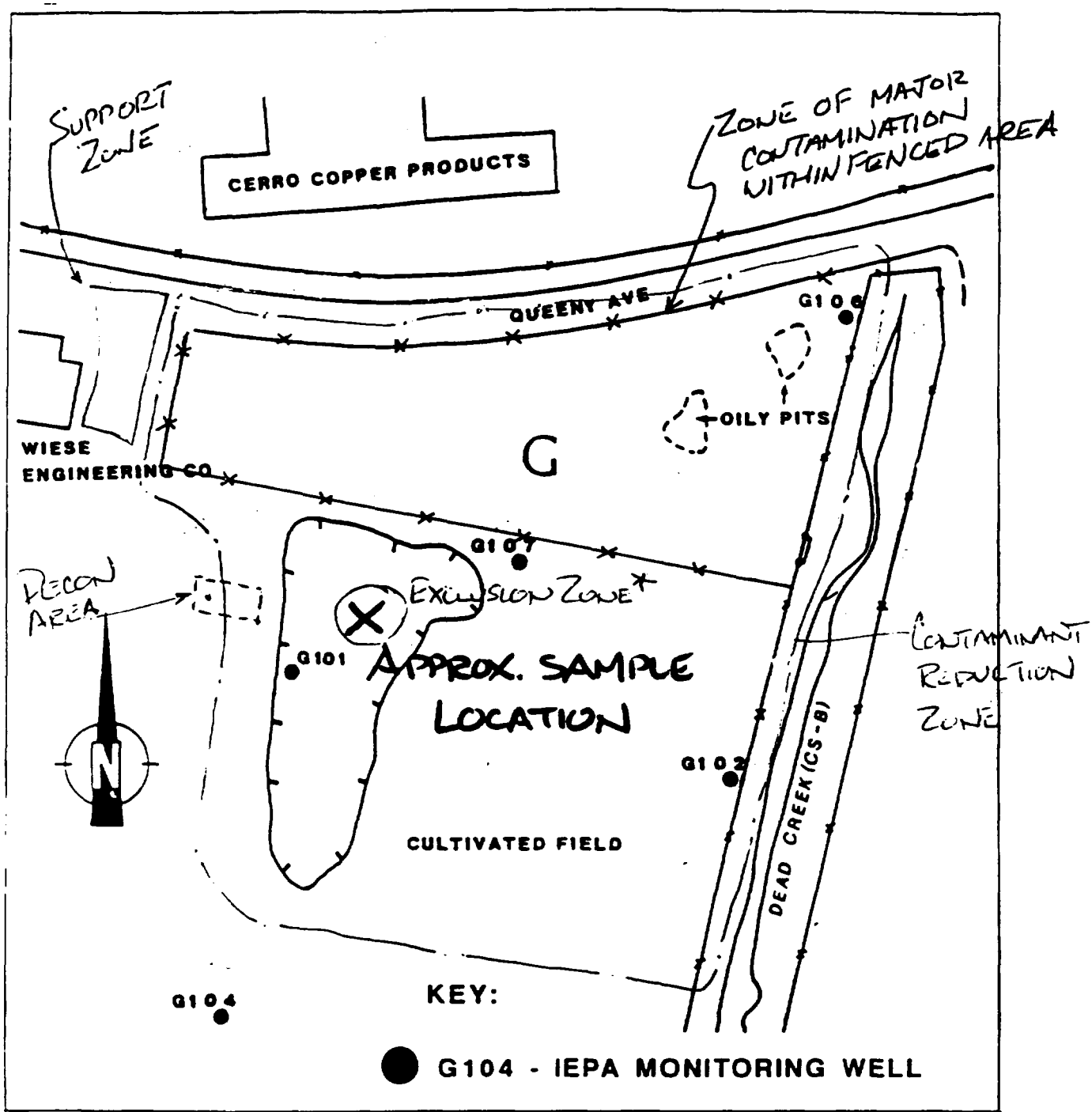
TRAIL
417

SAUGET SITES INVESTIGATIONS





ecology and environment, inc.
Technical Assistance Team
Region V
111 West Jackson Blvd.
Chicago, IL 60604

TITLE: SITE FEATURES MAP	FIGURE #: 2
SITE: SAUGET AREA 1 - SITE G	SCALE: NOT TO SCALE
CITY: SAUGET / STATE: ILLINOIS	PAN: EIL0836SAA

*EXCLUSION ZONE WILL BE A 20' RADIUS AROUND THE SAMPLE POINT

EXCLUSION ZONE:

Exclusion zone will comprise of 20 foot diameter circle around any sample location. Other possibly hazardous areas will be noted on the site map and will be discussed at the pre-entry site meeting.

CONTAMINATION REDUCTION ZONE (DECONTAMINATION):

Site G - the CRZ starts at the treeline. The decon line will exit to the support zone on the near side of the treeline. See attached site map.

Site Q - two separate areas will be set up.

Area 1 - support zone is limited to the abandoned access road. Decon will be done downwind of activity or supply areas.

Area 2 - support zone is located at the top of the river bluff.

SUPPORT ZONE:

Support zone will be marked on the attached site map. All vehicles, supplies, and non-protected personnel will remain in the noted support zones.

SITE COMMUNICATION:

All areas are within sight and audible communication distance.

SECTION [G] DECONTAMINATION PROCEDURES

Decontamination procedures for all phases shall be developed, communicated to employees and implemented before any employee or equipment may enter areas on site where the potential for exposure to hazardous substances exists. These procedures include but are not limited to the following:

1. Standard operating procedures shall be developed to minimize employee contact with hazardous substances or with equipment that has contacted hazardous substances. These SOPs may be incorporated into Section [A] and [C].

2. All employees leaving a contaminated area shall be appropriately decontaminated; all contaminated clothing and equipment leaving a contaminated area shall be appropriately

disposed of or decontaminated. Any PPE utilized will be removed, bagged, and if possible let on site. If this is not possible, the bagged PPE will be brought back to the Agency.

3. When possible use disposable sampling equipment, all other equipment should be wiped off, bagged, and brought back to the agency for further decontamination.

Note: Use private contractor's decontamination facilities if established.

The following example of personal decontamination is based on the exclusive use of disposable boot covers, gloves, and coveralls.

LEVEL C:

Job Tasks: Surface soil sampling

Steps

1. Segregated equipment drop
2. Remove outer booties and outer gloves whichever is the most contaminated remove first
3. Remove coveralls
4. Remove first pair of surgical gloves
5. Remove hard hat
6. Remove respirator
7. Remove second pair pr surgical gloves
8. Replace hard hat and put on eye protection until leaving the site

Personal Decontamination Equipment Necessary for All Levels:

Garbage bags, wet ones, paper towels, visqueen, water pressure sprayer (OPTIONAL).

DISPOSITION OF DECONTAMINATION WASTES

All equipment and solvents used for decontamination shall be decontaminated or disposed of properly. Commercial laundries of cleaning establishments that decontaminate clothing or equipment shall be informed of the potentially harmful effects of exposure.

EQUIPMENT DECONTAMINATION

Reusable, non-disposable equipment (stainless steel spoons, split spoons, measuring tape, etc.) will be decontaminated before removal from the site. The minimum decontamination

procedure for all equipment is as follows:

1. Water rinse;
2. Soap wash (Alconox);
3. Water rinse (distilled water rinse is optional);
4. Air dry;
5. Seal with aluminum foil.

SECTION [H] CONTINGENCY PLAN

Emergency numbers should be kept in-site vehicle.

Nearest Telephone: Support Vehicle

Location: Support vehicle

Number: (618) 973-6129

Medical Emergencies:
Any person that becomes ill or injured in the active area should remove potentially contaminated clothing, if possible prior to transport to a medical facility. If the patient's condition is serious but not a heat stress related illness, at least partial decontamination, should be completed (i.e. complete disrobing of the victim and redressing in clean coveralls or wrapping in a blanket).

Safety Equipment Including First Aid Kit is Located:

Support vehicles and decon area.

For radiation contact:

Illinois Department of Nuclear Safety
Office of Environmental Safety
1-217-785-9889

First Aid Measures:

In the event that personnel exposure symptoms occur the following procedures will be used:

Petroleum Products

Eye Contact: Flush eye immediately with copious amounts of water repeat until irritation is eliminated. If prolonged irritation occurs for more than 15 minutes, seed medical attention.

Skin Contact: Wash exposed area with soap and water. If dermatitis or severe reddening occurs seek medical attention.

Inhalation: Remove person into fresh air, if symptoms occur for than 15 minutes seek medical attention.
Ingestion: Do not induce vomiting, seek immediate medical attention.

Anyone being transported to a medical facility for treatment should take with them information on the health hazards potentially present on site. This information is located in Section [B] of this Site Safety Plan.

Hospital or Nearest Medical Facility:

St. Mary's Hospital of East St. Louis
129 North Eighth Street
East St. Louis, Illinois 62201

Directions to Nearest Medical Facility:
(A map to the nearest Medical Facility is Attached - next page)

Enter onto Route 3 from either Queeny Avenue or access road from Site Q - Proceed north and turn right on Eighth Street to East St. Louis - Hospital is about a half mile away at 8th street and Missouri Avenue on the right side (east).

Emergency Telephone Numbers

Ambulance: 911

Hospital: 911

Fire Department: 911

Police Department: Sauget/Cahokia
Contact: Operator

Air Monitoring for FLAMMABLE CONDITIONS:

In the event that gasoline vapors exceeds 10% of the Lower Explosion Limit (LEL) or strong odors are detected in sewers or residence, the following actions should be taken:

Eliminate all ignition sources, NO SMOKING, cutoff electric switches away from odors. DO NOT allow cars to operate or travel over manholes.

Remove personnel away from odors, structures, or manhole covers.

PAGE 21

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Call- Fire Department: Sauget and Cahokia Fire Departments @ 911
IEPA-ERU
IEMA (Formerly IESDA) 800/782-7860

Provide answering personnel with the call back number(s), locations, directions, and situation assessment.

On the event gasoline vapors are greater than 0% of the LEL but less than 10% LEL in sewers or residences and/or slight to mild gasoline odors are present the following actions should be taken:

Eliminate all ignition sources if safe to do so. NO SMOKING
Call: Sauget and Cahokia Fire Departments @ 911 and (IEPA-ERU for guidance)

Note: Gasoline has an odor threshold ranging from 0.005 ppm to 10 ppm. If the LEL for gasoline is 1.4% 50% LEL} this would amount to around 7000 ppm of potentially hazardous vapors in air.

Fire or Explosion:

In the event of a fire or explosion, the local fire department should be summoned immediately. Upon their arrival the field supervisor will advise the fire commander of the location, nature and identification of the hazardous materials on-site.

If it is safe to do so, employees may:

1. Use fire fighting equipment (fire extinguishers) on site to control or extinguish the fire.

2. Remove or isolate flammable or other hazardous materials which may contribute to the fire.

3. Extinguish other ignitable sources.

Evacuation Routes:

If possible coordinate evacuation protocol with the Contractor on site. If this is not possible, establish evacuation routes for each site. Evacuation should be conducted immediately, without regard for equipment, under conditions of extreme emergency. Personnel should preferably exit through the decontamination station. Personnel should decon if possible.

SECTION [I] CONFINED SPACE ENTRY

Confined space procedures do not apply to this Site.

SECTION [J] SPILL CONTAINMENT PROGRAM
Spill Containment procedures are not applicable to this site.

APPENDIX 1: HAZARD COMMUNICATION

In order to comply with 29 CFR 1910.1200, Hazard Communication, the following written Hazard Communication Program has been established. All employees will be briefed on this program, and have a written copy for review.

A. Container Labeling

All containers received on site will be inspected to ensure the following:

1. All containers will be labeled as to the contents;
2. The appropriate hazard warnings will be noted; and
3. The name and address of the manufacturer will be listed.

All secondary containers will be labeled with either an extra copy of the original manufacturer's label or with generic labels which have a block for identification and blocks for the hazard warning.

B. Material Safety Data Sheets (MSDSs)

Copies of the MSDSs for all hazardous chemicals known or suspected on site will be maintained in the work area. MSDSs will be available to all employees for review during each work shift.

C. Employee Training and Information

Prior to starting work, each employee will attend a health and safety orientation and will receive information and training on the following:

1. An overview of the requirements contained in the Hazard Communication Standard, 29 CFR 1910.1200;
2. Chemicals present in their workplace operations;
3. Location and availability of a written hazard program;
4. Physical and health effects of the hazardous chemicals;
5. Methods and observation techniques used to determine the presence or release of hazardous chemicals;
6. How to lessen or prevent exposure to these hazardous chemicals through usage of control/work practices and personal protective equipment;
7. Emergency procedures to follow if they are exposed to these chemicals;
8. How to read labels and review MSDSs to obtain appropriate hazard information;
9. Location of MSDS appendix; and
10. Location of hazardous chemicals list within the Site Safety Plan.

APPENDIX 2: TEMPERATURE EXTREMES

Each job task noted in this site safety plan needs to be evaluated for potential temperature extremes to be sure that both the selection of personal protective clothing and control measures are appropriate for current site conditions.

GUIDELINES

A. Cold Stress

The following are the primary effects of cold exposure:

1. Frost Nip

Frost nip occurs as a result of surface tissue freezing at the tips of the ears, nose, cheeks, chin, fingers and the toes.

Symptoms: Skin appears to be white and shiny.

Treatment: Warm the affected area(s) with a hand or breath. Do not rub. As the rewarming process takes place, tingling may be felt.

2. Frost Bite

Frost bite occurs as a result of surface and subsurface tissue freezing.

Symptoms: Erythema, blistering, throbbing pain, numbness, swelling and, if untreated, gangrene.

Treatment: Relocate individual to a warm location and steadily rewarm the affected area(s) slowly. Seek medical attention if symptoms persist.

3. Trench Foot

Trench foot occurs as a result of continuous exposure to damp and cold often combined with immersion in water. Areas other than the feet can be affected.

Symptoms: The feet or affected area will be swollen and waxy in appearance. Severe pain followed by blistering and the possibility of gangrene of the skin, muscles and nerves can occur.

Treatment: Relocate individual to a warm location, remove wet clothing and steadily rewarm the affected area(s) slowly. Seek medical attention if symptoms persist.

4. Hypothermia

Hypothermia occurs as a result of severe whole body cooling from prolonged exposure to cold and body heat loss.

- Symptoms: Shivering, slow reactions, mental confusion, glassy facial stare, low body temperature, and slow pulse and respiration. Death can occur within 2 hours if untreated.

Treatment: Relocate individual to a warm location, remove any wet clothing and rewarm as rapidly as possible. Provide both external (i.e. blankets, rescuer's body heat, etc.) and internal (i.e. hot liquids if the victim is conscious) heat. If possible, place individual in a tub of warm water at 105 - 110 degrees F. Seek medical attention.

CONTROL MEASURES

The following control measures are recommended to prevent the potential body core temperature loss of 2 degrees F from normal and/or whenever cold injury to body extremities is likely.

1. Air temperatures and wind speed shall be monitored in order to evaluate the potential of cold stress conditions.

2. Monitoring shall be performed prior to the start of work, during the scheduled breaks, and whenever there is a noticeable change in environmental conditions.

3. The monitoring results shall be compared to the attached windchill index chart.

4. If the equivalent temperature is between 20 and 50 degrees F within the "Little Danger" region of the chart, then a routine of 90 minutes of work followed by a 10 minute warm-up break will be implemented (for properly clothed individuals).

5. If the equivalent temperature is below 20 degrees F and within the "Little Danger" region of the chart, then a routine of 45 minutes of work followed by a 10 minute warm-up break will be implemented (for properly clothed individuals).

6. If the equivalent temperature is within the "Increasing Danger" or "Great Danger" region of the chart, work activities will cease.

The preceding work/warm-up routine must be adjusted by the supervisor, team leader, or head driller if any member of the work party manifests symptoms of cold stress.

EQUIPMENT

The following personal protective equipment is recommended in situations where the potential for cold stress exists:

1. Total body protection shall consist of clothing including an insulated head liner (hand, ear and full face coverage), heavy

socks, insulated long underwear, insulated coveralls and chemical resistant boots with liner.

2. Gloves shall be worn according to temperature and work levels (i.e. 60 F for sedentary work, 40 F for light work, and 20 F for moderate work). Mittens should be worn whenever air temperatures fall below 0 F provided that chemical protection is not an issue.

The following considerations are recommended in situations where the potential for cold stress exists:

1. If the outer layer of protective clothing will likely become wet, then a water repellent suit/coveralls should be worn over the normal protective clothing.

2. Protective clothing that becomes wet from water or sweat should be immediately replaced since the insulating properties will be greatly reduced.

3. The work area should be shielded with vehicles or tarps in order to reduce the wind chill effects.

4. Individuals who have an illness or are taking medication which might interfere with the regulation of normal body temperature should not be allowed to work in temperatures below 20 degrees F.

B. Heat Stress

Heat stress is the exposure to temperatures and humidity which can effect the individual's body core temperature.

The following are the primary effects of heat exposure:

1. Heat Rash

Heat rash occurs as a result to continuous exposure to heat or humid air usually contained with the clothing. This combination causes the sweat ducts to become plugged and inflamed due to the swelling of the keratin layer of the skin.

Symptoms: Skin is covered with visible tiny red vesicles.

Treatment: Dry the affected area(s). A talcum powder may then be used to prevent the return of the symptoms.

2. Heat Cramps

Heat cramps occurs as a result of profuse sweating and inadequate replacement of salt/electrolytes. This loss causes a salt/water

imbalance within the muscle tissue resulting in uncontrolled spasms (cramps).

Symptoms: Spasms (cramps) and pain in the muscles of the abdomen and/or extremities.

Treatment: Increase the individual's oral intake of salt/electrolyte beverages (i.e. 50:50 dilution of Gatorade and water).

3. Heat Exhaustion

Heat exhaustion occurs as a result of sustained exertion in a hot environment with dehydration from insufficient water and/or salt/electrolyte intake. The cardiovascular system is therefore unable to compensate for the insufficiencies and places the individual into a mild shock.

Symptoms: Extreme weakness, dizziness, nausea, headache, body temperature normal or subnormal, and skin is clammy, moist and pale.

Treatment: Relocate individual to a cool environment and administer salt/electrolyte beverages (i.e. 50:50 dilution of Gatorade and water at 50 F if the victim is conscious). Seek medical attention.

4. Heat Stroke

Heat stroke occurs as a result of when the body's heat regulatory process fails, shutting down the sweating process. Deprived of the body's primary cooling mechanism, the body's core temperature rises destroying cells in the central nervous system.

Symptoms: Dizziness, nausea, headache, delirium, collapse, coma, and hot dry skin. If untreated, death can occur.

Treatment: Relocate individual to a cooler location and if possible immerse in chilled water. **SEEK MEDICAL ATTENTION - IMMEDIATELY!!!!**

MONITORING

The following control measures are recommended to prevent the potential body core temperature rise of 2 degrees above the normal and/or whenever heat injury is likely.

1. Heart Rate

Determine the individual's normal heart rate by monitoring the pulse at the beginning of the day's activities. At the beginning

of the first rest period, determine the current heart rate. If the heart rate is greater than 40 beats per minute above normal, then shorten the next work period by 1/3.

If after the next rest period, the heart rate is greater than 40 beats per minute above normal, then shorten the following work period by 1/3.

2. Body Water Loss

The individual may determine body weight on a scale accurate to +/- 0.25 lb at the beginning and end of each work day. Weights should be taken at home and the body weight loss (water loss) should not exceed 1.5 percent total body weight in a work day.

PREVENTION

1. Adjust Work Schedules
Modify work/rest schedules according to the monitoring requirements.

Mandate work slowdowns as needed.

Rotate personnel: alternate job functions to minimize overstress or overexertion at one task.

Perform work during cooler hours of the day if possible or at night if adequate lighting can be provided.

2. Maintain Body Fluids
Maintain drinking water temperature at 50 to 60 F.

Have individuals drink 16 oz of fluid BEFORE beginning work.

A total of 1 to 1.6 gallons of fluid per day is recommended, but more may be necessary to maintain body weight.

3. Provide shelter (air-conditioned automobile or tarps, if possible) or shaded areas to protect personnel during rest periods.

4. Provide cooling devices (Steele Vest) to aid natural body heat exchange during prolonged work or severe heat exposure.

5. Individuals should be trained to recognize and treat heat stress.

RESPONSIBILITIES

A It is the responsibility of the HSU to assist the team leader and/or supervisor in selecting the appropriate temperature

extreme personal protective equipment for site activities as noted in the Site Safety Plan.

B. It is the responsibility of the team leader and/or supervisor to insure that each employee wears the designated temperature extreme personal protective equipment outlined in the Site Safety Plan for each specific site.

C. It is the responsibility of the user to maintain in good order temperature-extreme personal protective equipment assigned to them.

D. It is the responsibility of the central property control officer and the LPC regional property control officer to maintain adequate supplies of temperature extreme equipment.

E. It is the responsibility of the team leader and/or supervisor to insure that any visitors, contractors, or other Agency employees abide by the temperature extremes requirements specified in the Site Safety Plan.

F. With the exception of the regional offices that maintain a limited supply, all temperature extreme personal protective equipment will be stored by the central property control officer at the LPC warehouse. Any employees requiring temperature extreme personal protective equipment will arrange with their respective LPC regional property control officer to obtain these materials from the LPC warehouse.

MATERIAL SAFETY DATA SHEETS

If you want additional information obtain MSDSs for the following contaminants:

1,4-DICHLOROBENZENE CAS number: 106467

AROCLOR 1254 [Chlorodiphenyl 54% Chlorine] CAS number: 11097690

PENTACHLOROPHENOL CAS number: 87865

Contact: IEPA Health and Safety Office: (217) 785-0830

IEPA EMPLOYEE/CONTRACTOR
SITE ACCESS REQUEST AND SAFETY CERTIFICATION FORM

for: (site name) _____

All employees and independent contractors of the Illinois Environmental Protection Agency and employees of designated contractors of the IEPA who request/require access to this site beyond the designated support zone must complete the following form prior to performing any activities on the site beyond the designated support zone.

I, TOM MILLER, am:
(print name)

X an employee of the IEPA

or

___ a contractor

or

___ an employee of a contractor

designated by IEPA to perform work at this site and I certify that:

1.) I am currently qualified, according to 29 CFR 1910.120 (HAZWOPER), to perform my job task(s) at this site.

2.) I have read and understand the site safety plan, including information pertaining to the hazards identified in the site safety plan.

3.) I will abide by the provisions of the site safety plan, and if I am not an employee of the IEPA, I agree to release IEPA from any claims which may arise because of my entry upon this site, except to the extent that the Illinois Response Action Contractor's Indemnification Act may apply.

Tom Miller
Employee/Contractor Signature

11/9/94
Date

IEPA
Organization

2009 MALL Street, Collinsville, IL. 62234
Address/City/State/Zip

(This form must be kept in the project manager's copy of the site safety plan and is considered a permanent document.)

NON-IEPA EMPLOYEE/CONTRACTOR
SITE ACCESS REQUEST AND SAFETY CERTIFICATION FORM

for: (site name)

All personnel not employed by the Illinois Environmental Protection Agency or a designated contractor of the Agency who request access to this site beyond the designated support zone must complete the following form prior to performing any activity on the site beyond the support zone.

I, MONICA REBBE, certify that:
(print name)

1.) X I am currently qualified, according to 29 CFR 1910.120 (HAZWOPER) training, to work at this site. I have been advised by the project manager (or staff) that access beyond the support area is not recommended without proper equipment. I understand the real or possible hazards as stated in the site safety plan and I request access to the site for the following reason(s) and agree to release IEPA from any claims which may arise because of my entrance upon the site:
OVERSITE AND OBSERVATION - JOINT PROJECT, IDPH - employee.

or

2.) ____ I am not currently qualified, according to 29 CFR 1910.120 (HAZWOPER) training, to work at this site. I have been advised by the project manager (or staff) that access beyond the support area is not recommended without proper training and equipment. I understand the real or possible hazards as stated in the site safety plan and I request access to the site for the following reason(s) and agree to release IEPA from any claims which may arise because of my entrance upon the site:
_____.

Monica J. Rebbe — 11-9-94
Signature — Date

Ill. Dept of Public Health
Organization

525 W. Jefferson, Springfield, IL 62761
Address/City/State/Zip

[This form must be kept in the project manager's copy of the site safety plan and is considered a permanent document.]

IEPA EMPLOYEE/CONTRACTOR
SITE ACCESS REQUEST AND SAFETY CERTIFICATION FORM

for: (site name) SAUGET SITES (AREA 1, 2)

All employees and independent contractors of the Illinois Environmental Protection Agency and employees of designated contractors of the IEPA who request/require access to this site beyond the designated support zone must complete the following form prior to performing any activities on the site beyond the designated support zone.

I, PAUL TAKACS, am:
(print name)

X an employee of the IEPA

or

___ a contractor

or

___ an employee of a contractor

designated by IEPA to perform work at this site and I certify that:

1.) I am currently qualified, according to 29 CFR 1910.120 (HAZWOPER), to perform my job task(s) at this site.

2.) I have read and understand the site safety plan, including information pertaining to the hazards identified in the site safety plan.

3.) I will abide by the provisions of the site safety plan, and if I am not an employee of the IEPA, I agree to release IEPA from any claims which may arise because of my entry upon this site, except to the extent that the Illinois Response Action Contractor's Indemnification Act may apply.

Paul S. Takacs
Employee/Contractor Signature

Date 9 Nov 94

IEPA
Organization

2200 CHURCHILL RD
Address/City/State/Zip

(This form must be kept in the project manager's copy of the site safety plan and is considered a permanent document.)

IEPA EMPLOYEE/CONTRACTOR
SITE ACCESS REQUEST AND SAFETY CERTIFICATION FORM

for: (site name) [redacted]

All employees and independent contractors of the Illinois Environmental Protection Agency and employees of designated contractors of the IEPA who request/require access to this site beyond the designated support zone must complete the following form prior to performing any activities on the site beyond the designated support zone.

I, Douglas Hayward, am:
(print name)

X an employee of the IEPA

or

___ a contractor

or

___ an employee of a contractor

designated by IEPA to perform work at this site and I certify that:

1.) I am currently qualified, according to 29 CFR 1910.120 (HAZWOPER), to perform my job task(s) at this site.

2.) I have read and understand the site safety plan, including information pertaining to the hazards identified in the site safety plan.

3.) I will abide by the provisions of the site safety plan, and if I am not an employee of the IEPA, I agree to release IEPA from any claims which may arise because of my entry upon this site, except to the extent that the Illinois Response Action Contractor's Indemnification Act may apply.

Douglas E. Hayward
Employee/Contractor Signature

11/9/94
Date

IEPA
Organization

2009 Mall Collinsville IL 62234
Address/City/State/Zip

(This form must be kept in the project manager's copy of the site safety plan and is considered a permanent document.)

1630200005/ST.Cl
Sauget Sites
S. F. Tech

ARDL Inc.
applied research & development laboratory

CHEMISTRY · BIOLOGY · PHYSIOLOGY
ENGINEERING · ENVIRONMENTAL ANALYSIS

9 December 1994

Mr. Ron Turpin
Division of Laboratories # 4
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

RECEIVED
DEC 12 1994
IEPA/DLPC

SUBJECT: Data Package Submittal
Facility: Sauget SA 1 & 2
ARDL ID No.: 2344
Site Inventory No.: 1630200005
Due Date: 12/12/94

Dear Mr. Turpin:

Enclosed please find ARDL's data package for analyses performed on samples delivered to our laboratory on 11/12/94. The data package consists of the following:

1. Letter of Transmittal
2. Tabulated Analytical Results
3. Chain-of-Custody Documentation
4. Data Package - Paginated and submitted in the following order:

   a. Volume 1 - Inorganic Analysis Data Package
   b. Volume 2 - Organic Sample Data Summary Package
   c. Volume 3 - Volatiles Analysis Data Package
   d. Volume 4 - Semi-Volatiles Analysis Data Package
   e. Volume 5 - Pesticide/PCB Analysis Data Package

I have forwarded one (1) copy of the sample results for this package to Sue Doubet, IEPA.

We appreciate the opportunity to be of service to the IEPA.

Thank you.

Sincerely yours,

D J Gillespie

Daniel J. Gillespie
Technical Services Manager

DJG/jcm

Enclosure

P.O. Box 1566 · Mt. Vernon Airport, Route 15 East · Mt. Vernon, Illinois 62864 · (618) 244-3235 · FAX (618) 244-1149

EPA - CLP
CHAIN OF CUSTODY

Seal # [illegible]

Date Sealed: 11/8/94 By: [illegible]

Facility
Name : SAUGET SITE AREA #1 + #2
Section: COLLINSVILLE
County: ST.CLAIR

Site Inventory # : 1630200005
Site Billing Code: IDPH/MONICA REBBE
Project Manager : PAUL TACKACS

Laboratory	Sample ID	Sample Date	Sample Time
ARDL 2342	X112	11-10-94	10:00AM

Sample Appearance : BLACKISH WASTE MAT'L W/ SOIL CRUMBLY

Collector Comments:

Sampler Signature : Tom Miller Division/Company IEPA/FOS

CONTAINER				ANALYSIS	FILTERED	
No.	Code	Size	Preser		(Y/N)	Date
2	14	2oz	N	VOA	N	
1	19	16ozO	N	BNA,PEST/PCB	N	
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N	
	287		N	SULFIDE,SULFATE	N	

CHAIN OF CUSTODY RECORD

I certify that I received the sample shipping container with the shipping container sealed and [illegible]

Received by: PAUL TAKACS Signature: Paul C. Takacs

11-10-94 7:20AM 9947 G

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time specified.

Sealed by (print): PAUL TAKACS Signature: Paul C. Takacs

11-10-94 Time: 12:57PM 9948

IEPA/ARDL

Courier - Sample Delivery - [illegible]

I certify that I received the sample shipping container from the courier listed above [illegible] that each bottle in the shipping container was intact after recording the sample [illegible] the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): DINA L COCHRUM Signature: [illegible]

Date: 11-10-94 Time: 1700 Seal # 9948

Lab Name: ARDL INC Comments:

CHAIN OF CUSTODY

Date Sealed: 11/8/94 By: [illegible]

Facility
Name : SAUGET SITE AREA #1 + #2
Region: COLLINSVILLE
County: ST.CLAIR

Site Inventory # : 1630200005
Site Billing Code: IDPH/MONICA REDISE
Project manager : PAUL TAKACS

Laboratory #1	Area	Sample date	Time
ARDL 23442	X113	11-10-94	10:15AM

Sample appearance : SIMILAR TO X112

Collector Comments:

Sampler Signature : Tom Miller Division/Company IEPA/FOS

CONTAINER				ANALYSIS	(-)
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA,PEST/PCB	N
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N
	287		N	SULFIDE,SULFATE	N

CHAIN OF CUSTODY CHRONICLE

I certify that I received the sample shipping container with the shipping container sealed and intact.

Received by: PAUL TAKACS Signature: Paul S. Takacs

11-10-94 Time: 7:20AM Seal #: 9947 Intact: O

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Sealed by (print): PAUL TAKACS Signature: Paul S. Takacs

11-10-94 Time: 12:57PM Seal #: 9948

Sealed for: IEPA/ARDL

Courier - Sample Delivery: [illegible]

I certify that I received the sample shipping container from the courier listed above with the shipping container sealed and intact. I certify that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample was in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): Donna Cockrell Signature: [illegible]

Date: 11/10/94 Time: 1700 Seal #: 9948 Intact: O

Lab Name: ARDL, Inc. Comments:

CHAIN - CUP
CHAIN OF CUSTODY

Date Sealed: 11/8/94 By: [illegible]

Facility
Name : SAUGET SITE AREA #1 + #2
Region: COLLINSVILLE
County: ST.CLAIR

Site Inventory # : 1630200005
Site Billing Code: IDPH/MONICA REBBE
Project Manager : PAUL TARACS

Laboratory #		Sample Date	Time
ARDL 23443	X114	11-10-94	11:15 a.m.

Sample Appearance: Brown - waste material

Collector Comments:

Sampler Signature: Tom Miller Division/Company: IEPA/FOS

CONTAINER				ANALYSIS	Chain of Custody
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA, PEST/PCB	N
1	286	16ozI	N	TOTAL METALS, CYANIDE,	N
	287		N	SULFIDE, SULFATE	N

CHAIN OF CUSTODY CONTROLLER

I certify that I received the sample shipping container with the shipping container sealed and intact.

Name: PAUL TARACS Signature: Paul E. Taracs

11-10-94 7:43AM 9945 0

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Name (print): Monica Rebbe Signature: Monica Rebbe

Date: 11-10-94 Time: 12:55 p.m. Seal #: 9946

Agency: IEPA \ ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact, that each bottle in the shipping container was intact. After recording the sample in the office log book, the sample will be in the custody of competent laboratory personnel at all times, or locked in a secured area.

Opened by (print): Donna Cochran Signature: [illegible]

Date: 11/10/94 Time: 1700 Seal #: 9946 Intact: (Y) N

Lab Name: ARDL INC Comments:

HAIN OF CUSTODY

Date Sealed: 11/8/94 BY: PLM

acility
ame : SAUGET SITE AREA #1 + #2
egion: COLLINSVILLE
ounty: ST.CLAIR

Site Inventory # : 1630200005
Site Billing Code: IDPH/MONICA REBBE
Project Manager : PAUL TAKACS

Laboratory #	Sample	Sample Date	Sample Time
ARDL 1344-4	X115	11-10-94	11:30 a.m.

ample Appearance : Brown - waste material

ollector Comments:

ampler Signature : Tom Miller Division/Company IEPA/FOS

CONTAINER				ANALYSIS	
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA, PEST/PCB	N
1	286	16ozI	N	TOTAL METALS, CYANIDE,	N
	287		N	SULFIDE, SULFATE	N

HAIN OF CUSTODY CHRONICLE

ertify that I received the sample shipping container with the shipping container sealed and intact

Print: PAUL TAKACS Signature: Paul Takacs

11-10-94 Time: 7:43AM Seal #: 9945

ertify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the ample shipping container and that I sealed the sample shipping container at the date and time listed below.

Print: Monica Rebbe Signature: Monica Rebbe

Date: 11-10-94 Time: 12:55 p.m. Seal #: 9946

Agency: IEPA\ ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above, with the shipping container sealed and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): Donna Cochrum Signature: Donna Cochrum

Date: 11-10-94 Time: 1700 Seal #: 9946 Intact (Y) N

Lab Name: ARDL, INC. Comments:

HAIN OF CUSTODY

Date Sealed: 11/8/94 By: [illegible]

acility
ame : SAUGET SITE AREA #1 + #2
egion: COLLINSVILLE
ounty: ST CLAIR

Site Inventory # : 1630200205
Site Billing Code: IDPH MONICA REBBE
Project Manager : PAUL TAKACS

Laboratory #	Sample #	Sample Date	Sample Time
ARDL 13445	X116	11-10-94	11:40AM

ample Appearance : YELLOWISH-BROWN WASTE MAT'L. ODOR

ollector Comments:

ampler Signature: Tom Miller Division/Company: IEPA/FOS

CONTAINER				ANALYSIS	
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA, PEST/PCB	N
1	286	16ozI	N	TOTAL METALS, CYANIDE,	N
	287		N	SULFIDE, SULFATE	N

CHAIN OF CUSTODY RECORD

ertify that I received the sample shipping container with the shipping container sealed

Name: PAUL TAKACS Signature: Paul Takacs

11-10-94 Time: 8:00AM Seal #: 9943 Intact: Y

ertify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the bottle shipping container and that I sealed the sample shipping container at the date and time listed below.

Name (Print): PAUL TAKACS Signature: Paul Takacs

11-10-94 Time: 1:05PM Seal #: 9944

Company Name: IEPA/ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact. I further certify that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be kept in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): David Cockrum Signature: [illegible]

Date: 11/10/94 Time: 1700 Seal #: 9944 Intact: Y N

Lab Name: ARDL INC Comments:

EPA SAMPLE NO.

X112

INORGANIC ANALYSIS DATA SHEET

Lab Name: ARDL, INC. Contract No.: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water): SOIL Lab Sample ID: 2344-1

Level (low/med): LOW Date Received: 11/12/94

% Solids: 82.8

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1470			P
7440-36-0	Antimony	4.8	U	N	P
7440-38-2	Arsenic	6.4		S	F
7440-39-3	Barium	47.8	B		P
7440-41-7	Beryllium	0.24	U		P
7440-43-9	Cadmium	56.2			P
7440-70-2	Calcium	8680			P
7440-47-3	Chromium	4.5			P
7440-48-4	Cobalt	3.6	B		P
7440-50-8	Copper	20.1			P
7439-89-6	Iron	11000			P
7439-92-1	Lead	16.7			F
7439-95-4	Magnesium	2020			P
7439-96-5	Manganese	280			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	8.4	B		P
7440-09-7	Potassium	292	B		P
7782-49-2	Selenium	0.24	U	N W	F
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	217	U		P
7440-28-0	Thallium	0.24	U		F
7440-62-2	Vanadium	4.7	B		P
7440-66-6	Zinc	10300			P
	Cyanide	0.60	U		C

Color Before BRN/RED/BLK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: ROCKS

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X112

Lab Name: ARDL, INC. Contract: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water): SOIL Lab Sample ID: 2344-1

Level (low/med): LOW Date Received: 11/12/94

% Solids: 82.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	279			
	Sulfide	91.7			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

EPA SAMPLE NO.

X113

INORGANIC ANALYSIS DATA SHEET

Lab Name: ARDL, INC. Contract No.: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water) SOIL Lab Sample ID: 2344-2

Level (low/med): LOW Date Received: 11/12/94

% Solids: 77.4

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3350			P
7440-36-0	Antimony	5.2	U	N	P
7440-38-2	Arsenic	3.6		S	F
7440-39-3	Barium	106			P
7440-41-7	Beryllium	0.28	B		P
7440-43-9	Cadmium	0.78	U		P
7440-70-2	Calcium	12400			P
7440-47-3	Chromium	6.4			P
7440-48-4	Cobalt	5.0	B		P
7440-50-8	Copper	6.3	B		P
7439-89-6	Iron	8260			P
7439-92-1	Lead	6.8			F
7439-95-4	Magnesium	4710			P
7439-96-5	Manganese	147			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	12.9			P
7440-09-7	Potassium	923	B		P
7782-49-2	Selenium	0.26	U	N W	F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	233	U		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	9.8	B		P
7440-66-6	Zinc	43.3			P
	Cyanide	0.64	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: ROOTS/LEAVES/PEBBLES

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC. Contract: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water): SOIL Lab Sample ID: 2344-2

Level (low/med): LOW Date Received: 11/12/94

% Solids: 77.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	61.3			
	Sulfide	25.8	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

EPA SAMPLE NO.

X114

INORGANIC ANALYSIS DATA SHEET

Lab Name: ARDL, INC. Contract No.: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water) SOIL Lab Sample ID: 2344-3

Level (low/med): LOW Date Received: 11/12/94

% Solids: 75.3

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100			P
7440-36-0	Antimony	5.3	U	N	P
7440-38-2	Arsenic	7.3		S	F
7440-39-3	Barium	219			P
7440-41-7	Beryllium	0.90	B		P
7440-43-9	Cadmium	5.8			P
7440-70-2	Calcium	5760			P
7440-47-3	Chromium	16.2			P
7440-48-4	Cobalt	11.4	B		P
7440-50-8	Copper	675			P
7439-89-6	Iron	21200			P
7439-92-1	Lead	172			F
7439-95-4	Magnesium	3550			P
7439-96-5	Manganese	419			P
7439-97-6	Mercury	0.21			CV
7440-02-0	Nickel	32.7			P
7440-09-7	Potassium	2400			P
7782-49-2	Selenium	0.27	U	N W	F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	239	U		P
7440-28-0	Thallium	0.27	U		F
7440-62-2	Vanadium	23.3			P
7440-66-6	Zinc	612			P
	Cyanide	0.63	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: ROOTS/STEMS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC. Contract: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water): SOIL Lab Sample ID: 2344-3

Level (low/med): LOW Date Received: 11/12/94

% Solids: 75.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	127			
	Sulfide	26.2	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

EPA SAMPLE NO.

X115

INORGANIC ANALYSIS DATA SHEET

Lab Name: ARDL, INC. Contract No.: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water) SOIL Lab Sample ID: 2344-4

Level (low/med): LOW Date Received: 11/12/94

% Solids: 63.9

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9680			P
7440-36-0	Antimony	6.3	U	N	P
7440-38-2	Arsenic	11.7	B	S	F
7440-39-3	Barium	209			P
7440-41-7	Beryllium	0.94	B		P
7440-43-9	Cadmium	4.4			P
7440-70-2	Calcium	5950			P
7440-47-3	Chromium	16.8			P
7440-48-4	Cobalt	35.3			P
7440-50-8	Copper	1150			P
7439-89-6	Iron	26800			P
7439-92-1	Lead	0.31	U		F
7439-95-4	Magnesium	3220			P
7439-96-5	Manganese	268			P
7439-97-6	Mercury	0.41			CV
7440-02-0	Nickel	38.5			P
7440-09-7	Potassium	2230			P
7782-49-2	Selenium	0.31	U	N W	F
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	282	U		P
7440-28-0	Thallium	0.31	U		F
7440-62-2	Vanadium	22.7			P
7440-66-6	Zinc	864			P
	Cyanide	0.78	U		C

Color Before: BROWN/BLA Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: LEAVES/ROOTS/STEMS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC. Contract: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water): SOIL Lab Sample ID: 2344-4

Level (low/med): LOW Date Received: 11/12/94

% Solids: 63.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	4430			
	Sulfide	31.3	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

EPA SAMPLE NO.

X116

INORGANIC ANALYSIS DATA SHEET

Lab Name: ARDL, INC. Contract No.: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water) SOIL Lab Sample ID: 2344-5

Level (low/med): LOW Date Received: 11/12/94

% Solids: 63.2

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1720			P
7440-36-0	Antimony	6.3	U	N	P
7440-38-2	Arsenic	47.9	B	+	F
7440-39-3	Barium	414			P
7440-41-7	Beryllium	0.38	B		P
7440-43-9	Cadmium	6.2			P
7440-70-2	Calcium	7280			P
7440-47-3	Chromium	19.3			P
7440-48-4	Cobalt	12.7	B		P
7440-50-8	Copper	515			P
7439-89-6	Iron	5690			P
7439-92-1	Lead	0.32	U		F
7439-95-4	Magnesium	471	B		P
7439-96-5	Manganese	43.4			P
7439-97-6	Mercury	4.7			CV
7440-02-0	Nickel	15.3			P
7440-09-7	Potassium	316	U		P
7782-49-2	Selenium	1.6	U	N E	F
7440-22-4	Silver	2.6	B		P
7440-23-5	Sodium	322	B		P
7440-28-0	Thallium	0.32	U		F
7440-62-2	Vanadium	18.7			P
7440-66-6	Zinc	38200			P
	Cyanide	0.77	U		C

Color Before: BROWN/BLA Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: ROCKS

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC. Contract: 2344

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X112

Matrix (soil/water): SOIL Lab Sample ID: 2344-5

Level (low/med): LOW Date Received: 11/12/94

% Solids: 63.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	63.3	U		
	Sulfide	503			

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

VOLATILE ORGANICS ANALYSIS DATA SHEET

X112

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8108

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 17 Date Analyzed: 11/15/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	61.	
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	12.	U
75-35-4	1,1-Dichloroethene	12.	U
75-34-3	1,1-Dichloroethane	12.	U
540-59-0	1,2-Dichloroethene (total)	12.	U
67-66-3	Chloroform	12.	U
107-06-2	1,2-Dichloroethane	12.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	12.	U
56-23-5	Carbon Tetrachloride	12.	U
75-27-4	Bromodichloromethane	12.	U
78-87-5	1,2-Dichloropropane	12.	U
10061-01-5	cis-1,3-Dichloropropene	12.	U
79-01-6	Trichloroethene	12.	U
124-48-1	Dibromochloromethane	12.	U
79-00-5	1,1,2-Trichloroethane	12.	U
71-43-2	Benzene	12.	U
10061-02-6	trans-1,3-Dichloropropene	12.	U
75-25-2	Bromoform	12.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	12.	U
79-34-5	1,1,2,2-Tetrachloroethane	12.	U
108-88-3	Toluene	12.	U
108-90-7	Chlorobenzene	12.	U
100-41-4	Ethylbenzene	12.	U
100-42-5	Styrene	12.	U
1330-20-7	Xylene (total)	12.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X112

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8108

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 17 Date Analyzed: 11/15/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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29.					
30.					

VOLATILE ORGANICS ANALYSIS DATA SHEET

X113

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8109

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 23 Date Analyzed: 11/15/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	28.	
67-64-1	Acetone	33.	
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene (total)	13.	U
67-66-3	Chloroform	13.	U
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	13.	U
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	13.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X113

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8109

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 23 Date Analyzed: 11/15/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	4.41	7.	J B
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

X114

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8110

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 25 Date Analyzed: 11/15/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	49.	
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene (total)	13.	U
67-66-3	Chloroform	13.	U
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	13.	U
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	13.	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X114

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8110

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 25 Date Analyzed: 11/15/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	10.64	10.	J
2.		UNKNOWN	26.17	8.	J
3.					
4.					
5.					
6.					
7.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

X115

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8121

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 36 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16.	U
74-83-9	Bromomethane	16.	U
75-01-4	Vinyl Chloride	16.	U
75-00-3	Chloroethane	16.	U
75-09-2	Methylene Chloride	28.	
67-64-1	Acetone	16.	U
75-15-0	Carbon Disulfide	16.	U
75-35-4	1,1-Dichloroethene	16.	U
75-34-3	1,1-Dichloroethane	16.	U
540-59-0	1,2-Dichloroethene (total)	16.	U
67-66-3	Chloroform	16.	U
107-06-2	1,2-Dichloroethane	16.	U
78-93-3	2-Butanone	16.	U
71-55-6	1,1,1-Trichloroethane	16.	U
56-23-5	Carbon Tetrachloride	16.	U
75-27-4	Bromodichloromethane	16.	U
78-87-5	1,2-Dichloropropane	16.	U
10061-01-5	cis-1,3-Dichloropropene	16.	U
79-01-6	Trichloroethene	16.	U
124-48-1	Dibromochloromethane	16.	U
79-00-5	1,1,2-Trichloroethane	16.	U
71-43-2	Benzene	16.	U
10061-02-6	trans-1,3-Dichloropropene	16.	U
75-25-2	Bromoform	16.	U
108-10-1	4-Methyl-2-Pentanone	16.	U
591-78-6	2-Hexanone	16.	U
127-18-4	Tetrachloroethene	16.	U
79-34-5	1,1,2,2-Tetrachloroethane	16.	U
108-88-3	Toluene	16.	U
108-90-7	Chlorobenzene	16.	U
100-41-4	Ethylbenzene	16.	U
100-42-5	Styrene	16.	U
1330-20-7	Xylene (total)	16.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X115

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8121

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 36 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	2.80	20.	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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30.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

X116

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-5

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8112

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 37 Date Analyzed: 11/15/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16.	U
74-83-9	Bromomethane	16.	U
75-01-4	Vinyl Chloride	16.	U
75-00-3	Chloroethane	16.	U
75-09-2	Methylene Chloride	630.	E
67-64-1	Acetone	16.	U
75-15-0	Carbon Disulfide	16.	U
75-35-4	1,1-Dichloroethene	16.	U
75-34-3	1,1-Dichloroethane	16.	U
540-59-0	1,2-Dichloroethene (total)	16.	U
67-66-3	Chloroform	16.	U
107-06-2	1,2-Dichloroethane	16.	U
78-93-3	2-Butanone	16.	U
71-55-6	1,1,1-Trichloroethane	16.	U
56-23-5	Carbon Tetrachloride	16.	U
75-27-4	Bromodichloromethane	16.	U
78-87-5	1,2-Dichloropropane	16.	U
10061-01-5	cis-1,3-Dichloropropene	16.	U
79-01-6	Trichloroethene	16.	U
124-48-1	Dibromochloromethane	16.	U
79-00-5	1,1,2-Trichloroethane	16.	U
71-43-2	Benzene	16.	U
10061-02-6	trans-1,3-Dichloropropene	16.	U
75-25-2	Bromoform	16.	U
108-10-1	4-Methyl-2-Pentanone	16.	U
591-78-6	2-Hexanone	16.	U
127-18-4	Tetrachloroethene	16.	U
79-34-5	1,1,2,2-Tetrachloroethane	16.	U
108-88-3	Toluene	16.	U
108-90-7	Chlorobenzene	16.	U
100-41-4	Ethylbenzene	16.	U
100-42-5	Styrene	16.	U
1330-20-7	Xylene (total)	16.	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X116

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-5

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8112

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 37 Date Analyzed: 11/15/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	9.83	9.	J
2.	UNKNOWN	13.07	10.	J
3.	UNKNOWN	20.48	50.	J
4.	UNKNOWN	27.83	10.	J
5.	UNKNOWN	31.26	40.	J
6.	UNKNOWN	31.58	40.	J
7.	UNKNOWN	34.36	10.	J
8.				
9.				
10.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET

X116RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-5RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8122

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 37 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16.	U
74-83-9	Bromomethane	16.	U
75-01-4	Vinyl Chloride	16.	U
75-00-3	Chloroethane	16.	U
75-09-2	Methylene Chloride	270.	
67-64-1	Acetone	56.	
75-15-0	Carbon Disulfide	16.	U
75-35-4	1,1-Dichloroethene	16.	U
75-34-3	1,1-Dichloroethane	16.	U
540-59-0	1,2-Dichloroethene (total)	16.	U
67-66-3	Chloroform	16.	U
107-06-2	1,2-Dichloroethane	16.	U
78-93-3	2-Butanone	16.	U
71-55-6	1,1,1-Trichloroethane	16.	U
56-23-5	Carbon Tetrachloride	16.	U
75-27-4	Bromodichloromethane	16.	U
78-87-5	1,2-Dichloropropane	16.	U
10061-01-5	cis-1,3-Dichloropropene	16.	U
79-01-6	Trichloroethene	16.	U
124-48-1	Dibromochloromethane	16.	U
79-00-5	1,1,2-Trichloroethane	16.	U
71-43-2	Benzene	16.	U
10061-02-6	trans-1,3-Dichloropropene	16.	U
75-25-2	Bromoform	16.	U
108-10-1	4-Methyl-2-Pentanone	16.	U
591-78-6	2-Hexanone	16.	U
127-18-4	Tetrachloroethene	16.	U
79-34-5	1,1,2,2-Tetrachloroethane	16.	U
108-88-3	Toluene	16.	U
108-90-7	Chlorobenzene	16.	U
100-41-4	Ethylbenzene	16.	U
100-42-5	Styrene	16.	U
1330-20-7	Xylene (total)	16.	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X116RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-5RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >J8122

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 37 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.54	8.	J
2.	UNKNOWN	13.59	10.	J
3.	UNKNOWN	20.53	30.	J
4.	UNKNOWN	29.39	10.	J
5.	UNKNOWN	29.67	10.	J
6.	UNKNOWN	31.27	20.	J
7.	UNKNOWN	32.09	20.	J
8.	UNKNOWN	34.01	30.	J
9.	UNKNOWN	34.47	9.	J
10.				
11.				
12.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

X112RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-1RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7298

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 17 decanted: (Y/N) N Date Extracted: 12/01/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400.	U
111-44-4	bis(2-Chloroethyl)ether	400.	U
95-57-8	2-Chlorophenol	400.	U
541-73-1	1,3-Dichlorobenzene	400.	U
106-46-7	1,4-Dichlorobenzene	400.	U
95-50-1	1,2-Dichlorobenzene	400.	U
95-48-7	2-Methylphenol	400.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400.	U
106-44-5	4-Methylphenol	400.	U
621-64-7	N-Nitroso-Di-n-propylamine	400.	U
67-72-1	Hexachloroethane	400.	U
98-95-3	Nitrobenzene	400.	U
78-59-1	Isophorone	400.	U
88-75-5	2-Nitrophenol	400.	U
105-67-9	2,4-Dimethylphenol	400.	U
111-91-1	bis(2-Chloroethoxy)methane	400.	U
120-83-2	2,4-Dichlorophenol	400.	U
120-82-1	1,2,4-Trichlorobenzene	400.	U
91-20-3	Naphthalene	810.	
106-47-8	4-Chloroaniline	400.	U
87-68-3	Hexachlorobutadiene	400.	U
59-50-7	4-Chloro-3-methylphenol	400.	U
91-57-6	2-Methylnaphthalene	300.	J
77-47-4	Hexachlorocyclopentadiene	400.	U
88-06-2	2,4,6-Trichlorophenol	400.	U
95-95-4	2,4,5-Trichlorophenol	960.	U
91-58-7	2-Chloronaphthalene	400.	U
88-74-4	2-Nitroaniline	960.	U
131-11-3	Dimethylphthalate	400.	U
208-96-8	Acenaphthylene	42.	J
606-20-2	2,6-Dinitrotoluene	400.	U
99-09-2	3-Nitroaniline	960.	U
83-32-9	Acenaphthene	2200.	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X112RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-1RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7298

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 17 decanted: (Y/N) N Date Extracted: 12/01/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	960.	U
100-02-7	4-Nitrophenol	960.	U
132-64-9	Dibenzofuran	1600.	
121-14-2	2,4-Dinitrotoluene	400.	U
84-66-2	Diethylphthalate	400.	U
7005-72-3	4-Chlorophenyl-phenylether	400.	U
86-73-7	Fluorene	2500.	
100-01-6	4-Nitroaniline	960.	U
534-52-1	4,6-Dinitro-2-methylphenol	960.	U
86-30-6	N-Nitrosodiphenylamine (1)	400.	U
101-55-3	4-Bromophenyl-phenylether	400.	U
118-74-1	Hexachlorobenzene	400.	U
87-86-5	Pentachlorophenol	960.	U
85-01-8	Phenanthrene	22000.	E
120-12-7	Anthracene	4600.	E
86-74-8	Carbazole	1600.	
84-74-2	Di-n-butylphthalate	400.	U
206-44-0	Fluoranthene	20000.	E
129-00-0	Pyrene	15000.	E
85-68-7	Butylbenzylphthalate	400.	U
91-94-1	3,3'-Dichlorobenzidine	400.	U
56-55-3	Benzo(a)anthracene	5200.	E
218-01-9	Chrysene	4600.	E
117-81-7	bis(2-Ethylhexyl)phthalate	400.	U
117-84-0	Di-n-octylphthalate	400.	U
205-99-2	Benzo(b)fluoranthene	5500.	E
207-08-9	Benzo(k)fluoranthene	1700.	
50-32-8	Benzo(a)pyrene	3700.	E
193-39-5	Indeno(1,2,3-cd)pyrene	2100.	
53-70-3	Dibenz(a,h)anthracene	790.	
191-24-2	Benzo(g,h,i)perylene	1500.	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X112RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-1RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7298

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 17 decanted:(Y/N) N Date Extracted: 12/01/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.8

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN PAH	21.91	400.	J
2.	UNKNOWN	22.14	900.	J
3.	UNKNOWN	22.63	500.	J
4.	UNKNOWN	23.99	900.	J
5. 243425	BENZO[B]NAPHTHO[2,3-D]FURAN	24.51	400.	JN
6.	UNKNOWN PAH	25.08	1000.	J
7.	UNKNOWN	26.40	4000.	J B
8.	BENZO[B]NAPHTHO-THIOPHENE	26.60	400.	J
9.	UNKNOWN	26.71	800.	J
10.	UNKNOWN	26.79	300.	J
11.	UNKNOWN	27.55	900.	J
12.	UNKNOWN	27.78	400.	J
13.	UNKNOWN	27.91	400.	J
14. 2498773	BENZ[A]ANTHRACENE, 1-METHYL-	28.26	300.	JN
15.	UNKNOWN	28.49	300.	J
16.	UNKNOWN PAH	30.03	500.	J
17.	UNKNOWN PAH	30.41	3000.	J
18.	UNKNOWN	31.61	300.	J
19.	UNKNOWN	32.91	300.	J
20.	UNKNOWN PAH	34.30	400.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X112REDL

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-1REDL

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7300

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 17 decanted: (Y/N) N Date Extracted: 12/01/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 5.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	4000.	U D
111-44-4	bis(2-Chloroethyl)ether	4000.	U D
95-57-8	2-Chlorophenol	4000.	U D
541-73-1	1,3-Dichlorobenzene	4000.	U D
106-46-7	1,4-Dichlorobenzene	4000.	U D
95-50-1	1,2-Dichlorobenzene	4000.	U D
95-48-7	2-Methylphenol	4000.	U D
108-60-1	2,2'-oxybis(1-Chloropropane)	4000.	U D
106-44-5	4-Methylphenol	4000.	U D
621-64-7	N-Nitroso-Di-n-propylamine	4000.	U D
67-72-1	Hexachloroethane	4000.	U D
98-95-3	Nitrobenzene	4000.	U D
78-59-1	Isophorone	4000.	U D
88-75-5	2-Nitrophenol	4000.	U D
105-67-9	2,4-Dimethylphenol	4000.	U D
111-91-1	bis(2-Chloroethoxy)methane	4000.	U D
120-83-2	2,4-Dichlorophenol	4000.	U D
120-82-1	1,2,4-Trichlorobenzene	4000.	U D
91-20-3	Naphthalene	670.	J D
106-47-8	4-Chloroaniline	4000.	U D
87-68-3	Hexachlorobutadiene	4000.	U D
59-50-7	4-Chloro-3-methylphenol	4000.	U D
91-57-6	2-Methylnaphthalene	180.	J D
77-47-4	Hexachlorocyclopentadiene	4000.	U D
88-06-2	2,4,6-Trichlorophenol	4000.	U D
95-95-4	2,4,5-Trichlorophenol	9600.	U D
91-58-7	2-Chloronaphthalene	4000.	U D
88-74-4	2-Nitroaniline	9600.	U D
131-11-3	Dimethylphthalate	4000.	U D
208-96-8	Acenaphthylene	4000.	U D
606-20-2	2,6-Dinitrotoluene	4000.	U D
99-09-2	3-Nitroaniline	9600.	U D
83-32-9	Acenaphthene	1800.	J D

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X112REDL

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-1REDL

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7300

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 17 decanted: (Y/N) N Date Extracted: 12/01/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 5.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	9600.	U D
100-02-7	4-Nitrophenol	9600.	U D
132-64-9	Dibenzofuran	1200.	J D
121-14-2	2,4-Dinitrotoluene	4000.	U D
84-66-2	Diethylphthalate	4000.	U D
7005-72-3	4-Chlorophenyl-phenylether	4000.	U D
86-73-7	Fluorene	2100.	J D
100-01-6	4-Nitroaniline	9600.	U D
534-52-1	4,6-Dinitro-2-methylphenol	9600.	U D
86-30-6	N-Nitrosodiphenylamine (1)	4000.	U D
101-55-3	4-Bromophenyl-phenylether	4000.	U D
118-74-1	Hexachlorobenzene	4000.	U D
87-86-5	Pentachlorophenol	9600.	U D
85-01-8	Phenanthrene	15000.	D
120-12-7	Anthracene	3900.	J D
86-74-8	Carbazole	1400.	J D
84-74-2	Di-n-butylphthalate	4000.	U D
206-44-0	Fluoranthene	14000.	D
129-00-0	Pyrene	12000.	D
85-68-7	Butylbenzylphthalate	4000.	U D
91-94-1	3,3'-Dichlorobenzidine	4000.	U D
56-55-3	Benzo(a)anthracene	4300.	D
218-01-9	Chrysene	4300.	D
117-81-7	bis(2-Ethylhexyl)phthalate	4000.	U D
117-84-0	Di-n-octylphthalate	4000.	U D
205-99-2	Benzo(b)fluoranthene	2900.	J D
207-08-9	Benzo(k)fluoranthene	2500.	J D
50-32-8	Benzo(a)pyrene	3100.	J D
193-39-5	Indeno(1,2,3-cd)pyrene	2400.	J D
53-70-3	Dibenz(a,h)anthracene	330.	J D
191-24-2	Benzo(g,h,i)perylene	1800.	J D

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X112REDL

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-1REDL

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7300

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 17 decanted:(Y/N) N Date Extracted: 12/01/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 5.8

Number TICs found: 12 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	20.27	800.	J D
2.	UNKNOWN PAH	21.89	900.	J D
3.	UNKNOWN	22.08	2000.	J D
4.	UNKNOWN PAH	25.02	2000.	J D
5.	UNKNOWN PAH	25.18	2000.	J D
6.	UNKNOWN	26.35	8000.	J BD
7.	UNKNOWN	26.67	1000.	J D
8.	UNKNOWN	27.46	2000.	J D
9.	UNKNOWN	28.55	800.	J D
10.	UNKNOWN PAH	29.96	1000.	J D
11.	UNKNOWN	30.16	3000.	J D
12.	UNKNOWN PAH	30.33	2000.	J D
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X113RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-2RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7299

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 23 decanted: (Y/N) N Date Extracted: 12/01/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	430.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430.	U
106-44-5	4-Methylphenol	430.	U
621-64-7	N-Nitroso-Di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	430.	U
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	430.	U
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	240.	J
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	70.	J
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	430.	U
606-20-2	2,6-Dinitrotoluene	430.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	340.	J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X113RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-2RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7299

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 23 decanted: (Y/N) N Date Extracted: 12/01/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	220.	J
121-14-2	2,4-Dinitrotoluene	430.	U
84-66-2	Diethylphthalate	430.	U
7005-72-3	4-Chlorophenyl-phenylether	430.	U
86-73-7	Fluorene	230.	J
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	430.	U
101-55-3	4-Bromophenyl-phenylether	430.	U
118-74-1	Hexachlorobenzene	430.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	1100.	
120-12-7	Anthracene	250.	J
86-74-8	Carbazole	150.	J
84-74-2	Di-n-butylphthalate	72.	J
206-44-0	Fluoranthene	740.	
129-00-0	Pyrene	700.	
85-68-7	Butylbenzylphthalate	430.	U
91-94-1	3,3'-Dichlorobenzidine	430.	U
56-55-3	Benzo(a)anthracene	230.	J
218-01-9	Chrysene	240.	J
117-81-7	bis(2-Ethylhexyl)phthalate	28.	JB
117-84-0	Di-n-octylphthalate	430.	U
205-99-2	Benzo(b)fluoranthene	160.	J
207-08-9	Benzo(k)fluoranthene	160.	J
50-32-8	Benzo(a)pyrene	200.	J
193-39-5	Indeno(1,2,3-cd)pyrene	150.	J
53-70-3	Dibenz(a,h)anthracene	51.	J
191-24-2	Benzo(g,h,i)perylene	150.	J

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X113RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-2RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7299

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 23 decanted:(Y/N) N Date Extracted: 12/01/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	22.08	100.	J
2.	UNKNOWN	26.35	200.	J B
3.	UNKNOWN	28.86	100.	J
4.	UNKNOWN	29.09	200.	J
5.	UNKNOWN ALKANE	30.15	100.	J
6.	UNKNOWN PAH	30.32	200.	J
7.	UNKNOWN ALKANE	31.61	100.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X114

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7276

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 25 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	440.	U
111-44-4	bis(2-Chloroethyl)ether	440.	U
95-57-8	2-Chlorophenol	440.	U
541-73-1	1,3-Dichlorobenzene	440.	U
106-46-7	1,4-Dichlorobenzene	440.	U
95-50-1	1,2-Dichlorobenzene	440.	U
95-48-7	2-Methylphenol	440.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	440.	U
106-44-5	4-Methylphenol	440.	U
621-64-7	N-Nitroso-Di-n-propylamine	440.	U
67-72-1	Hexachloroethane	440.	U
98-95-3	Nitrobenzene	440.	U
78-59-1	Isophorone	440.	U
88-75-5	2-Nitrophenol	440.	U
105-67-9	2,4-Dimethylphenol	440.	U
111-91-1	bis(2-Chloroethoxy)methane	440.	U
120-83-2	2,4-Dichlorophenol	440.	U
120-82-1	1,2,4-Trichlorobenzene	440.	U
91-20-3	Naphthalene	440.	U
106-47-8	4-Chloroaniline	440.	U
87-68-3	Hexachlorobutadiene	440.	U
59-50-7	4-Chloro-3-methylphenol	440.	U
91-57-6	2-Methylnaphthalene	440.	U
77-47-4	Hexachlorocyclopentadiene	440.	U
88-06-2	2,4,6-Trichlorophenol	440.	U
95-95-4	2,4,5-Trichlorophenol	1100.	U
91-58-7	2-Chloronaphthalene	440.	U
88-74-4	2-Nitroaniline	1100.	U
131-11-3	Dimethylphthalate	440.	U
208-96-8	Acenaphthylene	440.	U
606-20-2	2,6-Dinitrotoluene	440.	U
99-09-2	3-Nitroaniline	1100.	U
83-32-9	Acenaphthene	440.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X114

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7276

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 25 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100.	U
100-02-7	4-Nitrophenol	1100.	U
132-64-9	Dibenzofuran	440.	U
121-14-2	2,4-Dinitrotoluene	440.	U
84-66-2	Diethylphthalate	440.	U
7005-72-3	4-Chlorophenyl-phenylether	440.	U
86-73-7	Fluorene	440.	U
100-01-6	4-Nitroaniline	1100.	U
534-52-1	4,6-Dinitro-2-methylphenol	1100.	U
86-30-6	N-Nitrosodiphenylamine (1)	440.	U
101-55-3	4-Bromophenyl-phenylether	440.	U
118-74-1	Hexachlorobenzene	440.	U
87-86-5	Pentachlorophenol	1100.	U
85-01-8	Phenanthrene	440.	U
120-12-7	Anthracene	440.	U
86-74-8	Carbazole	440.	U
84-74-2	Di-n-butylphthalate	230.	J
206-44-0	Fluoranthene	86.	J
129-00-0	Pyrene	89.	J
85-68-7	Butylbenzylphthalate	440.	U
91-94-1	3,3'-Dichlorobenzidine	440.	U
56-55-3	Benzo(a)anthracene	440.	U
218-01-9	Chrysene	59.	J
117-81-7	bis(2-Ethylhexyl)phthalate	650.	B
117-84-0	Di-n-octylphthalate	440.	U
205-99-2	Benzo(b)fluoranthene	440.	U
207-08-9	Benzo(k)fluoranthene	440.	U
50-32-8	Benzo(a)pyrene	440.	U
193-39-5	Indeno(1,2,3-cd)pyrene	440.	U
53-70-3	Dibenz(a,h)anthracene	440.	U
191-24-2	Benzo(g,h,i)perylene	440.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X114

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7276

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 25 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.8

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	10.20	200.	J
2.	UNKNOWN	20.25	200.	J
3.	UNKNOWN	21.75	200.	J
4.	UNKNOWN	24.23	500.	J
5.	UNKNOWN	26.06	200.	J
6.	UNKNOWN	26.17	300.	J B
7.	UNKNOWN	28.54	300.	J
8.	UNKNOWN ALKANE	28.73	600.	J
9.	UNKNOWN	29.29	600.	J
10.	UNKNOWN PAH	29.76	300.	J B
11.	UNKNOWN ALKANE	30.20	1000.	J
12.	UNKNOWN ALKANE	31.69	1000.	J
13.	UNKNOWN	31.89	300.	J
14.	UNKNOWN	33.40	300.	J
15.	UNKNOWN ALKANE	33.57	700.	J
16.	UNKNOWN	33.72	800.	J
17.	UNKNOWN	33.88	400.	J
18.	UNKNOWN	34.45	1000.	J
19.	UNKNOWN	34.80	400.	J
20.	UNKNOWN	35.10	400.	J
21.				
22.				
23.				
24.				
25.				
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27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X115

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7277

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 36 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.5 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	520.	U
111-44-4	bis(2-Chloroethyl)ether	520.	U
95-57-8	2-Chlorophenol	520.	U
541-73-1	1,3-Dichlorobenzene	520.	U
106-46-7	1,4-Dichlorobenzene	520.	U
95-50-1	1,2-Dichlorobenzene	520.	U
95-48-7	2-Methylphenol	520.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	520.	U
106-44-5	4-Methylphenol	520.	U
621-64-7	N-Nitroso-Di-n-propylamine	520.	U
67-72-1	Hexachloroethane	520.	U
98-95-3	Nitrobenzene	520.	U
78-59-1	Isophorone	520.	U
88-75-5	2-Nitrophenol	520.	U
105-67-9	2,4-Dimethylphenol	520.	U
111-91-1	bis(2-Chloroethoxy)methane	520.	U
120-83-2	2,4-Dichlorophenol	520.	U
120-82-1	1,2,4-Trichlorobenzene	520.	U
91-20-3	Naphthalene	520.	U
106-47-8	4-Chloroaniline	520.	U
87-68-3	Hexachlorobutadiene	520.	U
59-50-7	4-Chloro-3-methylphenol	520.	U
91-57-6	2-Methylnaphthalene	520.	U
77-47-4	Hexachlorocyclopentadiene	520.	U
88-06-2	2,4,6-Trichlorophenol	520.	U
95-95-4	2,4,5-Trichlorophenol	1300.	U
91-58-7	2-Chloronaphthalene	520.	U
88-74-4	2-Nitroaniline	1300.	U
131-11-3	Dimethylphthalate	520.	U
208-96-8	Acenaphthylene	520.	U
606-20-2	2,6-Dinitrotoluene	520.	U
99-09-2	3-Nitroaniline	1300.	U
83-32-9	Acenaphthene	520.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X115

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7277

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 36 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.5 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1300.	U
100-02-7	4-Nitrophenol	1300.	U
132-64-9	Dibenzofuran	520.	U
121-14-2	2,4-Dinitrotoluene	520.	U
84-66-2	Diethylphthalate	520.	U
7005-72-3	4-Chlorophenyl-phenylether	520.	U
86-73-7	Fluorene	520.	U
100-01-6	4-Nitroaniline	1300.	U
534-52-1	4,6-Dinitro-2-methylphenol	1300.	U
86-30-6	N-Nitrosodiphenylamine (1)	520.	U
101-55-3	4-Bromophenyl-phenylether	520.	U
118-74-1	Hexachlorobenzene	520.	U
87-86-5	Pentachlorophenol	1300.	U
85-01-8	Phenanthrene	520.	U
120-12-7	Anthracene	520.	U
86-74-8	Carbazole	520.	U
84-74-2	Di-n-butylphthalate	430.	J
206-44-0	Fluoranthene	520.	U
129-00-0	Pyrene	520.	U
85-68-7	Butylbenzylphthalate	520.	U
91-94-1	3,3'-Dichlorobenzidine	520.	U
56-55-3	Benzo(a)anthracene	520.	U
218-01-9	Chrysene	520.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000.	B
117-84-0	Di-n-octylphthalate	520.	U
205-99-2	Benzo(b)fluoranthene	520.	U
207-08-9	Benzo(k)fluoranthene	520.	U
50-32-8	Benzo(a)pyrene	520.	U
193-39-5	Indeno(1,2,3-cd)pyrene	520.	U
53-70-3	Dibenz(a,h)anthracene	520.	U
191-24-2	Benzo(g,h,i)perylene	520.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X115

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7277

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 36 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.5

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	13.04	700.	J
2.		UNKNOWN	20.19	1000.	J
3.		UNKNOWN	20.25	700.	J
4.		UNKNOWN	23.51	2000.	J
5.		UNKNOWN	24.14	2000.	J
6.		UNKNOWN	24.25	900.	J
7.	57114	OCTADECANOIC ACID	24.35	1000.	JN
8.		UNKNOWN	24.63	700.	J
9.		UNKNOWN	26.11	800.	J
10.		UNKNOWN ALKANE	27.16	700.	J
11.		UNKNOWN	27.80	700.	J
12.	482235	1(3H)-ISOBENZOFURANONE,3-(3-	28.73	1000.	JN
13.		UNKNOWN ALKANE	30.22	7000.	J
14.		UNKNOWN ALAKNE	31.71	7000.	J
15.		UNKNOWN	32.11	3000.	J
16.		UNKNOWN	32.31	4000.	J
17.		UNKNOWN	32.83	3000.	J
18.		UNKNOWN ALKANE	33.59	3000.	J
19.		UNKNOWN	33.78	9000.	J
20.		UNKNOWN	34.49	7000.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X116

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7282

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 37 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) Y pH: 4.9 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	26000.	U
111-44-4	bis(2-Chloroethyl)ether	26000.	U
95-57-8	2-Chlorophenol	26000.	U
541-73-1	1,3-Dichlorobenzene	26000.	U
106-46-7	1,4-Dichlorobenzene	26000.	U
95-50-1	1,2-Dichlorobenzene	26000.	U
95-48-7	2-Methylphenol	26000.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	26000.	U
106-44-5	4-Methylphenol	26000.	U
621-64-7	N-Nitroso-Di-n-propylamine	26000.	U
67-72-1	Hexachloroethane	26000.	U
98-95-3	Nitrobenzene	26000.	U
78-59-1	Isophorone	26000.	U
88-75-5	2-Nitrophenol	26000.	U
105-67-9	2,4-Dimethylphenol	26000.	U
111-91-1	bis(2-Chloroethoxy)methane	26000.	U
120-83-2	2,4-Dichlorophenol	26000.	U
120-82-1	1,2,4-Trichlorobenzene	26000.	U
91-20-3	Naphthalene	26000.	U
106-47-8	4-Chloroaniline	26000.	U
87-68-3	Hexachlorobutadiene	26000.	U
59-50-7	4-Chloro-3-methylphenol	26000.	U
91-57-6	2-Methylnaphthalene	26000.	U
77-47-4	Hexachlorocyclopentadiene	26000.	U
88-06-2	2,4,6-Trichlorophenol	26000.	U
95-95-4	2,4,5-Trichlorophenol	63000.	U
91-58-7	2-Chloronaphthalene	26000.	U
88-74-4	2-Nitroaniline	63000.	U
131-11-3	Dimethylphthalate	26000.	U
208-96-8	Acenaphthylene	26000.	U
606-20-2	2,6-Dinitrotoluene	26000.	U
99-09-2	3-Nitroaniline	63000.	U
83-32-9	Acenaphthene	26000.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X116

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7282

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: 37 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) Y pH: 4.9 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	63000.	U
100-02-7	4-Nitrophenol	63000.	U
132-64-9	Dibenzofuran	26000.	U
121-14-2	2,4-Dinitrotoluene	26000.	U
84-66-2	Diethylphthalate	26000.	U
7005-72-3	4-Chlorophenyl-phenylether	26000.	U
86-73-7	Fluorene	26000.	U
100-01-6	4-Nitroaniline	63000.	U
534-52-1	4,6-Dinitro-2-methylphenol	63000.	U
86-30-6	N-Nitrosodiphenylamine (1)	26000.	U
101-55-3	4-Bromophenyl-phenylether	26000.	U
118-74-1	Hexachlorobenzene	26000.	U
87-86-5	Pentachlorophenol	63000.	U
85-01-8	Phenanthrene	26000.	U
120-12-7	Anthracene	26000.	U
86-74-8	Carbazole	26000.	U
84-74-2	Di-n-butylphthalate	26000.	U
206-44-0	Fluoranthene	26000.	U
129-00-0	Pyrene	26000.	U
85-68-7	Butylbenzylphthalate	26000.	U
91-94-1	3,3'-Dichlorobenzidine	26000.	U
56-55-3	Benzo(a)anthracene	26000.	U
218-01-9	Chrysene	26000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	26000.	U
117-84-0	Di-n-octylphthalate	26000.	U
205-99-2	Benzo(b)fluoranthene	26000.	U
207-08-9	Benzo(k)fluoranthene	26000.	U
50-32-8	Benzo(a)pyrene	26000.	U
193-39-5	Indeno(1,2,3-cd)pyrene	26000.	U
53-70-3	Dibenz(a,h)anthracene	26000.	U
191-24-2	Benzo(g,h,i)perylene	26000.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X116

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X112

Matrix: (soil/water) SOIL Lab Sample ID: 2344-5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7282

Level: (low/med) LOW Date Received: 11/12/94

% Moisture: not dec. 37 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) Y pH: 4.9

Number TICs found: 19

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	9.82	300000.	J
2.	UNKNOWN	10.64	400000.	J
3.	UNKNOWN	16.62	600000.	J
4.	UNKNOWN	17.47	20000.	J
5.	UNKNOWN	17.66	400000.	J
6.	UNKNOWN	19.66	60000.	J
7.	UNKNOWN	20.95	1000000.	J
8.	UNKNOWN	21.32	100000.	J
9.	UNKNOWN	21.69	50000.	J
10.	UNKNOWN	23.24	300000.	J
11.	UNKNOWN	23.33	200000.	J
12.	UNKNOWN	24.45	200000.	J
13.	UNKNOWN	26.15	300000.	J
14.	UNKNOWN	26.30	1000000.	J
15.	UNKNOWN	27.11	100000.	J
16.	UNKNOWN	28.77	1000000.	J
17.	UNKNOWN	28.94	200000.	J
18.	UNKNOWN	30.29	80000.	J
19.	UNKNOWN	30.95	300000.	J
20.				
21.				
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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X112

Lab Name: ARDL, INC. Contract: SAUGET SA 1+2
Lab Code: Case No.: 2344 SDG No.: X112
Matrix(soil/water) : SOIL Lab Sample ID : 2344-1
Sample(wt/vol) : 30.0 (g/mL) g Lab File ID :
% Moisture: 17 decanted:(Y/N) N Date Received : 11/12/94
Extraction(Sepf/Cont/Sonc) SONC Date Extracted : 11/16/94
Concentrated Extract Volume:5000(uL) Date Analyzed : 11/23/94
Injection Volume: 1 (uL) Dilution Factor: 1.0
GPC Cleanup:(Y/N) Y pH: 5.8 Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC(Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor Epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	4.0	U
72-55-9	4,4'-DDE	4.0	U
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	4.0	U
1013-07-8	Endosulfan sulfate	4.0	U
50-29-3	4,4'-DDT	4.0	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	4.0	U
7421-36-3	Endrin aldehyde	4.0	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor 1016	40	U
11104-28-2	Aroclor 1221	81	U
11141-16-5	Aroclor 1232	40	U
53469-21-9	Aroclor 1242	40	U
12672-29-6	Aroclor 1248	40	U
11097-69-1	Aroclor 1254	40	U
11096-82-5	Aroclor 1260	40	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X113

Lab Name: ARDL, INC. Contract: SAUGET SA 1+2
Lab Code: Case No.: 2344 SDG No.: X112
Matrix(soil/water) : SOIL Lab Sample ID : 2344-2
Sample(wt/vol) : 30.0 (g/mL) g Lab File ID :
% Moisture: 23 decanted:(Y/N) N Date Received : 11/12/94
Extraction(Sepf/Cont/Sonc) SONC Date Extracted : 11/16/94
Concentrated Extract Volume:5000(uL) Date Analyzed : 11/23/94
Injection Volume: 1 (uL) Dilution Factor: 1.0
GPC Cleanup:(Y/N) Y pH: 6.5 Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	beta-BHC	2.2	U
319-86-8	delta-BHC	2.2	U
58-89-9	gamma-BHC(Lindane)	2.2	U
76-44-8	Heptachlor	2.2	U
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor Epoxide	2.2	U
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	4.3	U
72-55-9	4,4'-DDE	4.3	U
72-20-8	Endrin	4.3	U
33213-65-9	Endosulfan II	4.3	U
72-54-8	4,4'-DDD	4.3	U
1013-07-8	Endosulfan sulfate	4.3	U
50-29-3	4,4'-DDT	4.3	U
72-43-5	Methoxychlor	22	U
53494-70-5	Endrin ketone	4.3	U
7421-36-3	Endrin aldehyde	4.3	U
5103-71-9	alpha-Chlordane	2.2	U
5103-74-2	gamma-Chlordane	2.2	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor 1016	43	U
11104-28-2	Aroclor 1221	87	U
11141-16-5	Aroclor 1232	43	U
53469-21-9	Aroclor 1242	43	U
12672-29-6	Aroclor 1248	43	U
11097-69-1	Aroclor 1254	43	U
11096-82-5	Aroclor 1260	39	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X114

Lab Name: ARDL, INC.
Lab Code: Case No.: 2344
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 25 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 5.8

Contract: SAUGET SA 1+2
SDG No.: X112
Lab Sample ID : 2344-3
Lab File ID :
Date Received : 11/12/94
Date Extracted : 11/16/94
Date Analyzed : 11/23/94
Dilution Factor: 1.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	2.3	U
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
58-89-9	gamma-BHC(Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
60-57-1	Dieldrin	4.4	U
72-55-9	4,4'-DDE	4.4	U
72-20-8	Endrin	4.4	U
33213-65-9	Endosulfan II	4.4	U
72-54-8	4,4'-DDD	4.4	U
1013-07-8	Endosulfan sulfate	4.4	U
50-29-3	4,4'-DDT	4.4	U
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin ketone	4.4	U
7421-36-3	Endrin aldehyde	4.4	U
5103-71-9	alpha-Chlordane	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
8001-35-2	Toxaphene	230	U
12674-11-2	Aroclor 1016	44	U
11104-28-2	Aroclor 1221	89	U
11141-16-5	Aroclor 1232	44	U
53469-21-9	Aroclor 1242	44	U
12672-29-6	Aroclor 1248	44	U
11097-69-1	Aroclor 1254	88	P
11096-82-5	Aroclor 1260	180	

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X115

Lab Name: ARDL, INC.
Lab Code: Case No.: 2344
Matrix(soil/water) : SOIL
Sample(wt/vol) : 30.0 (g/mL) g
% Moisture: 36 decanted:(Y/N) N
Extraction(Sepf/Cont/Sonc) SONC
Concentrated Extract Volume:5000(uL)
Injection Volume: 1 (uL)
GPC Cleanup:(Y/N) Y pH: 3.5

Contract: SAUGET SA 1+2
SDG No.: X112
Lab Sample ID : 2344-4
Lab File ID :
Date Received : 11/12/94
Date Extracted : 11/16/94
Date Analyzed : 11/23/94
Dilution Factor: 1.0
Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	2.6	U
319-85-7	beta-BHC	2.6	U
319-86-8	delta-BHC	2.6	U
58-89-9	gamma-BHC(Lindane)	2.6	U
76-44-8	Heptachlor	2.6	U
309-00-2	Aldrin	2.6	U
1024-57-3	Heptachlor Epoxide	2.6	U
959-98-8	Endosulfan I	2.6	U
60-57-1	Dieldrin	5.2	U
72-55-9	4,4'-DDE	5.2	U
72-20-8	Endrin	5.2	U
33213-65-9	Endosulfan II	5.2	U
72-54-8	4,4'-DDD	5.2	U
1013-07-8	Endosulfan sulfate	5.2	U
50-29-3	4,4'-DDT	5.2	U
72-43-5	Methoxychlor	26	U
53494-70-5	Endrin ketone	5.2	U
7421-36-3	Endrin aldehyde	5.2	U
5103-71-9	alpha-Chlordane	2.6	U
5103-74-2	gamma-Chlordane	2.6	U
8001-35-2	Toxaphene	260	U
12674-11-2	Aroclor 1016	52	U
11104-28-2	Aroclor 1221	110	U
11141-16-5	Aroclor 1232	52	U
53469-21-9	Aroclor 1242	52	U
12672-29-6	Aroclor 1248	52	U
11097-69-1	Aroclor 1254	440	
11096-82-5	Aroclor 1260	550	

1D

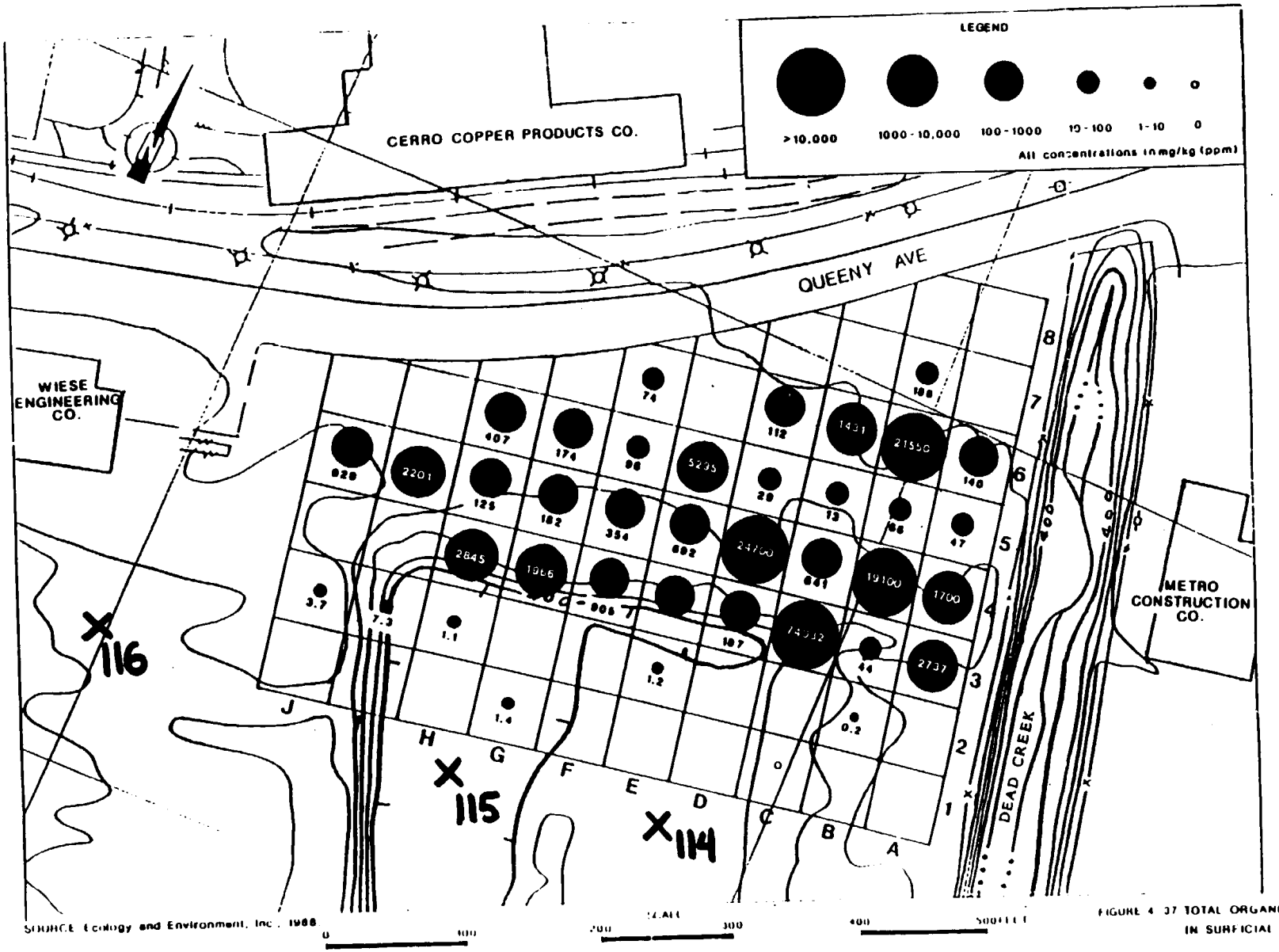
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X116

Lab Name: ARDL, INC. Contract: SAUGET SA 1+2
Lab Code: Case No.: 2344 SDG No.: X112
Matrix(soil/water) : SOIL Lab Sample ID : 2344-5
Sample(wt/vol) : 30.0 (g/mL) g Lab File ID :
% Moisture: 37 decanted:(Y/N) N Date Received : 11/12/94
Extraction(Sepf/Cont/Sonc) SONC Date Extracted : 11/16/94
Concentrated Extract Volume:5000(uL) Date Analyzed : 11/24/94
Injection Volume: 1 (uL) Dilution Factor: 100
GPC Cleanup:(Y/N) Y pH: 4.9 Sulfur Cleanup : N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/Kg	Q
319-84-6	alpha-BHC	270	U
319-85-7	beta-BHC	270	U
319-86-8	delta-BHC	270	U
58-89-9	gamma-BHC(Lindane)	270	U
76-44-8	Heptachlor	270	U
309-00-2	Aldrin	270	U
1024-57-3	Heptachlor Epoxide	270	U
959-98-8	Endosulfan I	270	U
60-57-1	Dieldrin	520	U
72-55-9	4,4'-DDE	520	U
72-20-8	Endrin	520	U
33213-65-9	Endosulfan II	520	U
72-54-8	4,4'-DDD	520	U
1013-07-8	Endosulfan sulfate	520	U
50-29-3	4,4'-DDT	520	U
72-43-5	Methoxychlor	2700	U
53494-70-5	Endrin ketone	520	U
7421-36-3	Endrin aldehyde	520	U
5103-71-9	alpha-Chlordane	270	U
5103-74-2	gamma-Chlordane	270	U
8001-35-2	Toxaphene	27000	U
12674-11-2	Aroclor 1016	5200	U
11104-28-2	Aroclor 1221	11000	U
11141-16-5	Aroclor 1232	5200	U
53469-21-9	Aroclor 1242	5200	U
12672-29-6	Aroclor 1248	15000	
11097-69-1	Aroclor 1254	29000	
11096-82-5	Aroclor 1260	46000	



SOURCE: Ecology and Environment, Inc., 1988

FIGURE 4-37 TOTAL ORGANIC CONCENTRATIONS IN SURFICIAL SOIL AT SITE G

ATTACHMENT B

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director
217/785-3912

2200 Churchill Road, Springfield, IL 62794-9276

Refer to: L1630200005 -- St. Clair County
Sauget Sites (Area 1, Area 2) -- Sauget
Superfund/Technical Reports

September 6, 1994

Dr. Tom Long
Illinois Department of Public Health
Environmental Toxicology Program
535 West Jefferson Boulevard, Room 500
Springfield, Illinois 62751

Dear Tom:

This is in reference to what we had talked about during our site visit to Site G and Site Q in Sauget with your staff. During our visit, you had indicated that funding may be available to perform limited sampling in flood-impacted areas. After consultation with David Webb, I would like to submit for your review (see enclosure) a proposed sampling plan that would include approximately 17 surface soil samples near Site G and Site Q that have never been investigated.

The justification of these proposed activities is to assess how the flooding has impacted suspected hazardous waste disposal locations and whether or not potential human health exposures are a concern.

As to the personnel involved, IEPA's Collinsville field office would be willing to perform the actual field sampling, while myself and David Webb could be present to assist and provide general direction throughout the project. The soil samples would be sent to ARDL for TCL/TAL analyses and validation. I would estimate that the analytical and validation costs of each soil sample to be about $1,440 for a 30 day turnaround. This would bring the project total to $24,480.

We had tentatively set the sampling dates for two days during the last week of October. The actual sampling date, however will be dependant more on the water levels at the borrow areas in Site Q. Sampling during these dates should be possible as long as there isn't an unusually high amount of rainfall between now and then.

Please review the enclosed detailed proposal that elaborates on the above. If you have any questions or concerns, give me a call.

Sincerely,

Paul E. Takács, Project Manager
National Priorities List Unit
Division of Remediation Management
Bureau of Land

Enclosure - Proposal for IEPA/IDPH Sampling near Site G and Site Q

cc: David Webb, IDPH
Ken Mensing
Terry Ayers
Larry Eastep
Kim Hubbert
Division File

Printed on Recycled Paper

PROPOSAL FOR IEPA/IDPH SAMPLING NEAR SITE G AND SITE Q

I. Background

One of the most highly contaminated areas in Illinois are the Sauget Sites. Area 1 comprises three hazardous waste disposal landfills, a formerly used waste impoundment, two abandoned gravel pits and five intermittent segments of Dead Creek. The contaminants found at the Sauget Area 1 Sites consist mainly of chlorobenzenes, chlorophenols, chloroanilines, nitrophenols, nitroanilines, naphthalene, PCBs and PNAs. These sites were aggregated together on the basis of their relative proximity to each other, shared watershed, nearly identical contaminants, and a common property owner at many of the sites during the periods of disposal. Potential residential exposure to site contaminants is the greatest concern in Area 1. The Area 2 sites comprise four separate sites that include a covered lagoon containing hazardous sludges (Site O), an industrial landfill suspected of containing hazardous wastes (Site P), a closed landfill used by Monsanto for the disposal of their liquid chemical wastes (Site R) and an uncovered closed municipal landfill that accepted hazardous wastes (Site Q). Environmental impacts within wetlands and leachates that flow into the Mississippi River are the more significant concerns of Area 2. Provided below are brief descriptions of the sites that are being proposed for this sampling event:

Site G

A former surface/subsurface hazardous waste disposal site which was originally used as a gravel pit. Site G occupies about 4.5 acres and is littered with demolition debris, metal wastes and corroded drums. Oily and tar-like wastes are found mainly in areas where drums are present; however, most of the landfill is only partially covered with fly ash and cinders. IEPA estimates that there is approximately 22,000 yd^3 of contaminated fill and about 60,000 yd^3 of saturated chemical waste materials. Past surface soil sampling revealed PCBs (74,000ppm total), 1,4-dichlorobenzene (22,000ppm), PCP (21,000ppm), 4-nitrophenol (1000ppm), 2-nitroaniline (220ppm), and PNAs. The primary contaminants detected in subsurface soils included naphthalene (5,429ppm), PCP (4,769ppm) and 4-chloroaniline (231ppm). Access to the site is restricted by a chain-link fence installed by USEPA. Aerial photos show major disposal activities occurring at Site G from the early to mid-1950s to the mid-1960s, after which sporadic disposal occurred until it was fenced in 1982.

On a more recent note, IEPA was informed that an underground fire began at this site in early April and continued through June of this year. IEPA assisted USEPA last June in a sampling event in and around Site G. As would be expected in a scenario of burning PCBs and other chlorophenols, the sample results indicated widespread dioxin contamination on the site and outside the

perimeter of the fence. The levels of 2,3,7,8-TCDD (137ppb) were high enough to justify a time-critical action by USEPA even for an industrial area. An interview with an employee of the property owner said that the Sauget Fire Department was called to put out the fires. This employee noted the burning area was flooded with water 24 hours a day for two weeks, thereby creating a large pond in back of the burn area. Although water samples from the pond did not show contamination, it is suspected that the sediments of the low-lying area to the south of Site G are contaminated. In addition to this area, this site contributed to further contamination of Dead Creek last year during last year's flooding.

Site Q

Site Q, also known as the former Sauget & Company Landfill (e.g. the Sauget Municipal Landfill) had been completely submerged by flooding last summer. There are numerous uncovered waste disposal areas scattered throughout the site. Oil-saturated materials as well as drums with unknown wastes are present at many of these disposal areas. Limited soil sampling has indicated high levels of semivolatiles, pesticides and PCBs. Of greatest concern to IEPA is the presence of several waste piles and drums located in the two borrow pits to the south of the site. No sampling has ever been performed at these locations because they are normally submerged. In addition to these areas, several drums are present along the bank of the river - many of which have been exposed by last year's floods. Recent sampling of these drums showed PCBs (over 200,000ppm), 2-chlorophenol (67ppm), 1,4-dichlorobenzene (49ppm), 1,2,4-trichlorobenzene (52ppm), phenol (71ppm) and 4-nitrophenol (45ppm). There are also various isolated waste disposal areas located throughout the site. This site was operated by Sauget & Company as a "municipal landfill". Aerial photos show major activities beginning in the mid-1950's and continuing through the 1970's. 103(c) notifications to USEPA note that BFI hauled unidentified hazardous wastes and chemicals to this landfill from 1963 to 1970. Another notification points out a massive liquid waste and drum disposal area at an unknown location on this site.

II. General Sampling Information

17 soil samples are planned for both the low-lying area behind Site G and several locations on Site Q that have never been sampled. Concentrations of contaminants are anticipated to be anywhere from low to very high concentrations. Sampling and handling of these samples will be performed in accordance with these anticipated concentrations.

Actual sampling activities will be performed by IEPA's Collinsville office personnel under the general direction of Paul Takacs (IEPA) and David Webb (IDPH). All samples will be placed in an iced cooler and delivered to ARDL, Inc. for same day shipment. Soil samples will be run for TCL/TAL parameters under Superfund protocol. Both IEPA sampling and chain-of-custody procedures will be followed throughout the project. Each sample will be assigned a sample location ID number that will be provided on a sample location map.

III. Sampling Locations and Rationale

Five general locations that are proposed for sampling are noted on the map of the following page. The number of samples for each location and rationale are mentioned below:

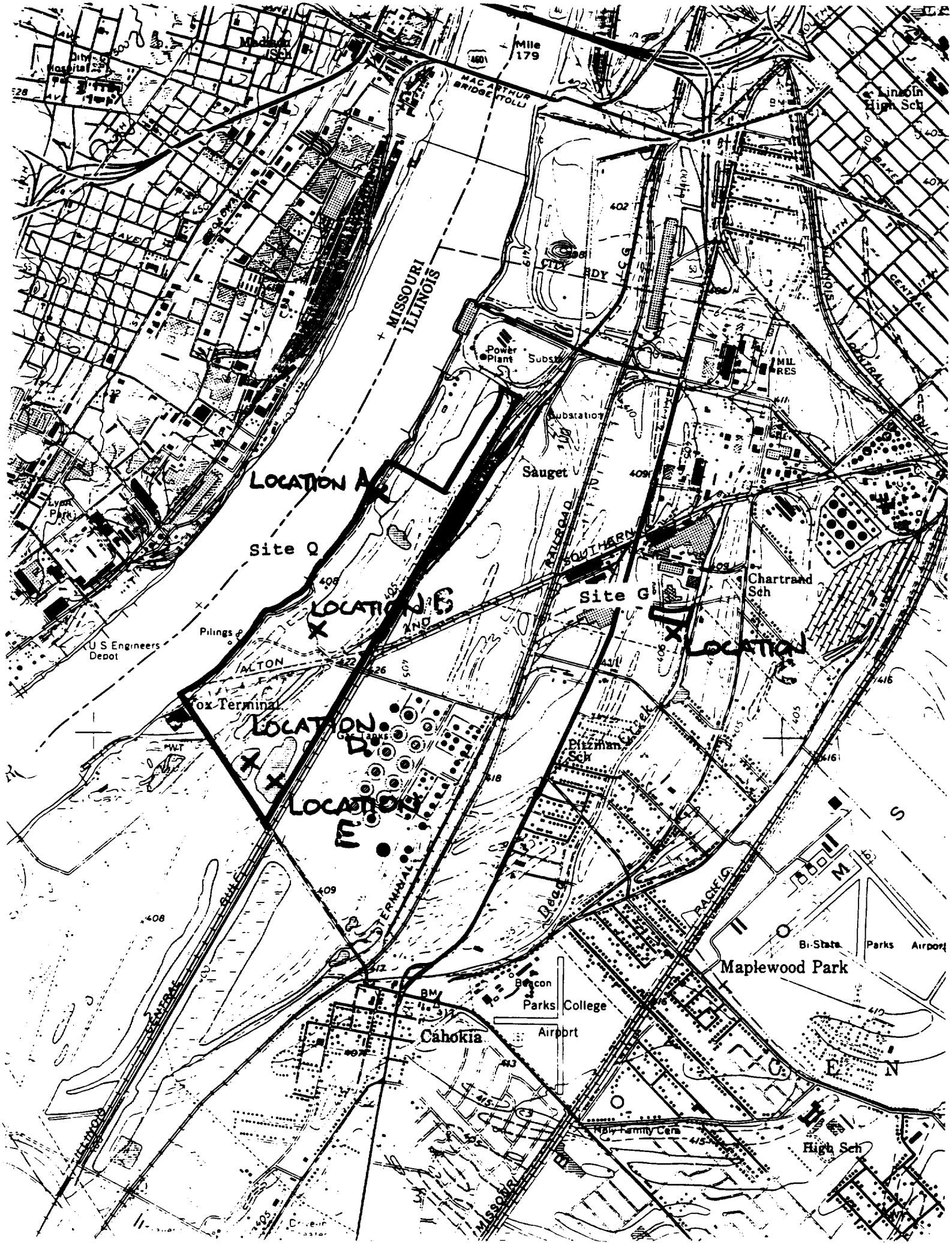
Location A - Two samples of waste materials found in several corroding drums. These drums are located about 300 feet south of Site R along the bank of the river. The waste materials appear to be inert with no unusual volatile vapors. Strong organic odors are periodically noted in the vicinity, but it is not known if they are coming from Site R or an unknown leachate seep along the river bank. The waste materials in the drums, which have never been sampled, were evidently disposed of with broken concrete and cinders and were present before the flood.

Location B - One sample in an isolated location at the south central portion of Site Q. The immediate vicinity shows stressed vegetation. Several blocks of a yellowish material resembling sulfur that has been seen at Site G and the borrow pits at the south end of this site were noted.

Location C - Two samples in a low-lying area to the south of Site G. This swampy area was impacted by high water table conditions that persisted during and shortly after last years flood. The rationale of sampling at this location is based on its proximity to very high levels of contaminants at the surface of Site G and the fact that contaminated sediment has likely been deposited into this area for years. Recent sampling results and activities associated with putting out underground fires at Site G have made knowing what may be present in sediments here a higher priority.

Location D - Four samples in the "southwest borrow pit". The Ecology & Environment report (1988) did not investigate a waste pile and a few drums of waste materials that were present in a low-lying area that is usually submerged. The waste pile contains a black oily material, blocks of yellow and dark grey crystalline substances and rubber gaskets. There are also drums present around the margins of the pit that should be sampled.

Location E - Seven samples in the larger "southeast borrow pit". As was the case at Location D, this area was never sampled. When the site was discovered three years ago, several corroded drums and waste materials were noted in piles and along ridges of this borrow pit. The grayish crystalline materials noted above are present, but in greater quantities. A very large pile of rusting drums and waste materials is present at the west-central portion of the pit and a ridge of waste materials is present in the north-central portions. Limited sampling around this pit has showed PCBs to be present in the 10-20ppm range.


Madison
Mile 179
MAC ARTHUR BRIDGE (TOLL)
Lincoln High Sch
MISSOURI
ILLINOIS
Power Plant
Substation
Sauget
LOCATION A
Site Q
LOCATION B
Site G
LOCATION C
LOCATION D
LOCATION E
Chartrand Sch
Pilings
U S Engineers Depot
ALTON
Fox Terminal
Gas Tanks
Pitzman Sch
Maplewood Park
Bi-State Parks Airport
Beacon Parks College
Airport
Cahokia
Holy Family Cem
High Sch
ILLINOIS CENTRAL
MISSOURI PACIFIC

EPA - CLP
CHAIN OF CUSTODY

Seal # 9949

Date Sealed: 11/8/94 By: [illegible]

Facility
Name : SAUGET SITE AREA #1 + #2
Region: COLLINSVILLE
County: ST.CLAIR

Site Inventory # : 1630200005
Site Billing Code: FDPH-Rebbe
Project Manager : PAUL TAKACS

Laboratory #	Sample I.D.	Sample Date	Sample Time
2343-6	X106	11-9-94	10:55 a.m.

Sample Appearance : Brown - waste Material

Director Comments:

Sampler Signature : Tom Miller Division/Company IEPA \ FOS

CONTAINER				ANALYSIS	
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA,PEST/PCB	N
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N
	287			SULFIDE,SULFATE	

CHAIN OF CUSTODY CHANGING

I certify that I received the sample shipping container with the shipping container sealed and intact.

Signature: Paul Takacs

Date: 11-9-94 Time: 10:50 a.m. Seal: 9949 Intact: O

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Sampler (Print): Monica Rebbe Signature: Monica Rebbe

Date: 11-9-94 Time: 2:35 p.m. Seal: 9950

Sample Delivery:

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): Donna Cockrum Signature: Donna Cockrum

Date: 11-9-94 Time: 1:55 Seal #: 9949-9950 Intact: Y

Lab Name: ARDL INC. Comments:

EPA - CLP
CHAIN OF CUSTODY

Seal # 9955

Date Sealed: 11/8/94 By: [illegible]

Facility
Name : SAUGET SITE AREA #1 + #2
Region: COLLINSVILLE
County: ST.CLAIR

Site Inventory # : 1630200005
Site Billing Code: IDPH/MONICA REBBE
Project Manager : PAUL TAKACS

Laboratory #	Sample I.D.	Sample Date	Sample Time
ARDL 2343-11	X107	11-9-94	11:00 AM

Sample Appearance : BROWN WASTE MATERIAL

Director Comments:

Sampler Signature : Tom Miller Division/Company IEPA/FOS

CONTAINER				ANALYSIS	FIELD
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA,PEST/PCB	N
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N
	287		N	SULFIDE,SULFATE	N

CHAIN OF CUSTODY CHRONICLE

I certify that I received the sample shipping container with the shipping container sealed and intact.

Print: PAUL TAKACS Signature: Paul S. Takacs

Date: 11-9-94 Time: 10:55AM Seal: 9955 Intact: Y

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that samples are in the shipping container at the date and time listed above.

Print: PAUL TAKACS Signature: Paul S. Takacs

Date: 11-9-94 Time: 2:35PM Seal: 9956

Company: IEPA/ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): DONNA Cochrum Signature: Donna Cochrum

Date: 11-09-94 Time: 1755 Seal: 9956 Intact: Y N

Lab Name: ARDL INC

EPA - CLP
CHAIN OF CUSTODY

Seal # 9955

Date Sealed: 11/8/94 By [illegible]

Facility
Name : SAUGET SITE OPLA #1 - #2
Region: COLLINSVILLE
County: ST CLAIR

Site Inventory # : [illegible]
Site Billing Code: JIAH/MONICA REBIZE
Project Manager : PAUL TAKACS

Laboratory #	Sample No.	Sample Date	Sampler
ARDL 2343-8	X108	11-9-94	R. TOBAN 11:15 AM

Sample Description: BROWN WASTE MATERIAL

Additional Comments:

Signature: Tom Miller Division/Company: IEPA/FOS

CONTAINER				ANALYSIS	
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA, PEST/PCB	N
1	286	16ozI	N	TOTAL METALS, CYANIDE,	N
	287		N	SULFIDE, SULFATE	N

CHAIN OF CUSTODY CERTIFICATE

I certify that I received the sample listed on the chain of custody in the original container sealed and intact.

Signature: PAUL TAKACS Signature: [signature]

11-9-94 10:55AM 9955 0

I certify that the sample listed on it was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I delivered the sample shipping container at the date and time stated below.

Signature: PAUL TAKACS Signature: [signature]

11-9-94 2:35PM 9956

IEPA/ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by: (print): Donna Cochrum Signature: Donna Cochrum

Date: 11-09-94 Time: 1755 Seal #: 9956 Intact? Y/N

Lab Name: ARDL INC Comments:

EPA - CLP
CHAIN OF CUSTODY

Seal # 9951

Date Sealed: 11/8/94 By: [illegible]

Facility
Name : SAUGET SITE AREA #1 + #2
Region: COLLINSVILLE
County: ST CLAIR

Site Inventory # : IA3020000005
Site Billing Code: IDPH-Rebbe
Project Manager : PAUL TAKACS

Laboratory #	Sample I.D.	Sample Date	Sample Time
ARDL 2343-9	X109	11-9-94	11:40 a.m.

Sample Appearance : Brown - waste material

Collector Comments:

Sampler Signature : Tom Miller Division/Company IEPA \ FOS

CONTAINER				ANALYSIS	
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA,PEST/PCB	N
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N
	287			SULFIDE,SULFATE	

Relinquished by (Sampler): Paul Takacs

I certify that I received the sample shipping container with the shipping container sealed [illegible]

Paul Takacs [signature]

11-9-94 11:35 a.m. 9951 0

I certify that the sample listed above was collected and placed in bottles in my presence, that each bottle was placed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Relinquished by: Monica Rebbe Signature: Monica Rebbe

11-9-94 2:55 pm. 9952

Company Name: IEPA \ ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): Donna Cockrum Signature: [signature]

Date: 11-9-94 Time: 1755 Seal # 9952 Intact: Y N

Lab Name: ARDL, Inc. Comments:

FTA - CLP
CHAIN OF CUSTODY

Seal # 9951

Date Sealed: 11/8/94 By: [illegible]

Facility
Site: SAUGET SITE AREA #1 & #2
Location: COLLINSVILLE
County: ST CLAIR

Site Inventory # [illegible]
Site Billing Code: IDPH - Rebbe
Project Manager: PAUL TAKACS

Laboratory #	Sample #	Sample Date	Sample Time
ARDL 2343-10	X110	11-9-94	11:50 a.m.

Sample Description: Brown - Waste material

Collector Name: Tom Miller Division/Company: IEPA \ FOS

CONTAINER				ANALYSIS	
No	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA, PEST/PCB	N
1	286	16ozT	N	TOTAL METALS, CYANIDE,	N
	287			SULFIDE, SULFATE,	

Chain of Custody Signature

I certify that I sealed the sample shipping container with the shipping container seals and [illegible]

Paul Takacs — Paul Takacs

11-9-94 — 11:45 a.m. — 9951 — O

I certify that the sample identified & was collected in glass or bottles in my presence, that each bottle was sealed intact in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Monica Rebbe — Monica Rebbe

11-9-94 — 2:55 pm. — 9952

IEPA \ ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by (print): Donna Cockrum Signature: Donna Cockrum

Date: 11-09-94 Time: 1755 Seal #: 9952 Intact: (Y) N

Lab Name: ARDL INC. Comments:

EPA - CLP
CHAIN OF CUSTODY

Seal # 9959

Date Sealed: 11/8/94

Facility
Name: SAUGET SITE AREA #1 + #2
Region: COLLINSVILLE
County: ST.CLAIR

Site Inventory #: [illegible]
Site Billing Code: IDPH/MONICA REBBE
Project Manager: PAUL TACKACS

Laboratory #	Sample I.D.	Sample Date	Sample Time
ARDL 2343-11	X111	11-9-94	12:00PM

Sample Appearance: BROWN WASTE MAT'L

Additional Comments:

Sampler Name: Tom Miller Division/Company: IEPA/FOS

CONTAINER				ANALYSIS	
No.	Code	Size	Preser		(Y/N)
2	14	2oz	N	VOA	N
1	19	16ozO	N	BNA,PEST/PCB	N
1	286	16ozI	N	TOTAL METALS,CYANIDE,	N
	287		N	SULFIDE,SULFATE	N

Chain of Custody Records

I certify that I received the sample shipping container and the shipping container seal was intact.

Paul Tackacs — Paul Tackacs
11-9-94 11:55AM 9959

I certify that the sample bottle sample was collected and placed in bottles in my presence, that each bottle was clean, intact, in the sample shipping container and that I sealed the sample shipping container at the date and time listed below.

Paul Tackacs — Paul Tackacs
11-9-94 2:55PM 9960
IEPA/ARDL

Courier - Sample Delivery: Courier

I certify that I received the sample shipping container from the courier listed above with the shipping container and seal intact and that each bottle in the shipping container was intact. After recording the sample in the official record book, the sample will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Opened by, (print): Donna Cockrum Signature: Donna Cockrum

Date: 11-9-94 Time: 1755 Seal #: 9960 Intact: (Y) N

Lab Name: ARDL INC. Comment:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-1

Level (low/med): LOW Date Received: 11/09/94

% Solids: 74.2

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10700		*	P
7440-36-0	Antimony	157		N *	P
7440-38-2	Arsenic	13.7		N * S	F
7440-39-3	Barium	1220		N *	P
7440-41-7	Beryllium	0.54	B		P
7440-43-9	Cadmium	2260		*	P
7440-70-2	Calcium	13400			P
7440-47-3	Chromium	3650		*	P
7440-48-4	Cobalt	18.7			P
7440-50-8	Copper	324			P
7439-89-6	Iron	63500		*	P
7439-92-1	Lead	7690		*	P
7439-95-4	Magnesium	2940			P
7439-96-5	Manganese	606			P
7439-97-6	Mercury	4.9			CV
7440-02-0	Nickel	153		N *	P
7440-09-7	Potassium	1310	B		P
7782-49-2	Selenium	59.9		* S	F
7440-22-4	Silver	3.3		N	P
7440-23-5	Sodium	268	B		P
7440-28-0	Thallium	0.27	U		F
7440-62-2	Vanadium	7.3	B		P
7440-66-6	Zinc	7290		*	P
	Cyanide	3.3			C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: PEBBLES, LEAVES AND ROOTS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-1

Level (low/med): LOW Date Received: 11/09/94

% Solids: 74.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	82.4			
	Sulfide	26.9	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-2

Level (low/med): LOW Date Received: 11/09/94

% Solids: 77.2

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5710		*	P
7440-36-0	Antimony	5.2	U	N *	P
7440-38-2	Arsenic	1.4	B	N * S	F
7440-39-3	Barium	141		N *	P
7440-41-7	Beryllium	0.49	B		P
7440-43-9	Cadmium	3.9		*	P
7440-70-2	Calcium	18000			P
7440-47-3	Chromium	12.1		*	P
7440-48-4	Cobalt	7.4	B		P
7440-50-8	Copper	18.7			P
7439-89-6	Iron	11600		*	P
7439-92-1	Lead	152		*	P
7439-95-4	Magnesium	4250			P
7439-96-5	Manganese	372			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	17.6		N *	P
7440-09-7	Potassium	1030	B		P
7782-49-2	Selenium	0.26	U	* W	F
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	233	U		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	16.0			P
7440-66-6	Zinc	689		*	P
	Cyanide	0.61	U		C

Color Before: GRAY/BROW Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: PEBBLES, LEAVES AND ROOTS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-2

Level (low/med): LOW Date Received: 11/09/94

% Solids: 77.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	51.4	U		
	Sulfide	25.5	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-3

Level (low/med): LOW Date Received: 11/09/94

% Solids: 74.4

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3240		*	P
7440-36-0	Antimony	17900		N *	P
7440-38-2	Arsenic	216		N * S	F
7440-39-3	Barium	1680		N *	P
7440-41-7	Beryllium	0.30	B		P
7440-43-9	Cadmium	8.7		*	P
7440-70-2	Calcium	10300			P
7440-47-3	Chromium	142		*	P
7440-48-4	Cobalt	13.3	B		P
7440-50-8	Copper	1630			P
7439-89-6	Iron	80500		*	P
7439-92-1	Lead	195000		*	P
7439-95-4	Magnesium	1350			P
7439-96-5	Manganese	1270			P
7439-97-6	Mercury	0.25			CV
7440-02-0	Nickel	101		N *	P
7440-09-7	Potassium	446	B		P
7782-49-2	Selenium	1.3	U	* E	F
7440-22-4	Silver	30.2		N	P
7440-23-5	Sodium	242	U		P
7440-28-0	Thallium	0.89	B		F
7440-62-2	Vanadium	1.3	U		P
7440-66-6	Zinc	9520		*	P
	Cyanide	2.8			C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: PEBBLES, LEAVES AND ROOTS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-3

Level (low/med): LOW Date Received: 11/09/94

% Solids: 74.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	55.9			
	Sulfide	26.7	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-4

Level (low/med): LOW Date Received: 11/09/94

% Solids: 71.7

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3500		*	P
7440-36-0	Antimony	5.6	U	N *	P
7440-38-2	Arsenic	1.6	B	N * W	F
7440-39-3	Barium	63.3		N *	P
7440-41-7	Beryllium	0.31	B		P
7440-43-9	Cadmium	1.1	B	*	P
7440-70-2	Calcium	152000			P
7440-47-3	Chromium	5.8		*	P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	7.6			P
7439-89-6	Iron	5450		*	P
7439-92-1	Lead	18100		*	P
7439-95-4	Magnesium	4600			P
7439-96-5	Manganese	275			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	8.1	B	N *	P
7440-09-7	Potassium	604	B		P
7782-49-2	Selenium	1.4	U	* W	F
7440-22-4	Silver	1.4	U	N	P
7440-23-5	Sodium	810	B		P
7440-28-0	Thallium	0.28	U		F
7440-62-2	Vanadium	7.6	B		P
7440-66-6	Zinc	95.0		*	P
	Cyanide	0.70	U		C

Color Before: BROWN/WHI Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: WOOD

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-4

Level (low/med): LOW Date Received: 11/09/94

% Solids: 71.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	54.8	U		
	Sulfide	27.9	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-5

Level (low/med): LOW Date Received: 11/09/94

% Solids: 75.9

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	237		*	P
7440-36-0	Antimony	5.3	U	N *	P
7440-38-2	Arsenic	0.47	B	N *	F
7440-39-3	Barium	188		N *	P
7440-41-7	Beryllium	0.26	U		P
7440-43-9	Cadmium	1.4		*	P
7440-70-2	Calcium	456	B		P
7440-47-3	Chromium	3.0		*	P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	2.8	B		P
7439-89-6	Iron	469		*	P
7439-92-1	Lead	62.2		*	P
7439-95-4	Magnesium	56.9	B		P
7439-96-5	Manganese	4.0			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	5.3	U	N *	P
7440-09-7	Potassium	264	U		P
7782-49-2	Selenium	2.1	B	*	F
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	237	U		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	1.3	U		P
7440-66-6	Zinc	10.8		*	P
	Cyanide	0.66	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: PEBBLES AND LEAVES

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-5

Level (low/med): LOW Date Received: 11/09/94

% Solids: 75.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	907			
	Sulfide	26.0	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X106

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-6

Level (low/med): LOW Date Received: 11/09/94

% Solids: 79.7

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3250		*	P
7440-36-0	Antimony	5.0	U	N *	P
7440-38-2	Arsenic	0.93	B	N *	F
7440-39-3	Barium	3620		N *	P
7440-41-7	Beryllium	0.25	U		P
7440-43-9	Cadmium	1.5		*	P
7440-70-2	Calcium	1320			P
7440-47-3	Chromium	7.0		*	P
7440-48-4	Cobalt	3.7	B		P
7440-50-8	Copper	9.0			P
7439-89-6	Iron	2170		*	P
7439-92-1	Lead	41.1			F
7439-95-4	Magnesium	2350			P
7439-96-5	Manganese	62.3			P
7439-97-6	Mercury	0.14			CV
7440-02-0	Nickel	6.5	B	N *	P
7440-09-7	Potassium	301	B		P
7782-49-2	Selenium	0.25	U	* W	F
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	226	U		P
7440-28-0	Thallium	0.25	U	W	F
7440-62-2	Vanadium	10.0	B		P
7440-66-6	Zinc	66.1		*	P
	Cyanide	0.61	U		C

Color Before: GRAY Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: ROCKS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X106

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-6

Level (low/med): LOW Date Received: 11/09/94

% Solids: 79.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	49.7	U		
	Sulfide	24.9	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-7

Level (low/med): LOW Date Received: 11/09/94

% Solids: 76.5

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5630		*	P
7440-36-0	Antimony	5.2	U	N *	P
7440-38-2	Arsenic	2.7		N * S	F
7440-39-3	Barium	103		N *	P
7440-41-7	Beryllium	0.44	B		P
7440-43-9	Cadmium	28.7		*	P
7440-70-2	Calcium	4360			P
7440-47-3	Chromium	287		*	P
7440-48-4	Cobalt	8.2	B		P
7440-50-8	Copper	32.8			P
7439-89-6	Iron	22500		*	P
7439-92-1	Lead	191		*	P
7439-95-4	Magnesium	2040			P
7439-96-5	Manganese	334			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	23.1		N *	P
7440-09-7	Potassium	898	B		P
7782-49-2	Selenium	1.5		* S	F
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	235	U		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	13.8			P
7440-66-6	Zinc	2010		*	P
	Cyanide	0.65	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: PEBBLES

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-7

Level (low/med): LOW Date Received: 11/09/94

% Solids: 76.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	76.1			
	Sulfide	26.0	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-8

Level (low/med): LOW Date Received: 11/09/94

% Solids: 80.6

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3330		*	P
7440-36-0	Antimony	5.0	U	N *	P
7440-38-2	Arsenic	3.3		N * S	F
7440-39-3	Barium	150		N *	P
7440-41-7	Beryllium	0.25	U		P
7440-43-9	Cadmium	6.0		*	P
7440-70-2	Calcium	2090			P
7440-47-3	Chromium	43.9		*	P
7440-48-4	Cobalt	5.7	B		P
7440-50-8	Copper	166			P
7439-89-6	Iron	7920		*	P
7439-92-1	Lead	571		*	P
7439-95-4	Magnesium	1230	B		P
7439-96-5	Manganese	133			P
7439-97-6	Mercury	0.30			CV
7440-02-0	Nickel	18.7		N *	P
7440-09-7	Potassium	598	B		P
7782-49-2	Selenium	0.33	B	* W	F
7440-22-4	Silver	1.2	U	N	P
7440-23-5	Sodium	223	U		P
7440-28-0	Thallium	0.25	U		F
7440-62-2	Vanadium	9.1	B		P
7440-66-6	Zinc	338		*	P
	Cyanide	0.62	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: PEBBLES

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-8

Level (low/med): LOW Date Received: 11/09/94

% Solids: 80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	170			
	Sulfide	24.7	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X109

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-9

Level (low/med): LOW Date Received: 11/09/94

% Solids: 72.8

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5590		*	P
7440-36-0	Antimony	5.5	U	N *	P
7440-38-2	Arsenic	3.0		N * S	F
7440-39-3	Barium	123		N *	P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	1.9		*	P
7440-70-2	Calcium	9070			P
7440-47-3	Chromium	10.4		*	P
7440-48-4	Cobalt	8.0	B		P
7440-50-8	Copper	21.6			P
7439-89-6	Iron	10900		*	P
7439-92-1	Lead	52.0		*	P
7439-95-4	Magnesium	2830			P
7439-96-5	Manganese	455			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	18.9		N *	P
7440-09-7	Potassium	940	B		P
7782-49-2	Selenium	1.4	U	*	F
7440-22-4	Silver	1.4	U	N	P
7440-23-5	Sodium	247	U		P
7440-28-0	Thallium	0.27	U		F
7440-62-2	Vanadium	13.6	B		P
7440-66-6	Zinc	206		*	P
	Cyanide	0.67	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: PEBBLES AND ROOTS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X109

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-9

Level (low/med): LOW Date Received: 11/09/94

% Solids: 72.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	4780			
	Sulfide	27.4	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X110

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-10

Level (low/med): LOW Date Received: 11/09/94

% Solids: 71.0

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1030		*	P
7440-36-0	Antimony	47.6		N *	P
7440-38-2	Arsenic	19.3		N * S	F
7440-39-3	Barium	1120		N *	P
7440-41-7	Beryllium	0.28	U		P
7440-43-9	Cadmium	1.2	B	*	P
7440-70-2	Calcium	413	B		P
7440-47-3	Chromium	40.8		*	P
7440-48-4	Cobalt	6.9	B		P
7440-50-8	Copper	226			P
7439-89-6	Iron	65200		*	P
7439-92-1	Lead	5320		*	P
7439-95-4	Magnesium	89.9	B		P
7439-96-5	Manganese	152			P
7439-97-6	Mercury	0.64			CV
7440-02-0	Nickel	371		N *	P
7440-09-7	Potassium	2430			P
7782-49-2	Selenium	1.4	U	* W	F
7440-22-4	Silver	28.9		N	P
7440-23-5	Sodium	476	B		P
7440-28-0	Thallium	0.28	U		F
7440-62-2	Vanadium	1.4	U		P
7440-66-6	Zinc	120		*	P
	Cyanide	0.70	U		C

Color Before: GRAY/BROW Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: PEBBLES

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X110

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-10

Level (low/med): LOW Date Received: 11/09/94

% Solids: 71.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	901			
	Sulfide	27.7	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X111

Lab Name: ARDL, INC. Contract No.: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water) SOIL Lab Sample ID: 2343-11

Level (low/med): LOW Date Received: 11/09/94

% Solids: 71.2

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100		*	P
7440-36-0	Antimony	5.6	U	N *	P
7440-38-2	Arsenic	4.4	B	N * S	F
7440-39-3	Barium	170		N *	P
7440-41-7	Beryllium	0.73	B		P
7440-43-9	Cadmium	1.9		*	P
7440-70-2	Calcium	11500			P
7440-47-3	Chromium	15.6		*	P
7440-48-4	Cobalt	9.7	B		P
7440-50-8	Copper	38.0			P
7439-89-6	Iron	17100		*	P
7439-92-1	Lead	58.1		*	P
7439-95-4	Magnesium	3990			P
7439-96-5	Manganese	597			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	25.9		N *	P
7440-09-7	Potassium	1520			P
7782-49-2	Selenium	1.4	U	*	F
7440-22-4	Silver	1.4	U	N	P
7440-23-5	Sodium	253	U		P
7440-28-0	Thallium	0.28	U		F
7440-62-2	Vanadium	23.1			P
7440-66-6	Zinc	216		*	P
	Cyanide	0.70	U		C

Color Before: GRAY/BROW Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: YES

Comments: PEBBLES

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

X111

Lab Name: ARDL, INC. Contract: 2343

Lab Code: ARDL Case No.: BBE SAS No.: _____ SDG No.: X101

Matrix (soil/water): SOIL Lab Sample ID: 2343-11

Level (low/med): LOW Date Received: 11/09/94

% Solids: 71.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Sulfate	300			
	Sulfide	27.7	U		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0741

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 Date Analyzed: 11/15/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	15.	
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	24.	
540-59-0	1,2-Dichloroethene (total)	240.	
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	10.	J
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	6.	J
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	5.	J
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	8.	J
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0741

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 Date Analyzed: 11/15/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	10.63	20.	J
2.		UNKNOWN	31.07	30.	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-1RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0784

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 Date Analyzed: 11/17/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	5.	J
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	21.	
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X101RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-1RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0784

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 Date Analyzed: 11/17/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.26	8.	J
2.				
3.				
4.				
5.				
6.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0742

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 23 Date Analyzed: 11/15/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	6.	J
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene (total)	13.	U
67-66-3	Chloroform	10.	J
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	13.	U
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	13.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X102

ab Name: ARDL, INC. Contract: SAUGET SA 1&2

ab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

atrix: (soil/water) SOIL Lab Sample ID: 2343-2

ample wt/vol: 5.0 (g/mL) G Lab File ID: >D0742

evel: (low/med) LOW Date Received: 11/09/94

Moisture: not dec. 23 Date Analyzed: 11/15/94

C Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

oil Extract Volume: --- (uL) Soil Aliquot Volume: --- (uL)

umber TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.31	20.	J
2.	UNKNOWN	10.68	9.	J
3.	UNKNOWN	15.10	8.	J
4.	UNKNOWN ALKANE	27.92	200.	J
5.	UNKNOWN	29.42	7.	J
6.	UNKNOWN	32.84	7.	J
7.				
8.				
9.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102RE

.ab Name: ARDL, INC. Contract: SAUGET SA 1&2

.ab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

atrix: (soil/water) SOIL Lab Sample ID: 2343-2RE

ample wt/vol: 5.0 (g/mL) G Lab File ID: >D0764

evel: (low/med) LOW Date Received: 11/09/94

Moisture: not dec. 23 Date Analyzed: 11/16/94

C column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

oil Extract Volume: --- (uL) Soil Aliquot Volume: --- (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	14.	
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene (total)	13.	U
67-66-3	Chloroform	10.	J
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	13.	U
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	13.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X102RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-2RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0764

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 23 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.93	7.	J
2.	UNKNOWN	7.30	9.	J
3.	UNKNOWN	10.72	8.	J
4.	UNKNOWN	28.68	10.	J
5.	UNKNOWN	29.46	20.	J
6.	UNKNOWN	30.96	8.	J
7.	UNKNOWN	32.10	20.	J
8.	UNKNOWN	33.01	7.	J
9.				
10.				
11.				
12.				
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14.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0763

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0763

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-3RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0769

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X103RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-3RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0769

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0744

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 28 Date Analyzed: 11/15/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0744

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 28 Date Analyzed: 11/15/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	27.88	200.	J
2.	UNKNOWN	31.58	100.	J
3.				
4.				
5.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104RE

.ab Name: ARDL, INC. Contract: SAUGET SA 1&2

.ab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

latrix: (soil/water) SOIL Lab Sample ID: 2343-4RE

ample wt/vol: 5.0 (g/mL) G Lab File ID: >D0765

.evel: (low/med) LOW Date Received: 11/09/94

. Moisture: not dec. 28 Date Analyzed: 11/16/94

;C column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

oil Extract Volume: --- (uL) Soil Aliquot Volume: --- (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X104RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-5RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0765

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 28 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	31.13	20.	J
2.		UNKNOWN	31.54	90.	J
3.					
4.					
5.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105

.ab Name: ARDL, INC. Contract: SAUGET SA 1&2

.ab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

latrix: (soil/water) SOIL Lab Sample ID: 2343-5

ample wt/vol: 5.0 (g/mL) G Lab File ID: >D0745

.evel: (low/med) LOW Date Received: 11/09/94

. Moisture: not dec. 24 Date Analyzed: 11/15/94

;C column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

oil Extract Volume: --- (uL) Soil Aliquot Volume: --- (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene_Chloride	5.	J
67-64-1	Acetone	27.	
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene_(total)	13.	U
67-66-3	Chloroform	13.	U
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	5.	J
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	14.	
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	14.	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X105

ab Name: ARDL, INC. Contract: SAUGET SA 1&2

ab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

latrix: (soil/water) SOIL Lab Sample ID: 2343-5

ample wt/vol: 5.0 (g/mL) G Lab File ID: >D0745

evel: (low/med) LOW Date Received: 11/09/94

Moisture: not dec. 24 Date Analyzed: 11/15/94

C Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

oil Extract Volume: --- (uL) Soil Aliquot Volume: --- (uL)

umber TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	15.09	10.	J
2.	UNKNOWN ALKANE	28.82	100.	J
3.				
4.				
5.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X106

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-6

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0749

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 Date Analyzed: 11/15/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	12.	U
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	12.	U
75-35-4	1,1-Dichloroethene	12.	U
75-34-3	1,1-Dichloroethane	12.	U
540-59-0	1,2-Dichloroethene (total)	12.	U
67-66-3	Chloroform	12.	U
107-06-2	1,2-Dichloroethane	12.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	18.	
56-23-5	Carbon Tetrachloride	12.	U
75-27-4	Bromodichloromethane	12.	U
78-87-5	1,2-Dichloropropane	12.	U
10061-01-5	cis-1,3-Dichloropropene	12.	U
79-01-6	Trichloroethene	12.	U
124-48-1	Dibromochloromethane	12.	U
79-00-5	1,1,2-Trichloroethane	12.	U
71-43-2	Benzene	12.	U
10061-02-6	trans-1,3-Dichloropropene	12.	U
75-25-2	Bromoform	12.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	12.	U
79-34-5	1,1,2,2-Tetrachloroethane	12.	U
108-88-3	Toluene	12.	U
108-90-7	Chlorobenzene	12.	U
100-41-4	Ethylbenzene	12.	U
100-42-5	Styrene	12.	U
1330-20-7	Xylene (total)	12.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X106

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-6

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0749

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 Date Analyzed: 11/15/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	2.43	10.	J
2.		UNKNOWN	8.32	8.	J
3.		BENZENE, ETHYL-DIMETHYL-	28.02	100.	J
4.					
5.					
6.					
7.					
8.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X106RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-6RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0770

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	12.	U
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	12.	U
75-35-4	1,1-Dichloroethene	12.	U
75-34-3	1,1-Dichloroethane	12.	U
540-59-0	1,2-Dichloroethene (total)	12.	U
67-66-3	Chloroform	12.	U
107-06-2	1,2-Dichloroethane	12.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	31.	
56-23-5	Carbon Tetrachloride	12.	U
75-27-4	Bromodichloromethane	12.	U
78-87-5	1,2-Dichloropropane	12.	U
10061-01-5	cis-1,3-Dichloropropene	12.	U
79-01-6	Trichloroethene	12.	U
124-48-1	Dibromochloromethane	12.	U
79-00-5	1,1,2-Trichloroethane	12.	U
71-43-2	Benzene	12.	U
10061-02-6	trans-1,3-Dichloropropene	12.	U
75-25-2	Bromoform	12.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	12.	U
79-34-5	1,1,2,2-Tetrachloroethane	12.	U
108-88-3	Toluene	12.	U
108-90-7	Chlorobenzene	12.	U
100-41-4	Ethylbenzene	12.	U
100-42-5	Styrene	12.	U
1330-20-7	Xylene (total)	12.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X106RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-6RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0770

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-7

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0758

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 24 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	13.	U
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene (total)	13.	U
67-66-3	Chloroform	13.	U
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	13.	U
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	13.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X107

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-7

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0758

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 24 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.04	8.	J
2.				
3.				
4.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-8

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0759

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	6.	J
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	12.	U
75-35-4	1,1-Dichloroethene	12.	U
75-34-3	1,1-Dichloroethane	12.	U
540-59-0	1,2-Dichloroethene (total)	12.	U
67-66-3	Chloroform	12.	U
107-06-2	1,2-Dichloroethane	12.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	12.	U
56-23-5	Carbon Tetrachloride	12.	U
75-27-4	Bromodichloromethane	12.	U
78-87-5	1,2-Dichloropropane	12.	U
10061-01-5	cis-1,3-Dichloropropene	12.	U
79-01-6	Trichloroethene	12.	U
124-48-1	Dibromochloromethane	12.	U
79-00-5	1,1,2-Trichloroethane	12.	U
71-43-2	Benzene	12.	U
10061-02-6	trans-1,3-Dichloropropene	12.	U
75-25-2	Bromoform	12.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	12.	U
79-34-5	1,1,2,2-Tetrachloroethane	12.	U
108-88-3	Toluene	12.	U
108-90-7	Chlorobenzene	12.	U
100-41-4	Ethylbenzene	12.	U
100-42-5	Styrene	12.	U
1330-20-7	Xylene (total)	12.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X108

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-8

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0759

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	33.42	40.	J
2.				
3.				
4.				
5.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-8RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0778

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 Date Analyzed: 11/17/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	6.	J
67-64-1	Acetone	12.	U
75-15-0	Carbon Disulfide	12.	U
75-35-4	1,1-Dichloroethene	12.	U
75-34-3	1,1-Dichloroethane	12.	U
540-59-0	1,2-Dichloroethene (total)	12.	U
67-66-3	Chloroform	12.	U
107-06-2	1,2-Dichloroethane	12.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	12.	U
56-23-5	Carbon Tetrachloride	12.	U
75-27-4	Bromodichloromethane	12.	U
78-87-5	1,2-Dichloropropane	12.	U
10061-01-5	cis-1,3-Dichloropropene	12.	U
79-01-6	Trichloroethene	12.	U
124-48-1	Dibromochloromethane	12.	U
79-00-5	1,1,2-Trichloroethane	12.	U
71-43-2	Benzene	12.	U
10061-02-6	trans-1,3-Dichloropropene	12.	U
75-25-2	Bromoform	12.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	12.	U
79-34-5	1,1,2,2-Tetrachloroethane	12.	U
108-88-3	Toluene	12.	U
108-90-7	Chlorobenzene	12.	U
100-41-4	Ethylbenzene	12.	U
100-42-5	Styrene	12.	U
1330-20-7	Xylene (total)	12.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X108RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-8RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0778

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 Date Analyzed: 11/17/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.77	10.	J
2.	UNKNOWN	7.98	10.	J
3.				
4.				
5.				
6.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X109

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-9

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0768

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 27 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X109

ab Name: ARDL, INC. Contract: SAUGET SA 1&2

ab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

atrix: (soil/water) SOIL Lab Sample ID: 2343-9

ample wt/vol: 5.0 (g/mL) G Lab File ID: >D0768

evel: (low/med) LOW Date Received: 11/09/94

Moisture: not dec. 27 Date Analyzed: 11/16/94

C Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

oil Extract Volume: --- (uL) Soil Aliquot Volume: --- (uL)

umber TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	76131	ETHANE, 1,1,2-TRICHLORO-1,2,2	13.56	20.	JN
2.		UNKNOWN ALKANE	32.16	20.	J
3.					
4.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X109RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-9RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0779

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 27 Date Analyzed: 11/17/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X109RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-9RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0779

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 27 Date Analyzed: 11/17/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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29.					
30.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X110

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0761

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 29 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	12.	J
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	8.	J
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X110

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0761

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 29 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	15.10	7.	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X110RE

ab Name: ARDL, INC. Contract: SAUGET SA 1&2

ab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

latrix: (soil/water) SOIL Lab Sample ID: 2343-10RE

ample wt/vol: 5.0 (g/mL) G Lab File ID: >D0780

evel: (low/med) LOW Date Received: 11/09/94

Moisture: not dec. 29 Date Analyzed: 11/17/94

C column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

oil Extract Volume: --- (uL) Soil Aliquot Volume: --- (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	9.	J
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	5.	J
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X110RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-10RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0780

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 29 Date Analyzed: 11/17/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	15.10	7.	J
2.				
3.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X111

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-11

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0762

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 29 Date Analyzed: 11/16/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X111

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-11

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0762

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 29 Date Analyzed: 11/16/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X111RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-11RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0781

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 29 Date Analyzed: 11/17/94

GC column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14.	U
74-83-9	Bromomethane	14.	U
75-01-4	Vinyl Chloride	14.	U
75-00-3	Chloroethane	14.	U
75-09-2	Methylene Chloride	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X111RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1&2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-11RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >D0781

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 29 Date Analyzed: 11/17/94

GC Column: 1%SP-1000 ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	33.50	10.	J
2.					
3.					
4.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7279

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 26 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1000.0

GPC Cleanup: (Y/N) Y pH: 6.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	450000.	U
111-44-4	bis(2-Chloroethyl)ether	450000.	U
95-57-8	2-Chlorophenol	450000.	U
541-73-1	1,3-Dichlorobenzene	450000.	U
106-46-7	1,4-Dichlorobenzene	450000.	U
95-50-1	1,2-Dichlorobenzene	450000.	U
95-48-7	2-Methylphenol	450000.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	450000.	U
106-44-5	4-Methylphenol	450000.	U
621-64-7	N-Nitroso-Di-n-propylamine	450000.	U
67-72-1	Hexachloroethane	450000.	U
98-95-3	Nitrobenzene	450000.	U
78-59-1	Isophorone	450000.	U
88-75-5	2-Nitrophenol	450000.	U
105-67-9	2,4-Dimethylphenol	450000.	U
111-91-1	bis(2-Chloroethoxy)methane	450000.	U
120-83-2	2,4-Dichlorophenol	450000.	U
120-82-1	1,2,4-Trichlorobenzene	450000.	U
91-20-3	Naphthalene	450000.	U
106-47-8	4-Chloroaniline	450000.	U
87-68-3	Hexachlorobutadiene	450000.	U
59-50-7	4-Chloro-3-methylphenol	450000.	U
91-57-6	2-Methylnaphthalene	450000.	U
77-47-4	Hexachlorocyclopentadiene	450000.	U
88-06-2	2,4,6-Trichlorophenol	450000.	U
95-95-4	2,4,5-Trichlorophenol	1100000.	U
91-58-7	2-Chloronaphthalene	450000.	U
88-74-4	2-Nitroaniline	1100000.	U
131-11-3	Dimethylphthalate	450000.	U
208-96-8	Acenaphthylene	450000.	U
606-20-2	2,6-Dinitrotoluene	450000.	U
99-09-2	3-Nitroaniline	1100000.	U
83-32-9	Acenaphthene	450000.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7279

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 26 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1000.0

GPC Cleanup: (Y/N) Y pH: 6.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100000.	U
100-02-7	4-Nitrophenol	1100000.	U
132-64-9	Dibenzofuran	450000.	U
121-14-2	2,4-Dinitrotoluene	450000.	U
84-66-2	Diethylphthalate	450000.	U
7005-72-3	4-Chlorophenyl-phenylether	450000.	U
86-73-7	Fluorene	450000.	U
100-01-6	4-Nitroaniline	1100000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1100000.	U
86-30-6	N-Nitrosodiphenylamine (1)	450000.	U
101-55-3	4-Bromophenyl-phenylether	450000.	U
118-74-1	Hexachlorobenzene	450000.	U
87-86-5	Pentachlorophenol	1100000.	U
85-01-8	Phenanthrene	450000.	U
120-12-7	Anthracene	450000.	U
86-74-8	Carbazole	450000.	U
84-74-2	Di-n-butylphthalate	450000.	U
206-44-0	Fluoranthene	450000.	U
129-00-0	Pyrene	450000.	U
85-68-7	Butylbenzylphthalate	450000.	U
91-94-1	3,3'-Dichlorobenzidine	450000.	U
56-55-3	Benzo(a)anthracene	450000.	U
218-01-9	Chrysene	450000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200000.	B
117-84-0	Di-n-octylphthalate	450000.	U
205-99-2	Benzo(b)fluoranthene	450000.	U
207-08-9	Benzo(k)fluoranthene	450000.	U
50-32-8	Benzo(a)pyrene	450000.	U
193-39-5	Indeno(1,2,3-cd)pyrene	450000.	U
53-70-3	Dibenz(a,h)anthracene	450000.	U
191-24-2	Benzo(g,h,i)perylene	450000.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7279

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1000.0

GPC Cleanup: (Y/N) Y pH: 6.6

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN PHTHALATE	28.00	200000.	J
2.	UNKNOWN PHTHALATE	28.07	200000.	J
3.	UNKNOWN	28.20	100000.	J
4.	UNKNOWN PHTHALATE	28.31	100000.	J
5.	UNKNOWN PHTHALATE	28.45	400000.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4090

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 23 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 6.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	4300.	U
111-44-4	bis(2-Chloroethyl)ether	4300.	U
95-57-8	2-Chlorophenol	4300.	U
541-73-1	1,3-Dichlorobenzene	4300.	U
106-46-7	1,4-Dichlorobenzene	4300.	U
95-50-1	1,2-Dichlorobenzene	4300.	U
95-48-7	2-Methylphenol	4300.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	4300.	U
106-44-5	4-Methylphenol	4300.	U
621-64-7	N-Nitroso-Di-n-propylamine	4300.	U
67-72-1	Hexachloroethane	4300.	U
98-95-3	Nitrobenzene	4300.	U
78-59-1	Isophorone	4300.	U
88-75-5	2-Nitrophenol	4300.	U
105-67-9	2,4-Dimethylphenol	4300.	U
111-91-1	bis(2-Chloroethoxy)methane	4300.	U
120-83-2	2,4-Dichlorophenol	4300.	U
120-82-1	1,2,4-Trichlorobenzene	4300.	U
91-20-3	Naphthalene	4300.	U
106-47-8	4-Chloroaniline	4300.	U
87-68-3	Hexachlorobutadiene	4300.	U
59-50-7	4-Chloro-3-methylphenol	4300.	U
91-57-6	2-Methylnaphthalene	4300.	U
77-47-4	Hexachlorocyclopentadiene	4300.	U
88-06-2	2,4,6-Trichlorophenol	4300.	U
95-95-4	2,4,5-Trichlorophenol	10000.	U
91-58-7	2-Chloronaphthalene	4300.	U
88-74-4	2-Nitroaniline	10000.	U
131-11-3	Dimethylphthalate	4300.	U
208-96-8	Acenaphthylene	4300.	U
606-20-2	2,6-Dinitrotoluene	4300.	U
99-09-2	3-Nitroaniline	10000.	U
83-32-9	Acenaphthene	4300.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4090

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 23 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 6.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	10000.	U
100-02-7	4-Nitrophenol	10000.	U
132-64-9	Dibenzofuran	4300.	U
121-14-2	2,4-Dinitrotoluene	4300.	U
84-66-2	Diethylphthalate	4300.	U
7005-72-3	4-Chlorophenyl-phenylether	4300.	U
86-73-7	Fluorene	4300.	U
100-01-6	4-Nitroaniline	10000.	U
534-52-1	4,6-Dinitro-2-methylphenol	10000.	U
86-30-6	N-Nitrosodiphenylamine (1)	4300.	U
101-55-3	4-Bromophenyl-phenylether	4300.	U
118-74-1	Hexachlorobenzene	4300.	U
87-86-5	Pentachlorophenol	10000.	U
85-01-8	Phenanthrene	4300.	U
120-12-7	Anthracene	4300.	U
86-74-8	Carbazole	4300.	U
84-74-2	Di-n-butylphthalate	4300.	U
206-44-0	Fluoranthene	4300.	U
129-00-0	Pyrene	4300.	U
85-68-7	Butylbenzylphthalate	4300.	U
91-94-1	3,3'-Dichlorobenzidine	4300.	U
56-55-3	Benzo(a)anthracene	4300.	U
218-01-9	Chrysene	4300.	U
117-81-7	bis(2-Ethylhexyl)phthalate	13000.	B
117-84-0	Di-n-octylphthalate	4300.	U
205-99-2	Benzo(b)fluoranthene	4300.	U
207-08-9	Benzo(k)fluoranthene	4300.	U
50-32-8	Benzo(a)pyrene	4300.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4300.	U
53-70-3	Dibenz(a,h)anthracene	4300.	U
191-24-2	Benzo(g,h,i)perylene	4300.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4090

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 23 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 6.6

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKANE	8.97	2000.	J
2.		UNKNOWN	10.83	2000.	J
3.		UNKNOWN	11.23	2000.	J
4.		UNKNOWN	12.82	1000.	J
5.		UNKNOWN	13.09	2000.	J
6.		UNKNOWN	13.42	5000.	J
7.		UNKNOWN	13.66	4000.	J
8.		UNKNOWN	13.81	3000.	J
9.		UNKNOWN	23.27	1000.	J
10.		UNKNOWN	23.55	3000.	J
11.		UNKNOWN	24.20	2000.	J
12.		UNKNOWN	26.11	2000.	J
13.		UNKNOWN	27.05	2000.	J
14.		UNKNOWN	27.23	3000.	J
15.		UNKNOWN	27.31	5000.	J
16.		UNKNOWN PHTHALATE	27.61	2000.	J
17.		UNKNOWN PHTHALATE	27.72	1000.	J
18.		UNKNOWN PHTHALATE	27.83	2000.	J
19.		UNKNOWN	29.02	1000.	J
20.		UNKNOWN PHTHALATE	31.46	2000000.	J
21.					
22.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-2RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4094

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: --- decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 6.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	4300.	U
111-44-4	bis(2-Chloroethyl)ether	4300.	U
95-57-8	2-Chlorophenol	4300.	U
541-73-1	1,3-Dichlorobenzene	4300.	U
106-46-7	1,4-Dichlorobenzene	4300.	U
95-50-1	1,2-Dichlorobenzene	4300.	U
95-48-7	2-Methylphenol	4300.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	4300.	U
106-44-5	4-Methylphenol	4300.	U
621-64-7	N-Nitroso-Di-n-propylamine	4300.	U
67-72-1	Hexachloroethane	4300.	U
98-95-3	Nitrobenzene	4300.	U
78-59-1	Isophorone	4300.	U
88-75-5	2-Nitrophenol	4300.	U
105-67-9	2,4-Dimethylphenol	4300.	U
111-91-1	bis(2-Chloroethoxy)methane	4300.	U
120-83-2	2,4-Dichlorophenol	4300.	U
120-82-1	1,2,4-Trichlorobenzene	4300.	U
91-20-3	Naphthalene	4300.	U
106-47-8	4-Chloroaniline	4300.	U
87-68-3	Hexachlorobutadiene	4300.	U
59-50-7	4-Chloro-3-methylphenol	4300.	U
91-57-6	2-Methylnaphthalene	4300.	U
77-47-4	Hexachlorocyclopentadiene	4300.	U
88-06-2	2,4,6-Trichlorophenol	4300.	U
95-95-4	2,4,5-Trichlorophenol	10000.	U
91-58-7	2-Chloronaphthalene	4300.	U
88-74-4	2-Nitroaniline	10000.	U
131-11-3	Dimethylphthalate	4300.	U
208-96-8	Acenaphthylene	4300.	U
606-20-2	2,6-Dinitrotoluene	4300.	U
99-09-2	3-Nitroaniline	10000.	U
83-32-9	Acenaphthene	4300.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-2RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4094

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: --- decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 6.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	10000.	U
100-02-7	4-Nitrophenol	10000.	U
132-64-9	Dibenzofuran	4300.	U
121-14-2	2,4-Dinitrotoluene	4300.	U
84-66-2	Diethylphthalate	4300.	U
7005-72-3	4-Chlorophenyl-phenylether	4300.	U
86-73-7	Fluorene	4300.	U
100-01-6	4-Nitroaniline	10000.	U
534-52-1	4,6-Dinitro-2-methylphenol	10000.	U
86-30-6	N-Nitrosodiphenylamine (1)	4300.	U
101-55-3	4-Bromophenyl-phenylether	4300.	U
118-74-1	Hexachlorobenzene	4300.	U
87-86-5	Pentachlorophenol	10000.	U
85-01-8	Phenanthrene	4300.	U
120-12-7	Anthracene	4300.	U
86-74-8	Carbazole	4300.	U
84-74-2	Di-n-butylphthalate	4300.	U
206-44-0	Fluoranthene	4300.	U
129-00-0	Pyrene	4300.	U
85-68-7	Butylbenzylphthalate	4300.	U
91-94-1	3,3'-Dichlorobenzidine	4300.	U
56-55-3	Benzo(a)anthracene	4300.	U
218-01-9	Chrysene	4300.	U
117-81-7	bis(2-Ethylhexyl)phthalate	15000.	B
117-84-0	Di-n-octylphthalate	4300.	U
205-99-2	Benzo(b)fluoranthene	4300.	U
207-08-9	Benzo(k)fluoranthene	4300.	U
50-32-8	Benzo(a)pyrene	4300.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4300.	U
53-70-3	Dibenz(a,h)anthracene	4300.	U
191-24-2	Benzo(g,h,i)perylene	4300.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X102RE

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-2RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4094

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 23 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 6.6

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.96	2000.	J
2.	UNKNOWN	10.82	2000.	J
3.	UNKNOWN	13.30	1000.	J
4.	UNKNOWN	13.41	5000.	J
5.	UNKNOWN	13.65	3000.	J
6.	UNKNOWN	13.81	3000.	J
7.	UNKNOWN	23.25	1000.	J
8.	UNKNOWN	23.54	3000.	J
9.	UNKNOWN	24.19	3000.	J
10.	UNKNOWN	26.10	2000.	J
11.	UNKNOWN	27.05	2000.	J
12.	UNKNOWN	27.30	2000.	J
13.	UNKNOWN PHTHALATE	27.59	3000.	J
14.	UNKNOWN PHTHALATE	27.83	2000.	J
15.	UNKNOWN PHTHALATE	31.40	4000000.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7267

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 26 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/29/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 6.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	4400.	U
111-44-4	bis(2-Chloroethyl)ether	4400.	U
95-57-8	2-Chlorophenol	4400.	U
541-73-1	1,3-Dichlorobenzene	4400.	U
106-46-7	1,4-Dichlorobenzene	4400.	U
95-50-1	1,2-Dichlorobenzene	4400.	U
95-48-7	2-Methylphenol	4400.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	4400.	U
106-44-5	4-Methylphenol	4400.	U
621-64-7	N-Nitroso-Di-n-propylamine	4400.	U
67-72-1	Hexachloroethane	4400.	U
98-95-3	Nitrobenzene	4400.	U
78-59-1	Isophorone	4400.	U
88-75-5	2-Nitrophenol	4400.	U
105-67-9	2,4-Dimethylphenol	4400.	U
111-91-1	bis(2-Chloroethoxy)methane	4400.	U
120-83-2	2,4-Dichlorophenol	4400.	U
120-82-1	1,2,4-Trichlorobenzene	4400.	U
91-20-3	Naphthalene	4400.	U
106-47-8	4-Chloroaniline	4400.	U
87-68-3	Hexachlorobutadiene	4400.	U
59-50-7	4-Chloro-3-methylphenol	4400.	U
91-57-6	2-Methylnaphthalene	4400.	U
77-47-4	Hexachlorocyclopentadiene	4400.	U
88-06-2	2,4,6-Trichlorophenol	4400.	U
95-95-4	2,4,5-Trichlorophenol	11000.	U
91-58-7	2-Chloronaphthalene	4400.	U
88-74-4	2-Nitroaniline	11000.	U
131-11-3	Dimethylphthalate	4400.	U
208-96-8	Acenaphthylene	4400.	U
606-20-2	2,6-Dinitrotoluene	4400.	U
99-09-2	3-Nitroaniline	11000.	U
83-32-9	Acenaphthene	4400.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7267

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 26 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/29/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 6.8 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	11000.	U
100-02-7	4-Nitrophenol	11000.	U
132-64-9	Dibenzofuran	4400.	U
121-14-2	2,4-Dinitrotoluene	4400.	U
84-66-2	Diethylphthalate	4400.	U
7005-72-3	4-Chlorophenyl-phenylether	4400.	U
86-73-7	Fluorene	4400.	U
100-01-6	4-Nitroaniline	11000.	U
534-52-1	4,6-Dinitro-2-methylphenol	11000.	U
86-30-6	N-Nitrosodiphenylamine (1)	4400.	U
101-55-3	4-Bromophenyl-phenylether	4400.	U
118-74-1	Hexachlorobenzene	4400.	U
87-86-5	Pentachlorophenol	11000.	U
85-01-8	Phenanthrene	4400.	U
120-12-7	Anthracene	4400.	U
86-74-8	Carbazole	4400.	U
84-74-2	Di-n-butylphthalate	4400.	U
206-44-0	Fluoranthene	4400.	U
129-00-0	Pyrene	4400.	U
85-68-7	Butylbenzylphthalate	4400.	U
91-94-1	3,3'-Dichlorobenzidine	4400.	U
56-55-3	Benzo(a)anthracene	4400.	U
218-01-9	Chrysene	4400.	U
117-81-7	bis(2-Ethylhexyl)phthalate	9300.	B
117-84-0	Di-n-octylphthalate	4400.	U
205-99-2	Benzo(b)fluoranthene	4400.	U
207-08-9	Benzo(k)fluoranthene	4400.	U
50-32-8	Benzo(a)pyrene	4400.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4400.	U
53-70-3	Dibenz(a,h)anthracene	4400.	U
191-24-2	Benzo(g,h,i)perylene	4400.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7627

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 26 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/29/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 6.8

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1,1'-BIPHENYL, TETRACHLORO-	22.33	3000.	J
2.	1,1'-BIPHENYL, TETRACHLORO-	22.76	1000.	J
3.	1,1'-BIPHENYL, PENTACHLORO-	23.66	3000.	J
4.	1,1'-BIPHENYL, PENTACHLORO-	24.12	3000.	J
5.	1,1'-BIPHENYL, PENTACHLORO-	24.86	2000.	J
6.	1,1'-BIPHENYL, HEXACHLORO-	26.35	3000.	J
7.	UNKNOWN	32.66	5000.	J
8.				
9.				
10.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7294

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 28 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 50000.0

GPC Cleanup: (Y/N) Y pH: 6.7 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	23000000.	U
111-44-4	bis(2-Chloroethyl)ether	23000000.	U
95-57-8	2-Chlorophenol	23000000.	U
541-73-1	1,3-Dichlorobenzene	23000000.	U
106-46-7	1,4-Dichlorobenzene	23000000.	U
95-50-1	1,2-Dichlorobenzene	23000000.	U
95-48-7	2-Methylphenol	23000000.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	23000000.	U
106-44-5	4-Methylphenol	23000000.	U
621-64-7	N-Nitroso-Di-n-propylamine	23000000.	U
67-72-1	Hexachloroethane	23000000.	U
98-95-3	Nitrobenzene	23000000.	U
78-59-1	Isophorone	23000000.	U
88-75-5	2-Nitrophenol	23000000.	U
105-67-9	2,4-Dimethylphenol	23000000.	U
111-91-1	bis(2-Chloroethoxy)methane	23000000.	U
120-83-2	2,4-Dichlorophenol	23000000.	U
120-82-1	1,2,4-Trichlorobenzene	23000000.	U
91-20-3	Naphthalene	23000000.	U
106-47-8	4-Chloroaniline	23000000.	U
87-68-3	Hexachlorobutadiene	23000000.	U
59-50-7	4-Chloro-3-methylphenol	23000000.	U
91-57-6	2-Methylnaphthalene	23000000.	U
77-47-4	Hexachlorocyclopentadiene	23000000.	U
88-06-2	2,4,6-Trichlorophenol	23000000.	U
95-95-4	2,4,5-Trichlorophenol	56000000.	U
91-58-7	2-Chloronaphthalene	23000000.	U
88-74-4	2-Nitroaniline	56000000.	U
131-11-3	Dimethylphthalate	23000000.	U
208-96-8	Acenaphthylene	23000000.	U
606-20-2	2,6-Dinitrotoluene	23000000.	U
99-09-2	3-Nitroaniline	56000000.	U
83-32-9	Acenaphthene	23000000.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7294

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 28 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 50000.0

GPC Cleanup: (Y/N) Y pH: 6.7 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	56000000.	U
100-02-7	4-Nitrophenol	56000000.	U
132-64-9	Dibenzofuran	23000000.	U
121-14-2	2,4-Dinitrotoluene	23000000.	U
84-66-2	Diethylphthalate	23000000.	U
7005-72-3	4-Chlorophenyl-phenylether	23000000.	U
86-73-7	Fluorene	23000000.	U
100-01-6	4-Nitroaniline	56000000.	U
534-52-1	4,6-Dinitro-2-methylphenol	56000000.	U
86-30-6	N-Nitrosodiphenylamine (1)	23000000.	U
101-55-3	4-Bromophenyl-phenylether	23000000.	U
118-74-1	Hexachlorobenzene	23000000.	U
87-86-5	Pentachlorophenol	56000000.	U
85-01-8	Phenanthrene	23000000.	U
120-12-7	Anthracene	23000000.	U
86-74-8	Carbazole	23000000.	U
84-74-2	Di-n-butylphthalate	23000000.	U
206-44-0	Fluoranthene	23000000.	U
129-00-0	Pyrene	23000000.	U
85-68-7	Butylbenzylphthalate	23000000.	U
91-94-1	3,3'-Dichlorobenzidine	23000000.	U
56-55-3	Benzo(a)anthracene	23000000.	U
218-01-9	Chrysene	23000000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	110000000.	B
117-84-0	Di-n-octylphthalate	23000000.	U
205-99-2	Benzo(b)fluoranthene	23000000.	U
207-08-9	Benzo(k)fluoranthene	23000000.	U
50-32-8	Benzo(a)pyrene	23000000.	U
193-39-5	Indeno(1,2,3-cd)pyrene	23000000.	U
53-70-3	Dibenz(a,h)anthracene	23000000.	U
191-24-2	Benzo(g,h,i)perylene	23000000.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X104

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7294

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 28 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/02/94

Injection Volume: 2.0 (uL) Dilution Factor: 50000.0

GPC Cleanup: (Y/N) Y pH: 6.7

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7270

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 24 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 2.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	4300.	U
111-44-4	bis(2-Chloroethyl)ether	4300.	U
95-57-8	2-Chlorophenol	4300.	U
541-73-1	1,3-Dichlorobenzene	4300.	U
106-46-7	1,4-Dichlorobenzene	4300.	U
95-50-1	1,2-Dichlorobenzene	4300.	U
95-48-7	2-Methylphenol	4300.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	4300.	U
106-44-5	4-Methylphenol	4300.	U
621-64-7	N-Nitroso-Di-n-propylamine	4300.	U
67-72-1	Hexachloroethane	4300.	U
98-95-3	Nitrobenzene	4300.	U
78-59-1	Isophorone	4300.	U
88-75-5	2-Nitrophenol	4300.	U
105-67-9	2,4-Dimethylphenol	4300.	U
111-91-1	bis(2-Chloroethoxy)methane	4300.	U
120-83-2	2,4-Dichlorophenol	4300.	U
120-82-1	1,2,4-Trichlorobenzene	4300.	U
91-20-3	Naphthalene	4300.	U
106-47-8	4-Chloroaniline	4300.	U
87-68-3	Hexachlorobutadiene	4300.	U
59-50-7	4-Chloro-3-methylphenol	4300.	U
91-57-6	2-Methylnaphthalene	4300.	U
77-47-4	Hexachlorocyclopentadiene	4300.	U
88-06-2	2,4,6-Trichlorophenol	4300.	U
95-95-4	2,4,5-Trichlorophenol	11000.	U
91-58-7	2-Chloronaphthalene	4300.	U
88-74-4	2-Nitroaniline	11000.	U
131-11-3	Dimethylphthalate	4300.	U
208-96-8	Acenaphthylene	4300.	U
606-20-2	2,6-Dinitrotoluene	4300.	U
99-09-2	3-Nitroaniline	11000.	U
83-32-9	Acenaphthene	4300.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7270

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 24 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 2.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	11000.	U
100-02-7	4-Nitrophenol	11000.	U
132-64-9	Dibenzofuran	4300.	U
121-14-2	2,4-Dinitrotoluene	4300.	U
84-66-2	Diethylphthalate	4300.	U
7005-72-3	4-Chlorophenyl-phenylether	4300.	U
86-73-7	Fluorene	4300.	U
100-01-6	4-Nitroaniline	11000.	U
534-52-1	4,6-Dinitro-2-methylphenol	11000.	U
86-30-6	N-Nitrosodiphenylamine (1)	4300.	U
101-55-3	4-Bromophenyl-phenylether	4300.	U
118-74-1	Hexachlorobenzene	4300.	U
87-86-5	Pentachlorophenol	11000.	U
85-01-8	Phenanthrene	4300.	U
120-12-7	Anthracene	4300.	U
86-74-8	Carbazole	4300.	U
84-74-2	Di-n-butylphthalate	4300.	U
206-44-0	Fluoranthene	4300.	U
129-00-0	Pyrene	4300.	U
85-68-7	Butylbenzylphthalate	4300.	U
91-94-1	3,3'-Dichlorobenzidine	4300.	U
56-55-3	Benzo(a)anthracene	4300.	U
218-01-9	Chrysene	4300.	U
117-81-7	bis(2-Ethylhexyl)phthalate	13000.	B
117-84-0	Di-n-octylphthalate	4300.	U
205-99-2	Benzo(b)fluoranthene	4300.	U
207-08-9	Benzo(k)fluoranthene	4300.	U
50-32-8	Benzo(a)pyrene	4300.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4300.	U
53-70-3	Dibenz(a,h)anthracene	4300.	U
191-24-2	Benzo(g,h,i)perylene	4300.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X105

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7270

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 24 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 2.6

Number TICs found: 17

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	17.19	3000.	J
2.	1,1'-BIPHENYL, TETRACHLORO-	22.30	2000.	J
3.	UNKNOWN	22.39	1000.	J
4.	1,1'-BIPHENYL, TETRACHLORO-	22.74	1000.	J
5.	1,1'-BIPHENYL, TETRACHLORO-	23.02	900.	J
6.	UNKNOWN	23.47	3000.	J
7.	1,1'-BIPHENYL, TETRACHLORO-	23.63	2000.	J
8.	1,1'-BIPHENYL, TETRACHLORO-	23.97	1000.	J
9.	1,1'-BIPHENYL, PENTACHLORO-	24.08	2000.	J
10.	1,1'-BIPHENYL, PENTACHLORO-	24.82	1000.	J
11.	1,1'-BIPHENYL, PENTACHLORO-	25.33	1000.	J
12.	UNKNOWN	26.18	2000.	J
13.	UNKNOWN PHTHALATE	28.00	2000.	J
14.	UNKNOWN	28.20	2000.	J
15.	UNKNOWN PHTHALATE	28.45	2000.	J
16.	UNKNOWN PHTHALATE	29.61	1000.	J
17.	UNKNOWN ALKANE	30.19	1000.	J
18.				
19.				
20.				
21.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X106

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-6

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7281

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 20 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 250.0

GPC Cleanup: (Y/N) Y pH: 6.1 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	100000.	U
111-44-4	bis(2-Chloroethyl)ether	100000.	U
95-57-8	2-Chlorophenol	100000.	U
541-73-1	1,3-Dichlorobenzene	100000.	U
106-46-7	1,4-Dichlorobenzene	100000.	U
95-50-1	1,2-Dichlorobenzene	100000.	U
95-48-7	2-Methylphenol	100000.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	100000.	U
106-44-5	4-Methylphenol	100000.	U
621-64-7	N-Nitroso-Di-n-propylamine	100000.	U
67-72-1	Hexachloroethane	100000.	U
98-95-3	Nitrobenzene	100000.	U
78-59-1	Isophorone	100000.	U
88-75-5	2-Nitrophenol	100000.	U
105-67-9	2,4-Dimethylphenol	100000.	U
111-91-1	bis(2-Chloroethoxy)methane	100000.	U
120-83-2	2,4-Dichlorophenol	100000.	U
120-82-1	1,2,4-Trichlorobenzene	100000.	U
91-20-3	Naphthalene	100000.	U
106-47-8	4-Chloroaniline	100000.	U
87-68-3	Hexachlorobutadiene	100000.	U
59-50-7	4-Chloro-3-methylphenol	100000.	U
91-57-6	2-Methylnaphthalene	100000.	U
77-47-4	Hexachlorocyclopentadiene	100000.	U
88-06-2	2,4,6-Trichlorophenol	100000.	U
95-95-4	2,4,5-Trichlorophenol	250000.	U
91-58-7	2-Chloronaphthalene	100000.	U
88-74-4	2-Nitroaniline	250000.	U
131-11-3	Dimethylphthalate	100000.	U
208-96-8	Acenaphthylene	100000.	U
606-20-2	2,6-Dinitrotoluene	100000.	U
99-09-2	3-Nitroaniline	250000.	U
83-32-9	Acenaphthene	100000.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X106

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-6

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7281

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 20 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 250.0

GPC Cleanup: (Y/N) Y pH: 6.1 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	250000.	U
100-02-7	4-Nitrophenol	250000.	U
132-64-9	Dibenzofuran	100000.	U
121-14-2	2,4-Dinitrotoluene	100000.	U
84-66-2	Diethylphthalate	100000.	U
7005-72-3	4-Chlorophenyl-phenylether	100000.	U
86-73-7	Fluorene	100000.	U
100-01-6	4-Nitroaniline	250000.	U
534-52-1	4,6-Dinitro-2-methylphenol	250000.	U
86-30-6	N-Nitrosodiphenylamine (1)	100000.	U
101-55-3	4-Bromophenyl-phenylether	100000.	U
118-74-1	Hexachlorobenzene	100000.	U
87-86-5	Pentachlorophenol	250000.	U
85-01-8	Phenanthrene	100000.	U
120-12-7	Anthracene	100000.	U
86-74-8	Carbazole	100000.	U
84-74-2	Di-n-butylphthalate	100000.	U
206-44-0	Fluoranthene	100000.	U
129-00-0	Pyrene	100000.	U
85-68-7	Butylbenzylphthalate	100000.	U
91-94-1	3,3'-Dichlorobenzidine	100000.	U
56-55-3	Benzo(a)anthracene	100000.	U
218-01-9	Chrysene	100000.	U
117-81-7	bis(2-Ethylhexyl)phthalate	120000.	B
117-84-0	Di-n-octylphthalate	100000.	U
205-99-2	Benzo(b)fluoranthene	100000.	U
207-08-9	Benzo(k)fluoranthene	100000.	U
50-32-8	Benzo(a)pyrene	100000.	U
193-39-5	Indeno(1,2,3-cd)pyrene	100000.	U
53-70-3	Dibenz(a,h)anthracene	100000.	U
191-24-2	Benzo(g,h,i)perylene	100000.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X106

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-6

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >M7281

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 20 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 250.0

GPC Cleanup: (Y/N) Y pH: 6.1

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN AROMATIC	8.48	70000.	J
2.	UNKNOWN AROMATIC	9.58	200000.	J
3.	UNKNOWN AROMATIC	10.15	100000.	J
4.	UNKNOWN AROMATIC	10.28	80000.	J
5.	UNKNOWN ALKANE	11.01	200000.	J
6.	UNKNOWN	11.11	60000.	J
7.	UNKNOWN AROMATIC	11.31	90000.	J
8.	UNKNOWN AROMATIC	11.40	70000.	J
9.	UNKNOWN	11.47	60000.	J
10.	UNKNOWN	11.82	80000.	J
11.	UNKNOWN AROMATIC	11.94	200000.	J
12.	UNKNOWN	12.11	80000.	J
13.	UNKNOWN	15.07	200000.	J
14.	UNKNOWN	24.70	2000000.	J
15.	UNKNOWN PHTHALATE	28.91	100000.	J
16.	UNKNOWN PHTHALATE	29.14	200000.	J
17.	UNKNOWN PHTHALATE	29.38	100000.	J
18.	UNKNOWN PHTHALATE	30.73	80000000.	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-7

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4083

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 24 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	270.	J
108-60-1	2,2'-oxybis(1-Chloropropane)	430.	U
106-44-5	4-Methylphenol	280.	J
621-64-7	N-Nitroso-Di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	210.	J
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	270.	J
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	430.	U
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	430.	U
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	430.	U
606-20-2	2,6-Dinitrotoluene	430.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	430.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X107

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-7

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4083

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 24 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	430.	U
121-14-2	2,4-Dinitrotoluene	430.	U
84-66-2	Diethylphthalate	430.	U
7005-72-3	4-Chlorophenyl-phenylether	430.	U
86-73-7	Fluorene	430.	U
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	430.	U
101-55-3	4-Bromophenyl-phenylether	430.	U
118-74-1	Hexachlorobenzene	430.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	430.	U
120-12-7	Anthracene	430.	U
86-74-8	Carbazole	430.	U
84-74-2	Di-n-butylphthalate	430.	U
206-44-0	Fluoranthene	430.	U
129-00-0	Pyrene	430.	U
85-68-7	Butylbenzylphthalate	120.	J
91-94-1	3,3'-Dichlorobenzidine	430.	U
56-55-3	Benzo(a)anthracene	430.	U
218-01-9	Chrysene	430.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1900.	B
117-84-0	Di-n-octylphthalate	430.	U
205-99-2	Benzo(b)fluoranthene	430.	U
207-08-9	Benzo(k)fluoranthene	430.	U
50-32-8	Benzo(a)pyrene	430.	U
193-39-5	Indeno(1,2,3-cd)pyrene	430.	U
53-70-3	Dibenz(a,h)anthracene	430.	U
191-24-2	Benzo(g,h,i)perylene	430.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X107

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-7

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4083

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: not dec. 24 decanted:(Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	15.19	900.	J
2.	UNKNOWN	15.80	3000.	J
3.	UNKNOWN	16.40	900.	J
4.	UNKNOWN	19.91	1000.	J
5.	1,1'-BIPHENYL, TETRACHLORO-	23.05	3000.	J
6.	1,1'-BIPHENYL, TETRACHLORO-	23.49	800.	J
7.	UNKNOWN	24.13	1000.	J
8.	1,1'-BIPHENYL, TETRACHLORO-	24.30	1000.	J
9.	1,1'-BIPHENYL, PENTACHLORO-	24.40	2000.	J
10.	1,1'-BIPHENYL, PENTACHLORO-	24.72	800.	J
11.	1,1'-BIPHENYL, PENTACHLORO-	24.85	2000.	J
12.	1,1'-BIPHENYL, PENTACHLORO-	24.95	2000.	J
13.	1,1'-BIPHENYL, HEXACHLORO-	26.06	2000.	J
14.	1,1'-BIPHENYL, PENTACHLORO-	26.10	1000.	J
15.	1,1'-BIPHENYL, HEXACHLORO-	26.53	1000.	J
16.	UNKNOWN	26.99	2000.	J
17.	1,1'-BIPHENYL, HEXACHLORO-	27.08	2000.	J
18.	UNKNOWN	28.97	1000.	J
19.	UNKNOWN	29.32	4000.	J
20.	UNKNOWN	30.91	900.	J
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22.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X108

Lab Name: ARDL, INC. Contract: SAUGET SA 1 & 2

Lab Code: --- Case No.: --- SAS No.: --- SDG No.: X101

Matrix: (soil/water) SOIL Lab Sample ID: 2343-8

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >W4086

Level: (low/med) LOW Date Received: 11/09/94

% Moisture: 20 decanted: (Y/N) N Date Extracted: 11/18/94

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 11/30/94

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.6 Conversion Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	830.	U
111-44-4	bis(2-Chloroethyl)ether	830.	U
95-57-8	2-Chlorophenol	830.	U
541-73-1	1,3-Dichlorobenzene	830.	U
106-46-7	1,4-Dichlorobenzene	830.	U
95-50-1	1,2-Dichlorobenzene	830.	U
95-48-7	2-Methylphenol	830.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	830.	U
106-44-5	4-Methylphenol	830.	U
621-64-7	N-Nitroso-Di-n-propylamine	830.	U
67-72-1	Hexachloroethane	830.	U
98-95-3	Nitrobenzene	830.	U
78-59-1	Isophorone	830.	U
88-75-5	2-Nitrophenol	830.	U
105-67-9	2,4-Dimethylphenol	830.	U
111-91-1	bis(2-Chloroethoxy)methane	830.	U
120-83-2	2,4-Dichlorophenol	830.	U
120-82-1	1,2,4-Trichlorobenzene	830.	U
91-20-3	Naphthalene	830.	U
106-47-8	4-Chloroaniline	830.	U
87-68-3	Hexachlorobutadiene	160.	J
59-50-7	4-Chloro-3-methylphenol	830.	U
91-57-6	2-Methylnaphthalene	830.	U
77-47-4	Hexachlorocyclopentadiene	830.	U
88-06-2	2,4,6-Trichlorophenol	830.	U
95-95-4	2,4,5-Trichlorophenol	2000.	U
91-58-7	2-Chloronaphthalene	830.	U
88-74-4	2-Nitroaniline	2000.	U
131-11-3	Dimethylphthalate	830.	U
208-96-8	Acenaphthylene	830.	U
606-20-2	2,6-Dinitrotoluene	830.	U
99-09-2	3-Nitroaniline	2000.	U
83-32-9	Acenaphthene	830.	U