APD-GW FB02-01
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113513

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X18.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

US EPA RECORDS CENTER REGION 5
462696

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

FB02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113513

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X18.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113513

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P06.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113513

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P06.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

FB02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113513

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P06.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.090	53	NJ
2.	Unknown	7.210	10	JB
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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113513

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_038.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMT FB01-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB01

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111308

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X13.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

FB01

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111308

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X13.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB01

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111308

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N16.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB01

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111308

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N16.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

FB01

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111308

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N16.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.110	33	NJ
2.	Unknown	7.230	8	J
3. 931179	1,2-Cyclohexanediol isomer	10.430	8	NJ
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB01

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111308

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_128.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/23/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

MONTGOMERY WATSON

INORGANICS
DATA VALIDATION NARRATIVE

Site Name ACS Project # 1252042.~~0809~~.0076

SMO Case # (SDG SAS #) 11112 #Samples/Matrix 38 GW's

Laboratory IEA Hours for Review 8

SOW # 3/90 EPA Validation Guidelines # February, 1994

Sample Numbers 11-96 Sample date

Validated By Thomas J. Dwabik Date 1-10-97

Reviewed By _____ Date _____

SUMMARY OF REVIEW: A complete data package was reviewed using EPA Region V Guidelines and was found to be acceptable with the following exceptions: See next page.

Overall

Al - Qualified MW22 and MW24F as undetected (U) due to negative prep blank results being > IDL of 16 ug/l.
Qualified MW51F and MW5191F as estimated (J) due to field duplicate results of 134.1 % RPD.

Cr - Qualified MW51, MW5191, MW51F, and MW5191F as estimated (J) due to field duplicate results of 64.5 % and 88.5 % RPD.
Qualified MW08, MW09, MW09F, MW10CF, MW11, MW14, MW14F, MW19, MW19F, MW22, MW50, MW50F, MW12F, MW12, MW129, MW51F, MW5191F, MW51, MW5191 as undetected (U) due to field blank contamination.

Cu - Qualified FB02, MW10C, MW129, MW18, MW19, MW19F, MW50, MW51, MW5191F as undetected (U) due to negative CCB results being > than IDL of 1.0 ug/L.
Qualified MW51F, MW5191F, MW12, MW129 as estimated (J) due to 132.6 % RPD for field duplicate results

Fe - Qualified MW22F as undetected (U) due to field blank detects.

Pb - Qualify all data except MW08 as estimated (J) due to out of control lab duplicate result.

Mg - Qualify FB01, FB01F, FB02, FB02F as undetected (U) due to PB and CCB detects

Ni - Qualify MW12, MW129 as estimated (J) due to 59.1 % RPD field duplicate result.
Qualify MW08, MW09, MW09F, MW18, MW18F, MW23F, MW24F, MW12F, MW129F, MW129 as undetected (U) due to field blank detects.

K - Qualify FB01 as undetected (U) due to CCB detect > IDL of 16 ug/l.

V - Qualify MW12, MW129, MW51, MW5191, MW51F, MW5191F as estimated (J) due to RPD's > 50% for field duplicate results.

Zn - Qualified all samples except MW11 as undetected (U) due to Prep Blank detects.

Qualify MW51, MW5191 as estimated (J) due to 81.6% RPD field duplicate result.

ICP Metals : Al, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Mg, Mn, Ni, K, Ag, Na, Tl, V, Zn
Sb, Pb, Se

1. Hold Time - 6 months allowed

Dates Sampled: 11/5, 6 /96

Dates Analyzed: 11/23, 24/96 OK

2. Calibration

Blank + 5 STD's

ICV/CCV - every 10 samples, all 90-110% R

3. Blanks

ICB/CCB - every 10 samples, all < IDL except:

* Al - negative results - 33.66 x 5 = 168.3
Qualify MW22 and MW24F as undetected (U) due to negative prep blank results being > than IDL of 16 ug/L

* Cu - negative detects - 1.3 x 5 = 6.5
Qualify FB02, MW10C, MW129, MW18, MW19, MW19F, MW50, MW51, MW51 91F as undetected (U) due to negative CCB results being > than IDL of 1.0 ug/L

* Fe - PB detects of 8.11 and 11.33 ug/l ~~x10 = 113.3 ug/l~~
~~Qualify FB01, FB01F, FB02, FB02F, MW22F as undetected (U) due to PB detects~~ CRDL of 100 ug/l → OK

* Mg - detects in PB's and CCB's - 33.1 x 5 = 165.5 ug/l
Qualify FB01, FB01F, FB02, FB02F, as undetected (U) due to PB and CCB detects.

* K - negative detects and + 42.7 ug/l x 5 = 213.5 ug/l
Qualify FB01 as undetected (U) due to CCB detect > IDL of 16 ug/l.

Na - negative detects were < CRDL → OK

* Zn - PB detects of 8.045 and 9.124 ug/l x 10 = 91.24 ug/l
Qualify all samples except MW11 as undetected (U) due to PB detects.

4. ICP Interference Check Sample

Al 473227.7/500,000 = 94.6 % R

Pb 1011/1000 = 101.1 % R

V 511.4/500 = 102.3 % R

All results were 80-120 % R

5. LCS

Sb 4876.42/6000 = 97.5 % R

Mn 4894.65/5000 = 97.9 % R

Tl 5017.18/5000 = 100.3 % R

All results were 80-120 % R

6. Duplicates

Ba $\frac{127.8 - 113.2}{120.5}$ = 12.1 % RPD

Mg $\frac{18620.9 - 16477.}{17548.95}$ = 12.2 % RPD

* Pb 1.0 u / 12.95 → 200 RPD

Qualify all data as estimated (J) due to out of control lab duplicate except MW08.

All other results were < 20 RPD

7. Spikes

Co $\frac{496 - 1u}{500}$ = 99.2 % R

Ni $\frac{493}{500}$ = 98.6 % R

Tl $\frac{2069.7}{2000}$ = 103.5 % R

Fe $\frac{1891.7 - 1026.8}{1000}$ = 86.5 % R

All other results were 75-125 % R

8. ICP Serial Dilutions

Ba $\frac{131.74 - 132.2}{131.74}$ = 0.3 % Diff

Ca $\frac{58787.36 - 60896.84}{58787.36}$ = 3.6 % Diff

All results > 50 x IDL are acceptable

9. SRV

Transcriptions and figures checked - OK

10. Field Duplicate

MW 12 (Dissolved) Undetected: Al, Sb, As, Be, Cd, Co, Cu, Se, Ag, Tl

Ba $\frac{61.1 - 62.6}{61.85}$ = 2.4 % RPD

Ca $\frac{54,100 - 56,100}{55,100}$ = 3.6 %

Cr 1.0 u / 1.3 = 200% - OK ± CRDL

Fe $\frac{6110 - 6320}{6215}$ = 3.4 %

Pb $\frac{4.0 - 6.7}{5.35}$ = 50.5 % - Data is estimated (J) - OK

Mg $\frac{18,100 - 18,800}{18,450}$ = 3.8 %

Mn $\frac{1270 - 1320}{1295}$ = 3.9 %

Ni $\frac{2.2 - 2.5}{2.35}$ = 12.8 %

K $\frac{4470 - 4630}{4550}$ = 3.5 %

Na $\frac{19200 - 19900}{19,550}$ = 3.6 %

V $\frac{2.7 - 3.1}{2.9}$ = 13.8 %

Zn $\frac{7 - 8}{7.5}$ = 13.3 %

MW 12 (Total) Undetected: Sb, Be, Cd, Co, Ag, Tl

Al $\frac{261 - 361}{311}$ = 32.2 % RPD

As $\frac{3.8 - 5.4}{4.4}$ = 40.9 % RPD

Ba $\frac{75.5 - 85.5}{80.5}$ = 12.4 %

Ca $\frac{57,300 - 54,100}{55,700}$ = 5.7 %

Cr $\frac{2.6 - 7.6}{5.1}$ = 95 %

Cu $\frac{3.6 - 9}{6.3} = \underline{85.7\ \%}$

Fe $\frac{14,700 - 22,500}{18,600} = 41.9\ \%$

Pb $\frac{10.5 - 14.1}{12.3} = 29.3\ \%$

Mg $\frac{19,300 - 18,400}{18,850} = 4.8\ \%$

Mn $\frac{1370 - 1310}{1340} = 4.5\ \%$

Ni $\frac{3.1 - 5.7}{4.4} = \underline{59.1\ \%}$

K $\frac{4900 - 4660}{4780} = 5.0\ \%$

Se 2.0u / 2.1 = 200% → ± CRDL → OK

Na $\frac{20,700 - 19,300}{20000} = 7.0\ \%$

V $\frac{9.6 - 18.9}{14.25} = \underline{65.3\ \%}$

Zn $\frac{7.5 - 11.5}{9.5} = 42.1\ \%$

MW51 (Dissolved) Undetected: Sb, Be, Cd, Se, Ag, Tl

Al $\frac{188 - 953}{570.5} = \underline{134.1\ \%}$ RPD

As $\frac{3.4 - 5.0}{4.2} = 38.1\ \%$

Ba $\frac{431 - 403}{417} = 6.7\ \%$

Ca $\frac{155,000 - 157,000}{156,000} = 1.3\ \%$

Cr $\frac{1.7 - 4.4}{3.05} = \underline{88.5\ \%}$

Co $\frac{1.2 - 2.3}{1.75} = \underline{62.9\ \%}$

Cu $\frac{1.5 - 7.4}{4.45} = \underline{132.6\ \%}$

Fe $\frac{7200 - 9760}{8480} = 30.2\ \%$

Pb $\frac{5.2 - 5.8}{5.5} = 10.9\ \%$

Mg $\frac{70,000 - 71,700}{70,850} = 2.4\ \%$

Mn $\frac{164 - 263}{213.5} = 46.4\ \%$

Ni $\frac{10.8 - 13.5}{12.15} = 22.2\ \%$

K $\frac{4390 - 4520}{4455} = 2.9\ \%$

Na $\frac{110,000 - 102,000}{106,000} = 7.5\ \%$

V $\frac{1 - 3.3}{2.15} = \underline{107\ \%}$

Zn $\frac{30.0 - 36.6}{33.3} = 19.8\ \%$

MW51 (Total) Undetected: Sb, Be, Cd, Se, Ag, Tl

Al $\frac{684 - 551}{617.5} = 21.5\%$ RPD

As $\frac{4.7 - 3.0}{3.85} = 44.2\%$

Ba $\frac{400 - 423}{411.5} = 5.6\%$

Ca $\frac{147,000 - 147,000}{0} = 0\%$

Cr $\frac{4.1 - 2.1}{3.1} = \underline{64.5\%}$

Co $\frac{1.9 - 1.3}{1.6} = 37.5\%$

Cu $\frac{3.7 / 1u}{} = 200\%$

Fe $\frac{8230 - 7200}{7715} = 13.4\%$

Pb $\frac{3.1 - 1.8}{2.45} = \underline{53.1}\%$

Mg $\frac{66,300 - 67,300}{66,800} = 1.5\%$

Mn $\frac{193 - 152}{172.5} = 23.8\%$

Ni $\frac{12.1 - 10.3}{11.2} = 16.1\%$

K $\frac{4290 - 4700}{4495} = 9.1\%$

Na $\frac{102,000 - 107,000}{104,500} = 4.8\%$

V $\frac{2.2 - 1.3}{1.75} = \underline{51.4}\%$

Zn $\frac{23.8 - 10}{\cancel{13.45}\ 16.9} = \underline{81.6}\%$

* Al - Qualify [redacted] results as estimated (J) due to duplicate result of 134.1% RPD for MW51F.
* Cr - Qualify [redacted] results as estimated (J) due to duplicate results of 64.5% and 88.5% RPD for MW51 and MW51F.
* Cu - Qualify MW51F, MW12[redacted] as estimated (J) due to 132.6% RPD duplicate result.
* Pb - Qualify MW51, MW12F as estimated (J) due to 53.1% RPD duplicate result
* Ni - Qualify MW12[redacted] as estimated (J) due to 59.1% RPD duplicate result.
* V - Qualify MW12[redacted], MW51, MW51F as estimated (J) due to RPD's > 50% for duplicate results.
* Zn - Qualify MW51[redacted] as estimated (J) due to 81.6% RPD duplicate result.

11. Field Blanks

* Cr - detects of 1.6 and 2.3 ug/l x 5 = 11.5 ug/l

Qualify MW08, MW09, MW09F, MW10CF, MW11, MW14, MW14F, MW19, MW19F, MW22, MW50, MW50F, MW12F, MW12, MW129, MW51F, MW5191F, MW51, MW5191 as undetected (u) due to field blank contamination.

Fe - detects of 22.9, 23, 32.1, 11.5 ug/l, 32.1 x 5 = 160.5 ug/l

* Qualify MW22F as undetected (u) due to field blank detects.

Ni - detects of 1 ug/l x 5 = 5 ug/l

* Qualify MW08, MW09, MW09F, MW18, MW18F, MW23F, MW24F, MW12F, MW129F, MW129 as undetected (u) due to field blank detects.

Na - detect of 208 ug/l x 5 = 1040 ug/l

No data is affected.

Overall

Al - Qualified MW22 and MW24F as undetected (U) due to negative prep blank results being > IDL of 16 ug/l.
Qualified MW51F and MW5191F as estimated (J) due to field duplicate results of 134.1 % RPD.

Cr - Qualified MW51, MW5191, MW51F, and MW5191F as estimated (J) due to field duplicate results of 64.5 % and 88.5 % RPD.
Qualified MW08, MW09, MW09F, MW10CF, MW11, MW14, MW14F, MW19, MW19F, MW22, MW50, MW50F, MW12F, MW12, MW129, MW51F, MW5191F, MW51, MW5191 as undetected (U) due to field blank contamination.

Cu - Qualified FB02, MW10C, MW129, MW18, MW19, MW19F, MW50, MW51, MW5191F as undetected (U) due to negative CCB results being > than IDL of 1.0 ug/L.
Qualified MW51F, MW5191F, MW12, MW129 as estimated (J) due to 132.6 % RPD for field duplicate results

Fe - Qualified MW22F as undetected (U) due to field blank detects.

Pb - Qualify all data except MW08 as estimated (J) due to out of control lab duplicate result.

Mg - Qualify FB01, FB01F, FB02, FB02F as undetected (U) due to PB and CCB detects.

Ni - Qualify MW12 MW129 as estimated (J) due to 59.1 % RPD field duplicate result.
Qualify MW08, MW09, MW09F, MW18, MW18F, MW23F, MW24F, MW12F, MW129F, MW129 as undetected (U) due to field blank detects.

K - Qualify FB01 as undetected (U) due to CCB detect > IDL of 16 ug/l.

V - Qualify MW12, MW129, MW51, MW5191, MW51F, MW5191F as estimated (J) due to RPD's > 50% for field duplicate results.

Zn - Qualified all samples except MW11 as undetected (U) due to Prep Blank detects.

Qualify MW51, MW5191 as estimated (J) due to 81.6% RPD field duplicate result.

Cyanide

1. Hold Time - 14 days allowed

Date Sampled: 11/5,6/96

Date Analyzed: 11/15/96 → OK

2. Calibration

Blk + 6 STD's r = .9995

ICV/CCV - every 10 samples, all were 85-115 % R

3. Blanks

PB - < DL

ICB/CCB - all < DL

Field Blanks - all < DL

4. LCS

None run

5. Duplicates

results were < DL

6. Spikes

MW08S $\frac{103}{100}$ = 103 % R

7. SRV

Transcriptions checked → OK

8. Field Duplicates

All results were < DL

9. Overall

Data is acceptable as reported.

Mercury

1. Hold Time - 28 days allowed

   Dates Sampled: 11/5,6/96

   Dates Analyzed: 11/20/96 → OK

2. Calibration

   Blk + 4 STD's, r = .9996, .9998

   ICV/CCV - every 10 samples, all 80-120% R

3. Blanks

   PB - < DL

   ICB/CCB - every 10 samples, all < IDL

4. LCS

   None run

5. Duplicates

   MW08, MW08F - Results were < DL

6. Spike

   MW08 $\frac{1.03}{1}$ = 103% R

   MW08F $\frac{.994}{1}$ = 99.4% R

7. SRV

   Transcriptions checked → OK

8. Field Duplicates

   All results were < DL

9. Overall

   Data is acceptable as reported.

Summary of Detected Compounds
American Chemical Service
Griffith, Indiana

Analyte	MW06 11/7/96	MW08 11/5/96	MW09 11/6/95	MW10C 11/6/95	MW11 11/5/96	MW12 11/5/96	MW12-91 11/5/96	MW13 11/7/96	MW14 11/6/95	MW15 11/7/96	MW18 11/5/96	MW19 11/5/96	MW22 11/5/96	MW23 11/6/95	MW24 11/6/95	MW50 11/6/95	MW51 11/6/95	MW51-91 11/6/95	FB01 11/5/96	FB02 11/6/95	FB03 11/7/96
Volatiles (ug/L)																					
1,1-Dichloroethane	21																				
1,2-Dichloroethene (total)	26																				
Acetone																			9		14
Benzene	320		310				1	6	41	3											
Chlorobenzene						5	5														
Chloroethane	720		2200	120				97	1000			20									
Ethylbenzene	16																				
Methylene Chloride	17								14												
Xylenes (total)	40																				
Semivolatiles (ug/L)																					
2,2'-oxybis(1-Chloropropane						120	120											3			
bis(2-Chloroethyl)ether	56		44						12			11									
bis(2-Ethylhexyl)phthalate													48								
Diethylphthalate	2																				
Isophorone	15		0.8						0.9												
N-Nitroso-di-n-propylamine																		3			
Metals - total (ug/L)																					
Aluminum	150			1170	1460	361	261	232	780			283		2120	4850	813	684	551			27.1
Arsenic	72	4.4	3.2	2.4		5.6	3.8			58.7		26.9		3.7	4.5	2.7	4.7	3			
Barium	281	128	337	368	24.2	85.5	75.5	66.5	122	1470	34.7	673	170	130	334	236	400	423			
Calcium	216000	58300	159000	118000	44300	54100	57300	118000	142000	94100	81600	79400	84700	73100	162000	126000	147000	147000			
Chromium	24.1			14.1							16.9			18.9	28.2				2.3	1.6	1.5
Cobalt	3.6		3.5	2.9	2.2			1.9	9.1	5.1	1.1	1.4	1	3.8	7	1.1	1.9	1.3			
Copper	7.6				11.3	9			10.9				38.7	13.8	40.5						1.3
Iron	16500	1030	17800	10100	2910	22500	14700	5240	1650	7900	288	4810	322	9450	28300	2760	8230	7200	22.9	32.1	25.8
Lead	7.6			3.2		14.1	10.5		9.8		1.6	1.5	2.5	6.3	17.8	3.9	3.1	1.8			1
Magnesium	37600	18600	33000	57200	18200	18400	19300	32000	26200	93100	28500	67700	36600	19400	44100	62700	66300	67300			37.5
Manganese	2900	108	231	107	145	1310	1370	674	831	534	609	268	15	295	546	76.9	193	152			
Nickel	38.8			14.2	8.8	5.7		3.1	17	22.7		17.8	6.6	18.2	22.5	10.8	12.1	10.3	1	1	
Potassium	27400	1540	10800	6150	2450	4660	4900	2940	12500	122000	3850	113000	93100	4350	4540	17500	4290	4700			89.5
Selenium						2.1					3										
Sodium	121000	12700	110000	193000	4460	19300	20700	27800	37900	459000	34400	772000	301000	65000	90400	353000	102000	107000			182
Thallium												2.4				2.1					
Vanadium	3.8		5	3.8	6.5	18.9	9.6	1.7	3.6	1.5	1.1			7.1	15.7	1.5	2.2	1.3			
Zinc					91.1																7.1
Metals - Dissolved (ug/L)																					
Aluminum																	953	188			34.7
Arsenic	67.9		4.2							63.6		25.3	2.5			2	5	3.4			
Barium	296	132	378	407	19.6	62.6	61.1	64.9	131	1500	29	626	692	148	231	302	403	431			
Calcium	222000	58800	177000	127000	50400	56100	54100	114000	161000	89300	80400	72000	325000	80700	143000	154000	157000	155000			87.4
Cobalt	2.8		4.4	1.5	1.6			1.2	9.3	5.7				1			2.3	1.2			
Copper									9.4								7.4				
Iron	16600	970	19700	8990	347	6320	6110	4170	274	7940	196	3040		5100	3390	2320	9760	7200	23	11.5	24.7
Lead			1.1			6.7	4		2.1		1.3						5.8	5.2			
Magnesium	39100	19100	37400	61700	20200	18800	18100	31200	30800	92500	27000	63100	14000	20600	36200	78400	71700	70000			63.4
Manganese	3020	108	260	70.9	145	1320	1270	642	846	445	543	199	15.1	263	268	71.7	263	164			
Nickel	37.1			6	5.3			1.4	15.3	23.5		13.2	6.5			10.2	13.5	10.8			
Potassium	28900	1580	12400	6240	2020	4630	4470	2860	13600	123000	3470	105000	35800	4420	2170	23200	4520	4390			91
Selenium											2.8										
Sodium	129000	13100	125000	219000	5090	19900	19200	27300	40900	466000	35900	720000	383000	83800	114000	468000	102000	110000		208	
Thallium												3.6				2.1					
Vanadium	2.4		5.5	1.2		3.1	2.7		1.9	1.6				2			3.3	1			
Zinc																					10.7

This table presents a summary of detects only for compounds detected in at least one sample. Refer to the complete analytical report for details.

Summary of Groundwater TAL/TCL Analytical Results
American Chemical Services
Griffith, Indiana

Compound	GWMW06-0 11/7/96	GWMW07-0 11/5/96	GWMW08-0 11/5/96	GWMW09-01 11/6/95	GWMW10C-01 11/6/95	GWMW11-0 11/5/96	GWMW11-01R 11/5/96	GWMW12-0 11/5/96	GWMW12-9 11/5/96	GWMW13-0 11/7/96	GWMW14-0 11/6/95	GWMW15-0 11/7/96	GWMW18-0 11/5/96	GWMW19-0 11/5/96	GWMW21-0 11/5/96	GWMW22-0 11/5/96	GWMW23-0 11/6/95
VOLATILES																	
Chloromethane	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Bromomethane	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Vinyl Chloride	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Chloroethane	720 /	10 U/	10 U/	2200 /	120 /	10 U/	NA	10 U/	10 U/	97 /	1000 /	10 U/	10 U/	20 /	10 U/	10 U/	10 U/
Methylene Chloride	17 J/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	14 J/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Acetone	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	28 /U	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Carbon Disulfide	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1-Dichloroethene	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1-Dichloroethane	21 J/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichloroethene (total)	26 J/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Chloroform	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichloroethane	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Butanone	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1,1-Trichloroethane	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Carbon Tetrachloride	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Bromodichloromethane	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichloropropane	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
cis-1,3-Dichloropropene	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Trichloroethene	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Dibromochloromethane	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1,2-Trichloroethane	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Benzene	320 /	10 U/	10 U/	310 /	100 U/	10 U/	NA	10 U/	1 J/	6 J/	41 J/	3 J/	10 U/	10 U/	10 U/	10 U/	10 U/
trans-1,3-Dichloropropene	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Bromoform	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
4-Methyl-2-Pentanone	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Hexanone	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Tetrachloroethene	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1,2,2-Tetrachloroethane	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Toluene	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Chlorobenzene	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	5 J/	5 J/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Ethylbenzene	16 J/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Styrene	50 U/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Xylene (total)	40 J/	10 U/	10 U/	200 U/	100 U/	10 U/	NA	10 U/	10 U/	10 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
SEMIVOLATILES (ug/L)																	
Phenol	10 U/	NA	10 U/	10 U/	10 U/	10 U/UJ	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
bis(2-Chloroethyl)ether	56 /	NA	10 U/	44 /	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	12 /	10 U/	10 U/	11 /	NA	10 U/	10 U/
2-Chlorophenol	10 U/	NA	10 U/	10 U/	10 U/	10 U/UJ	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
1,3-Dichlorobenzene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
1,4-Dichlorobenzene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
1,2-Dichlorobenzene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2-Methylphenol	10 U/	NA	10 U/	10 U/	10 U/	10 U/UJ	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2,2'-oxybis(1-Chloropropa	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	120 /J	120 /J	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
4-Methylphenol	10 U/	NA	10 U/	10 U/	10 U/	10 U/UJ	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
N-Nitroso-di-n-propylamin	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Hexachloroethane	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Nitrobenzene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Isophorone	15 /	NA	10 U/	0.8 J/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	0.9 J/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2-Nitrophenol	10 U/	NA	10 U/	10 U/	10 U/	10 U/UJ	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2,4-Dimethylphenol	10 U/	NA	10 U/	10 U/	10 U/	10 U/UJ	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
bis(2-Chloroethoxy)methar	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2,4-Dichlorophenol	10 U/	NA	10 U/	10 U/	10 U/	10 U/UJ	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
1,2,4-Trichlorobenzene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Naphthalene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
4-Chloroaniline	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Hexachlorobutadiene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
4-Chloro-3-methylphenol	10 U/	NA	10 U/	10 U/	10 U/	10 U/UJ	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2-Methylnaphthalene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Hexachlorocyclopentadiene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2,4,6-Trichlorophenol	10 U/	NA	10 U/	10 U/	10 U/	10 U/UJ	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2,4,5-Trichlorophenol	25 U/	NA	25 U/	25 U/	25 U/	25 U/UJ	25 U/	50 U/	50 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	25 U/	25 U/
2-Chloronaphthalene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/

This table presents the result (either the concentration or the reported detection limit), followed by the laboratory qualifier / data validation qualifier.

j:\4077\1196DAT.XLS(TCL&TAL)
IEA/JAH 1-12-97

Summary of Groundwater TAL/TCL Analytical Results
American Chemical Services
Griffith, Indiana

Compound	GWMW06-0 11/7/96	GWMW07-0 11/5/96	GWMW08-0 11/5/96	GWMW09-01 11/6/95	GWMW10C-01 11/6/95	GWMW11-0 11/5/96	GWMW11-01R 11/5/96	GWMW12-0 11/5/96	GWMW12-9 11/5/96	GWMW13-0 11/7/96	GWMW14-0 11/6/95	GWMW15-0 11/7/96	GWMW18-0 11/5/96	GWMW19-0 11/5/96	GWMW21-0 11/5/96	GWMW22-0 11/5/96	GWMW23-0 11/6/95
2-Nitroaniline	25 U/	NA	25 U/	25 U/	25 U/	25 U/	25 U/	50 U/	50 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	25 U/	25 U/
Dimethylphthalate	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Acenaphthylene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2,6-Dinitrotoluene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
3-Nitroaniline	25 U/	NA	25 U/	25 U/	25 U/	25 U/	25 U/	50 U/	50 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	25 U/	25 U/
Acenaphthene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2,4-Dinitrophenol	25 U/	NA	25 U/	25 U/	25 U/	25 U/UJ	25 U/	50 U/	50 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	25 U/	25 U/
4-Nitrophenol	10 U/	NA	25 U/	25 U/	25 U/	25 U/UJ	25 U/	50 U/	50 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	25 U/	25 U/
Dibenzofuran	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
2,4-Dinitrotoluene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Diethylphthalate	2 J/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
4-Chlorophenyl-phenyleth	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Fluorene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
4-Nitroaniline	25 U/	NA	25 U/	25 U/	25 U/	25 U/	25 U/	50 U/	50 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	25 U/	25 U/
4,6-Dinitro-2-methylpheno	25 U/	NA	25 U/	25 U/	25 U/	25 U/	25 U/	50 U/	50 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	25 U/	25 U/
N-Nitrosodiphenylamine (1	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
4-Bromophenyl-phenyleth	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Hexachlorobenzene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Pentachlorophenol	25 U/	NA	25 U/	25 U/	25 U/	25 U/UJ	25 U/	50 U/	50 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	25 U/	25 U/
Phenanthrene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Anthracene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Carbazole	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Di-n-butylphthalate	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Fluoranthene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Pyrene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Butylbenzylphthalate	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
3,3'-Dichlorobenzidine	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Benzo(a)anthracene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Chrysene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
bis(2-Ethylhexyl)phthalate	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 J/U	10 U/	10 J/U	10 J/U	NA	48 /	10 U/
Di-n-octylphthalate	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Benzo(b)fluoranthene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Benzo(k)fluoranthene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Benzo(a)pyrene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Indeno(1,2,3-cd)pyrene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Dibenz(a,h)anthracene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
Benzo(g,h,i)perylene	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	20 U/	20 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/
PESTICIDES (ug/L)		NA															
alpha-BHC	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
beta-BHC	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
delta-BHC	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
gamma-BHC (Lindane)	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
Heptachlor	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
Aldrin	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
Heptachlor epoxide	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
Endosulfan I	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
Dieldrin	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/
4,4'-DDE	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/
Endrin	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/
Endosulfan II	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/
4,4'-DDD	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/
Endosulfan sulfate	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/
4,4'-DDT	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/
Methoxychlor	0.5 U/	NA	0.5 U/	0.5 U/	0.5 U/	0.5 U/	NA	0.5 U/	0.5 U/	0.5 U/	0.5 U/	0.5 U/	0.5 U/	0.5 U/	NA	0.5 U/	0.5 U/
Endrin ketone	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/
Endrin aldehyde	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	0.1 U/	0.1 U/
alpha-Chlordane	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
gamma-Chlordane	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	0.05 U/	0.05 U/
Toxaphene	5 U/	NA	5 U/	5 U/	5 U/	5 U/	NA	5 U/	5 U/	5 U/	5 U/	5 U/	5 U/	5 U/	NA	5 U/	5 U/
Aroclor-1016	1 U/	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/
Aroclor-1221	2 U/	NA	2 U/	2 U/	2 U/	2 U/	NA	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	NA	2 U/	2 U/
Aroclor-1232	1 U/	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/

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Summary of Groundwater TAL/TCL Analytical Results
American Chemical Services
Griffith, Indiana

Compound	GWMW06-0 11/7/96	GWMW07-0 11/5/96	GWMW08-0 11/5/96	GWMW09-01 11/6/95	GWMW10C-01 11/6/95	GWMW11-0 11/5/96	GWMW11-01R 11/5/96	GWMW12-0 11/5/96	GWMW12-9 11/5/96	GWMW13-0 11/7/96	GWMW14-0 11/6/95	GWMW15-0 11/7/96	GWMW18-0 11/5/96	GWMW19-0 11/5/96	GWMW21-0 11/5/96	GWMW22-0 11/5/96	GWMW23-0 11/6/95
Aroclor-1242	1 U/	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/
Aroclor-1248	1 U/	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/
Aroclor-1254	1 U/	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/
Aroclor-1260	1 U/	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/
METALS - Total (ug/L)																	
Aluminum	150 B/	NA	16 U/	16 U/	1170 /	1460 /	NA	361 /	261 /	232 /	780 /	135 B/U	16 U/	283 /	NA	35.6 B/U	2120 /
Antimony	2.1 B/U	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/
Arsenic	72 /	NA	4.4 B/	3.2 B/	2.4 B/	2 U/	NA	5.6 B/	3.8 B/	2 U/	2 U/	58.7 /	2 U/	26.9 /	NA	2 U/	3.7 B/
Barium	281 /	NA	128 B/	337 /	368 /	24.2 B/	NA	85.5 B/	75.5 B/	66.5 B/	122 B/	1470 /	34.7 B/	673 /	NA	170 B/	130 B/
Beryllium	1 U/	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/
Cadmium	1 U/	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/
Calcium	216000 /	NA	58300 /	159000 /	118000 /	44300 /	NA	54100 /	57300 /	118000 /	142000 /	94100 /	81600 /	79400 /	NA	84700 /	73100 /
Chromium	24.1 /	NA	1.9 B/U	2.4 B/U	14.1 /	4.8 B/U	NA	7.6 B/U	2.6 B/U	3.4 B/U	8.6 B/U	2 B/U	16.9 /	6.8 B/U	NA	5 B/U	18.9 /
Cobalt	3.6 B/	NA	1 U/	3.5 B/	2.9 B/	2.2 B/	NA	1 U/	1 U/	1.9 B/	9.1 B/	5.1 B/	1.1 B/	1.4 B/	NA	1 B/	3.8 B/
Copper	7.6 B/	NA	1 U/	1 U/	4.4 B/U	11.3 B/	NA	9 B/J	3.6 B/UJ	5.9 B/U	10.9 B/	1.6 B/U	1.2 B/U	5 B/U	NA	38.7 /	13.8 B/
Iron	16500 /	NA	1030 /	17800 /	10100 /	2910 /	NA	22500 /	14700 /	5240 /	1650 /	7900 /	288 /	4810 /	NA	322 /	9450 /
Lead	7.6 /	NA	1 U/	1 U/UJ	3.2 /J	7.9 /UJ	NA	14.1 /J	10.5 /J	2 B/U	9.8 /J	2.4 B/U	1.6 B/J	1.5 B/J	NA	2.5 B/J	6.3 /J
Magnesium	37600 /	NA	18600 /	33000 /	57200 /	18200 /	NA	18400 /	19300 /	32000 /	26200 /	93100 /	28500 /	67700 /	NA	36600 /	19400 /
Manganese	2900 /	NA	108 /	231 /	107 /	145 /	NA	1310 /	1370 /	674 /	831 /	534 /	609 /	268 /	NA	15 /	295 /
Mercury	0.2 U/	NA	0.2 U/	0.2 U/	0.2 U/	0.2 U/	NA	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	NA	0.2 U/	0.2 U/
Nickel	38.8 B/	NA	2.4 B/U	4.6 B/U	14.2 B/	8.8 B/	NA	5.7 B/J	3.1 B/UJ	3.1 B/	17 B/	22.7 B/	3 B/U	17.8 B/	NA	6.6 B/	18.2 B/
Potassium	27400 E/J	NA	1540 B/	10800 /	6150 /	2450 B/	NA	4660 B/	4900 B/	2940 BE/J	12500 /	122000 E/J	3850 B/	113000 /	NA	93100 /	4350 B/
Selenium	2 U/	NA	2 U/	2 U/	2 U/	2 U/	NA	2.1 B/	2 U/	2 U/	2 U/	2 U/	3 B/	2 U/	NA	2 U/	2 U/
Silver	1 U/	NA	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	1 U/	1 U/
Sodium	121000 /	NA	12700 /	110000 /	193000 /	4460 B/	NA	19300 /	20700 /	27800 /	37900 /	459000 /	34400 /	772000 /	NA	301000 /	65000 /
Thallium	3.6 B/U	NA	2 U/	2 U/	2 U/	2 U/	NA	2 U/	2 U/	2 B/U	2 U/	3.1 B/U	2 U/	2.4 B/	NA	2 U/	2 U/
Vanadium	3.8 B/	NA	1 U/	5 B/	3.8 B/	6.5 B/	NA	18.9 B/J	9.6 B/J	1.7 B/	3.6 B/	1.5 B/	1.1 B/	1 U/	NA	1 U/	7.1 B/
Zinc	13.1 B/U	NA	7.4 B/U	4.5 B/U	26.7 /U	91.1 /	NA	11.5 B/U	7.5 B/U	12 B/U	20.6 /U	13.4 B/U	7 B/U	8.6 B/U	NA	20.5 /U	29.7 /U
Cyanide	10 U/	NA	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	10 U/	10 U/

This table presents the result (either the concentration or the reported detection limit), followed by the laboratory qualifier / data validation qualifier.

Summary of Groundwater TAL/TCL Analytical Results
American Chemical Services
Griffith, Indiana

Compound	GWMW24-0 11/6/95	GWMW50-0 11/6/95	GWMW51-0 11/6/95	GWMW51-9 11/6/95	GWFB01-01 11/5/96	GWFB02-01 11/6/95	GWFB03-01 11/796	GWTB01-01 11/5/96	GWTB02-01 11/6/95	GWTB03-(11/796
VOLATILES										
Chloromethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Bromomethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Vinyl Chloride	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Chloroethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Methylene Chloride	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Acetone	10 U/	10 U/	100 U/	100 U/	9 J/	10 U/	14 /	10 U/	10 U/	10 U/
Carbon Disulfide	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1-Dichloroethene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1-Dichloroethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichloroethene (total)	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Chloroform	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichloroethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Butanone	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1,1-Trichloroethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Carbon Tetrachloride	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Bromodichloromethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichloropropane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
cis-1,3-Dichloropropene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Trichloroethene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Dibromochloromethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1,2-Trichloroethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Benzene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
trans-1,3-Dichloropropene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Bromoform	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
4-Methyl-2-Pentanone	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Hexanone	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Tetrachloroethene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1,2,2-Tetrachloroethane	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Toluene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Chlorobenzene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Ethylbenzene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Styrene	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Xylene (total)	10 U/	10 U/	100 U/	100 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
SEMIVOLATILES (ug/L										
Phenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
bis(2-Chloroethyl)ether	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2-Chlorophenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
1,3-Dichlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
1,4-Dichlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
1,2-Dichlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2-Methylphenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2,2'-oxybis(1-Chloropropa	10 U/	10 U/	10 U/	3 J/J	10 U/	10 U/	10 U/	NA	NA	NA
4-Methylphenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
N-Nitroso-di-n-propylamin	10 U/	10 U/	10 U/	3 J/	10 U/	10 U/	10 U/	NA	NA	NA
Hexachloroethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Nitrobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Isophorone	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2-Nitrophenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2,4-Dimethylphenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
bis(2-Chloroethoxy)methar	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2,4-Dichlorophenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
1,2,4-Trichlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Naphthalene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
4-Chloroaniline	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Hexachlorobutadiene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
4-Chloro-3-methylphenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2-Methylnaphthalene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Hexachlorocyclopentadien	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2,4,6-Trichlorophenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2,4,5-Trichlorophenol	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	NA	NA
2-Chloronaphthalene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA

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American Chemical Services
Griffith, Indiana

Compound	GWMW24-0 11/6/95	GWMW50-0 11/6/95	GWMW51-0 11/6/95	GWMW51-9 11/6/95	GWFB01-01 11/5/96	GWFB02-01 11/6/95	GWFB03-01 11/796	GWTB01-01 11/5/96	GWTB02-01 11/6/95	GWTB03-(11/796
2-Nitroaniline	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	NA	NA
Dimethylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Acenaphthylene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2,6-Dinitrotoluene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
3-Nitroaniline	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	NA	NA
Acenaphthene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2,4-Dinitrophenol	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	NA	NA
4-Nitrophenol	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	NA	NA
Dibenzofuran	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
2,4-Dinitrotoluene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Diethylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
4-Chlorophenyl-phenyleth	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Fluorene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
4-Nitroaniline	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	NA	NA
4,6-Dinitro-2-methylpheno	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	NA	NA
N-Nitrosodiphenylamine (1	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
4-Bromophenyl-phenyleth	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Hexachlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Pentachlorophenol	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/	NA	NA	NA
Phenanthrene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Anthracene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Carbazole	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Di-n-butylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Fluoranthene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Pyrene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Butylbenzylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
3,3'-Dichlorobenzidine	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Benzo(a)anthracene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Chrysene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
bis(2-Ethylhexyl)phthalate	10 U/	10 J/U	10 J/U	10 U/	10 U/	10 U/	10 J/U	NA	NA	NA
Di-n-octylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Benzo(b)fluoranthene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Benzo(k)fluoranthene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Benzo(a)pyrene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Indeno(1,2,3-cd)pyrene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Dibenz(a,h)anthracene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
Benzo(g,h,i)perylene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA
PESTICIDES (ug/L)										
alpha-BHC	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
beta-BHC	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
delta-BHC	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
gamma-BHC (Lindane)	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
Heptachlor	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
Aldrin	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
Heptachlor epoxide	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
Endosulfan I	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
Dieldrin	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	NA	NA
4,4'-DDE	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	NA	NA
Endrin	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	NA	NA
Endosulfan II	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	NA	NA
4,4'-DDD	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	NA	NA
Endosulfan sulfate	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	NA	NA
4,4'-DDT	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	NA	NA
Methoxychlor	0.5 U/	0.5 U/	0.5 U/	0.5 U/	0.5 U/	0.5 U/	0.5 U/	NA	NA	NA
Endrin ketone	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	NA	NA
Endrin aldehyde	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	NA	NA	NA
alpha-Chlordane	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
gamma-Chlordane	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	NA	NA	NA
Toxaphene	5 U/	5 U/	5 U/	5 U/	5 U/	5 U/	5 U/	NA	NA	NA
Aroclor-1016	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA
Aroclor-1221	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	NA	NA	NA
Aroclor-1232	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA

This table presents the result (either the concentration or the reported detection limit), followed by the laboratory qualifier / data validation qualifier.

Summary of Groundwater TAL/TCL Analytical Results
American Chemical Services
Griffith, Indiana

Compound	GWMW24-0 11/6/95	GWMW50-0 11/6/95	GWMW51-0 11/6/95	GWMW51-9 11/6/95	GWFB01-01 11/5/96	GWFB02-01 11/6/95	GWFB03-01 11/7/96	GWTB01-01 11/5/96	GWTB02-01 11/6/95	GWTB03-(11/7/96
Aroclor-1242	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA
Aroclor-1248	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA
Aroclor-1254	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA
Aroclor-1260	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA
METALS - Total (ug/L)										
Aluminum	4850 /	813 /	684 /	551 /	16 U/	16 U/	27.1 B/	NA	NA	NA
Antimony	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA
Arsenic	4.5 B/	2.7 B/	4.7 B/	3 B/	2 U/	2 U/	2 U/	NA	NA	NA
Barium	334 /	236 /	400 /	423 /	1 U/	1 U/	1 U/	NA	NA	NA
Beryllium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA
Cadmium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA
Calcium	162000 /	126000 /	147000 /	147000 /	77 U/	77 U/	77 U/	NA	NA	NA
Chromium	28.2 /	5 B/U	4.1 B/UJ	2.1 B/UJ	2.3 B/	1.6 B/	1.5 B/	NA	NA	NA
Cobalt	7 B/	1.1 B/	1.9 B/	1.3 B/	1 U/	1 U/	1 U/	NA	NA	NA
Copper	40.5 /	1.8 B/U	3.7 B/U	1 U/	1 U/	1.5 B/U	1.3 B/	NA	NA	NA
Iron	28300 /	2760 /	8230 /	7200 /	22.9 B/	32.1 B/	25.8 B/	NA	NA	NA
Lead	17.8 /J	3.9 /J	3.1 /J	1.8 B/J	1 U/UJ	1 U/UJ	1 B/	NA	NA	NA
Magnesium	44100 /	62700 /	66300 /	67300 /	12 B/U	21.8 B/U	37.5 B/	NA	NA	NA
Manganese	546 /	76.9 /	193 /	152 /	1 U/	1 U/	1 U/	NA	NA	NA
Mercury	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	NA	NA	NA
Nickel	22.5 B/	10.8 B/	12.1 B/	10.3 B/	1 B/	1 B/	1 U/	NA	NA	NA
Potassium	4540 B/	17500 /	4290 B/	4700 B/	30.9 B/U	16 U/	89.5 BE/J	NA	NA	NA
Selenium	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	NA	NA	NA
Silver	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	NA	NA	NA
Sodium	90400 /	353000 /	102000 /	107000 /	98 U/	98 U/	182 B/	NA	NA	NA
Thallium	2 U/	2.1 B/	2 U/	2 U/	2 U/	2 U/	2 U/	NA	NA	NA
Vanadium	15.7 B/	1.5 B/	2.2 B/J	1.3 B/J	1 U/	1 U/	1 U/	NA	NA	NA
Zinc	67.3 /U	29.7 /U	23.8 /UJ	10 B/UJ	4.5 B/U	6.6 B/U	7.1 B/	NA	NA	NA
Cyanide	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/	NA	NA	NA

This table presents the result (either the concentration or the reported detection limit), followed by the laboratory qualifier / data validation qualifier.

Summary of Groundwater Dissolved Metals Results
American Chemical Services
Griffith, Indiana

Analyte	GWMW06-01 11/7/96	GWMW08-01 11/5/96	GWMW09-01 11/6/95	GWMW10C-01 11/6/95	GWMW11-01 11/5/96	GWMW12-01 11/5/96	GWMW12-91 11/5/96	GWMW13-01 11/7/96	GWMW14-01 11/6/95	GWMW15-01 11/7/96	GWMW18-01 11/5/96	GWMW19-01 11/5/96	GWMW22-01 11/5/96	GWMW23-01 11/6/95	GWMW24-01 11/6/95
METALS - Dissolved (ug/L)															
Aluminum	35.6 B/U	16 U/	16 U/	16 U/	16 U/	16 U/	16 U/	45 B/U	16 U/	48.3 B/U	16 U/	16 U/	16 U/	16 U/	37.9 B/U
Antimony	1 B/U	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Arsenic	67.9 /	2 U/	4.2 B/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	63.6 /	2 U/	25.3 /	2.5 B/	2 U/	2 U/
Barium	296 /	132 B/	378 /	407 /	19.6 B/	62.6 B/	61.1 B/	64.9 B/	131 B/	1500 /	29 B/	626 /	692 /	148 B/	231 /
Beryllium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Cadmium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Calcium	222000 /	58800 /	177000 /	127000 /	50400 /	56100 /	54100 /	114000 /	161000 /	89300 /	80400 /	72000 /	325000 /	80700 /	143000 /
Chromium	2.6 B/U	1 U/	1.1 B/U	2.5 B/U	1 U/	1.3 B/U	1 U/	1.2 B/U	4.6 B/U	2.8 B/U	1 U/	1.5 B/U	1 U/	1 U/	1 U/
Cobalt	2.8 B/	1 U/	4.4 B/	1.5 B/	1.6 B/	1 U/	1 U/	1.2 B/	9.3 B/	5.7 B/	1 U/	1 U/	1 U/	1 B/	1 U/
Copper	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	9.4 B/	1 U/	1 U/	2.7 B/U	1 U/	1 U/	1 U/
Iron	16600 /	970 /	19700 /	8990 /	347 /	6320 /	6110 /	4170 /	274 /	7940 /	196 /	3040 /	73.3 B/U	5100 /	3390 /
Lead	1.3 B/U	1 U*/UJ	1.1 B*/J	1 U*/UJ	1 U*/UJ	6.7 */J	4 */J	1 U/	2.1 B*/J	1 U/	1.3 B*/J	1 U*/UJ	1 U*/UJ	1 U*/UJ	1 U*/UJ
Magnesium	39100 /	19100 /	37400 /	61700 /	20200 /	18800 /	18100 /	31200 /	30800 /	92500 /	27000 /	63100 /	14000 /	20600 /	36200 /
Manganese	3020 /	108 /	260 /	70.9 /	145 /	1320 /	1270 /	642 /	846 /	445 /	543 /	199 /	15.1 /	263 /	268 /
Mercury	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/
Nickel	37.1 B/	1 U/	4.7 B/U	6 B/	5.3 B/	2.5 B/U	2.2 B/U	1.4 B/	15.3 B/	23.5 B/	1.8 B/U	13.2 B/	6.5 B/	3.2 B/U	3 B/U
Potassium	28900 E/J	1580 B/	12400 /	6240 /	2020 B/	4630 B/	4470 B/	2860 BE/J	13600 /	123000 E/J	3470 B/	105000 /	35800 /	4420 B/	2170 B/
Selenium	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2.8 B/	2 U/	2 U/	2 U/	2 U/
Silver	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Sodium	129000 /	13100 /	125000 /	219000 /	5090 /	19900 /	19200 /	27300 /	40900 /	466000 /	35900 /	720000 /	383000 /	83800 /	114000 /
Thallium	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/	3.2 B/U	2 U/	3.6 B/	2 U/	2 U/	2 U/
Vanadium	2.4 B/	1 U/	5.5 B/	1.2 B/	1 U/	3.1 B/	2.7 B/	1 U/	1.9 B/	1.6 B/	1 U/	1 U/	1 U/	2 B/	1 U/
Zinc	9.3 B/U	5.4 B/U	4.8 B/U	6.4 B/U	11.6 B/U	8 B/U	7 B/U	10.9 B/U	13.7 B/U	20.6 /U	11 B/U	7.2 B/U	6.1 B/U	6.8 B/U	5.3 B/U

This table presents the result (either the detected concentration or reported detection limit), followed by the laboratory qualifier / data validation qualifier.

j:\1196DAT.XLS(Filtered)
IEA/JAH 1/13/97

Summary of Groundwater Dissolved Metals Results
American Chemical Services
Griffith, Indiana

Analyte	GWMW50-01F 11/6/95	GWMW51-01F 11/6/95	GWMW51-91F 11/6/95	GWFB01-01F 11/5/96	GWFB02-01F 11/6/95	GWFB03-01F 11/7/96
METALS - Di						
Aluminum	16 U/	953 /J	188 B/J	16 U/	16 U/	34.7 B/
Antimony	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Arsenic	2 B/	5 B/	3.4 B/	2 U/	2 U/	2 U/
Barium	302 /	403 /	431 /	1 U/	1 U/	1 U/
Beryllium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Cadmium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Calcium	154000 /	157000 /	155000 /	77 U/	77 U/	87.4 B/
Chromium	1.5 B/U	4.4 B/UJ	1.7 B/UJ	1 U/	1 U/	1 U/
Cobalt	1 U/	2.3 B/	1.2 B/	1 U/	1 U/	1 U/
Copper	1 U/	7.4 B/J	1.5 B/UJ	1 U/	1 U/	1 U/
Iron	2320 /	9760 /	7200 /	23 B/	11.5 B/	24.7 B/
Lead	1 U*/UJ	5.8 */J	5.2 */J	1 U*/UJ	1 U*/UJ	1 U/
Magnesium	78400 /	71700 /	70000 /	35 B/U	26.3 B/U	63.4 B/
Manganese	71.7 /	263 /	164 /	1 U/	1 U/	1 U/
Mercury	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/
Nickel	10.2 B/	13.5 B/	10.8 B/	1 U/	1 U/	1 U/
Potassium	23200 /	4520 B/	4390 B/	16 U/	16 U/	91 BE/J
Selenium	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/
Silver	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Sodium	468000 /	102000 /	110000 /	98 U/	208 B/	98 U/
Thallium	2.1 B/	2 U/	2 U/	2 U/	2 U/	2 U/
Vanadium	1 U/	3.3 B/J	1 B/J	1 U/	1 U/	1 U/
Zinc	7.8 B/U	36.6 /U	30 /U	4.7 B/U	5.4 B/U	10.7 B/

This table presents the result (either the detected concentration or reported detection limit), followed by the laboratory qualifier / data validation qualifier.

APD-GW-B01-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TB01

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111311

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X16.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

TB01

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111311

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X16.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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16.				
17.				
18.				
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22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

VALIDATED

APD-GW-1802-01
11/6/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TB02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961114001

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V15.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

TB02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961114001

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V15.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

VALIDATED

APD-GW1B03-01
11/7/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TB03

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120506

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V09.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

TB03

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120506

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V09.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

VALIDATED

VALIDATION NARRATIVE

ACS
Project 4077.0076 (1252042.0809.0076)

VOCs, SVOCs, PCBs in Ground Water
SDG 11140 Sampled 11/6-7/96

Validated By: JAH
Date: 1/10/97

This narrative covers the validation of 7 groundwater samples from ACS for VOC, SVOC, and PCB analysis by IEA laboratories using CLP methodologies. Validation was performed using the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Analysis Review* (2/94). The data is validated as acceptable for use in site evaluation with the following comments:

Hold Times All hold times were met.

Calibration All instrument tuning and calibration criteria was validated as acceptable. Some VOC and SVOC compounds had percent difference criteria outside QC limits. Because these compounds were not detected in the samples, and the CRQL is essentially an estimated value, no qualifiers were applied.

Blanks Method blanks, one field blank, and two trip blanks were analyzed. Low concentrations of acetone were qualified as undetected due to a field blank result. Bis(2-ethylhexyl)phthalate, a common laboratory contaminant, was qualified as undetected at the reporting limit of 10 ug/L when detected at concentrations less than the CRQL of 10 ug/L. The SVOC blanks contained a number of TICs detects. Sample detects with the same RT have been qualified as unusable.

Internal Standards All internal standard results were within acceptable validation limits.

Surrogates Surrogate recoveries were generally within acceptable validation QC limits.

Matrix Spikes All matrix spike recoveries and RPDs were within acceptable validation QC limits.

Field Duplicates No field duplicate were included in this SDG.

Sample Results All calculations are acceptable. Overall data quality by the laboratory was good, with no instrument related problems observed. VOCs and SVOCs were detected in the samples, but pesticides/PCBs were not.

JAH/jah
I:\PROJECT\ACS\1196DV.DOC
1252042.0809.0076

IEA Assigned Number Index

Case No.: 2240-009

SDG No.: 11140

IEA Lab Sample Number	Sample Number	Abbreviated Sample Number	pH
9611140-01	APD-GWTB02-01	TB02	<2
9611140-21	HB11140	HB140	<2
9611205-02	APD-GWMW13-01	MW13	4
9611205-03	APD-GWMW15-01	MW15	6
9611205-04	APD-GWFB03-01	FB03	<2
9611205-05	APD-GWMW06-01	MW06	4
9611205-06	APD-GWTB03-01	TB03	<2

Review Date: Reviewed by:

Review of Contract Data; ~~SMO~~ SDG Case No. 11140

Site Name: ACS Contract Lab: IEA

Contract No.: 1191 Project No.:

SMO Traffic No's:

Sample Matrix: Low Level ✓ Med. Level ____ High Level ____ Soil/Seq ____

Water ✓ Waste ____

Sampled 11/6/96

I. HOLDING TIMES

Water: VOA A SV A PEST ✓

Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - All contract and 40 CFR 136 holding times met.

P - Provisional - Some contract and 40 CFR 136 holding times exceeded.

U - Unacceptable - All holding times exceeded.

REMARKS: VOC - run 11/15/96 - 9 days ✓

SVOC - Extracted 11/12/96 - 6 days

PEST " 11/13 - 7 days

II. GC/MS TUNING AND PERFORMANCE

Water: VOA (BFB) A SV (DFTPP) A

Sed/Soil: VOA (BFB) ____ SV (DFTPP) ____

A - Acceptable - All criteria met, spectra of good quality.

P - Provisional - All criteria not met, spectra of reasonable quality; date usable.

U - Unacceptable - Criteria not met, spectra of poor quality, data unusable.

BFB	DFTPP
MSD11	MSD4
11/8 (INIT) ✓	11/21 (INIT) ✓
11/15 (1948) ✓	11/22 (0945) ✓

SMO Case No.: ACS 11140 Contract Lab: IEA

V. SURROGATE SPIKE RESULTS

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

NOTE: Sample data flagged on individual basis.

A. Individual sample flagging criteria.

Acceptable - All surrogate recoveries within criteria.
Suspect - Any surrogate recoveries outside criteria and/or recoveries of <10% substantiated as a matrix effect.
Invalid - Any recoveries of <10% that are unsubstantiated as a matrix effect.

		No. Samples	No. Suspect	No. Invalid
Water:	VOA	9 x 3	0	0
	SV	7 x 4	3	0
	PEST	7 x 8	1	0
Sed/Soil:	VOA			
	SV			
	PEST			

B. Summary of Surrogates

A - Acceptable - <10% of samples reported as suspect.
P - Provisional - >10% but <50% of samples reported as suspect.
U - Unacceptable - >50% of samples reported as suspect and/or >10% samples reported as invalid.

REMARKS:

SMO Case No.: ACS Contract Lab: IEA

III. INITIAL AND CONTINUING CALIBRATION CHECKS

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - All criteria met.
P - Provisional - Some criteria not met, data usable, see remarks.
U - Unacceptable - Criteria not met, data unusable, see remarks.

REMARKS: See Summary Sheets

IV. BLANK ANALYSIS

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - No contaminants above minimum detection limit, no interference with sample results, appropriate blank for each GC/MS system and extraction method.

P - Provisional - Contaminants present but minimal interference with sample results.

U - Unacceptable - Gross contamination, too much interference to use data for certain components or the entire fraction, appropriate blanks not analyzed.

VOC

	ND	Acetone
VBLKKK	✓	—
TB02	✓	—
TB03	✓	—
FB03	—	14.5
10x		145.

SVOC

SBLK46 - TIC @ 7.0, 7.9

FB03 - BEHP = 2
TIC @ 7.0, 7.1

PEST

PBL13 - ND

FB03 - ND

SMO Case No.: ACS Contract Lab: IEA

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A. MATRIX SPIKE RESULTS:

Water: VOA A SV A PEST A MW06
Sed/Soil: VOA ____ SV ____ PEST ____

NOTE: No action taken on Matrix Spike Results alone.

A - Acceptable - <10% of compounds outside criteria.
P - Provisional - >10% but <50% of compounds outside criteria.
U - Unacceptable - >50% of compounds outside criteria and/or >10% of compounds with recoveries of <10%.

		No. Compounds	No. Outside Criteria	No. <10% Recovery
Water:	VOA	5 x 2	0	0
	SV	11 x 2	1	0
	PEST	6 x 2	2	0
Sed/Soil:	VOA			
	SV			
	PEST			

B. DUPLICATE RESULTS

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - <10% of compounds outside criteria.
P - Provisional - >10% but <50% of compounds outside criteria.
U - Unacceptable - >50% of compounds outside criteria and/or >10% of compounds with recoveries of <10%.

		No. Compounds	No. Outside Criteria
Water:	VOA	5	0
	SV	11	0
	PEST	6	0
Sed/Soil:	VOA		
	SV		
	PEST		

REMARKS:

SMO Case No.: _____ Contract Lab: _____

VII. FIELD DUPLICATES

Water: VOA _____ SV _____ PEST _____
Sed/Soil: VOA _____ SV _____ PEST _____

A - Acceptable - All compounds are within 25% of each other for waters or within 50% of each other for soils.

P - Provisional - Some compounds are greater than 25% RPD for waters and greater than 50% RPD for soils, see remarks.

U - Unacceptable - Professional judgement, see remarks.

REMARKS:

	NA				
	See other SDG				

SMO Case No.: ACS 11140 Contract Lab: IEA

VIII. INTERNAL STANDARD PERFORMANCE

Water: VOA A SV A PEST NA
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - Is area counts between - 50% to +100% from associated calibration standard and ±30 seconds from associated calibration standards.

P - Provisional - Most all area counts between -50% to +100% and ±30 seconds, from associated calibration standard, see remarks.

U - Unacceptable - Extremely low area counts or major abrupt drop-off of sensitivity or greater than ±30 second time shift, see remarks.

REMARKS:

IX. COMPOUND IDENTIFICATION

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - All compounds within retention time windows, spectral criteria met.
P - Provisional - Some criteria not met, data usable, see remarks.
U - Unacceptable - Criteria not met, data unusable, see remarks.

REMARKS:

SMO Case No.: ACS 11140 Contract Lab: IEA

X. COMPOUND QUANTIFICATION AND REPORTED D.L.

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - Compounds were quantified, as well as the adjustment of the CRQL, was calculated according for the SOW or SAS.

P - Provisional - Some criteria not met, data usable, see remarks.

U - Unacceptable - Gross problems, interferences, unacceptable RT and RRF shifts, see remarks.

REMARKS:

XI. SYSTEM PERFORMANCE

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - No indication of instrument problems such as baseline shifts, I.S. absolute area changes, etc.
P - Provisional - Indication of minor problems, see remarks.
U - Unacceptable - Indication of instrument problems, see remarks.

REMARKS:

Volatile TCLs
Calibration Outliers

CASE/SDG ACS 11140 CONTRACTOR IEA

Instrument MSD11	Init Cal			Cont. Cal			Cont. Cal			Cont. Cal			Cont. Cal		
Date	11-8-96			11-15 (20M)											
	RF	RSD	*	RF	%D		RF	%D		RF	%D		RF	%D	
Chloromethane															
Bromomethane															
Vinyl chloride															
Chloroethane															
Methylene chloride															
Acetone															
Carbon disulfide															
1,1-Dichloroethene															
1,1-Dichloroethane															
1,2-Dichloroethene (total)															
Chloroform															
1,2-Dichloroethane															
2-Butanone															
1,1,1-Trichloroethane															
Carbon tetrachloride															
Bromodichloromethane															
1,2-Dichloropropane															
cis-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
trans-1,3-Dichloropropene															
Bromoform															
4-Methyl-2-pentanone															
2-Hexanone															
Tetrachloroethene															
Toluene															
1,1,2,2-Tetrachloroethane															
Chlorobenzene															
Ethylbenzene															
Styrene															
Xylenes (total)															
	Init. Cal.			VBLKK K											
				MW06											
				TB03											
				MW13											
				15											
				FB03											
				MW06MS											
				MSD											

Semivolatiles TCLs
Calibration Outliers

CASE/SDG _____ CONTRACTOR IEA

Instrument MSD4	Init Cal			Cont. Cal			Cont. Cal			Cont. Cal			Cont. Cal		
Date	11-24			11/22 (1000)											
	RF	RSD	*	RF	%D		RF	%D		RF	%D		RF	%D	
Phenol															
bis(2-chloroethyl) ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
1,2-Dichlorobenzene															
2-Methylphenol															
2,2-oxybis 1-chloropropane															
4-Methylphenol															
N-Nitroso-di-n-propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
bis(2-chloroethoxy)methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene		27.8													
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethylphthalate															
Acenaphthene															
2,6-Dinitrotoluene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															
	Init. Cal.			SBLK 46											
				MW06											
				FB03											
				MW15											
				MW13											
				MW06 MS											
				MSD											
	✓			✓											

Semivolatiles TCLs
Calibration Outliers

CASE/SDG _____ CONTRACTOR _____

Instrument	Init Cal			Cont. Cal			Cont. Cal			Cont. Cal			Cont. Cal		
Date	11-24			11/22											
	RF	RSD	*	RF	%D		RF	%D		RF	%D		RF	%D	
2,4-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenylphenyl ether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl phenyl ether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Carbazole															
Di-n-butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
3,3'-Dichlorobenzidine															
Benzo(a)anthracene															
Chrysene															
bis(2-ethylhexyl)phthalate															
Di-n-octylphthalate															
Benzo(b)fluoranthene															
Benzo(k)fluoranthene															
Benzo(a)pyrene															
Indeno(1,2,3-cd)anthracene															
Dibenz(g,h,i)perylene															

CASE ACI
LAB LEA

PESTICIDE/PCB DATA REVIEW
SOW OLM02.1

RUN #				
INSTRUMENT #	P1	P4		
RUN DATE	11/7 - 11/22	11/8 - 11/22		
COLUMN	RTX-35	DB-1701		
FORM VI PEST-1 Retention time windows within limits	✓	✓		
FORM VI PEST-2 Percent RSD within QC limits for single component cmpds ≤ 20%	✓	✓ (α-BHC = 21.2 %)		
FORM VI PEST-3 Multicomponent cmpd calibrations within QC limits	✓	✓		
FORM VI PEST-4 Resolution check greater than 60 %	✓	✓		
FORM VII PEST-1 Continuing calibration verification, breakdown acceptable RPD < 25, BD < 20%	✓	✓		
FORM VII PEST-2 Continuing calibration verification, RPD acceptable < 25 %	✓	✓		
FORM VIII Analytical sequence correct, Surrogate shift within QC limits.	✓	✓		
Form IX Florisil	✓	80-120% R		

Affected Samples: All Spls

IEA
An Aquarion Company
3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 70912

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER _____

COMPANY: MONTGOMERY WATSON

FULL CLP PROTOCOL + DELIVERABLES

Page_____ of_____

PROJECT #: 4077.0073

PROJECT NAME: ACS

SAMPLERS: (SIGNATURE) J Huntell

SAMPLE I.D	DATE	TIME	COMP	GRAB	STATION LOCATION	# OF CONTAINERS	MATRIX SOIL	MATRIX WATER	TCL VOCs	TCL SVOC	TCL PEST/PCB	TCL Total metals	TCL Dissolved Metals	Total Cyanide	TAG #'s
	11-6-96	0820		✓	APD-GWMW23-01	9		✓	✓	✓	✓	✓	✓	✓	9-31405, 06, 07, 08, 09, 10, 11, 12, 13
	"	0900		✓	APD-GWFB02-01	9		✓	✓	✓	✓	✓	✓	✓	9-31477, 78, 79, 80, 81, 82, 83, 84, 85
	"	0910		✓	APD-GWTB02-01	2		✓	✓						9-31436, 37 (Vials prepped 11-1-96 By IEA)
	"	1025		✓	APD-GWMW24-01	9		✓	✓	✓	✓	✓	✓	✓	9-31450, 51, 52, 53, 54, 55, 56, 57, 58
	"	0830		✓	APD-GWMW09-01	9		✓	✓	✓	✓	✓	✓	✓	9-31414, 15, 16, 17, 18, 19, 20, 21, 22
	"	0920		✓	APD-GWMW14-01	9		✓	✓	✓	✓	✓	✓	✓	9-31387, 88, 89, 90, 91, 92, 93, 94, 95
	"	1025		✓	APD-GWMW10c-01	9		✓	✓	✓	✓	✓	✓	✓	9-31441, 42, 43, 44, 45, 46, 47, 48, [illegible]
	"	1120		✓	APD-GWMW51-01	9		✓	✓	✓	✓	✓	✓	✓	9-31467, 68, 69, 70, 71, 72, 73, 74, 75
	"	1120		✓	APD-GWMW57-91	9		✓	✓	✓	✓	✓	✓	✓	9-31459, 60, 61, 62, 63, 64, 65, 66, 76
	"	1440		✓	APD-GWMW50-01	9		✓	✓	✓	✓	✓	✓	✓	9-31486, 87, 88, 89, 90, 91, 92, 93, 94

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
J Huntell	11-6-96	1530	FED EX		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY	DATE	TIME
			[signature]	11/7/96	10:00 am

IEA QUOTE NO.:

IEA RUSH NO.:

PROJECT MANAGER (PLEASE PRINT):

P.O. NO.:

REMARKS ON SAMPLE RECEIPT

☐ BOTTLE INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

IEA REMARKS: 40

FIELD REMARKS: COC Seals 92-00016, 17, 18, 19
Air Bill - Fedex 0716082430

IEA SDG NARRATIVE VOLATILE FRACTION

PROJECT: 2240-009 BATCH: 11140 METHOD: 1/91 SOW

SAMPLES: Six (6) Water Samples

These samples were received at Industrial and Environmental Analysts, Inc. (IEA) on November 07 and 08, 1996. Each sample was assigned a 9-character "IEA" lab identification number (lab ID) and an abbreviated client ID for simplicity in forms generation. This package makes reference to these ID's as listed on the IEA Assigned Number Index. In addition the pH for the water samples are listed on this index. All analyses were performed according to the EPA 1/91 SOW and meet the requirements of the IEA Quality Assurance Program. Please see the enclosed data package for your results and Chain of Custody (COC) documentation.

There is an air peak that is common to all of the volatile analyses and a solvent peak that is common to some volatile analyses. These peaks are present at the beginning of the Reconstructed Ion Chromatograms (RIC) and are labeled. These peaks are not searched as Tentatively Identified Compounds (TIC's).

The chromatographic separation of the analytes is performed using a J & W Scientific 75 m X 0.53 mm DB-624 fused silica capillary column with a 3.0 μm film thickness.

The trap used in the purge-and-trap apparatus is a Supelco trap K (VOCARB 3000) consisting of 10 cm of Carbopack B, 6 cm of Carboxen 1000, and 1 cm of Carboxen 1001. This trap meets the criteria in the SOW for contract OLM03.1 for an equivalent trap. Documentation is maintained within the QA department for on-site review.

The "J" flag used on the Form I VOA indicates an estimated concentration between the Contract Required Quantitation Limit (CRQL) and the Method Detection Limit (MDL), not accounting for dilution of the sample prior to analysis. This flag is also used on the Form I VOA-TIC to indicate an estimated amount for all non-target concentrations.

The "N" flag used on the Form I VOA-TIC indicates that there is the presumptive evidence of a compound based on the mass spectral library search and the interpretation of the mass spectral interpretation specialist.

The "Y" flag is used as a qualifier on the Form I VOA-TIC to indicate a siloxane contaminant attributed to trap breakdown.

The "M" flag used on the data system report form designates that a manual integration was required to provide an accurate quantification of that analyte. Manual integrations have been initialled and dated by the analyst.

IEA SDG NARRATIVE VOLATILE FRACTION

The following samples have pH's above the method specified limit of 2. Please see the IEA Assigned Number Index for the specific pH. A project status report was filed with the client representative to notify the client of this issue.

IEA Lab ID	Client ID
9611205-02	MW13
9611205-03	MW15
9611205-05	MW06

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature.

Brian D. Neptune 11/22/96

Brian D. Neptune
Lead Analyst, GC/MS Final Review
IEA, Inc.

IEA SDG NARRATIVE SEMIVOLATILE FRACTION

PROJECT: 2240-009 BATCH: 11140 METHOD: SOW 1/91

Samples: (4) Water Samples

The samples were received at Industrial and Environmental Analysts, Inc. (IEA) on 11/08/96. Each sample was assigned a 9-character "IEA" lab identification number (lab ID) and an abbreviated client ID which is referenced on the IEA Assigned Number Index. All analyses are performed in accordance with EPA approved methodologies and meet the requirements of the IEA Quality Assurance Program. Please see the enclosed data package for your results and Chain of Custody documentation.

The chromatographic separation of the analytes was performed using a Restek 30 X 0.32 XTI-5 fused silica capillary column with a 0.5 μm bonded phase film thickness.

Instrument data printouts identify the compound 2,2'-oxybis(1-Chloropropane) with CAS number 108-60-1. Alternative nomenclature for this compound is bis(2-Chloroisopropyl)ether which is included on report forms submitted.

The "J" flag used on the Form I SV indicates an estimated concentration between the CRQL and the MDL, not accounting for dilution of the extract prior to analysis. This flag also identifies the estimated concentration of the non-target compounds reported on the Form I SV-TIC.

The "N" flag used on the Form I SV-TIC indicates that there is the presumptive evidence of a compound based on the mass spectral library search and the interpretation of the mass spectral interpretation specialist.

The "X" flag is used to designate a non-target which can be attributed to laboratory contamination on the Form I SV-TIC.

Any nonconformances associated with the analysis of the samples in this project are as follows:

Sample MW06MSD exhibited low recovery or Terphenyl d-14.

Sampls MW06MS/MSD exhibited a high RPD value for 4-Nitrophenol. However, both individual recoveries were with method specified criteria.

I certify that this data package is in compliance with the procedures and methods defined for this project, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data (if applicable) as submitted has been authorized by the laboratory manager or his designee, as verified by the following signature.

_____ 12/02/96

Keith B. Scott
Organic Laboratory Manager
IEA, Inc.

Samples: Four (4) Soil Samples

IEA **SDG NARRATIVE PESTICIDE FRACTION**

PROJECT: 2240-009 SDG: 11140 METHOD: CLP SOW OLM01.9

Samples: Four (4) Water Samples

The samples were received at Industrial and Environmental Analysts, Inc. (IEA) on 11/07/96 and 11/08/96. Each sample was assigned a 9-character "IEA" lab identification number (lab ID) and an abbreviated client ID which is referenced on the IEA Assigned Number Index. All analyses are performed in accordance with EPA approved methodologies and meet the requirements of the IEA Quality Assurance Program. Please see the enclosed data package for your results and Chain of Custody documentation.

The chromatographic separation of the analytes was performed using a J & W 30 m X 0.53 mm DB-1701 fused silica capillary column with a 1.0 μm bonded phase film thickness and a Restek 30 m X 0.53 mm Rt_x-35 fused silica capillary column with a 1.0 μm bonded phase film thickness.

The "J" flag was used on the report forms to indicate a target that is below the quantitation limit but above the method detection limit.

The "P" flag is used to designate that there is a greater than 25% difference in the detected concentration of an analyte between the two analytical columns.

Any nonconformances associated with the analysis of the samples in this project are as follows:

Surrogate TCX had recoveries below advisory limits on the Rt_x-35 column for samples MW06, MW06MS and MW06MSD. Spike compound gamma-BHC recovered below advisory limits in MW06MS and MW06MSD.

I certify that this data package is in compliance with the procedures and methods defined for this project, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data (if applicable) as submitted has been authorized by the laboratory manager or his designee, as verified by the following signature.

Kerry S. Hinshaw 11/26/96

Kerry S. Hinshaw
Semivolatiles Manager
IEA, Inc.

IEA, Inc Doc# RPF00801.NC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLK46

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: SBLK46

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122409.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLK46

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: SBLK46

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122409.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLK46

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: SBLK46

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122409.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	7.040	3	J
2.	930687	2-Cyclohexen-1-one	7.930	3	NJ
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKKK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: VBLKKK

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKKK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: VBLKKK

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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30.					

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLK13

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: PBLK13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4110896_147.D

% Moisture: _____ decanted: (Y/N)___ Date Received: / /

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/13/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

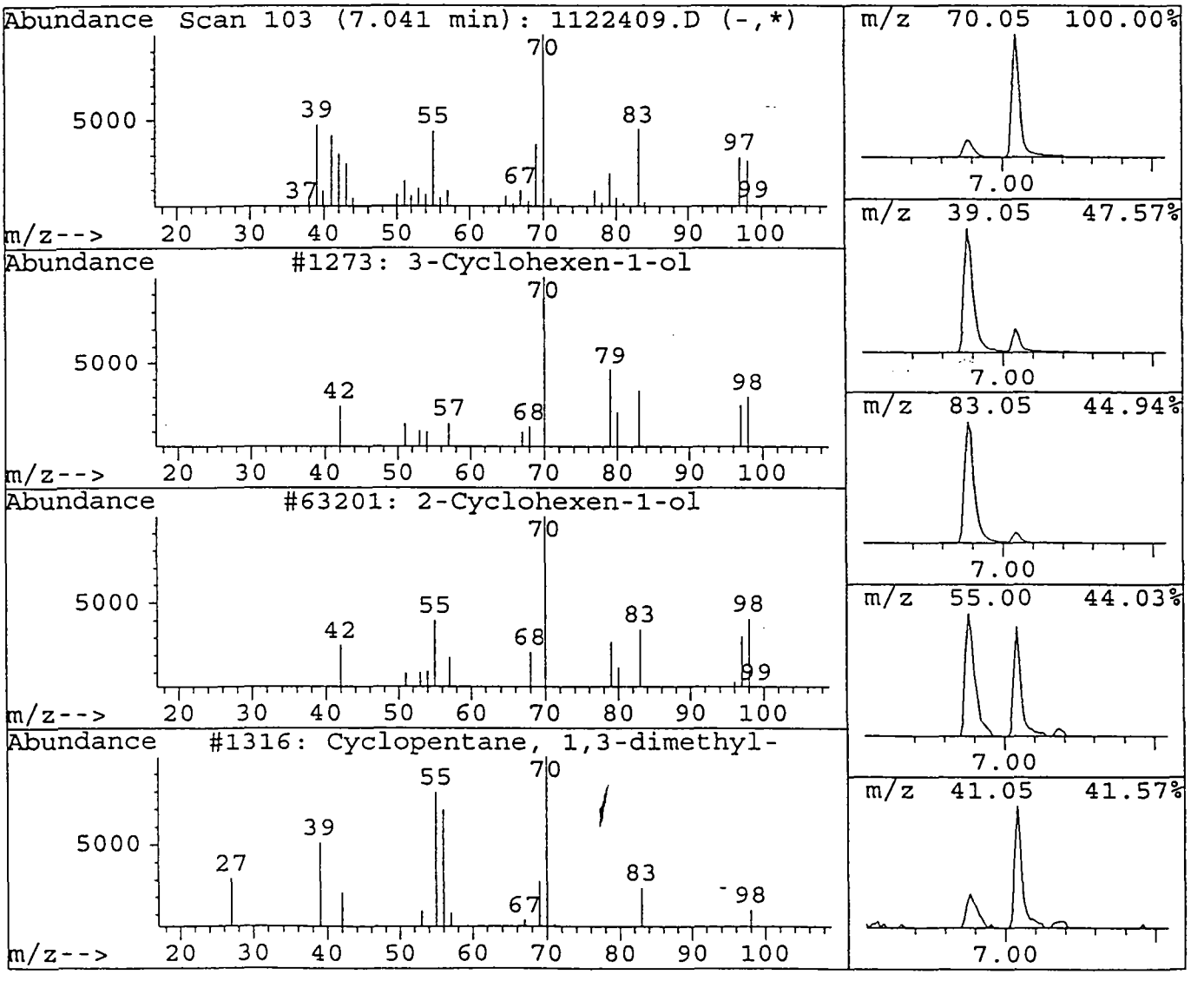
Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\9611224.B\1122409.D Vial: 10
Acq On : 22 Nov 96 4:13 pm Operator: WESTHEAD
Sample : SBLK46 Inst : MSD4
Misc : WATER LOW 1X SBLK46_111296 IEA MSD4 Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\9611224.B\IEASVCLP.M
Title :
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
7.04	5.22	472951	1,4-dichlorobenzene-d4	9.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3-Cyclohexen-1-ol	1273	000822-66-2	83
2	2-Cyclohexen-1-ol	63201	000822-67-3	50
3	Cyclopentane, 1,3-dimethyl-	1316	002453-00-1	47
4	Cyclopentane, 1,2-dimethyl-, cis-	1367	001192-18-3	38
5	1-Heptanol	64362	000111-70-6	16



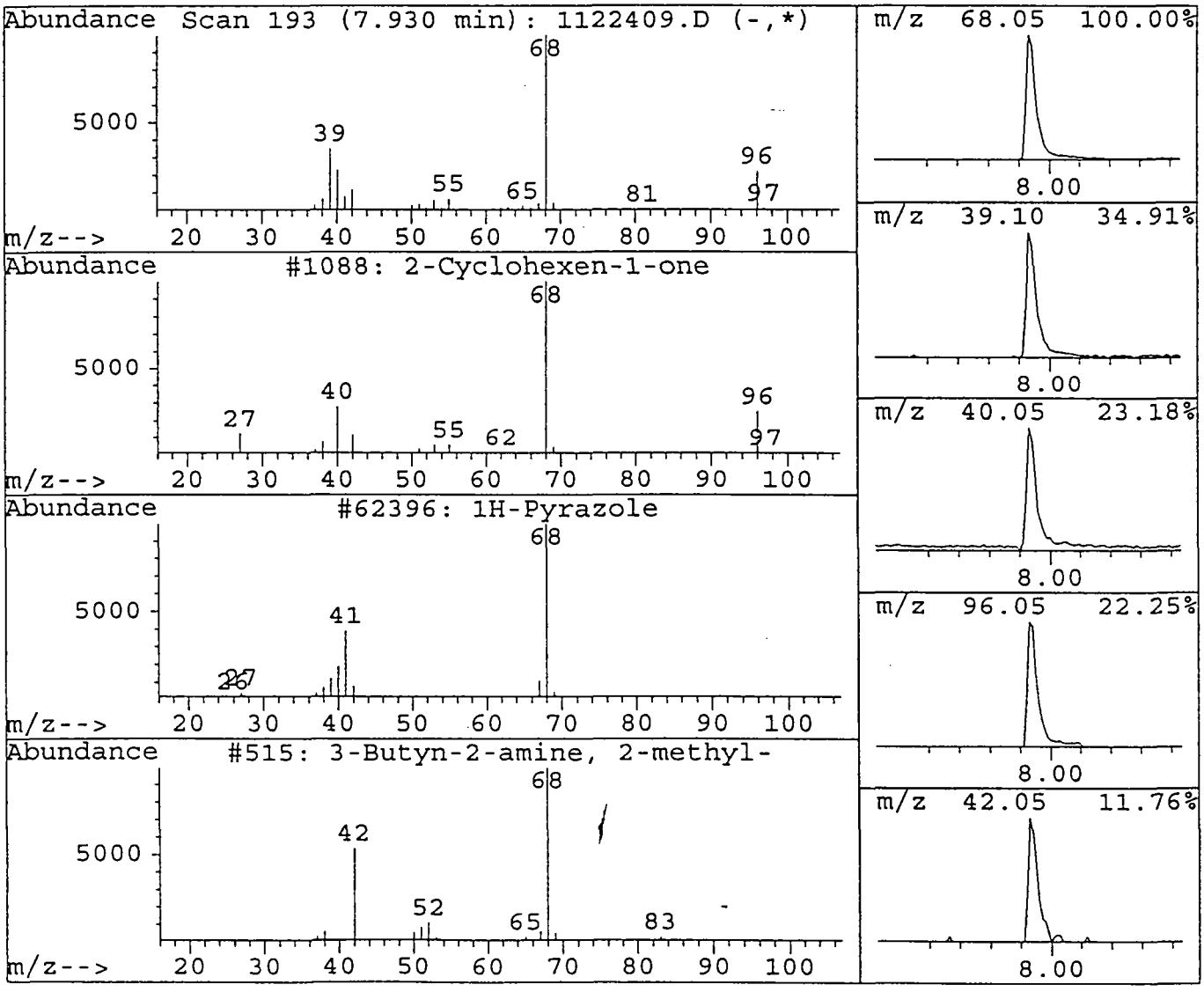
Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\9611224.B\1122409.D Vial: 10
Acq On : 22 Nov 96 4:13 pm Operator: WESTHEAD
Sample : SBLK46 Inst : MSD4
Misc : WATER LOW 1X SBLK46_111296 IEA MSD4 Multiplr: 1.00

Method : C:\HPCHEM\1\DATA\9611224.B\IEASVCLP.M
Title :
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
7.93	6.99	633564	1,4-dichlorobenzene-d4	9.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Cyclohexen-1-one	1088	000930-68-7	94
2	1H-Pyrazole	62396	000288-13-1	36
3	3-Butyn-2-amine, 2-methyl-	515	002978-58-7	33
4	Furan	175	000110-00-9	7
5	Methane, chlorofluoro-	62394	000593-70-4	5



Quantitation Report

Data File : C:\HPCHEM\1\DATA\961115V.B\1115V07.D
Acq On : 16 Nov 96 12:44 am
Sample : 961120505 IEA MSD11
Misc : WATER LOW 5X
Quant Time: Nov 16 1:14 1996

Vial: 15
Operator: CREWES
Inst : MSD11
Dilution: 1.00

Method : C:\HPCHEM\1\DATA\961115V.B\CLPW.M
Title : CLP WATER IEA MD11
Last Update : Fri Nov 15 21:00:14 1996
Response via : Continuing Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	7.90	128	380804	50.00 UG/L	0.00
18) 1,4-Difluorobenzene	10.08	114	2129398	50.00 UG/L	0.00
30) Chlorobenzene-d5	16.32	117	1735283	50.00 UG/L	0.00
System Monitoring Compounds					%Recovery
16) 1,2-Dichloroethane-d4	9.09	65	722680	44.88 UG/L	89.77%
31) Toluene-d8	13.18	98	2244076	49.70 UG/L	99.39%
42) Bromofluorobenzene	19.03	95	1436635	46.64 UG/L	93.28%
Target Compounds					Qvalue
3) Vinyl Chloride	2.35	62	17312	1.~~61 UG/L~~ #	41
5) Chloroethane	2.89	64	968477	144.44 UG/L	99
9) Methylene Chloride	4.85	84	42032	3.41 UG/L	88
10) trans-1,2-Dichloroethene	5.42	96	18512	1.46 UG/L	87
11) 1,2-Dichloroethene (total)	5.42	96	18512	1.46 UG/L	90
12) 1,1-Dichloroethane	6.25	63	106530	4.14 UG/L	94
13) cis-1,2-Dichloroethene	7.44	96	52793	3.77 UG/L	77
17) 1,2-Dichloroethane	9.23	62	30093	1.~~80 UG/L~~ #	41
21) Benzene	9.21	78	2718347	63.41 UG/L	100
37) Ethylbenzene	16.68	106	54107	3.27 UG/L	94
38) m,p-Xylene	16.97	106	165080	8.02 UG/L	98

RT 11/18/96

3.77
+ 1.46
5.23
x 5
26.1

(#) = qualifier out of range (m) = manual integration

VALIDATION NARRATIVE

ACS
Project 4077.0076 (1252042.0809.0076)

VOCs, SVOCs, PCBs in Ground Water
Sampled 11/96

Validated By: JAH
Date: 1/10/97

This narrative covers the validation of 20 groundwater samples from ACS for VOC, SVOC, and PCB analysis by IEA laboratories using CLP methodologies. Validation was performed using the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Analysis Review* (2/94). The data is validated as acceptable for use in site evaluation with the following comments:

Hold Times All hold times were met, with the exception of the SVOC analysis of MW11RE, which was extracted 21 days after sampling. This re-extraction was performed due to a low surrogate recovery; the initial run will be reported with appropriate compounds flagged as estimated.

Calibration All instrument tuning and calibration criteria was validated as acceptable. Some VOC and SVOC compounds had percent difference criteria outside QC limits. Because these compounds were not detected in the samples, and the CRQL is essentially an estimated value, no qualifiers were applied. The exception was for 2,2'-oxybis(1-chloropropane) which was detected in several samples; detects have been qualified as estimated (J).

Blanks Method blanks, two field blanks, and one trip blank were analyzed. Low concentrations of acetone were qualified as undetected due to a field blank result. Bis(2-ethylhexyl)phthalate, a common laboratory contaminant, was qualified as undetected at the reporting limit of 10 ug/L when detected at concentrations less than the CRQL of 10 ug/L. The SVOC blanks contained a number of TICs detects. Sample detects with the same RT have been qualified as unusable.

Internal Standards All internal standard results were within acceptable validation limits, with the exception of SVOC sample SBLK41, where perylene recovery was low on both the initial and re-analysis. Because this was for a blank, and the sample IS recoveries were acceptable, no flags were applied.

Surrogates Surrogate recoveries were generally within acceptable validation QC limits, with the exception of SVOC sample MW11, where phenol recovery was 2%. The re-extraction of this sample had phenol recovery of 79%.

For pesticide samples, most samples had some matrix interference resulting in out of control surrogate recoveries. No flags were applied based on this criteria, because the limits are advisory only.

Matrix Spikes All matrix spike recoveries and RPDs were within acceptable validation QC limits. Due to limited sample volume (e.i., no additional volume was collected), the SVOC MS/MSD was run on DI water. This does not significantly affect the usability of data in site evaluation (the guidelines list no specific actions based on MS/MSDs), and no qualifiers were applied.

Field Duplicates Field duplicate results were within acceptable QC limits.

Sample Results All calculations are acceptable. Overall data quality by the laboratory was good, with no instrument related problems observed. VOCs and SVOCs were detected in the samples, but pesticides/PCBs were not.

The non-TCL compound ether (also known as diethylether) was detected in several samples at significant concentrations:

Sample	Ether (ug/L)
MW10C-01	5,000
MW51-01	20,000
MW51-91	20,000

The VOC results included on Form I for MW10C were incorrectly reported and did not include a 1:10 dilution factor. Chloroethane was detected at 120 ug/L. A revised Form I is included in this package.

JAH/jah
I:\PROJECT\ACS\1196DV.DOC
1252042.0809.0076

IEA Assigned Number Index

Case No.: 2240-007

SDG No.: 11112

IEA Lab Sample Number	Sample Number	Abbreviated Sample Number	pH
9611112-01	APD-GWMW08-01	MW08	<2
9611112-02	APD-GWMW11-01	MW11	<2
9611112-03	APD-GWMW19-01	MW19	<2
9611112-04	APD-GWMW22-01	MW22	<2
9611112-05	APD-GWMW12-01	MW12	<2
9611112-06	APD-GWMW12-91	MW129	<2
9611113-07	APD-GWMW18-01	MW18	<2
9611113-08	APD-GWFB01-01	FB01	<2
9611113-09	APD-GWMW07-01	MW07	6
9611113-10	APD-GWMW21-01	MW21	<2
9611113-11	APD-GWTB01-01	TB01	<2
9611113-21	HB11112	HB112	<2
9611135-12	APD-GWMW23-01	MW23	<2
9611135-13	APD-GWFB02-01	FB02	<2
9611135-14	APD-GWMW24-01	MW24	6
9611135-15	APD-GWMW09-01	MW09	6
9611135-16	APD-GWMW14-01	MW14	6
9611135-17	APD-GWMW10C-01	MW10C	6
9611139-18	APD-GWMW51-01	MW51	6
9611139-19	APD-GWMW51-91	MW5191	6
9611139-20	APD-GWMW50-01	MW50	<2

~~000~~ C01
BDB 12/2/96

Review Date: 1/9/96 Reviewed by: JAH

Review of Contract Data; ~~SMO~~ SDG Case No. 11112 2240-007R

Site Name: ACS Contract Lab: IEA

Contract No.: SOW 1/91 Project No.: 4077.0073

SMO Traffic No's: GW

Sample Matrix: Low Level ✓ Med. Level ____ High Level ____ Soil/Seq ____

Water ✓ Waste ____

SAMPLED 11/5-6/96

I. HOLDING TIMES

Water: VOA ✓ SV P PEST A

Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - All contract and 40 CFR 136 holding times met.

P - Provisional - Some contract and 40 CFR 136 holding times exceeded.

U - Unacceptable - All holding times exceeded.

REMARKS: VOCs run 11/14-15/96 - 10 day max ✓

SVOCs extracted 11/11 (6 day max)

MW11RE 11/26 (21 day - over - phenols only)

PPCB extracted 11/11 (6 day max)

II. GC/MS TUNING AND PERFORMANCE

Water: VOA (BFB) A SV (DFTPP) A

Sed/Soil: VOA (BFB) ____ SV (DFTPP) ____

A - Acceptable - All criteria met, spectra of good quality.

P - Provisional - All criteria not met, spectra of reasonable quality; date usable.

U - Unacceptable - Criteria not met, spectra of poor quality, data unusable.

BFB

MSD11

11-8-96 ✓

11-14-96 (1255) ✓

11-14 (1935) ✓

11-15 (0812) ✓

11-15 (1948) ✓

DFTPP

MSD 14

11-7 (Init) ✓

11-20 (2347) ✓

11-21 (0947) ✓

11-21 (2300) ✓

MSD 6

11-21 (1452) ✓

11-29 (0706) ✓

SMO Case No.: ACS Contract Lab: IEA

V. SURROGATE SPIKE RESULTS

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

NOTE: Sample data flagged on individual basis.

A. Individual sample flagging criteria.

Acceptable - All surrogate recoveries within criteria.
Suspect - Any surrogate recoveries outside criteria and/or recoveries of <10% substantiated as a matrix effect.
Invalid - Any recoveries of <10% that are unsubstantiated as a matrix effect.

		No. Samples	No. Suspect	No. Invalid
Water:	VOA	26x3	0	0
	SV	24x6	6	1
	PEST	12x4 / 9x4	23	0
Sed/Soil:	VOA			
	SV			
	PEST			

← MW11 - Phenol = 2 %, MW11RE- " = 79%

B. Summary of Surrogates

A - Acceptable - <10% of samples reported as suspect.
P - Provisional - >10% but <50% of samples reported as suspect.
U - Unacceptable - >50% of samples reported as suspect and/or >10% samples reported as invalid.

REMARKS:

No SVOC Flags required

PEST- Almost all DCB on ~~RTX-35~~ DB1701 high (150-280 %)
Some TCX on RTX-35 low - Matrix interference

SMO Case No.: ACS Contract Lab: IEA

III. INITIAL AND CONTINUING CALIBRATION CHECKS

Water: VOA A SV P PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - All criteria met.
P - Provisional - Some criteria not met, data usable, see remarks.
U - Unacceptable - Criteria not met, data unusable, see remarks.

REMARKS: See Summary Sheets

See Summary Sheets - Some ~~oxy~~ bis chloropropane hits flagged "J" (%D exceedences for non-detects not flagged - CRQL is an estimate already)

IV. BLANK ANALYSIS

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - No contaminants above minimum detection limit, no interference with sample results, appropriate blank for each GC/MS system and extraction method.

P - Provisional - Contaminants present but minimal interference with sample results.

U - Unacceptable - Gross contamination, too much interference to use data for certain components or the entire fraction, appropriate blanks not analyzed.

VOCs

Blk	ND	Acetone
VBLKKH	✓	–
VBLKKI	✓	–
VBLKKJ	✓	–
VBLKKK	✓	–
FB01	–	8.8
FB02	–	(10)
TB01	✓	–
10x =		88

SVOCs

Blk	(See attach Quant reports)
SBLK41	- TICs @ 7.1, 10.4, 11.2, 15.1, 15.3, 16.5
SBLK42	- TICs @ 7.1, 7.2, 16.4
FB01	- TICs @ 7.1, 7.2, 10.4
FB02	- TICs @ 7.1, 7.2

PEST	ND
PBLK08	✓
PBLK09	✓
FB01	✓
FB02	✓

SMO Case No.: ACS Contract Lab: IEA

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A. MATRIX SPIKE RESULTS:

Water: VOA A SV A PEST A MW08
Sed/Soil: VOA ____ SV ____ PEST ____

NOTE: No action taken on Matrix Spike Results alone.

A - Acceptable - <10% of compounds outside criteria.
P - Provisional - >10% but <50% of compounds outside criteria.
U - Unacceptable - >50% of compounds outside criteria and/or >10% of compounds with recoveries of <10%.

		No. Compounds	No. Outside Criteria	No. <10% Recovery
Water:	VOA	5 x 2	0	0
	SV	11 x 2	1	0
	PEST	6 x 2	1	0
Sed/Soil:	VOA			
	SV			
	PEST			

(high)

B. DUPLICATE RESULTS

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - <10% of compounds outside criteria.
P - Provisional - >10% but <50% of compounds outside criteria.
U - Unacceptable - >50% of compounds outside criteria and/or >10% of compounds with recoveries of <10%.

		No. Compounds	No. Outside Criteria
Water:	VOA	5	0
	SV	~~2~~	~~2~~
	PEST	5	2
Sed/Soil:	VOA		
	SV		
	PEST		

Hept + Ald 24, 31 % RPD

REMARKS:

SMO Case No.: ACS Contract Lab: IEA

VII. FIELD DUPLICATES

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - All compounds are within 25% of each other for waters or within 50% of each other for soils.

P - Provisional - Some compounds are greater than 25% RPD for waters and greater than 50% RPD for soils, see remarks.

U - Unacceptable - Professional judgement, see remarks.

REMARKS:

		MW12	MW12-91	$\bar{X}$	RPD
	Benzene	ND	1	1	NA ± CRDL
	Chlorobenzene	5	5	5	0%
	22 oxybis (1-chloropropane)	120	120	120	0%
		MW51	MW51-91		
	Ether	20,000	20,000		0%

SMO Case No.: ACS Contract Lab: IEA

VIII. INTERNAL STANDARD PERFORMANCE

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - Is area counts between - 50% to +100% from associated calibration standard and ±30 seconds from associated calibration standards.

P - Provisional - Most all area counts between -50% to +100% and ±30 seconds, from associated calibration standard, see remarks.

U - Unacceptable - Extremely low area counts or major abrupt drop-off of sensitivity or greater than ±30 second time shift, see remarks.

REMARKS: U/SBLK41 - Perylene = 20% R
SU/SBLK41RE " = 31% R

IX. COMPOUND IDENTIFICATION

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - All compounds within retention time windows, spectral criteria met.
P - Provisional - Some criteria not met, data usable, see remarks.
U - Unacceptable - Criteria not met, data unusable, see remarks.

REMARKS:

SMO Case No.: ACS Contract Lab: IEA

X. COMPOUND QUANTIFICATION AND REPORTED D.L.

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - Compounds were quantified, as well as the adjustment of the CRQL, was calculated according for the SOW or SAS.

P - Provisional - Some criteria not met, data usable, see remarks.

U - Unacceptable - Gross problems, interferences, unacceptable RT and RRF shifts, see remarks.

REMARKS:

XI. SYSTEM PERFORMANCE

Water: VOA A SV A PEST A
Sed/Soil: VOA ____ SV ____ PEST ____

A - Acceptable - No indication of instrument problems such as baseline shifts, I.S. absolute area changes, etc.
P - Provisional - Indication of minor problems, see remarks.
U - Unacceptable - Indication of instrument problems, see remarks.

REMARKS:

Volatile TCLs
Calibration Outliers

CASE/SDG ACS CONTRACTOR IEA

Instrument MSD11	Init Cal			Cont. Cal		Cont. Cal		Cont. Cal		Cont. Cal	
Date	11-8-96			11-14 (1324)		11-14 (2015)		11-15 (0903)		11-15 (2019)	
	RF	RSD	*	RF	%D	RF	%D	RF	%D	RF	%D
Chloromethane											
Bromomethane											
Vinyl chloride											
Chloroethane											
Methylene chloride											
Acetone							26		21.5		21.5
Carbon disulfide											
1,1-Dichloroethene											
1,1-Dichloroethane											
1,2-Dichloroethene (total)											
Chloroform											
1,2-Dichloroethane											
2-Butanone											
1,1,1-Trichloroethane											
Carbon tetrachloride											
Bromodichloromethane											
1,2-Dichloropropane											
cis-1,3-Dichloropropene											
Trichloroethene											
Dibromochloromethane											
1,1,2-Trichloroethane											
Benzene											
trans-1,3-Dichloropropene											
Bromoform											
4-Methyl-2-pentanone											
2-Hexanone											
Tetrachloroethene											
Toluene											
1,1,2,2-Tetrachloroethane											
Chlorobenzene											
Ethylbenzene											
Styrene											
Xylenes (total)											
	Init. Cal.			VBLKKH		VBLKKI		VBLKKJ		VBLKKK	
				MW08		MW22		MW24		MW50	
				11		12		09			
				19		12-9		14			
				08 MS		18		10C			
				MSD		FB01		51			
						MW07		51-91			
						21					
						TB01					
						MW23					
						FB02					
	✓			✓		✓		✓		✓	

all ok ✓

Calibration Outliers

CASE/SDG ACS CONTRACTOR IEA

Instrument MSD14	Init Cal			Cont. Cal		Cont. Cal		Cont. Cal		~~Cont.~~ Cal INIT MSD06		
Date	11-7-96			11-20 (0006)		11-21 (1002)		11-21 (2300)		11-21		11-29 (0722)
	RF	RSD	*	RF	%D	RF	%D	RF	%D	RF	%D	RF %D
Phenol												
bis(2-chloroethyl) ether												
2-Chlorophenol												
1,3-Dichlorobenzene												
1,4-Dichlorobenzene												
1,2-Dichlorobenzene												
2-Methylphenol												
2,2-oxybis 1-chloropropane					-70.3		-40.4		-63.5			
4-Methylphenol												
N-Nitroso-di-n-propylamine					-32.4							
Hexachloroethane												
Nitrobenzene												
Isophorone												
2-Nitrophenol												
2,4-Dimethylphenol												
bis(2-chloroethoxy)methane												
2,4-Dichlorophenol												
1,2,4-Trichlorobenzene												
Naphthalene												
4-Chloroaniline												
Hexachlorobutadiene												
4-Chloro-3-methylphenol												
2-Methylnaphthalene												
Hexachlorocyclopentadiene												
2,4,6-Trichlorophenol												
2,4,5-Trichlorophenol												
2-Chloronaphthalene												
2-Nitroaniline					-28.2				-34.4			
Dimethylphthalate												
Acenaphthene												
2,6-Dinitrotoluene												
3-Nitroaniline												
Acenaphthene												
2,4-Dinitrophenol												
4-Nitrophenol					-27.4							-36.1
Dibenzofuran												
	Init. Cal.			SBLK41		SBLK41 RE		SBLK42		MW11 RE		
						MS		MW12				
						MSD		12-9				
						MW08		23				
						11		FB02				
						19		MW24				
						22		09				
						18		14				
						FB01		10c				
								51				
								51-91				
								50				

Semivolatiles TCLs
Calibration Outliers

CASE/SDG _____ CONTRACTOR _____

Instrument	Init Cal			Cont. Cal			Cont. Cal			Cont. Cal			MSD06 Cont. Cal			11-29 (0722)
Date	11-7			11-21 (0006)			11-21 (1002)			11-21 (2300)			11-21			RF %D
	RF	RSD	*	RF	%D		RF	%D		RF	%D		RF	%D		
2,4-Dinitrotoluene																
Diethylphthalate																
4-Chlorophenylphenyl ether																
Fluorene																
4-Nitroaniline					-31.9											
4,6-Dinitro-2-methylphenol																
N-Nitrosodiphenylamine																
4-Bromophenyl phenyl ether																
Hexachlorobenzene																
Pentachlorophenol																
Phenanthrene																
Anthracene																
Carbazole																
Di-n-butylphthalate																
Fluoranthene																
Pyrene																
Butylbenzylphthalate																
3,3'-Dichlorobenzidine					-46.7			-49.0			-33.2					
Benzo(a)anthracene																
Chrysene																
bis(2-ethylhexyl)phthalate																
Di-n-octylphthalate																
Benzo(b)fluoranthene																
Benzo(k)fluoranthene																
Benzo(a)pyrene																
Indeno(1,2,3-cd)anthracene																
Dibenz(g,h,i)perylene																

CASE ACS
LAB IEA

PESTICIDE/PCB DATA REVIEW
SOW OLM02.1

RUN #				
INSTRUMENT #	HP5890 P2	P3	P3	
RUN DATE	11/11 - 11/26	11/19 ~~11/22 - 28~~ →	11/22-28	
COLUMN	DB-1701	RTX-35	RTX-35	
FORM VI PEST-1 Retention time windows within limits	✓	✓	✓	
FORM VI PEST-2 Percent RSD within QC limits for single component cmpds ≤ 20% (α BHC 28%)	✓	✓	✓	
FORM VI PEST-3 Multicomponent cmpd calibrations within QC limits	✓	✓	✓	
FORM VI PEST-4 Resolution check greater than 60 %	✓	✓	✓	
FORM VII PEST-1 Continuing calibration verification, breakdown acceptable RPD ≤ 25%, BD ≤ 20%	✓	✓	✓	
FORM VII PEST-2 Continuing calibration verification, RPD acceptable ≤ 25 %	✓	✓	✓	
FORM VIII Analytical sequence correct, Surrogate shift within QC limits.	✓	✓	✓	
Form IX Florisil	✓	✓		

Affected Samples

RTX-35
11/19-22

PBLK09	MW12
MW23	12-9
FB02	18
MW09	FB01
14	24
10C	
51	
51-91	
50	
PBLK08	
MW08 MS	
MSD	
08	
11	
19	
22	

Remaining Spls

CLP 1/91 Water

MDL's + PQL's

Parameter/Compound	Offered in NC	Technique	Analytical Method	Practical Quantitation Limit (ug/L)	1993 MDL ug/L	1994 MDL ug/L	1995 MDL ug/L	1996 MDL ug/L
	X	GC/MS-capillary	CLP-1/91					
			Chloromethane	10		3.89		
			Vinyl chloride	10		3.35		
			Bromomethane	10		1.21		
			Chloroethane	10		1.56		
			1,1-Dichloroethane Rt 12/5/95	10		1.24		
			Acetone	10		1.47		
			Carbon disulfide	10		2.62		
			Methylene Chloride	10		1.38		
			trans-1,2-Dichloroethane	10		1.24		
			1,2-Dichloroethene (total)	10		2.81		
			1,1-Dichloroethane	10		1.25		
			cis-1,2-Dichloroethane	10		1.62		
			2-Butanone	10		2.39		
			Chloroform	10		1.26		
			1,1,1-Trichloroethane	10		1.34		
			Carbon tetrachloride	10		1.26		
			Benzene	10		1.33		
			1,2-Dichloroethane	10		1.25		
			Trichloroethane	10		1.36		
			1,2-Dichloropropane	10		1.18		
			Bromodichloromethane	10		1.49		
			cis-1,3-Dichloropropene	10		1.29		
			4-Methyl-2-pentanone	10		2.02		
			Toluene	10		1.11		
			trans-1,3-Dichloropropene	10		1.48		
			1,1,2-Trichloroethane	10		1.49		
			Tetrachloroethane	10		1.24		
			2-Hexanone	10		2.32		
			Dibromochloromethane	10		1.38		
			Chlorobenzene	10		1.2		
			Ethylbenzene	10		1.18		
			m,p-Xylene	10		2.77		
			Xylene (total)	10		4.12		
			o-Xylene	10		1.39		
			Styrene	10		1.37		
			Bromoform	10		1.43		
			1,1,2,2-Tetrachloroethane	10		1.23		

IEA SDG NARRATIVE VOLATILE FRACTION

PROJECT: 2240-007 BATCH: 11112 METHOD: 1/91 SOW

SAMPLES: Twenty (20) Water Samples

These samples were received at Industrial and Environmental Analysts, Inc. (IEA) on November 06 and 07, 1996. Each sample was assigned a 9-character "IEA" lab identification number (lab ID) and an abbreviated client ID for simplicity in forms generation. This package makes reference to these ID's as listed on the IEA Assigned Number Index. In addition the pH for the water samples are listed on this index. All analyses were performed according to the EPA 1/91 SOW and meet the requirements of the IEA Quality Assurance Program. Please see the enclosed data package for your results and Chain of Custody (COC) documentation.

There is an air peak that is common to all of the volatile analyses and a solvent peak that is common to some volatile analyses. These peaks are present at the beginning of the Reconstructed Ion Chromatograms (RIC) and are labeled. These peaks are not searched as Tentatively Identified Compounds (TIC's).

The chromatographic separation of the analytes is performed using a J & W Scientific 75 m X 0.53 mm DB-624 fused silica capillary column with a 3.0 μm film thickness.

The trap used in the purge-and-trap apparatus is a Supelco trap K (VOCARB 3000) consisting of 10 cm of Carbopack B, 6 cm of Carboxen 1000, and 1 cm of Carboxen 1001. This trap meets the criteria in the SOW for contract OLM03.1 for an equivalent trap. Documentation is maintained within the QA department for on-site review.

The "J" flag used on the Form I VOA indicates an estimated concentration between the Contract Required Quantitation Limit (CRQL) and the Method Detection Limit (MDL), not accounting for dilution of the sample prior to analysis. This flag is also used on the Form I VOA-TIC to indicate an estimated amount for all non-target concentrations.

The "N" flag used on the Form I VOA-TIC indicates that there is the presumptive evidence of a compound based on the mass spectral library search and the interpretation of the mass spectral interpretation specialist.

The "Y" flag is used as a qualifier on the Form I VOA-TIC to indicate a siloxane contaminant attributed to trap breakdown.

The "M" flag used on the data system report form designates that a manual integration was required to provide an accurate quantification of that analyte. Manual integrations have been initialled and dated by the analyst.

IEA SDG NARRATIVE VOLATILE FRACTION

The following nonconformances associated with the analysis of the samples in this case are as follows:

The following samples had to be analyzed and reported at dilutions due to high concentrations of non-target compounds present.

IEA Lab ID	Client ID
9611135-17	MW10C
9611139-18	MW51
9611139-19	MW5191

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature.

Brian D. Neptune 11/19/96

Brian D. Neptune
Lead Analyst, GC/MS Final Review
IEA, Inc.

IEA SDG NARRATIVE SEMIVOLATILE FRACTION

PROJECT: 2240-007 BATCH: 11112 METHOD: SOW 1/91

Samples: Seventeen (17) Water Samples

The samples were received at Industrial and Environmental Analysts, Inc. (IEA) on 11/06/96 and 11/07/96. Each sample was assigned a 9-character "IEA" lab identification number (lab ID) and an abbreviated client ID which is referenced on the IEA Assigned Number Index. All analyses are performed in accordance with EPA approved methodologies and meet the requirements of the IEA Quality Assurance Program. Please see the enclosed data package for your results and Chain of Custody documentation.

The chromatographic separation of the analytes was performed using a Restek 30 X 0.32 XTI-5 fused silica capillary column with a 0.5 μm bonded phase film thickness.

Instrument data printouts identify the compound 2,2'-oxybis(1-Chloropropane) with CAS number 108-60-1. Alternative nomenclature for this compound is bis(2-Chloroisopropyl)ether which is included on report forms submitted.

The "J" flag used on the Form I SV indicates an estimated concentration between the CRQL and the MDL, not accounting for dilution of the extract prior to analysis. This flag also identifies the estimated concentration of the non-target compounds reported on the Form I SV-TIC.

The "N" flag used on the Form I SV-TIC indicates that there is the presumptive evidence of a compound based on the mass spectral library search and the interpretation of the mass spectral interpretation specialist.

The "B" flag used on the Form I SV-TIC indicates that this compound was present in the associated extraction blank.

The "M" flag used on the data system report form designates that a manual integration was required to provide an accurate quantification of that analyte. Manual integrations have been initialed and dated by the analyst.

Sample MW12 (961111205) and MW129 (961111206) have been reported at two-fold dilutions due to the presence of target compounds.

Any nonconformances associated with the analysis of the samples in this project are as follows:

SBLK41 exhibited low Internal Standard (Perylene-d12) area response which was confirmed through reanalysis (designated "RE"). SBLK41 also exhibited surrogate recoveries (2-Fluorobiphenyl and 2,4,6-Tribromophenol) which exceeded the method specified limits.

Sample MW11 (961111202) required re-extraction due to low surrogate recovery (Phenol-d5). The re-extraction (designated "RE") was performed outside of method specified holding time and did not confirm the low surrogate recovery of the original analysis.

Matrix Spike (SBLK41MS) percent recovery for 4-Nitrophenol exceeded the limits specified for this method due to better than expected extraction efficiency.

Due to limited availability of sample, the Matrix Spike/Matrix Spike Duplicate was performed on DI Water.

I certify that this data package is in compliance with the procedures and methods defined for this project, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data (if applicable) as submitted has been authorized by the laboratory manager or his designee, as verified by the following signature.

_____ 12/02/96

Keith B. Scott
Organic Laboratory Manager
IEA, Inc.

IEA SDG NARRATIVE PESTICIDE FRACTION

CASE:2240-007 SDG NO.:11112 CONTRACT: CLP SOW 1/91

Samples: (17) Water samples

This case was closed on November 07, 1996. The temperature of the samples upon receipt by the Industrial and Environmental Analysts, Inc. (IEA) was 4°C.

Each sample has been assigned a 9-character IEA lab identification number.

The chromatographic separation of the analytes was performed using a J & W 30 m X 0.53 mm DB-1701 fused silica capillary column with a 1.0 μm bonded phase film thickness and a Restek 30 m X 0.53 mm Rt_x-35 fused silica capillary column with a 1.0 μm bonded phase film thickness. The Rt_x-35 column used as one of the analytical columns is equivalent to the DB-608 column specified in the SOW.

The filenames have an extension of ".D" to denote the use of the ASCII file generated by the data system to produce the forms. Two significant figures were reported for the "calculated amount" on Form VII PEST-1 and -2.

Florisil column cleanup was performed on all sample extracts as required by the SOW.

The "P" flag is used to designate that there is a greater than 25% difference in the detected concentration of an analyte between the two analytical columns.

The "J" flag is used to designate target compounds that appear to be present but have concentrations below the quantitation limit.

The "*" used on the Form III PEST designates percent recoveries and/or RPD's are outside the QC limits.

Any nonconformances associated with the analysis of the samples in this case are note as follows:

The surrogate recovery was outside method limits for several of the sample analyses due to matrix interference.

Matrix spike/matrix spike duplicate recovery for gamma-BHC was below the advisory limits. The RPD was high for Heptachlor and Aldrin due to sample matrix.

IEA

SDG NARRATIVE PESTICIDE FRACTION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature.

_____ 12/02/96

Katrina L. Travis
GC Volatile Supervisor
IEA, Inc.

IEA SDG NARRATIVE INORGANIC/METALS FRACTION

CASE:2240-007 SDG NO.:11112

Sample Numbers:961111201 (MW08), 961111202 (MW11), 961111203 (MW19), 961111204 (MW22), 961111205 (MW12), 961111206 (MW129), 961111307 (MW18), 961111308 (FB01), 961113512 (MW23), 961113513 (FB02), 961113514 (MW24), 961113515 (MW09), 961113516 (MW14), 961113517 (MW10C), 961113918 (MW51), 961113919 (MW5191), 961113920 (MW50). A total of seventeen (17) water samples were received for Total and Dissolved Metals analysis by Methods 200.7 CLP-M, 245.1 CLP-M, and 335.2 CLP-M.

This case was closed on November 7, 1996. The temperature of the samples upon receipt by the Industrial and Environmental Analysts, Inc. (IEA) was 4°C. All samples were received intact.

The pH of all samples for Metals analysis was less than two (2) at the time of sample preparation.

The pH of all samples for Cyanide analysis was greater than twelve (12) at the time of sample preparation.

Each sample has been assigned a 9-character IEA lab identification number.

The "*" flag is used to identify the sample duplicate analysis exceeds the 20% RPD criteria. The following sample(s) are flagged with a "*" for the metal(s) listed:

Sample ID	Metal
All Dissolved Metals samples	Lead

Any nonconformances associated with the analysis of samples in this case are noted as follows:

There are no nonconformances associated with this case.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature.

11/25/96

Jason D. Jordan
Inorganic Data Reviewer
IEA, Inc.

IEA, Inc Doc# RPF00900.NC

IEA
An Aquarion Company
3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 70910

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER _____

COMPANY: MONTGOMERY WATSON

FULL CLP + DELIVERABLES

Page _____ of _____

PROJECT #: 4077.0073

PROJECT NAME: ACS

SAMPLERS: (SIGNATURE): [signature] John Hunterbach

REQUESTED PARAMETERS

SAMPLE I.D.	DATE	TIME	COMP	GRAB	STATION LOCATION	# OF CONTAINERS	MATRIX SOIL	MATRIX WATER	Total TAL metals	Dissolved TAL metal	TCL VOCs	TCL SVOC	TCL PESI/PCBs	Total Cyanide	TAG #'s
	11-5-96	0910		X	APD-GWMW08-01	9		X	1	1	2	2	2	1	9-31875, 76, 77, 78, 79, 80, 81, 82, 83
	11-5-96	1000		X	APD-GWMW11-01	9		X	1	1	2	2	2	1	9-31366, 61, 62, 63, 64, 65, 66, 67, 68
	11-5-96	1107		X	APD-GWMW19-01	9		X	1	1	2	2	2	1	9-31378, 79, 80, 81, 82, 83, 84, 85, 86
	11-5-96	1100		X	APD-GWMW22-01	9		X	1	1	2	2	2	1	9-31396, 97, 98, 99, 9-31400, 01, 02, 03, 04
	11-5-96	1325		X	APD-GWMW12-01	9		X	1	1	2	2	2	1	9-31369, 70, 71, 72, 73, 74, 75, 76, 77
	11-5-96	1325		X	APD-GWMW12-91	9		X	1	1	2	2	2	1	9-31351, 52, 53, 54, 55, 56, 57, 58, 59
	11-5-96	1404		X	APD-GWMW18-01	9		X	1	1	2	2	2	1	9-31884, 85, 86, 87, 88, 89, 90, 91, 92
	11-5-96	1430		X	APD-GWFB01-01	9		X	1	1	2	2	2	1	9-31424, 25, 26, 27, 28, 29, 30, 31, 23
	11-5-96	1513		X	APD-GWMW07-01	2		X			2				9-31434, 35 Dup 11-5-96
	11-5-96			X	APD-GWMW21-01	2		X			2				9-31434, 35 Dup 32, 33

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
J Hunterbach	11-5-96	1545			
RELINQUISHED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED FOR LAB BY**	**DATE**	**TIME**
			[signature]	11/6/96	0[illegible]

IEA QUOTE NO.	IEA RUSH NO.
WQ 9610615	
PROJECT MANAGER (PLEASE PRINT)	**P.O. NO.**

REMARKS ON SAMPLE RECEIPT

☐ BOTTLE INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

IEA REMARKS

FIELD REMARKS

Col Tag #s 92-00114, 15, 16,

IEA
An Aquarion Company

3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 70911

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER _____

COMPANY
MONTGOMERY WATSON

Page_____ of_____

PROJECT #	PROJECT NAME
4077.0073	ACS

SAMPLERS: *(SIGNATURE)* J Huntell

SAMPLE I.D.	DATE	TIME	COMP	GRAB	STATION LOCATION	# OF CONTAINERS	MATRIX SOIL	MATRIX WATER	TCL VOC												
									TAB #s												
	11-5-96	1500		✓	APD-GWTB01-01 *	2		✓	✓				9-3873	74							
					* Prepped by IEA and rec'd with bottles																

RELINQUISHED BY *(SIGNATURE)*	DATE	TIME	RECEIVED BY	DATE	TIME
J Huntell	11-5-96	1500 PM			
RELINQUISHED BY *(SIGNATURE)*	**DATE**	**TIME**	**RECEIVED FOR LAB BY**	**DATE**	**TIME**
			[illegible]	[illegible]	[illegible]

IEA QUOTE NO.	IEA RUSH NO.
PROJECT MANAGER (PLEASE PRINT)	**P.O. NO.**

REMARKS ON SAMPLE RECEIPT	IEA REMARKS	FIELD REMARKS
☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ PRESERVED ☐ SEALS INTACT ☐ CHILLED ☐ SEE REMARKS	4°C	

IEA
An Aquarion Company
3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 70912

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER _____

COMPANY: MONTGOMERY WATSON

FULL CLP PROTOCOL + DELIVERABLES

Page _____ of _____

PROJECT #: 4077.0073

PROJECT NAME: ACS

SAMPLERS: (SIGNATURE) J Hutchell

SAMPLE I.D.	DATE	TIME	COMP	GRAB	STATION LOCATION	# OF CONTAINERS	MATRIX SOIL	MATRIX WATER	TCL VOCs	TCL SVOC	TCL Pest/PCB	TCL Total metals	TCL Dissolved metals	Total Cyanide		TAG #'s
	11-6-96	0820		✓	APD-GWMW23-01	9		✓	✓	✓	✓	✓	✓	✓		9-31405, 06, 07, 08, 09, 10, 11, 12, 13
	"	0900		✓	APD-GWFB02-01	9		✓	✓	✓	✓	✓	✓	✓		9-31477, 78, 79, 80, 81, 82, 83, 84, 85
	"	0910		✓	APD-GWTB02-01	2		✓	✓							9-31436, 37 (Vials prepped 11-1-96 By IEA)
	"	1025		✓	APD-GWMW24-01	9		✓	✓	✓	✓	✓	✓	✓		9-31450, 51, 52, 53, 54, 55, 56, 57, 58
	"	0830		✓	APD-GWMW09-01	9		✓	✓	✓	✓	✓	✓	✓		9-31414, 15, 16, 17, 18, 19, 20, 21, 22
	"	0920		✓	APD-GWMW14-01	9		✓	✓	✓	✓	✓	✓	✓		9-31387, 88, 89, 90, 91, 92, 93, 94, 95
	"	1025		✓	APD-GWMW10c-01	9		✓	✓	✓	✓	✓	✓	✓		9-31441, 42, 43, 44, 45, 46, 47, 48, 49
	"	1120		✓	APD-GWMW51-01	9		✓	✓	✓	✓	✓	✓	✓		9-31467, 68, 69, 70, 71, 72, 73, 74, 75
	"	1120		✓	APD-GWMW51-91	9		✓	✓	✓	✓	✓	✓	✓		9-31459, 60, 61, 62, 63, 64, 65, 66, 76
	"	1440		✓	APD-GWMW50-01	9		✓	✓	✓	✓	✓	✓	✓		9-31486, 87, 88, 89, 90, 91, 92, 93, 94

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
J Hutchell	11-6-96	1530	FED EX		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY	DATE	TIME
			[signature]	11/7/96	10:00 am

IEA QUOTE NO.:

IEA RUSH NO.:

PROJECT MANAGER (PLEASE PRINT):

P.O. NO.:

REMARKS ON SAMPLE RECEIPT

☐ BOTTLE INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

IEA REMARKS: 40

FIELD REMARKS: COC Seals 92-00016, 17, 18, 19
Air Bill - Fedex 0716082430

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKKH

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: VBLKKH

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKKH

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: VBLKKH

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKKI

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: VBLKKI

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKKI

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: VBLKKI

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKKJ

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: VBLKKJ

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKKJ

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: VBLKKJ

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKKK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: VBLKKK

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKKK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: VBLKKK

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V02.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLK41

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: SBLK41

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1120P02.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLK41

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: SBLK41

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1120P02.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLK41

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: SBLK41

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1120P02.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.140	72	NJ
2.	Unknown	7.250	4	J
3.	Unknown	11.290	9	J
4.	Unknown	12.810	2	J
5.	Unknown	15.120	34	J
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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLK08

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: PBLK08

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_111.D

% Moisture: _____ decanted: (Y/N)___ Date Received: / /

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

PBLK09

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: PBLK09

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_036.D

% Moisture: _____ decanted: (Y/N)___ Date Received: / /

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

FB01

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111308

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N16.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.110	33	NJ
2.	Unknown	7.230	8	J
3. 931179	1,2-Cyclohexanediol isomer	10.430	8	NJ
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Quantitation Report

Data File : C:\HPCHEM\1\DATA\96112114.B\1121N16.D Vial: 17
Acq On : 21 Nov 96 ~~9:31 pm~~ Operator: VAN LARE
Sample : 961111308 FB01 Inst : MSD14
Misc : WATER LOW ~~IX SBLK~~41_111196 IEA MSD14 Multiplr: 1.00
Quant Time: Nov 21 22:08 1996

Method : C:\HPCHEM\1\DATA\96112114.B\IEASVCLP.M
Title :
Last Update : Thu Nov 21 10:51:38 1996
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-d4	9.53	152	200291	40.00	0.00
17) Naphthalene-d8	12.41	136	1105199	40.00	0.00
31) Acenaphthene-d10	16.59	164	635597	40.00	0.00
52) Phenanthrene-d10	20.09	188	1349761	40.00	-0.01
63) Chrysene-d12	26.44	240	1072380	40.00	-0.03
71) Perylene-d12	29.67	264	1025233	40.00	-0.03
System Monitoring Compounds					**%Recovery**
2) 2-Fluorophenol	7.05	112	1128775	120.88	80.59%
3) Phenol-d5	9.06	99	1252072	99.93	66.62%
7) 2-Chlorophenol-d4	9.16	132	1278369	134.10	89.40%
11) 1,2-Dichlorobenzene-d4	9.95	152	388939	78.76	78.76%
18) Nitrobenzene-d5	10.85	82	1280090	89.94	89.94%
35) 2-Fluorobiphenyl	15.03	172	1788641	93.67	93.67%
51) 2,4,6-Tribromophenol	18.53	330	706056	148.13	98.75%
65) Terphenyl-d14	24.00	244	2445819	108.98	108.98%
Target Compounds					**Qvalue**
4) Phenol	9.08	94	16854	~~1.43~~	# 1
13) 2-Methylphenol	9.94	108	7992	~~0.84~~	# 1
38) Dimethylphthalate	16.59	163	106562	~~4.28~~	# 1
40) 2,6-Dinitrotoluene	16.59	165	83656	~~14.48~~	# 19
54) N-Nitrosodiphenylamine (1)	18.53	169	29049	~~2.00~~	# 44
61) Di-n-butylphthalate	21.72	149	59079	~~1.41~~	# 96
70) bis(2-Ethylhexyl)phthalate	26.73	149	106464	~~3.68~~	93

CS
11/25/96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\961121P.B\1121P02.D Vial: 2
Acq On : 22-Nov 96 12:22 am Operator: DIXON
Sample : SBLK42 Inst : MSD14
Misc : WATER LOW 1X SBLK42_111196 IEA MSD14 Multiplr: 1.00
Quant Time: Nov 22 1:00 1996

Method : C:\HPCHEM\1\DATA\961121P.B\IEASVCLP.M
Title :
Last Update : Fri Nov 22 00:03:08 1996
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-d4	9.52	152	188399	40.00	0.00
17) Naphthalene-d8	12.40	136	1012381	40.00	0.00
31) Acenaphthene-d10	16.58	164	576080	40.00	0.00
52) Phenanthrene-d10	20.07	188	1255342	40.00	0.00
63) Chrysene-d12	26.43	240	988344	40.00	-0.02
71) Perylene-d12	29.65	264	875729	40.00	0.00
System Monitoring Compounds					%Recovery
2) 2-Fluorophenol	7.02	112	1099727	149.30	99.54%
3) Phenol-d5	9.04	99	1447433	124.11	82.74%
7) 2-Chlorophenol-d4	9.15	132	1192046	136.27	90.85%
11) 1,2-Dichlorobenzene-d4	9.93	152	343898	73.13	73.13%
18) Nitrobenzene-d5	10.83	82	1203538	81.17	81.17%
35) 2-Fluorobiphenyl	15.02	172	1667638	92.22	92.22%
51) 2,4,6-Tribromophenol	18.51	330	693212	151.34	100.89%
65) Terphenyl-d14	23.98	244	2479824	118.15	118.15%
Target Compounds					Qvalue
4) Phenol	9.06	94	24766	~~2.16~~	# 1
12) 2,2'-oxybis(1-Chloropropan	10.42	45	19597	~~1.24~~	# 71
13) 2-Methylphenol	9.93	108	8016	~~0.87~~	# 1
38) Dimethylphthalate	16.58	163	106851	~~4.60~~	# 1
40) 2,6-Dinitrotoluene	16.57	165	74754	~~14.25~~	# 13
54) N-Nitrosodiphenylamine (1)	18.51	169	27366	~~1.92~~	# 43
61) Di-n-butylphthalate	21.71	149	68819	~~1.46~~	100
70) bis(2-Ethylhexyl)phthalate	26.71	149	26236	~~0.97~~	# 94

CS
11/26/96

(#) = qualifier out of range (m) = manual integration

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLK42

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: SBLK42

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P02.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.120	11	NJ
2.	Unknown	7.210	11	J
3.	Unknown	16.470	4	J
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Quantitation Report

Data File : C:\HPCHEM\1\DATA\96112114.B\1121N02.D Vial: 3
Acq On : ~~21 Nov 96~~ 10:57 am Operator: VAN LARE
Sample : SBLK41 RE Inst : MSD14
Misc : WATER LOW 1X SBLK41_111196 IEA MSD14 Multiplr: 1.00
Quant Time: Nov 21 11:34 1996

Method : C:\HPCHEM\1\DATA\96112114.B\IEASVCLP.M CONFIRMS IS#6 LOW
Title :
Last Update : Thu Nov 21 10:51:38 1996
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-d4	9.53	152	241711	40.00	0.00
17) Naphthalene-d8	12.41	136	1267975	40.00	0.00
31) Acenaphthene-d10	16.60	164	642800	40.00	0.00
52) Phenanthrene-d10	20.09	188	1505006	40.00	0.00
63) Chrysene-d12	26.46	240	1160003	40.00	-0.02
71) Perylene-d12	29.67	264	407405	40.00	-0.02

System Monitoring Compounds					%Recovery
2) 2-Fluorophenol	7.05	112	1114527	98.90	65.93%
3) Phenol-d5	9.05	99	242695	16.05	10.70%
7) 2-Chlorophenol-d4	9.16	132	1394855	121.25	80.83%
11) 1,2-Dichlorobenzene-d4	9.94	152	448941	75.33	75.33%
18) Nitrobenzene-d5	10.84	82	1380553	84.55	84.55%
35) 2-Fluorobiphenyl	15.04	172	2037976	105.53	105.53%
51) 2,4,6-Tribromophenol	18.53	330	762857	158.25	105.50%
65) Terphenyl-d14	24.01	244	2050291	84.46	84.46%

Target Compounds						Qvalue
4) Phenol	9.07	94	26598	~~1.87~~	#	1
38) Dimethylphthalate	16.60	163	163519	~~6.49~~	#	1
40) 2,6-Dinitrotoluene	16.60	165	80956	~~13.85~~	#	22
54) N-Nitrosodiphenylamine (1)	18.53	169	28796	~~1.78~~	#	45
61) Di-n-butylphthalate	21.74	149	46564	~~1.00~~		98
70) bis(2-Ethylhexyl)phthalate	26.75	149	43722	~~1.40~~ } <MDL	#	96

DI 11/29/96

(#) = qualifier out of range (m) = manual integration 2

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLK41RE

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: SBLK41RE

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N02.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.130	79	NJ
2.	1,2-Cyclohexanediol isomer	10.430	4	J
3.	Unknown	11.280	4	J
4.	Unknown	15.100	68	J
5.	Unknown	15.280	3	J
6.	Unknown	16.510	10	J
7.				
8.				
9.				
10.				
11.				
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13.				
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Quantitation Report

Data File : C:\HPCHEM\1\DATA\961120N.B\1120P02.D Vial: 2
Acq On : 21 Nov 96 1:18 am Operator: DIXON
Sample : SBLK41 Inst : MSD14
Misc : WATER LOW 1X SBLK41_111196 IEA MSD14 Multiplr: 1.00
Quant Time: Nov 21 1:56 1996

Method : C:\HPCHEM\1\DATA\961120N.B\IEASVCLP.M RRIX
Title :
Last Update : Thu Nov 21 01:00:29 1996
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-d4	9.54	152	184662	40.00	0.00
17) Naphthalene-d8	12.43	136	1013709	40.00	-0.01
31) Acenaphthene-d10	16.62	164	471813	40.00	0.00
52) Phenanthrene-d10	20.11	188	1281601	40.00	-0.01
63) Chrysene-d12	26.48	240	849938	40.00	-0.02
71) Perylene-d12	29.69	264	180825	40.00	-0.03

System Monitoring Compounds					%Recovery
2) 2-Fluorophenol	7.07	112	947316	110.81	73.87%
3) Phenol-d5	9.07	99	224334	18.41	12.27%
7) 2-Chlorophenol-d4	9.17	132	1066487	129.83	86.55%
11) 1,2-Dichlorobenzene-d4	9.96	152	346683	73.59	73.59%
18) Nitrobenzene-d5	10.86	82	1203470	84.24	84.24%
35) 2-Fluorobiphenyl	15.06	172	1740903	121.25	121.25%
51) 2,4,6-Tribromophenol	18.55	330	733005	186.30	124.20%
65) Terphenyl-d14	24.03	244	1808506	97.95	97.95%

Target Compounds						Qvalue
4) Phenol	9.09	94	22657	~~1.94~~	#	1
14) N-Nitroso-di-n-propylamine	10.45	70	56265	~~5.54~~	#	51
38) Dimethylphthalate	16.62	163	139715	~~7.25~~	#	1
40) 2,6-Dinitrotoluene	16.62	165	60772	~~13.90~~	#	14
54) N-Nitrosodiphenylamine (1)	18.55	169	26626	~~1.87~~	#	41
61) Di-n-butylphthalate	21.75	149	38405	~~0.96~~		98
70) bis(2-Ethylhexyl)phthalate	26.75	149	33147	~~1.51~~	#	94

CS
11/26/96

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(#) = qualifier out of range (m) = manual integration 2

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLK41

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: SBLK41

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1120P02.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.140	72	NJ
2.	Unknown	7.250	4	J
3.	Unknown	11.290	9	J
4.	Unknown	12.810	2	J
5.	Unknown	15.120	34	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

FB02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113513

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P06.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.090	53	NJ
2.	Unknown	7.210	10	JB
3.				
4.				
5.				
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11-5-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW08

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111201

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0 Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	4.4	B		P_
7440-39-3	Barium___	128	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	58300			P_
7440-47-3	Chromium_	u 1.9	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	1030			P_
7439-92-1	Lead_____	1.0	U		P_
7439-95-4	Magnesium	18600			P_
7439-96-5	Manganese	108			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 2.4	B		P_
7440-09-7	Potassium	1540	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	12700			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	u 7.4	B		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW08F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111201F

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0 DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	132	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	58800			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	970			P_
7439-92-1	Lead_____	US 1.0	U	*	P_
7439-95-4	Magnesium	19100			P_
7439-96-5	Manganese	108			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.0	U		P_
7440-09-7	Potassium	1580	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	13100			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	U 5.4	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-6-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW09

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113515

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	3.2	B		P_
7440-39-3	Barium___	337			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	159000			P_
7440-47-3	Chromium_	u 2.4	B		P_
7440-48-4	Cobalt___	3.5	B		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron____	17800			P_
7439-92-1	Lead____	uJ 1.0	U		P_
7439-95-4	Magnesium	33000			P_
7439-96-5	Manganese	231			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 4.6	B		P_
7440-09-7	Potassium	10800			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	110000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	5.0	B		P_
7440-66-6	Zinc____	u 4.5	B		P_
	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-6-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW09F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113515F

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P
7440-36-0	Antimony_	1.0	U		P
7440-38-2	Arsenic__	4.2	B		P
7440-39-3	Barium___	378			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	177000			P
7440-47-3	Chromium_	u 1.1	B		P
7440-48-4	Cobalt___	4.4	B		P
7440-50-8	Copper___	1.0	U		P
7439-89-6	Iron____	19700			P
7439-92-1	Lead____	J 1.1	B	*	P
7439-95-4	Magnesium	37400			P
7439-96-5	Manganese	260			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 4.7	B		P
7440-09-7	Potassium	12400			P
7782-49-2	Selenium_	2.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	125000			P
7440-28-0	Thallium_	2.0	U		P
7440-62-2	Vanadium_	5.5	B		P
7440-66-6	Zinc____	u 4.8	B		P
_____	Cyanide__				NR
_____	_____				

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-6-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW10C

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113517

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	1170	_		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.4	B		P_
7440-39-3	Barium___	368	_		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	118000	_		P_
7440-47-3	Chromium_	14.1	_		P_
7440-48-4	Cobalt___	2.9	B		P_
7440-50-8	Copper___	u 4.4	B		P_
7439-89-6	Iron_____	10100	_		P_
7439-92-1	Lead_____	J 3.2	_		P_
7439-95-4	Magnesium	57200	_		P_
7439-96-5	Manganese	107	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	14.2	B		P_
7440-09-7	Potassium	6150	_		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	193000	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	3.8	B		P_
7440-66-6	Zinc_____	u 26.7	_		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-6-96

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW10CF

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113517F

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	407			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	127000			P_
7440-47-3	Chromium_	u 2.5	B		P_
7440-48-4	Cobalt___	1.5	B		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron____	8990			P_
7439-92-1	Lead____	us 1.0	U	*	P_
7439-95-4	Magnesium	61700			P_
7439-96-5	Manganese	70.9			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	6.0	B		P_
7440-09-7	Potassium	6240			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	219000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.2	B		P_
7440-66-6	Zinc____	u 6.4	B		P_
_____	Cyanide__				NR
_____	_____				

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-5-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW11

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111202

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	1460			P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	24.2	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	44300			P_
7440-47-3	Chromium_	u 4.8	B		P_
7440-48-4	Cobalt___	2.2	B		P_
7440-50-8	Copper___	11.3	B		P_
7439-89-6	Iron_____	2910			P_
7439-92-1	Lead_____	u5 7.9			P_
7439-95-4	Magnesium	18200			P_
7439-96-5	Manganese	145			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	8.8	B		P_
7440-09-7	Potassium	2450	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	4460	B		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	6.5	B		P_
7440-66-6	Zinc_____	91.1			P_
	Cyanide__	10.0	U		CA

Color Before: TAN_____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW11-01
11-5-96

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW11F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111202F

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	19.6	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	50400			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.6	B		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	347			P_
7439-92-1	Lead_____	UJ 1.0	U	*	P_
7439-95-4	Magnesium	20200			P_
7439-96-5	Manganese	145			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	5.3	B		P_
7440-09-7	Potassium	2020	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	5090			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	U 11.6	B		P_
_____	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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RPD-GWMW12-01
11-5-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111205

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0 Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	361			P
7440-36-0	Antimony_	1.0	U		P
7440-38-2	Arsenic__	5.6	B		P
7440-39-3	Barium___	85.5	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	54100			P
7440-47-3	Chromium_	u 7.6	B		P
7440-48-4	Cobalt___	1.0	U		P
7440-50-8	Copper___	J 9.0	B		P
7439-89-6	Iron_____	22500			P
7439-92-1	Lead_____	J 14.1			P
7439-95-4	Magnesium	18400			P
7439-96-5	Manganese	1310			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	J 5.7	B		P
7440-09-7	Potassium	4660	B		P
7782-49-2	Selenium_	2.1	B		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	19300			P
7440-28-0	Thallium_	2.0	U		P
7440-62-2	Vanadium_	J 18.9	B		P
7440-66-6	Zinc_____	u 11.5	B		P
_____	Cyanide__	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-5-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW12F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111205F

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	62.6	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	56100			P_
7440-47-3	Chromium_	u 1.3	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron____	6320			P_
7439-92-1	Lead____	J 6.7		*	P_
7439-95-4	Magnesium	18800			P_
7439-96-5	Manganese	1320			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 2.5	B		P_
7440-09-7	Potassium	4630	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	19900			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	3.1	B		P_
7440-66-6	Zinc____	u 8.0	B		P_
_____	Cyanide__				NR
_____	_____				

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW12-91

11-5-96

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW129

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111206

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	261			P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	3.8	B		P_
7440-39-3	Barium___	75.5	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	57300			P_
7440-47-3	Chromium_	U 2.6	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	US 3.6	B		P_
7439-89-6	Iron____	14700			P_
7439-92-1	Lead____	J 10.5			P_
7439-95-4	Magnesium	19300			P_
7439-96-5	Manganese	1370			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	US 3.1	B		P_
7440-09-7	Potassium	4900	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	20700			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	J 9.6	B		P_
7440-66-6	Zinc____	U 7.5	B		P_
_____	Cyanide__	10.0	U		CA

Color Before: YELLOW___ Clarity Before: CLEAR_ Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-5-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW129F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111206F

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	61.1	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	54100			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	6110			P_
7439-92-1	Lead_____	S 4.0		*	P_
7439-95-4	Magnesium	18100			P_
7439-96-5	Manganese	1270			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	U 2.2	B		P_
7440-09-7	Potassium	4470	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	19200			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	2.7	B		P_
7440-66-6	Zinc_____	U 7.0	B		P_
_____	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW14-01
11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW14

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113516

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

TOTAL

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	780	_		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	122	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	142000	_		P_
7440-47-3	Chromium_	U 8.6	B		P_
7440-48-4	Cobalt___	9.1	B		P_
7440-50-8	Copper___	10.9	B		P_
7439-89-6	Iron_____	1650	_		P_
7439-92-1	Lead_____	S 9.8	_		P_
7439-95-4	Magnesium	26200	_		P_
7439-96-5	Manganese	831	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	17.0	B		P_
7440-09-7	Potassium	12500	_		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	37900	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	3.6	B		P_
7440-66-6	Zinc_____	U 20.6	_		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-6-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW14F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113516F

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	131	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	161000			P_
7440-47-3	Chromium_	u 4.6	B		P_
7440-48-4	Cobalt___	9.3	B		P_
7440-50-8	Copper___	9.4	B		P_
7439-89-6	Iron____	274			P_
7439-92-1	Lead____	5 2.1	B	*	P_
7439-95-4	Magnesium	30800			P_
7439-96-5	Manganese	846			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	15.3	B		P_
7440-09-7	Potassium	13600			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	40900			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.9	B		P_
7440-66-6	Zinc____	u 13.7	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW18-01

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11-5-96

1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

MW18

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111307

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

TOTAL

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	34.7	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	81600	_		P_
7440-47-3	Chromium_	16.9	_		P_
7440-48-4	Cobalt___	1.1	B		P_
7440-50-8	Copper___	U 1.2	B		P_
7439-89-6	Iron_____	288	_		P_
7439-92-1	Lead_____	S 1.6	B		P_
7439-95-4	Magnesium	28500	_		P_
7439-96-5	Manganese	609	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	U 3.0	B		P_
7440-09-7	Potassium	3850	B		P_
7782-49-2	Selenium_	3.0	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	34400	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.1	B		P_
7440-66-6	Zinc_____	U 7.0	B		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW18F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111307F

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	29.0	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	80400			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	196			P_
7439-92-1	Lead_____	S 1.3	B	*	P_
7439-95-4	Magnesium	27000			P_
7439-96-5	Manganese	543			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	U 1.8	B		P_
7440-09-7	Potassium	3470	B		P_
7782-49-2	Selenium_	2.8	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	35900			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	U 11.0	B		P_
_____	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-5-96

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EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

MW19

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111203

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

TOTAL

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	283			P
7440-36-0	Antimony_	1.0	U		P
7440-38-2	Arsenic__	26.9			P
7440-39-3	Barium___	673			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	79400			P
7440-47-3	Chromium_	u 6.8	B		P
7440-48-4	Cobalt___	1.4	B		P
7440-50-8	Copper___	u 5.0	B		P
7439-89-6	Iron_____	4810			P
7439-92-1	Lead_____	5 1.5	B		P
7439-95-4	Magnesium	67700			P
7439-96-5	Manganese	268			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	17.8	B		P
7440-09-7	Potassium	113000			P
7782-49-2	Selenium_	2.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	772000			P
7440-28-0	Thallium_	2.4	B		P
7440-62-2	Vanadium_	1.0	U		P
7440-66-6	Zinc_____	u 8.6	B		P
_____	Cyanide__	10.0	U		CA

Color Before: YELLOW___ Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW19F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111203F

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	25.3			P_
7440-39-3	Barium___	626			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	72000			P_
7440-47-3	Chromium_	U 1.5	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	U 2.7	B		P_
7439-89-6	Iron____	3040			P_
7439-92-1	Lead____	UJ 1.0	U	*	P_
7439-95-4	Magnesium	63100			P_
7439-96-5	Manganese	199			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	13.2	B		P_
7440-09-7	Potassium	105000			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	720000			P_
7440-28-0	Thallium_	3.6	B		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	U 7.2	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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3/90

APD-GLJMW-22-01
11-5-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW22

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111204

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

TOTAL

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	U 35.6	B		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	170	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	84700			P_
7440-47-3	Chromium_	U 5.0	B		P_
7440-48-4	Cobalt___	1.0	B		P_
7440-50-8	Copper___	38.7			P_
7439-89-6	Iron_____	322			P_
7439-92-1	Lead_____	J 2.5	B		P_
7439-95-4	Magnesium	36600			P_
7439-96-5	Manganese	15.0			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	6.6	B		P_
7440-09-7	Potassium	93100			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	301000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	U 20.5			P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW22-01

11-596

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW22F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111204F

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.5	B		P_
7440-39-3	Barium___	692			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	325000			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	u 73.3	B		P_
7439-92-1	Lead_____	us 1.0	U	*	P_
7439-95-4	Magnesium	14000			P_
7439-96-5	Manganese	15.1			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	6.5	B		P_
7440-09-7	Potassium	35800			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	383000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	u 6.1	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW23-01
11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW23

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113512

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

TOTAL

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	2120	_		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	3.7	B		P_
7440-39-3	Barium___	130	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	73100	_		P_
7440-47-3	Chromium_	18.9	_		P_
7440-48-4	Cobalt___	3.8	B		P_
7440-50-8	Copper___	13.8	B		P_
7439-89-6	Iron____	9450	_		P_
7439-92-1	Lead____	6.3	_		P_
7439-95-4	Magnesium	19400	_		P_
7439-96-5	Manganese	295	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	18.2	B		P_
7440-09-7	Potassium	4350	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	65000	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	7.1	B		P_
7440-66-6	Zinc____	29.7	_		P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____	_	_____	__

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-5-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW23F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113512F

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	148	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	80700			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	B		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron____	5100			P_
7439-92-1	Lead____	U3 1.0	U	*	P_
7439-95-4	Magnesium	20600			P_
7439-96-5	Manganese	263			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	U 3.2	B		P_
7440-09-7	Potassium	4420	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	83800			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	2.0	B		P_
7440-66-6	Zinc____	U 6.8	B		P_
_____	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW24-01
11-6-96

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW24

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113514

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

TOTAL

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	4850			P
7440-36-0	Antimony_	1.0	U		P
7440-38-2	Arsenic__	4.5	B		P
7440-39-3	Barium___	334			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	162000			P
7440-47-3	Chromium_	28.2			P
7440-48-4	Cobalt___	7.0	B		P
7440-50-8	Copper___	40.5			P
7439-89-6	Iron_____	28300			P
7439-92-1	Lead_____	5 17.8			P
7439-95-4	Magnesium	44100			P
7439-96-5	Manganese	546			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	22.5	B		P
7440-09-7	Potassium	4540	B		P
7782-49-2	Selenium_	2.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	90400			P
7440-28-0	Thallium_	2.0	U		P
7440-62-2	Vanadium_	15.7	B		P
7440-66-6	Zinc_____	67.3			P
_____	Cyanide__	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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RPD-GWMW24-01
11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW24F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113514F

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	37.9	B		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	231			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	143000			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron____	3390			P_
7439-92-1	Lead____	1.0	U	*	P_
7439-95-4	Magnesium	36200			P_
7439-96-5	Manganese	268			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	3.0	B		P_
7440-09-7	Potassium	2170	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	114000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	5.3	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWM250-01
11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW50

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 9611139 20

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	813			P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.7	B		P_
7440-39-3	Barium___	236			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	126000			P_
7440-47-3	Chromium_	u 5.0	B		P_
7440-48-4	Cobalt___	1.1	B		P_
7440-50-8	Copper___	u 1.8	B		P_
7439-89-6	Iron____	2760			P_
7439-92-1	Lead____	J 3.9			P_
7439-95-4	Magnesium	62700			P_
7439-96-5	Manganese	76.9			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	10.8	B		P_
7440-09-7	Potassium	17500			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	353000			P_
7440-28-0	Thallium_	2.1	B		P_
7440-62-2	Vanadium_	1.5	B		P_
7440-66-6	Zinc____	u 29.7			P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW50-01

11-6-96

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW50F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113920F

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	B		P_
7440-39-3	Barium___	302			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	154000			P_
7440-47-3	Chromium_	U 1.5	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron____	2320			P_
7439-92-1	Lead____	UJ 1.0	U	*	P_
7439-95-4	Magnesium	78400			P_
7439-96-5	Manganese	71.7			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	10.2	B		P_
7440-09-7	Potassium	23200			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	468000			P_
7440-28-0	Thallium_	2.1	B		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	U 7.8	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW51-01

U.S. EPA - CLP

11-6-96

1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

MW51

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113918

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

TOTAL

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	684			P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	4.7	B		P_
7440-39-3	Barium___	400			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	147000			P_
7440-47-3	Chromium_	UJ 4.1	B		P_
7440-48-4	Cobalt___	1.9	B		P_
7440-50-8	Copper___	U 3.7	B		P_
7439-89-6	Iron____	8230			P_
7439-92-1	Lead____	J 3.1			P_
7439-95-4	Magnesium	66300			P_
7439-96-5	Manganese	193			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	12.1	B		P_
7440-09-7	Potassium	4290	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	102000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	J 2.2	B		P_
7440-66-6	Zinc____	UJ 23.8			P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW51-01
11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW51F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113918F

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 953	_		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	5.0	B		P_
7440-39-3	Barium___	403	_		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	157000	_		P_
7440-47-3	Chromium_	JJ 4.4	B		P_
7440-48-4	Cobalt___	2.3	B		P_
7440-50-8	Copper___	J 7.4	B		P_
7439-89-6	Iron_____	9760	_		P_
7439-92-1	Lead_____	J 5.8	_	*	P_
7439-95-4	Magnesium	71700	_		P_
7439-96-5	Manganese	263	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	13.5	B		P_
7440-09-7	Potassium	4520	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	102000	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	J 3.3	B		P_
7440-66-6	Zinc_____	U 36.6	_		P_
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW 51-91
11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW5191

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113919

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

TOTAL

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	551			P
7440-36-0	Antimony_	1.0	U		P
7440-38-2	Arsenic__	3.0	B		P
7440-39-3	Barium___	423			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	147000			P
7440-47-3	Chromium_	UJ 2.1	B		P
7440-48-4	Cobalt___	1.3	B		P
7440-50-8	Copper___	1.0	U		P
7439-89-6	Iron____	7200			P
7439-92-1	Lead____	J 1.8	B		P
7439-95-4	Magnesium	67300			P
7439-96-5	Manganese	152			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	10.3	B		P
7440-09-7	Potassium	4700	B		P
7782-49-2	Selenium_	2.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	107000			P
7440-28-0	Thallium_	2.0	U		P
7440-62-2	Vanadium_	J 1.3	B		P
7440-66-6	Zinc____	UJ 10	B		P
	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

3/90

VALIDATED

APD-GWMW51-91
11-6-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW5191F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113919F

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 188	B		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	3.4	B		P_
7440-39-3	Barium___	431			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	155000			P_
7440-47-3	Chromium_	UJ 1.7	B		P_
7440-48-4	Cobalt___	1.2	B		P_
7440-50-8	Copper___	UJ 1.5	B		P_
7439-89-6	Iron_____	7200	_		P_
7439-92-1	Lead_____	J 5.2	_	*	P_
7439-95-4	Magnesium	70000	_		P_
7439-96-5	Manganese	164			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	10.8	B		P_
7440-09-7	Potassium	4390	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	110000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	J 1.0	B		P_
7440-66-6	Zinc_____	UJ 30.0	_		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

VALIDATED

3/90

Quantitation Report

Data File : C:\HPCHEM\1\DATA\961121P.B\1121P06.D Vial: 6
Acq On : 22 Nov 96 3:28 am Operator: DIXON
Sample : 961113513 Inst : MSD14
Misc : WATER LOW 1X SBLK42_111196 IEA MSD14 Multiplr: 1.00
Quant Time: Nov 22 4:06 1996

Method : C:\HPCHEM\1\DATA\961121P.B\IEASVCLP.M
Title :
Last Update : Fri Nov 22 00:03:08 1996
Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-d4	9.51	152	176822	40.00	-0.01
17) Naphthalene-d8	12.39	136	939138	40.00	-0.02
31) Acenaphthene-d10	16.57	164	530207	40.00	0.00
52) Phenanthrene-d10	20.06	188	1163137	40.00	-0.01
63) Chrysene-d12	26.42	240	920148	40.00	-0.03
71) Perylene-d12	29.64	264	881770	40.00	-0.02
System Monitoring Compounds					**%Recovery**
2) 2-Fluorophenol	7.02	112	1055531	152.69	101.79%
3) Phenol-d5	9.04	99	1316955	120.31	80.21%
7) 2-Chlorophenol-d4	9.14	132	1108852	135.06	90.04%
11) 1,2-Dichlorobenzene-d4	9.92	152	349271	79.13	79.13%
18) Nitrobenzene-d5	10.83	82	1158142	84.20	84.20%
35) 2-Fluorobiphenyl	15.01	172	1589337	95.49	95.49%
51) 2,4,6-Tribromophenol	18.51	330	623603	147.92	98.61%
65) Terphenyl-d14	23.98	244	2350884	120.31	120.31%
Target Compounds					**Qvalue**
4) Phenol	9.06	94	15816	~~1.47~~	# 1
12) 2,2'-oxybis(1-Chloropropan	10.41	45	15864	~~1.07~~	# 71
13) 2-Methylphenol	9.93	108	8239	~~0.96~~	# 1
38) Dimethylphthalate	16.57	163	97801	~~4.58~~	# 1
40) 2,6-Dinitrotoluene	16.57	165	70690	~~14.65~~	# 12
54) N-Nitrosodiphenylamine (1)	18.51	169	26096	~~1.98~~	# 38
61) Di-n-butylphthalate	21.70	149	55806	~~1.28~~	99
70) bis(2-Ethylhexyl)phthalate	26.71	149	38896	~~1.54~~	# 94

CS
11/26/96

(#) = qualifier out of range (m) = manual integration

Data Validation Narrative

Project Name ACS January 12, 1997
Project Number 4077.0076 SDG 11140

This data narrative covers the analysis of 7 groundwater filtered and unfiltered samples from ACS for CLP metals analysis by IEA Laboratories. The data was validated according to the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (2/94).

This data is acceptable for use with the following comments:

Holdtimes - All holdtimes were met.

Calibration - All calibration criteria was met.

Blanks - The laboratory blanks had hits of aluminum, antimony, calcium, chromium, iron, magnesium, potassium, sodium, thallium, and zinc. Field blanks had detects of aluminum, calcium, copper, chromium, iron, lead, magnesium, potassium, sodium, and zinc. All associated sample results less than 5 times the highest blank concentration have been qualified as undetected ("U") at the sample concentration.

Spikes - Sample MW06 (total and dissolved) was spiked. All recoveries were within acceptable QC limits.

Duplicates - Sample MW06 (total and dissolved) was run in duplicate. All % RPD values were within acceptable QC limits.

ICP QC - Potassium exceeded the 10% difference criteria and was flagged "E" by the lab and qualified as estimated "J".

LCS - Laboratory spike recoveries were all within acceptable QC limits.

Overall - Data was acceptable. No significant problems were observed.

JAH/jah
I:\PROJECT\ACS\1196DV.DOC
4077.0076 - 1252042.0809.0076

ICP

I HOLDTIME - Sampled 11/6-7, Run 11/24

II CALIBRATION

Curve - Blk + 2 stds ✓

ICV/CCV - 1/10, 90-110 %

CRA - 97-132 %

III BLANKS

	ICV	CCV	PB	X5	Total FB03	Dissolved FB03
Mg	–	–	–	188	37.5	34.7
Al	–	28.8	28.2	141	27.1	–
Sb	–	1.1	–	5.5	–	–
Ca	–	–	355	1,775	–	87.4
Cr	–	–	1.0	5.5	1.5	
Fe	–	–	12.7	129 ~~63.5~~	25.8	24.7
Mg	6.4	16.5	15.5	92.5	–	63.4
K	53.5	64.4	84.0	448	89.5	91
Na	-325.1	-378	-282	1,590	182	–
Tl	–	2.7	–	13.5	–	–
Zn	–	1.0	13.6	68	7.1	10.7
Cu	–	–	–	6.5	1.3	–
Pb	–	–	–	5.0	1.0	–

IV ICP INTERFERENCE CHECK SAMPLE

80-120 % ✓ (89.8 - 106 %)

V SPIKES

MW06F - all 75-125 % Spk < 1/4 Spl (Mg, Fe

MW06F all 75-125

VI DUPLICATES

MW06D - RPD < 25 % ± CRDL

MW06F - " "

VII LCS

95 - 105, K = 112 %

100 mL vol

VIII ICP SERIAL DILUTION

all < 10 % D except K = 10.6 (E) I

IX SRV

Calcs + Transcriptions checked

X OVERALL - Data accepted - some blank flagges, K flagged 'I' due to Serial D interference.

Hg

I Holdtime - Sampled 11/6-7 Run 11/21

II CALIBRATION

Curve - Blk + 5 stds, r = 0.995

ICV/CCV - 1/10 90-110%

CRA - 120%

III BLANKS

ICB/CCB - 1/10, < 0.2 ug/L

PB - <0.2 ug/L

VI SPIKES

MW06, F = 103, 103%

VII DUPLICATE

MW06, F, ND, ND

VIII LCS

NA

IX SRV

Calcs + transcriptions checked

X OVERALL

Data acceptable

CA⁻

I HOLDTIME - Sampled 11/6-7 Run 11/20 - 14 day ✓

III CALIBRATION

Curve - Blk + 6 Stds - r = 0.999

ICV/CCV - 1/10 - 94-101 %

III BLANKS

ICB/CCB - 1/10, < 10 ug/L

PB - <10 ug/L

IV SPIKE

MW06 - 96.4 %

VI DUPLICATE

MW06 - ND/ND > NC

VII LCS

NA

VIII SRV

Calcs + transcriptions checked

IX OVERALL

Data Acceptable

IEA SDG NARRATIVE INORGANIC/METALS FRACTION

CASE:2240-009 SDG NO.:11140

Sample Numbers:961120502 (MW13), 961120503 (MW15), 961120504 (FB03), 961120505 (MW06). A total of four (4) water samples were received for Total and Dissolved Metals Analysis by Methods 200.7 CLP-M, 245.1 CLP-M, and 335.2 CLP-M.

This case was closed on November 8, 1996. The temperature of the samples upon receipt by the Industrial and Environmental Analysts, Inc. (IEA) was 4°C. All samples were received intact.

The pH of all samples for Metals analysis was less than two (2) at the time of sample preparation.

The pH of all samples for Cyanide analysis was greater than twelve (12) at the time of sample preparation.

Each sample has been assigned a 9-character IEA lab identification number.

The "E" flag is used to identify a value that is estimated due to the presence of an interference. The following sample(s) are flagged with an "E" for the metal(s) listed:

Sample ID	Metal
All samples	Potassium

Any nonconformances associated with the analysis of samples in this case are noted as follows:

There are no nonconformances associated with this case.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature.

11/26/96

Jason D. Jordan
Inorganic Data Reviewer
IEA, Inc.

IEA, Inc Doc# RPF00900.NC

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No.:2240_009___SAS No.: _____ SDG No.: 11140_

ICP ID Number: 61T_____ Date: 10/15/96

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	16.0	P
Antimony	206.84		60	1.0	P
Arsenic	189.04		10	2.0	P
Barium	493.41		200	1.0	P
Beryllium	313.04		5	1.0	P
Cadmium	226.50		5	1.0	P
Calcium	317.93		5000	77.0	P
Chromium	267.72		10	1.0	P
Cobalt	228.62		50	1.0	P
Copper	324.75		25	1.0	P
Iron	271.44		100	6.0	P
Lead	220.35		3	1.0	P
Magnesium	279.08		5000	3.0	P
Manganese	257.61		15	1.0	P
Mercury			0.2		NR
Nickel	231.60		40	1.0	P
Potassium	766.49		5000	16.0	P
Selenium	196.03		5	2.0	P
Silver	328.07		10	1.0	P
Sodium	330.23		5000	98.0	P
Thallium	190.86		10	2.0	P
Vanadium	292.40		50	1.0	P
Zinc	213.86		20	1.0	P

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No.:2240_009___SAS No.: _____ SDG No.: 11140_

ICP ID Number: _____ Date: 10/15/96

Flame AA ID Number : PS200_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.2	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

3
BLANKS

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No.:2240_009___SAS No.: _____ SDG No.: 11140_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	16.0	U	16.0	U	16.0	U	16.0	U	16.000	U	P
Antimony	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Barium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Calcium	77.0	U	77.0	U	77.0	U	77.0	U	354.689	B	P
Chromium	1.0	U	1.0	U	1.0	U	1.0	U	1.022	B	P
Cobalt	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Copper	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Iron	6.0	U	6.0	U	6.0	U	6.0	U	6.000	U	P
Lead	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Magnesium	6.4	B	8.9	B	16.5	B	11.8	B	6.533	B	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	CV
Nickel	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Potassium	53.5	B	64.4	B	60.7	B	39.6	B	84.025	B	P
Selenium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Sodium	-325.1	B	-222.4	B	-202.1	B	-378.7	B	98.000	U	P
Thallium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Vanadium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Zinc	1.0	U	1.0	U	1.0	U	1.0	U	13.595	B	P
Cyanide	10.0	U	10.0	U	10.0	U			10.000	U	CA

FORM III - IN

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U.S. EPA - CLP

3
BLANKS

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No.:2240_009___SAS No.: _____ SDG No.: 11140_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			17.5	B	22.8	B	20.7	B	28.222	B	P
Antimony			1.0	U	1.0	U	1.0	U	1.000	U	P
Arsenic			2.0	U	2.0	U	2.0	U	2.000	U	P
Barium			1.0	U	1.0	U	1.0	U	1.000	U	P
Beryllium			1.0	U	1.0	U	1.0	U	1.000	U	P
Cadmium			1.0	U	1.0	U	1.0	U	1.000	U	P
Calcium			77.0	U	77.0	U	77.0	U	77.000	U	P
Chromium			1.0	U	1.0	U	1.0	U	1.000	U	P
Cobalt			1.0	U	1.0	U	1.0	U	1.000	U	P
Copper			1.0	U	1.0	U	1.0	U	1.000	U	P
Iron			6.0	U	6.0	U	6.0	U	12.677	B	P
Lead			1.0	U	1.0	U	1.0	U	1.000	U	P
Magnesium			16.1	B	22.0	B	9.0	B	15.519	B	P
Manganese			1.0	U	1.0	U	1.0	U	1.000	U	P
Mercury											NR
Nickel			1.0	U	1.0	U	1.0	U	1.913	B	P
Potassium			50.2	B	57.1	B	56.2	B	50.170	B	P
Selenium			2.0	U	2.0	U	2.0	U	2.000	U	P
Silver			1.0	U	1.0	U	1.0	U	1.000	U	P
Sodium			-302.1	B	-289.8	B	-205.0	B	-282.493	B	P
Thallium			2.0	U	2.0	U	2.1	B	2.000	U	P
Vanadium			1.0	U	1.0	U	1.0	U	1.000	U	P
Zinc			1.0	U	1.0	B	1.0	U	8.530	B	P
Cyanide											NR

FORM III - IN

3/90

U.S. EPA - CLP

3
BLANKS

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No.:2240_009___SAS No.: _____ SDG No.: 11140_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			16.0	U							P
Antimony			1.1	B							P
Arsenic			2.0	U							P
Barium			1.0	U							P
Beryllium			1.0	U							P
Cadmium			1.0	U							P
Calcium			77.0	U							P
Chromium			1.0	U							P
Cobalt			1.0	U							P
Copper			1.0	U							P
Iron			6.0	U							P
Lead			1.0	U							P
Magnesium			15.2	B							P
Manganese			1.0	U							P
Mercury											NR
Nickel			1.0	U							P
Potassium			85.7	B							P
Selenium			2.0	U							P
Silver			1.0	U							P
Sodium			-168.6	B							P
Thallium			2.7	B							P
Vanadium			1.0	U							P
Zinc			1.0	U							P
Cyanide											NR

APD- GWFB0301
11/7/97

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB03

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ab Code: IEA___ Case No:2240_009___ SAS No.: _____ SDG No.: 11140_

atrix (soil/water): WATER Lab Sample ID: 961120504

evel (low/med): LOW__ Date Received: 11/08/96

Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	27.1	B		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	1.0	U		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	77.0	U		P_
7440-47-3	Chromium_	1.5	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.3	B		P_
7439-89-6	Iron____	25.8	B		P_
7439-92-1	Lead____	1.0	B		P_
7439-95-4	Magnesium	37.5	B		P_
7439-96-5	Manganese	1.0	U		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.0	U		P_
7440-09-7	Potassium	> 89.5	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	182	B		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	7.1	B		P_
_____	Cyanide__	10.0	U		CA

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

FORM I - IN

VALIDATED

3/90

APD-GWFB03-01
11-7-96

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB03F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_009___ SAS No.: _____ SDG No.: 11140_

Matrix (soil/water): WATER Lab Sample ID: 961120504F

Level (low/med): LOW__ Date Received: 11/08/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	34.7	B		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	1.0	U		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	87.4	B		P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	24.7	B		P_
7439-92-1	Lead_____	1.0	U		P_
7439-95-4	Magnesium	63.4	B		P_
7439-96-5	Manganese	1.0	U		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.0	U		P_
7440-09-7	Potassium	91.0	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	98.0	U		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	10.7	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN 3/90

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APD GW MW06-01
11/7/96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW06

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ab Code: IEA___ Case No:2240_009___ SAS No.: _____ SDG No.: 11140_

atrix (soil/water): WATER Lab Sample ID: 961120505

evel (low/med): LOW__ Date Received: 11/08/96

Solids: __0.0 Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	150	B		P_
7440-36-0	Antimony_	U 2.1	B		P_
7440-38-2	Arsenic__	72.0	_		P_
7440-39-3	Barium___	281	_		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	216000	_		P_
7440-47-3	Chromium_	24.1	_		P_
7440-48-4	Cobalt___	3.6	B		P_
7440-50-8	Copper___	7.6	B		P_
7439-89-6	Iron_____	16500	_		P_
7439-92-1	Lead_____	7.6	_		P_
7439-95-4	Magnesium	37600	_		P_
7439-96-5	Manganese	2900	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	38.8	B		P_
7440-09-7	Potassium	J 27400	_	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	121000	_		P_
7440-28-0	Thallium_	U 3.6	B		P_
7440-62-2	Vanadium_	3.8	B		P_
7440-66-6	Zinc_____	U 13.1	B		P_
_____	Cyanide__	10.0	U		CA

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

FORM I - IN

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3/90

APD-GWMW06-01
11-7-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW06F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_009___ SAS No.: _____ SDG No.: 11140_

Matrix (soil/water): WATER Lab Sample ID: 961120505F

Level (low/med): LOW__ Date Received: 11/08/96

% Solids: __0.0 Dissolved ~~Total~~ IAH 11-12-96

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	U 35.6	B		P_
7440-36-0	Antimony_	U 1.0	B		P_
7440-38-2	Arsenic__	67.9			P_
7440-39-3	Barium___	296			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	222000			P_
7440-47-3	Chromium_	U 2.6	B		P_
7440-48-4	Cobalt___	2.8	B		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	16600			P_
7439-92-1	Lead_____	U 1.3	B		P_
7439-95-4	Magnesium	39100			P_
7439-96-5	Manganese	3020			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	37.1	B		P_
7440-09-7	Potassium	J 28900		E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	129000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	2.4	B		P_
7440-66-6	Zinc_____	U 9.3	B		P_
_____	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW13-C 1
11-7-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW13

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_009___ SAS No.: _____ SDG No.: 11140_

Matrix (soil/water): WATER Lab Sample ID: 961120502

Level (low/med): LOW__ Date Received: 11/08/96

% Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	232	_		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	66.5	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	118000			P_
7440-47-3	Chromium_	u 3.4	B		P_
7440-48-4	Cobalt___	1.9	B		P_
7440-50-8	Copper___	u 5.9	B		P_
7439-89-6	Iron____	5240			P_
7439-92-1	Lead____	u 2.0	B		P_
7439-95-4	Magnesium	32000			P_
7439-96-5	Manganese	674			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	3.1	B		P_
7440-09-7	Potassium	J 2940	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	27800			P_
7440-28-0	Thallium_	u 2.0	B		P_
7440-62-2	Vanadium_	1.7	B		P_
7440-66-6	Zinc____	u 12.0	B		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW13-01

11-7-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW13F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_009___ SAS No.: _____ SDG No.: 11140_

Matrix (soil/water): WATER Lab Sample ID: 961120502F

Level (low/med): LOW__ Date Received: 11/08/96

% Solids: __0.0

DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	U 45.0	B		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	64.9	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	114000			P_
7440-47-3	Chromium_	U 1.2	B		P_
7440-48-4	Cobalt___	1.2	B		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	4170			P_
7439-92-1	Lead_____	1.0	U		P_
7439-95-4	Magnesium	31200			P_
7439-96-5	Manganese	642			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.4	B		P_
7440-09-7	Potassium	J 2860	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	27300			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	U 10.9	B		P_
_____	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GLMW15-01
11-7-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW15

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_009___ SAS No.: _____ SDG No.: 11140_

Matrix (soil/water): WATER Lab Sample ID: 961120503

Level (low/med): LOW__ Date Received: 11/08/96

% Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	U 135	B		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	58.7			P_
7440-39-3	Barium___	1470			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	94100			P_
7440-47-3	Chromium_	U 2.0	B		P_
7440-48-4	Cobalt___	5.1	B		P_
7440-50-8	Copper___	U 1.6	B		P_
7439-89-6	Iron_____	7900			P_
7439-92-1	Lead_____	U 2.4	B		P_
7439-95-4	Magnesium	93100			P_
7439-96-5	Manganese	534			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	22.7	B		P_
7440-09-7	Potassium	J 122000		E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	459000			P_
7440-28-0	Thallium_	U 3.1	B		P_
7440-62-2	Vanadium_	1.5	B		P_
7440-66-6	Zinc_____	U 13.4	B		P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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APD-GWMW15-01
11-7-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW15F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_009___ SAS No.: _____ SDG No.: 11140_

Matrix (soil/water): WATER Lab Sample ID: 961120503F

Level (low/med): LOW__ Date Received: 11/08/96

% Solids: __0.0 DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	U 48.3	B		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	63.6	_		P_
7440-39-3	Barium___	1500	_		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	89300			P_
7440-47-3	Chromium_	U 2.8	B		P_
7440-48-4	Cobalt___	5.7	B		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	7940	_		P_
7439-92-1	Lead_____	1.0	U		P_
7439-95-4	Magnesium	92500	_		P_
7439-96-5	Manganese	445	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	23.5	B		P_
7440-09-7	Potassium	J 123000	_	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	466000	_		P_
7440-28-0	Thallium_	U 3.2	B		P_
7440-62-2	Vanadium_	1.6	B		P_
7440-66-6	Zinc_____	U 20.6	_		P_
_____	Cyanide__		_		NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

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3/90

APD-GWFB01-01
11-5-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB01

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111308

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	1.0	U		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	77.0	U		P_
7440-47-3	Chromium_	2.3	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	22.9	B		P_
7439-92-1	Lead_____	UJ 1.0	U		P_
7439-95-4	Magnesium	U 12.0	B		P_
7439-96-5	Manganese	1.0	U		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.0	B		P_
7440-09-7	Potassium	U 30.9	B		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	98.0	U		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	U 4.5	B		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

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APD-GWFB01-01
11-5-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB01F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961111308F

Level (low/med): LOW__ Date Received: 11/06/96

% Solids: __0.0

Dissolved

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	1.0	U		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	77.0	U		P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron____	23.0	B		P_
7439-92-1	Lead____	U5 1.0	U	*	P_
7439-95-4	Magnesium	U 35.0	B		P_
7439-96-5	Manganese	1.0	U		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.0	U		P_
7440-09-7	Potassium	16.0	U		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	98.0	U		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	U 4.7	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

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PPD-GWFB02-01
11-6-96

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB02

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113513

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	1.0	U		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	77.0	U		P_
7440-47-3	Chromium_	1.6	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	u 1.5	B		P_
7439-89-6	Iron____	32.1	B		P_
7439-92-1	Lead____	u5 1.0	U		P_
7439-95-4	Magnesium	u 21.8	B		P_
7439-96-5	Manganese	1.0	U		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.0	B		P_
7440-09-7	Potassium	16.0	U		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	98.0	U		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	u 6.6	B		P_
	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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11-6-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB02F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_007___ SAS No.: _____ SDG No.: 11112_

Matrix (soil/water): WATER Lab Sample ID: 961113513F

Level (low/med): LOW__ Date Received: 11/07/96

% Solids: __0.0

Dissolved

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	16.0	U		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	1.0	U		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	77.0	U		P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	11.5	B		P_
7439-92-1	Lead_____	US 1.0	U	*	P_
7439-95-4	Magnesium	U 26.3	B		P_
7439-96-5	Manganese	1.0	U		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.0	U		P_
7440-09-7	Potassium	16.0	U		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	208	B		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	U 5.4	B		P_
_____	Cyanide__		_		NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN VALIDATED 3/90

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW06

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120505

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V07.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50	U
74-83-9	Bromomethane	50	U
75-01-4	Vinyl Chloride	50	U
75-00-3	Chloroethane	720	
75-09-2	Methylene Chloride	17	J
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	50	U
75-35-4	1,1-Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	21	J
540-59-0	1,2-Dichloroethene (total)	KM 1/13/97 26 ~~29~~	J
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	50	U
78-93-3	2-Butanone	50	U
71-55-6	1,1,1-Trichloroethane	50	U
56-23-5	Carbon Tetrachloride	50	U
75-27-4	Bromodichloromethane	50	U
78-87-5	1,2-Dichloropropane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
79-01-6	Trichloroethene	50	U
124-48-1	Dibromochloromethane	50	U
79-00-5	1,1,2-Trichloroethane	50	U
71-43-2	Benzene	320	
10061-02-6	trans-1,3-Dichloropropene	50	U
75-25-2	Bromoform	50	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-88-3	Toluene	50	U
108-90-7	Chlorobenzene	50	U
100-41-4	Ethylbenzene	16	J
100-42-5	Styrene	50	U
1330-20-7	Xylene (total)	40 ~~50~~	J ~~U~~

FORM I VOA LAB REVISED Form I 3/90

APD-GW... 01

11/7/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW06

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120505

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V07.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50	U
74-83-9	Bromomethane	50	U
75-01-4	Vinyl Chloride	50	U
75-00-3	Chloroethane	720	
75-09-2	Methylene Chloride	17	J
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	50	U
75-35-4	1,1-Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	21	J
540-59-0	1,2-Dichloroethene (total)	26 * ~~29~~	J
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	50	U
78-93-3	2-Butanone	50	U
71-55-6	1,1,1-Trichloroethane	50	U
56-23-5	Carbon Tetrachloride	50	U
75-27-4	Bromodichloromethane	50	U
78-87-5	1,2-Dichloropropane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
79-01-6	Trichloroethene	50	U
124-48-1	Dibromochloromethane	50	U
79-00-5	1,1,2-Trichloroethane	50	U
71-43-2	Benzene	320	
10061-02-6	trans-1,3-Dichloropropene	50	U
75-25-2	Bromoform	50	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-88-3	Toluene	50	U
108-90-7	Chlorobenzene	50	U
100-41-4	Ethylbenzene	16	J
100-42-5	Styrene	50	U
1330-20-7	Xylene (total)	40 * ~~50~~	~~U~~ J

JAH

* lab error
JAH

FORM I VOA 3/90

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW06

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120505

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V07.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 5.0

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

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Hydrocarbon	3.460	25	J
2.	60297	Ether	3.700	94	NJ
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW06

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120505

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122410.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	56	
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	15	
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW06

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120505

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122410.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	2	J
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW06

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120505

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122410.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	11.420	10	J
2.	Unknown	12.070	20	J
3.	Unknown	15.810	500	J
4.	Unknown	16.894	20	J
5. 101100	Propanoic acid, 2-(3-chlorophenoxy)	18.000	74	NJ
6.	Unknown	18.740	26	J
7. 80397	Benzenesulfonamide, N-ethyl-4-methyl	19.430	20	NJ
8. 50066	Phenobarbital	22.350	15	NJ
9.	Unknown	25.020	20	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW06

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120505

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P1110796_175.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/08/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/13/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

RPD-GWMW13-01
11/13/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW13

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V10.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	97	
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	6	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW13

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V10.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	60297	Ether	3.720	420	NJ
2.					
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW13

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122413.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW13

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122413.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW13

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122413.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 16

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1.~~	~~Unknown~~	~~7.050~~	~~6~~	~~J~~
~~2.~~	~~Unknown~~	~~7.150~~	~~3~~	~~J~~
~~3. 930687~~	~~2-Cyclohexen-1-one~~	~~7.920~~	~~7~~	~~NJ~~
4.	Unknown	9.250	4	J
5.	Unknown	9.670	2	J
6.	Unknown	10.490	2	J
7.	Unknown	10.540	3	J
8.	Unknown	10.990	7	J
9.	Unknown	12.420	2	J
10.	Unknown	13.790	2	J
11.	Unknown	14.070	2	J
12.	Unknown	15.610	2	J
13.	Unknown	17.580	6	J
14.	Unknown	18.070	3	J
15.	Unknown	19.470	4	J
16.	Unknown	21.340	3	J
17.				
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW13

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120502

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P1110796_178.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/08/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/13/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW15-01
11/15/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW15

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120503

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V11.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW15

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120503

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V11.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW15

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120503

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122412.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW15

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120503

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122412.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW15

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120503

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122412.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.050	4	J
2. 930687	2-Cyclohexen-1-one	7.920	4	NJ
3.	Unknown	10.550	8	J
4.	Unknown	11.020	16	J
5.	Unknown	11.570	3	J
6.	Unknown	12.380	3	J
7.	Unknown	12.420	2	J
8.	Unknown	12.470	6	J
9.	Unknown	14.990	3	J
10.	Unknown	15.970	2	J
11.	Unknown	16.080	3	J
12.	Unknown	16.540	4	J
13. 101100	Propanoic acid, 2-(3-chlorophenoxy)	17.740	4	NJ
14.	Unknown	18.560	3	J
15.	Unknown	20.680	7	J
16.	Unknown	21.550	4	J
17. 50066	Phenobarbital	22.140	10	NJ
18.	Unknown	24.710	3	J
19.	Unknown	25.590	5	J
20.	Unknown	28.600	4	J
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22.				
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B
B

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW15

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120503

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P1110796_177.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/08/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/13/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

RPD-GWMW07-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW07

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111309

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X14.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW07

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111309

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X14.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

APD-GWMW08-0
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW08

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V04.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW08

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V04.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW08

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N09.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW08

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N09.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW08

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N09.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.140~~	~~5~~	~~NJB~~ B
~~2.~~	~~Unknown~~	~~7.230~~	~~10~~	~~J~~ B
3.	Unknown	9.800	6	J
4. 87412	1(3H)-Isobenzofuranone	14.850	3	NJ
5.	Unknown	17.060	2	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW08

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111201

Sample wt/vol: 500 (g/mL) ML Lab File ID: P2111196_114.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW09-01
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW09

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K09.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 20.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	200	U
74-83-9	Bromomethane	200	U
75-01-4	Vinyl Chloride	200	U
75-00-3	Chloroethane	2200	
75-09-2	Methylene Chloride	200	U
67-64-1	Acetone	200	U
75-15-0	Carbon Disulfide	200	U
75-35-4	1,1-Dichloroethene	200	U
75-34-3	1,1-Dichloroethane	200	U
540-59-0	1,2-Dichloroethene (total)	200	U
67-66-3	Chloroform	200	U
107-06-2	1,2-Dichloroethane	200	U
78-93-3	2-Butanone	200	U
71-55-6	1,1,1-Trichloroethane	200	U
56-23-5	Carbon Tetrachloride	200	U
75-27-4	Bromodichloromethane	200	U
78-87-5	1,2-Dichloropropane	200	U
10061-01-5	cis-1,3-Dichloropropene	200	U
79-01-6	Trichloroethene	200	U
124-48-1	Dibromochloromethane	200	U
79-00-5	1,1,2-Trichloroethane	200	U
71-43-2	Benzene	310	
10061-02-6	trans-1,3-Dichloropropene	200	U
75-25-2	Bromoform	200	U
108-10-1	4-Methyl-2-Pentanone	200	U
591-78-6	2-Hexanone	200	U
127-18-4	Tetrachloroethene	200	U
79-34-5	1,1,2,2-Tetrachloroethane	200	U
108-88-3	Toluene	200	U
108-90-7	Chlorobenzene	200	U
100-41-4	Ethylbenzene	200	U
100-42-5	Styrene	200	U
1330-20-7	Xylene (total)	200	U

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW09

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K09.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 20.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW09

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P08.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	44	
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	0.8	J
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW09

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P08.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW09

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P08.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
~~1.~~	~~Unknown~~	~~7.160~~	~~25~~	~~J~~	B
2. 930687	2-Cyclohexen-1-one	8.040	26	NJ	
3.	Unknown	8.190	18	J	
4.	Unknown	9.300	39	J	
5.	Unknown	9.370	24	J	
6.	Unknown	9.800	20	J	
7. 873949	Cyclohexanone, 3,3,5-trimeth	10.060	380	NJ	
~~8.~~	~~1,2-Cyclohexanediol isomer~~	~~10.460~~	~~22~~	~~J~~	B
9.	Unknown	10.740	19	J	
~~10.~~	~~Unknown~~	~~11.170~~	~~45~~	~~J~~	B
11.	Unknown	11.320	78	J	
12.	Unknown	12.530	34	J	
13.	Unknown	13.860	27	J	
14.	Unknown	13.940	49	J	
15.	Unknown	14.160	26	J	
16.	Unknown	20.830	31	J	
17.	Unknown	20.910	24	J	
18.	Unknown	23.470	72	J	
19.	Unknown	25.040	23	J	
20.	Unknown	25.790	23	J	
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW09

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113515

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_039.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW10C

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113517

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. Data Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(uL)

REVISED DATA

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	120	
75-09-2	Methylene Chloride	100	U
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
540-59-0	1,2-Dichloroethene (total)	100	U
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	100	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
75-27-4	Bromodichloromethane	100	U
78-87-5	1,2-Dichloropropane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
79-01-6	Trichloroethene	100	U
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	100	U
10061-02-6	trans-1,3-Dichloropropene	100	U
75-25-2	Bromoform	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
108-88-3	Toluene	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U

VALIDATED

FORM I VOA

REVISED - VOC run @ 10x
Chet = 120 ug/L
JAM 1-16-97

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW10C

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113517

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. 0 Date Analyzed: 11/15/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

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

CONCENTRATION UNITS: REVISED DATA
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 60297	Ether	3.680	5000	NJ
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW10C

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113917

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P10.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW10C

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113917

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P10.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW10C

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113917

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P10.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.830	14	J
2. 930687	2-Cyclohexen-1-one	8.040	35	NJ
3.	Unknown	8.220	40	J
4.	Unknown	9.250	11	J
5.	Unknown	9.340	29	J
6.	Unknown	9.400	31	J
7.	Unknown	9.570	11	J
8.	Unknown	9.730	22	J
9.	Unknown	9.800	25	J
10.	Unknown	9.990	9	J
11.	Unknown	10.750	10	J
12.	Unknown	11.070	18	J
13.	Unknown	11.170	27	J
14.	Unknown	11.680	13	J
15.	Unknown	11.980	9	J
16. 610720	Benzoic acid, 2,5-dimethyl-	14.780	9	NJ
17.	Unknown	15.130	18	J
18.	Unknown	20.820	11	J
19.	Unknown	21.870	15	J
20.	Unknown	23.170	15	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW10C

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113517

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_041.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW21-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW21

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111310

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X15.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW21

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111310

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X15.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

APD-GWMW22-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW22

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111204

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X09.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW22

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111204

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X09.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW22

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111204

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N12.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW22

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111204

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N12.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	48	
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW22

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111204

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N12.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	6.560	5	J
~~2. 822673~~	~~2-Cyclohexen-1-ol~~	~~7.210~~	~~9~~	~~NJ~~ B
3.	Unknown	8.000	16	J
4. 930687	2-Cyclohexen-1-one	8.080	8	NJ
5.	Unknown	9.810	33	J
~~6.~~	~~Unknown~~	~~11.250~~	~~100~~	~~J~~ B
7.	Unknown	12.570	4	J
8.	Unknown	14.380	6	J
9. 87412	1(3H)-Isobenzofuranone	14.870	12	NJ
10. 1025156	1,3,5-Triazine-2,4,6(1H,3H,5	18.650	6	NJ
11. 57103	Hexadecanoic acid	21.600	3	NJ
12.	Unknown	23.290	5	J
13. 80057	Phenol, 4,4'-(1-methylethyli	23.890	28	NJ
14.	Unknown	27.140	5	J
15.	Unknown	29.100	5	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW22

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111204

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_117.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

PPD-GWMWX3-01
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW23

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113512

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X17.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW23

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113512

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X17.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW23

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113512

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P05.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW23

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113512

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P05.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED 3/90

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW23

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113512

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P05.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 14

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
~~1. 108930~~	~~Cyclohexanol~~	~~7.120~~	~~4~~	~~NJB~~	B
~~2.~~	~~Unknown~~	~~7.220~~	~~6~~	~~J~~	B
3. 930687	2-Cyclohexen-1-one	8.050	2	NJ	
4.	Unknown	8.370	7	J	
5.	Unknown	9.290	6	J	
6.	Unknown	9.360	5	J	
~~7.~~	~~1,2-Cyclohexanediol isomer~~	~~10.420~~	~~20~~	~~J~~	B
8.	Unknown	11.020	4	J	
~~9.~~	~~Unknown~~	~~11.150~~	~~6~~	~~J~~	B
10.	Unknown	13.990	3	J	
11.	Unknown	16.250	12	J	
~~12.~~	~~Unknown~~	~~16.490~~	~~8~~	~~J~~	B
13.	Unknown	16.740	8	J	
14.	Unknown	20.220	2	J	
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW23

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113512

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_037.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW24-01
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW24

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113514

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K05.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW24

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113514

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K05.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW24

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113514

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P07.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW24

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113514

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P07.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW24

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113514

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P07.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
~~1. 108930~~	~~Cyclohexanol~~	~~7.100~~	~~5~~	~~NJ~~	B
~~2.~~	~~Unknown~~	~~7.200~~	~~8~~	~~J~~	B
3. 930687	2-Cyclohexen-1-one	8.050	4	NJ	
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW24

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113514

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_207.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/26/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW50-01
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW50

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V03.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW50

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V03.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW50

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P13.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW50

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P13.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 u ~~2~~	~~J~~
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

VALIDATED

3/90

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW50

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P13.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
~~1. 822673~~	~~2-Cyclohexen-1-ol~~	~~7.170~~	~~6~~	~~NJ~~	B
2.	Unknown	8.030	33	J	
3.	Unknown	9.800	17	J	
~~4.~~	~~Unknown~~	~~11.210~~	~~93~~	~~J~~	B
5.	Unknown	12.550	3	J	
~~6.~~	~~Unknown~~	~~15.060~~	~~9~~	~~J~~	B
7.					
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9.					
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FORM I SV-TIC

VALIDATED

3/90

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW50

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113920

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_044.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW51-01
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW51

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K12.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0 ✓

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

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

FORM I VOA

VALIDATED

3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW51

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K12.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 60297	Ether	3.700	20000	NJ
2.				
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW51

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW51

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 U 5	~~J~~
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW51

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P11.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	Unknown	7.370	10	J	
2.	Unknown	8.080	34	J	
3.	Unknown	8.150	25	J	
4.	Unknown	8.210	14	J	
5.	Unknown	8.290	28	J	
6.	Unknown	9.340	12	J	
7.	Unknown	9.400	15	J	
8.	Unknown	9.770	41	J	
9.	Unknown	9.990	10	J	
10.	Unknown	11.070	14	J	
~~11.~~	~~Unknown~~	~~11.170~~	~~20~~	~~J~~	B
12.	Unknown	11.220	16	J	
13.	Unknown	11.380	75	J	
14.	Unknown	13.530	23	J	
15.	Unknown	13.610	18	J	
16.	Unknown	14.300	47	J	
~~17.~~	~~Unknown~~	~~15.140~~	~~41~~	~~J~~	B
18.	Unknown	15.810	32	J	
19.	Unknown	18.190	15	J	
20.	Unknown	18.860	14	J	
21.					
22.					
23.					
24.					
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26.					
27.					
28.					
29.					
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW51

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113918

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_042.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW51-91
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW5191

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113919

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K13.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0 ✓

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

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

FORM I VOA

VALIDATED

3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW5191

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113919

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K13.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 60297	Ether	3.690	20000	NJ
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FORM I VOA-TIC

VALIDATED

/90

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW5191

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113919

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P12.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	3	J
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	3	J
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW5191

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113919

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P12.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW5191

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113919

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P12.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.360	9	J
2.	Unknown	8.060	28	J
3.	Unknown	8.220	33	J
4.	Unknown	8.880	8	J
5.	Unknown	9.330	13	J
6.	Unknown	9.400	14	J
7.	Unknown	9.730	18	J
8.	Unknown	9.760	25	J
9.	Unknown	9.990	11	J
10.	Unknown	10.610	7	J
11.	Unknown	10.770	11	J
12.	Unknown	11.070	8	J
13.	Unknown	11.170	29	J
14.	Unknown	11.230	14	J
15.	Unknown	13.500	15	J
16.	Unknown	13.610	9	J
17.	Unknown	14.290	34	J
18.	Unknown	15.130	37	J
19.	Unknown	15.800	26	J
20.	Unknown	16.120	8	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW5191

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113919

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_043.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW11-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW11

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111202

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V05.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW11

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111202

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V05.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW11

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111202

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N10.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
108-95-2	Phenol	J	10	U
111-44-4	bis(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol	J	10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol	J	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)		10	U
106-44-5	4-Methylphenol	J	10	U
621-64-7	N-Nitroso-di-n-propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol	J	10	U
105-67-9	2,4-Dimethylphenol	J	10	U
111-91-1	bis(2-Chloroethoxy)methane		10	U
120-83-2	2,4-Dichlorophenol	J	10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol	J	10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocyclopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol	J	10	U
95-95-4	2,4,5-Trichlorophenol	J	25	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		25	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		25	U
83-32-9	Acenaphthene		10	U

Phenol Surrogate recovery 2% — Flag acid fraction "J"

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW11

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111202

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N10.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
51-28-5	2,4-Dinitrophenol	5U	25	U
100-02-7	4-Nitrophenol	5U	25	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		25	U
534-52-1	4,6-Dinitro-2-methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine (1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol	5U	25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		10	U
56-55-3	Benzo(a)anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	bis(2-Ethylhexyl)phthalate		10	U
117-84-0	Di-n-octylphthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW11

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111202

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N10.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW11RE

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111202RE

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1129607.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/26/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/29/96 21 day hold-time use initial run

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

Phenol Surrogate Rec. = 79%

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW11RE

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111202RE

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1129607.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/26/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/29/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW11RE

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111202RE

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1129607.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/26/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/29/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.490	2	J
2. 80057	Phenol, 4,4'-(1-methylethyli	24.290	3	NJ
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW11

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111202

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_115.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW12-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW12

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X10.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW12

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X10.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. ~~39638329~~	~~Bis(2-chloroisopropyl) ether~~	~~23.340~~	~~11~~	~~NJ~~
2.				
3.				
4.				
5.	2,2-oxybis(1-chloropropane) = SVOC TIC			
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW12

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P03.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH:

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

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW12

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P03.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
86-74-8	Carbazole	20	U
84-74-2	Di-n-butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	bis(2-Ethylhexyl)phthalate	20	U
117-84-0	Di-n-octylphthalate	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenz(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW12

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P03.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 2.0

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

Number TICs found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	~~108930~~	~~Cyclohexanol~~	~~7.090~~	~~27~~	~~NJ~~
2.		~~Unknown~~	~~7.210~~	~~6~~	~~J~~
3.		Unknown	16.910	48	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW12

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111205

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_118.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWM-12-91
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW129

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111206

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X11.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW129

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111206

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X11.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 39638329	Bis(2=chloroisopropyl) ether	23.340	11	NJ
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FORM I VOA-TIC 3/90

VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW129

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111206

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P04.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH:

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

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW129

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111206

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P04.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
86-74-8	Carbazole	20	U
84-74-2	Di-n-butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	bis(2-Ethylhexyl)phthalate	20	U
117-84-0	Di-n-octylphthalate	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenz(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW129

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111206

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P04.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 2.0

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

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. ~~108930~~	~~Cyclohexanol~~	~~7.090~~	~~16~~	~~NJ~~ BB
2.	~~Unknown~~	~~7.210~~	~~5~~	~~J~~
3.	Unknown	9.790	4	J
4.	Unknown	16.910	50	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW129

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111206

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_119.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GUMM
11-6-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW14

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113516

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K10.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	1000	
75-09-2	Methylene Chloride	14	J
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
540-59-0	1,2-Dichloroethene (total)	100	U
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	100	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
75-27-4	Bromodichloromethane	100	U
78-87-5	1,2-Dichloropropane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
79-01-6	Trichloroethene	100	U
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	41	J
10061-02-6	trans-1,3-Dichloropropene	100	U
75-25-2	Bromoform	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
108-88-3	Toluene	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW14

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113516

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115K10.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW14

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113516

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P09.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	12	
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	0.9	J
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW14

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113516

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P09.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 U ~~2~~	~~J~~
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

VALIDATED

3/90

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW14

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113516

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121P09.D

Level: (low/med) LOW Date Received: 11/07/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1. 687489	Carbamic acid, dimethyl-, et	7.150	9	NJ	B
2.	Unknown	9.800	14	J	
3. 931179	1,2-Cyclohexanediol isomer	10.440	28	NJ	B
4.	Unknown	11.150	38	J	B
5.	Unknown	11.730	8	J	
6.	Unknown	12.540	7	J	
7.	Unknown	14.100	11	J	
8.	Unknown	14.770	7	J	
9.	Unknown	15.070	16	J	B
10.	Unknown	15.760	16	J	
11.	Unknown	16.250	16	J	B
12. 98737	Benzoic acid, p-tert-butyl-	16.720	26	NJ	
13.	Unknown	16.920	9	J	
14.	Unknown	17.390	9	J	
15.	Unknown	18.060	8	J	
16.	Unknown	18.670	11	J	
17. 70553	Benzenesulfonamide, 4-methyl	18.830	11	NJ	
18.	Unknown	19.180	8	J	
19.	Unknown	21.190	30	J	
20.	Unknown	25.680	34	J	
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW14

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961113516

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P3111996_040.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/07/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/21/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW18-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW18

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111307

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X12.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW18

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111307

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114X12.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/15/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW18

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111307

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N15.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW18

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111307

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N15.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 U ~~2~~	~~J~~
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

VALIDATED

3/90

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW18

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111307

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N15.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.120	7	NJ
2.	Unknown	7.230	9	J
3.	Unknown	12.680	2	J
4.	Unknown	13.680	2	J
5.	Unknown	17.070	2	J
6. 1025156	1,3,5-Triazine-2,4,6(1H,3H,5	18.640	4	NJ
7. 57103	Hexadecanoic acid	21.590	2	NJ
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW18

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111307

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_127.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/23/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

APD-GWMW19-01
11-5-96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V06.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW19

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1114V06.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: not dec. _____ Date Analyzed: 11/14/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N11.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	11	
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N11.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 U ~~2~~	~~J~~
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW19

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1121N11.D

Level: (low/med) LOW Date Received: 11/06/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/11/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	~~Unknown~~	~~11.210~~	~~79~~	~~J~~
2.	~~Unknown~~	~~15.200~~	~~20~~	~~J~~
3. ~~98737~~	~~Benzoic acid, p-tert-butyl-~~	~~16.750~~	~~34~~	~~NJ~~
4. 50066	Phenobarbital	22.300	83	NJ
5. 10544500	Sulfur, mol. (S8)	22.970	22	NJ
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FORM I SV-TIC VALIDATED 3/90

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-007 SDG No.: 11112

Matrix: (soil/water) WATER Lab Sample ID: 961111203

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2111196_116.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/06/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/11/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

Summary of Groundwater TAL/TCL Validated Analytical Results
American Chemical Services
Griffith, Indiana

Compound	GWMW52-01 12/26/96	GWMW53-01 12/26/96	GWMW54-01 12/26/96	GWMW55-01 12/26/96	GWMW55-91 12/26/96	GWFB01-01 12/26/96
VOLATILES						
Chloromethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Bromomethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Vinyl Chloride	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Chloroethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Methylene Chloride	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Acetone	22 /	11 /	10 U/	10 U/	10 U/	10 U/
Carbon Disulfide	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1-Dichloroethene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1-Dichloroethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichloroethene (total)	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Chloroform	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichloroethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Butanone	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1,1-Trichloroethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Carbon Tetrachloride	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Bromodichloromethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichloropropane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
cis-1,3-Dichloropropene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Trichloroethene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Dibromochloromethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1,2-Trichloroethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Benzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
trans-1,3-Dichloropropene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Bromoform	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
4-Methyl-2-Pentanone	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Hexanone	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Tetrachloroethene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,1,2,2-Tetrachloroethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Toluene	3 J/J	1 J/J	10 U/	10 U/	10 U/	10 U/
Chlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Ethylbenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Styrene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Xylene (total)	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
SEMIVOLATILES (ug/L)						
Phenol	3 J/	10 /	10 U/	10 U/	10 U/	10 U/
bis(2-Chloroethyl)ether	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Chlorophenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,3-Dichlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,4-Dichlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2-Dichlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Methylphenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2,2'-oxybis(1-Chloropropane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
4-Methylphenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
N-Nitroso-di-n-propylamine	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Hexachloroethane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Nitrobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Isophorone	10 U/	0.8 J/J	10 U/	10 U/	10 U/	10 U/
2-Nitrophenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2,4-Dimethylphenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
bis(2-Chloroethoxy)methane	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2,4-Dichlorophenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
1,2,4-Trichlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Naphthalene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
4-Chloroaniline	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/

This table presents the result (either the concentration or the reported detection limit), followed by the laboratory qualifier / data validation qualifier.

j:\4077\1296DAT.XLS(12-26-96 spls)
IEA/JAH/MDP 1-24-97

Summary of Groundwater TAL/TCL Validated Analytical Results
American Chemical Services
Griffith, Indiana

Compound	GWMW52-01 12/26/96	GWMW53-01 12/26/96	GWMW54-01 12/26/96	GWMW55-01 12/26/96	GWMW55-91 12/26/96	GWFB01-01 12/26/96
Hexachlorobutadiene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
4-Chloro-3-methylphenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Methylnaphthalene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Hexachlorocyclopentadiene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2,4,6-Trichlorophenol	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2,4,5-Trichlorophenol	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/
2-Chloronaphthalene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2-Nitroaniline	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/
Dimethylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Acenaphthylene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2,6-Dinitrotoluene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
3-Nitroaniline	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/
Acenaphthene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2,4-Dinitrophenol	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/
4-Nitrophenol	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/
Dibenzofuran	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
2,4-Dinitrotoluene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Diethylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
4-Chlorophenyl-phenylether	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Fluorene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
4-Nitroaniline	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/
4,6-Dinitro-2-methylphenol	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/
N-Nitrosodiphenylamine (1)	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
4-Bromophenyl-phenylether	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Hexachlorobenzene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Pentachlorophenol	25 U/	25 U/	25 U/	25 U/	25 U/	25 U/
Phenanthrene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Anthracene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Carbazole	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Di-n-butylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Fluoranthene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Pyrene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Butylbenzylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
3,3'-Dichlorobenzidine	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Benzo(a)anthracene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Chrysene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
bis(2-Ethylhexyl)phthalate	10 J/U	21 /U	10 J/U	10 J/U	10 J/U	10 U/
Di-n-octylphthalate	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Benzo(b)fluoranthene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Benzo(k)fluoranthene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Benzo(a)pyrene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Indeno(1,2,3-cd)pyrene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Dibenz(a,h)anthracene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
Benzo(g,h,i)perylene	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/

This table presents the result (either the concentration or the reported detection limit), followed by the laboratory qualifier / data validation qualifier.

j:\4077\1 296DAT.XLS(12-26-96 spls)
IEA/JAH/MDP 1-24-97

Summary of Groundwater TAL/TCL Validated Analytical Results
American Chemical Services
Griffith, Indiana

Compound	GWMW52-01 12/26/96	GWMW53-01 12/26/96	GWMW54-01 12/26/96	GWMW55-01 12/26/96	GWMW55-91 12/26/96	GWFB01-01 12/26/96
PESTICIDES (ug/L)						
alpha-BHC	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
beta-BHC	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
delta-BHC	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
gamma-BHC (Lindane)	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
Heptachlor	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
Aldrin	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
Heptachlor epoxide	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
Endosulfan I	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
Dieldrin	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/
4,4'-DDE	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/
Endrin	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/
Endosulfan II	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/
4,4'-DDD	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/
Endosulfan sulfate	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/
4,4'-DDT	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/
Methoxychlor	0.5 U/	0.5 U/	0.5 U/	0.5 U/	0.5 U/	0.5 U/
Endrin ketone	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/
Endrin aldehyde	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/	0.1 U/
alpha-Chlordane	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
gamma-Chlordane	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/	0.05 U/
Toxaphene	5 U/	5 U/	5 U/	5 U/	5 U/	5 U/
Aroclor-1016	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Aroclor-1221	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/
Aroclor-1232	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Aroclor-1242	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Aroclor-1248	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Aroclor-1254	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Aroclor-1260	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/

This table presents the result (either the concentration or the reported detection limit), followed by the laboratory qualifier / data validation qualifier.

Summary of Groundwater TAL/TCL Validated Analytical Results
American Chemical Services
Griffith, Indiana

Compound	GWMW52-01 12/26/96	GWMW53-01 12/26/96	GWMW54-01 12/26/96	GWMW55-01 12/26/96	GWMW55-91 12/26/96	GWFB01-01 12/26/96
METALS - Total (ug/L)						
Aluminum	4190 N*/J	39200 N*/J	853 N*/J	14900 N*/J	17000 N*/J	21 BN*/J
Antimony	6.8 B/	1.7 B/U	3.2 B/U	2.1 B/U	2.3 B/U	1 U/
Arsenic	40.3 /	30.1 /	7.5 B/	12.9 /	14.0 /	2 U/
Barium	264 /	997 /	190 B/	271 /	300 /	1 U/
Beryllium	1.2 B/	6.2 /	1 U/	2.5 B/	2.9 B/	1 U/
Cadmium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Calcium	135000 /	160000 /	132000 /	74200 /	84000 /	77 U/
Chromium	134 /	189 /	82.2 /	133 /	157 /	2.5 B/
Cobalt	13.1 B/	24.9 B/	4.0 B/	10.5 B/	11.4 B/	1 U/
Copper	66.8 /	107 /	59.9 /	84.4 /	106 /	1 U/
Iron	11600 /	48800 /	1880 /	16700 /	18700 /	24.2 B/
Lead	31.4 /	138 /	6.3 /U	43.2 /	48.9 /	2.0 B/
Magnesium	49100 /	75300 /	54100 /	35800 /	40500 /	34.6 B/
Manganese	673 /	1630 /	202 /	546 /	642 /	1 U/
Mercury	0.2 U/	0.24 /	0.2 U/	0.24 /	0.2 U/	0.2 U/
Nickel	201 /	139 /	66.0 /	101 /	118 /	1.2 B/
Potassium	7770 E/J	24400 E/J	4540 BE/J	10700 E/J	12000 E/J	105 BE/J
Selenium	2 U/	5.1 /U	2.7 B/U	4.5 B/U	4.9 B/U	2 U/
Silver	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Sodium	87900 /	252000 /	20600 /	122000 /	134000 /	98 U/
Thallium	4.1 B/	2.0 B/	2 U/	2.1 B/	2 U/	2 U/
Vanadium	10.6 B/	32.3 B/	1.9 B/	15.6 B/	16.9 B/	1 U/
Zinc	90.3 /	443 /	13.6 B/U	105 /	115 /	6.3 B/
Cyanide	10 U/	10 U/	10 U/	10 U/	10 U/	10 U/
METALS - Dissolved (ug/L)						
Aluminum	41.6 B/UJ	40.9 B/UJ	72.5 B/UJ	117 B/UJ	367 /J	29.9 B/
Antimony	8.3 B/	3.4 B/U	2.8 B/U	3.0 B/U	3.4 B/U	1 U/
Arsenic	33.8 /	2.4 B/	7.3 B/	3.7 B/	4.1 B/	2 U/
Barium	315 /	583 /	183 B/	120 B/	126 B/	1 U/
Beryllium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Cadmium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Calcium	108000 /	122000 /	126000 /	46400 /	48300 /	77 U/
Chromium	4.3 B/U	1 U/	3.6 B/U	1 U/	1.2 B/U	1 U/
Cobalt	5.6 B/	5.1 B/	2.1 B/	1 U/	1.1 B/	1 U/
Copper	1 U/	8.1 B/	18.5 B/	5.9 B/	7.1 B/	1 U/
Iron	337 /	147 /	96.7 B/U	50.2 B/U	160 /	16.9 B/
Lead	1.4 B/U	1 U/	2.0 B/U	1.3 B/U	1.7 B/U	1.5 B/
Magnesium	36800 /	59000 /	51400 /	23600 /	24700 /	56.5 B/
Manganese	288 /	499 /	157 /	72.6 /	77.7 /	1.1 B/
Mercury	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/	0.2 U/
Nickel	61.8 /	31.7 B/	10.7 B/	9.6 B/	10.3 B/	1 U/
Potassium	5640 E/J	21800 E/J	4170 BE/J	8060 E/J	8560 E/J	94.4 BE/J
Selenium	2 U/	2.1 B/U	2 U/	2.4 B/U	3.6 B/U	2 U/
Silver	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Sodium	124000 /	293000 /	20400 /	128000 /	134000 /	98 U/
Thallium	2 U/	2 U/	2 U/	2 U/	2 U/	2 U/
Vanadium	1 U/	1 U/	1 U/	1 U/	1 U/	1 U/
Zinc	2.5 B/U	18.8 B/U	5.3 B/U	2 U/	3.9 B/U	2 U/
Cyanide	NA	NA	NA	NA	NA	NA

This table presents the result (either the concentration or the reported detection limit), followed by the laboratory qualifier / data validation qualifier.

Data Validation Narrative

Project Name ACS January 24, 1997
Project Number 1252042.0809.0076 Login # 2240-015-12250

This data narrative covers the analysis of 7 groundwater samples from ACS for volatile organics analysis by IEA-NC Laboratories. The data was validated according to the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (2/93).

All this data is acceptable for use with the following comments:

Holdtimes - All holdtimes were met.

Calibration - All calibration criteria was within acceptable QC limits.

Blanks - The laboratory blanks were all clean with no detects.

Spikes - All spike results were within acceptable QC limits.

Duplicates - No detections for TCL compounds. One set collected for 7 samples.

Sample Result Verification - A minimum of 10% of all calculations were backchecked. All transcriptions were checked.

Tentatively Identified Compounds(TICs)- All TICs qualified as JN; Tentatively identified at estimated concentrations.

Overall - These sample results are acceptable for use in site evaluation.

MDP/mdp/
C:\MDP\DVALID\ACSDV1.DOC
1252042.0809.0076

Data Validation Narrative

Project Name ACS January 24, 1997
Project Number 1252042.0809.0076 Login # 2240-015-12550

This data narrative covers the analysis of 6 groundwater samples from ACS for semi-volatile organics analysis by IEA-NC Laboratories. The data was validated according to the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (2/93).

All this data is acceptable for use with the following comments:

Holdtimes - All holdtimes were met.

Calibration - All calibration criteria was within acceptable QC limits.

Blanks - Some sample data qualified due to the detection of bis (2-ethylhexyl) phthalate in the field blank associated with these samples.

Surrogates - Two of six samples with Terphenyl-d14 (TPH) outside of Q.C. Limits. Since only one of six system monitoring compounds was outside of limits no qualifiers were applied.

Spikes - Matrix spike and matrix spike duplicate with two of eleven compounds ouside Q.C. Limits. All recoveries are bias high therefore, no qualifiers were applied.

Duplicates - No detections for TCL compounds. One set collected for 6 samples.

Sample Result Verification - A minimum of 10% of all calculations were backchecked. All transcriptions were checked.

Internal Standard Performance - All required criteria met.

Tentatively Identified Compounds (TICs)- All TICs qualified as JN; Tentatively identified at estimated concentrations.

Overall - These sample results are acceptable for use in site evaluation.

MDP/mdp/
C:\MDP\DVALID\DV2.DOC
1252042.0809.0076

Data Validation Narrative

Project Name ACS January 24, 1997
Project Number 1252042.0809.0076 Login # 2240-015-12550

This data narrative covers the analysis of 6 groundwater samples from ACS for Pesticide/PCB analysis by IEA-NC Laboratories. The data was validated according to the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (2/93).

All this data is acceptable for use with the following comments:

Holdtimes - All holdtimes were met.

Calibration - All calibration criteria was within acceptable QC limits.

Blanks - The laboratory and field blanks were all clean with no detects.

Surrogate - Two samples with one surrogate outside the advisory Q.C. Limits. One sample with three surrogates outside the advisory Q.C. Limits. Since all recoveries were greater than 50% and Q.C. Limits are only advisory, no qualifiers were applied to the data. Recoveries outside of the advisory Q.C. Limits attributed to matrix interference.

Spikes - All matrix spike/matrix spike duplicate results within Q.C. Limits.

Duplicates -No detections for TCL compounds. One set collected for 6 samples.

Sample Result Verification - A minimum of 10% of all calculations were backchecked. All transcriptions were checked.

Overall - These sample results are acceptable for use in site evaluation.

MDP/mdp/
C:\MDP\DVALID\ACSDV3.DOC
1252042.0809.0076

MONTGOMERY WATSON

ORGANICS
DATA VALIDATION NARRATIVE

Site Name ACS Project # 1252042.0809.0076

SMO Case # (SAS #) 2240-015 (SDG) BATCH: 12550 #Samples/Matrix 7 / GW

Laboratory IEA (NC) Hours for Review

SOW # OLM01.8 - REVISED (1/91) EPA Validation Guidelines # REGION V

Sample Numbers 961255307 TRIP BLANK, 961255004 EQUIP BLK, 961255005 MW52, 961255006 MW53, 961255003 MW54, 961255001 MW55, 961255002 MW55DUP

Validated By [signature] Date 1/21/97 → 1/22/97

Reviewed By Date

SUMMARY OF REVIEW: VOLATILES

I. HOLD TIMES – ALL SAMPLES ANALYZED WITHIN 14 DAY HOLD TIME FOR HCL PRESERVED SAMPLES

II. GC/MS INSTRUMENT PERFORMANCE CHECK – ALL CRITERIA MET FOR INSTRUMENT # MS010

III. INITIAL AND CONTINUING CALIBRATION –

INITIAL – #MS010 11/21/96 17:43 → 20:31: 1,1,2,2TECA RRF 0.396 LESS THAN MIN.; NOTE: 2-HEXANONE % RSD @ 27.2%

CONTINUING – #MS010 1/3/97 08:00: 1,1,2,2TECA %DE – 30.8%; NOTE: ACETONE %DE – 57.0%, 2-BUTANONE %DE – 65.0%, 4-METHYL-2-PENTANONE %DE – 52.3%, 2-HEXANONE %DE – 69.9% AND SYSTEM MONITORING COMPOUND 1,2DCAd4 %DE – 26.7%

IV. BLANK ANALYSIS – ALL CRITERIA MET

V. SYSTEM MONITORING COMPOUND RECOVERIES – RECOVERIES WITHIN Q.C. LIMITS

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATE – ALL RECOVERIES AND RPDs (%) WITHIN Q.C. LIMITS

VII. FIELD DUPLICATES – 1 SET FOR THIS SDG – ACCEPTABLE

VIII. INTERNAL STANDARD PERFORMANCE – ALL CRITERIA MET

IX. TCL COMPOUND IDENTIFICATION – ALL CRITERIA MET

X. COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS –
- QUANTIFICATION – ACCEPTABLE
- REPORTED DETECTION LIMITS – REPORTED AT CRQLs

XI. TENTATIVELY IDENTIFIED COMPOUNDS (TICs) – ALL TICs QUALIFIED AS JN, TENTATIVELY IDENTIFIED AT ESTIMATED CONCENTRATIONS

XII. SYSTEM PERFORMANCE – OVERALL CHROMATOGRAPHIC QUALITY – ACCEPTABLE
- TICs – QUALIFIED AS JN
- DETECTIONS BELOW CRQL – QUALIFIED AS J

ACS
1252042.0809.0076
1/21/97

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 2240-015 CONTRACTOR IEA

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
	#MSD10			#MSD10 (1)											
DATE/TIME:	11/21/96	17:43-20:31		1/3/97 0800											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone				0.205	-57.0										
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone				0.408	-65.0										
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone				0.286	-52.3										
2-Hexanone	0.042	27.2		0.156	-69.4										
Tetrachloroethene															
1,1,2,2-Tetrachloroethane	0.396	7.9	J	0.517	-30.8	J									
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

INITIAL CAL.	VST0050
VST0010	GWBLK
VST0020	TRIPBLK
VST0050	MW55
VST0100	MW55DUP
VST0200	MW54
	MW52
	MW52MS
	MW52MSD
	MW53

Reviewer's Initials/Date: MSP 1/21/97

* These flags should be applied to the analytes on the sample data sheets.

(1) SYSTEM MONITORING COMPOUND 1,2 DCA-d4 7.0 @ -26.7%

IEA SDG NARRATIVE VOLATILE FRACTION

PROJECT: 2240-015 BATCH: 12550 METHOD: 1/91 SOW

SAMPLES: Seven (7) Water Samples

These samples were received at Industrial and Environmental Analysts, Inc. (IEA) on December 28, 1996. Each sample was assigned a 9-character "IEA" lab identification number (lab ID) and an abbreviated client ID for simplicity in forms generation. This package makes reference to these ID's as listed on the IEA Assigned Number Index. In addition the pH for the water samples are listed on this index. All analyses were performed according to the EPA 1/91 SOW and meet the requirements of the IEA Quality Assurance Program. Please see the enclosed data package for your results and Chain of Custody (COC) documentation.

There is an air peak that is common to all of the volatile analyses and a solvent peak that is common to some volatile analyses. These peaks are present at the beginning of the Reconstructed Ion Chromatograms (RIC) and are labeled. These peaks are not searched as Tentatively Identified Compounds (TIC's).

The chromatographic separation of the analytes is performed using a J & W Scientific 75 m X 0.53 mm DB-624 fused silica capillary column with a 3.0 μm film thickness.

The trap used in the purge-and-trap apparatus is a Supelco trap K (VOCARB 3000) consisting of 10 cm of Carbopack B, 6 cm of Carboxen 1000, and 1 cm of Carboxen 1001. This trap meets the criteria in the SOW for contract OLM03.1 for an equivalent trap. Documentation is maintained within the QA department for on-site review.

The "J" flag used on the Form I VOA indicates an estimated concentration between the Contract Required Quantitation Limit (CRQL) and the Method Detection Limit (MDL), not accounting for dilution of the sample prior to analysis. This flag is also used on the Form I VOA-TIC to indicate an estimated amount for all non-target concentrations.

The "N" flag used on the Form I VOA-TIC indicates that there is the presumptive evidence of a compound based on the mass spectral library search and the interpretation of the mass spectral interpretation specialist.

The "Y" flag is used as a qualifier on the Form I VOA-TIC to indicate a siloxane contaminant attributed to trap breakdown.

The "M" flag used on the data system report form designates that a manual integration was required to provide an accurate quantification of that analyte. Manual integrations have been initialled and dated by the analyst.

IEA SDG NARRATIVE VOLATILE FRACTION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature.

Brian D. Neptune 01/14/97

Brian D. Neptune
Lead Analyst, GC/MS Final Review
IEA, Inc.

MONTGOMERY WATSON

ORGANICS
DATA VALIDATION NARRATIVE

Site Name ACS Project # 1252042.0809.0076

SMO Case # (SAS #) 2240-015 (SDG#) BATCH: 12550 #Samples/Matrix 6/GW

Laboratory IEA (NC) Hours for Review

SOW # OLM01.8 - REVISED (1/91) EPA Validation Guidelines # REGION V

Sample Numbers 961255004 EQUIPBLK, 961255005 MW52, 961255006 MW53, 961255003 MW54, 961255001 MW55, & 961255002 MW55DUP

Validated By [signature] Date 1/22/97 → 1/24/97

Reviewed By Date

SUMMARY OF REVIEW: SEMI-VOLATILES

I. HOLDTIMES - ALL SAMPLES EXTRACTED AND ANALYZED WITH-IN HOLDING TIMES

II. GC/MS TUNING AND PERFORMANCE - ALL CRITERIA MET FOR INSTRUMENT # MS014

III. INITIAL AND CONTINUING CALIBRATION -

INITIAL - #MS014 12/19/96 11:05 → 14:18: - ALL CRITERIA MET

CONTINUING - #MS014 01/03/97 13:33: ALL REQUIRED CRITERIA MET; NOTE: 2-NITROPHENOL %DE -33.1%, 3,3'-DICHLOROBENZIDINE %DE -52.6%, AND DI-n-OCTYL PHTHALATE %DE -32.6%

#MS014 01/06/97 07:57: ALL REQUIRED CRITERIA MET; NOTE: HEXACHLOROCYCLOPENTADIENE %DE 25.2%

IV. BLANK ANALYSIS - UNKNOWN TIC DETECTED IN METHOD BLANK (SBLK50) 01/03/97

- NO DETECTIONS OF TCL COMPOUNDS IN THIS BLANK
- bis (2-ETHYLHEXYL) PHTHALATE DETECTED IN EQUIPMENT BLANK @ 3.0 ug/L
  ALL SAMPLES WITH DETECTIONS FOR bis (2-ETHYLHEXYL) PHTHALATE QUALIFIED AS NON DETECTS

V. SYSTEM MONITORING COMPOUND RECOVERIES -

- SYSTEM MONITORING COMPOUND TERPHENYL-d14 (TPH) OUTSIDE Q.C. LIMITS IN SAMPLES MW55 AND MW53
  NO OTHER RECOVERIES OUTSIDE Q.C. LIMITS - NO QUALIFIERS FOR SYSTEM MONITORING COMPOUND RECOVERIES.

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATE - SPIKING COMPOUNDS 2-NITROPHENOL AND PENTACHLOROPHENOL WITH BIAS HIGH RECOVERIES. ALL OTHER ACID SPIKING COMPOUND RECOVERIES WITH-IN Q.C. LIMITS. NO QUALIFIERS FOR MS/MSD RECOVERIES.

VII. FIELD DUPLICATES - 1 SET FIELD SAMPLES - ACCEPTABLE. NO TCL DETECTIONS IN EITHER SAMPLE. TIC DETECTS MATCH FOR EACH SAMPLE.

VIII. INTERNAL STANDARD PERFORMANCE - ALL REQUIRED CRITERIA MET

IX. TCL COMPOUND IDENTIFICATION - ALL CRITERIA MET

X. COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS -

QUANTIFICATION - ACCEPTABLE
REPORTED DETECTION LIMITS - D.L.'s REPORTED AT CRQLs

XI. TENTATIVELY IDENTIFIED COMPOUNDS (TICs) - ALL TICs QUALIFIED AS JN (TENTATIVELY IDENTIFIED AT ESTIMATED CONCENTRATIONS

XII. SYSTEM PERFORMANCE - OVERALL CHROMATOGRAPHIC QUALITY - ACCEPTABLE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

ACS 1252042.0809.0076
1/22/97

CASE/SAS # 2240-015 SDG# 12550 CONTRACTOR IEA

Instrument # MS014	Init. Cal.			Cont. Cal. #MS014			Cont. Cal. #MS014			Cont. Cal.			Cont. Cal.		
DATE/TIME:	12/14/96 11:05-14:18			01/03/97 13:33			01/06/97 07:57								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol				0.410	-33.1										
Dibenzofuran															
3-3'-DICHLOROBENZIDINE				1.430	-52.6										

AFFECTED SAMPLES:	INITIAL CAL	SSTD050	SSTD050
	SSTD050	SBLK90	MW53
	SSTD160	MW52	MW53MS
	SSTD020	MW55	MW53MSD
	SSTD120	MW55DUP	
	SSTD080	MW54	
		GWBLK	

Reviewer Initials/Date: _____

* These flags should be applied to the analytes on the sample data sheets.

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ACS 1252042.0809.0076 1/22/97

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 2240-015. SDG #12550 CONTRACTOR ICA

Instrument # MSD14	Init. Cal. #MSD14			Cont. Cal. #MSD14			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	12/19/96 11:05 14:18			01/03/97 13:33			01/06/97 07:57								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate				2.671	-32.6										
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

Reviewer's Initials/Date: _____

IEA SDG NARRATIVE SEMIVOLATILE FRACTION

PROJECT: 2240-015 BATCH: 12550 METHOD: SOW 1/91

Samples: Six (6) Water Samples

The samples were received at Industrial and Environmental Analysts, Inc. (IEA) on 12/28/96. Each sample was assigned a 9-character "IEA" lab identification number (lab ID) and an abbreviated client ID which is referenced on the IEA Assigned Number Index. All analyses are performed in accordance with EPA approved methodologies and meet the requirements of the IEA Quality Assurance Program. Please see the enclosed data package for your results and Chain of Custody documentation.

The chromatographic separation of the analytes was performed using a Restek 30 X 0.32 XTI-5 fused silica capillary column with a 0.5 μm bonded phase film thickness.

Instrument data printouts identify the compound 2,2'-oxybis(1-Chloropropane) with CAS number 108-60-1. Alternative nomenclature for this compound is bis(2-Chloroisopropyl)ether which is included on report forms submitted.

The "J" flag used on the Form I SV indicates an estimated concentration between the CRQL and 2.0 ng on column in the sample extract, not accounting for dilution of the extract prior to analysis. This flag also identifies the estimated concentration of the non-target compounds reported on the Form I SV-TIC.

The "N" flag used on the Form I SV-TIC indicates that there is the presumptive evidence of a compound based on the mass spectral library search and the interpretation of the mass spectral interpretation specialist.

The "M" flag used on the data system report form designates that a manual integration was required to provide an accurate quantification of that analyte. Manual integrations have been initialed and dated by the analyst.

The "X" flag is used to designate a non-target which can be attributed to laboratory contamination on the Form I SV-TIC.

Any nonconformances associated with the analysis of the samples in this project are as follows:

Matrix Spike/Matrix Spike Duplicate (MW52MS/MSD) percent recovery. for 4-Nitrophenol and Pentachlorophenol exceeded the limits specified for this method due to poor extraction efficiency.

I certify that this data package is in compliance with the procedures and methods defined for this project, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data (if applicable) as submitted has been authorized by the laboratory manager or his designee, as verified by the following signature.

01/14/97

David F. Morse
GC/MS SV Lead Analyst
IEA, Inc.

MONTGOMERY WATSON

ORGANICS
DATA VALIDATION NARRATIVE

Site Name ACS Project # 12520042.0809.0076

SMO Case # (SAS #) 2240-015 (SDG#) BATCH: 12550 #Samples/Matrix 6/GW

Laboratory TEA-NC Hours for Review

SOW # OLM01.8 (1/91) REVISED EPA Validation Guidelines # REGION V

Sample Numbers ~~EQUIPBLK~~ 961255004, MW52 961255005, MW53 961255006, MW54 961255003, MW55 961255001, AND MW55DUP 961255002

Validated By [signature] Date 1/24/97

Reviewed By Date

SUMMARY OF REVIEW: PESTICIDE/PCBs

I. HOLDTIMES - ALL SAMPLES EXTRACTED AND ANALYZED WITHIN HOLDTIMES

II. PESTICIDE/PCB INSTRUMENT PERFORMANCE -
INSTRUMENT # HP5890 P3 (RTX-35) 01/09/97 → 01/10/97: ALL REQUIRED CRITERIA MET
INSTRUMENT # HP5890 P4 (DB-1701) 01/09/97 → 01/10/97: ALL REQUIRED CRITERIA MET; NOTE: ALPHA-BHC %RSD @ 22.2% AND 4,4'-DDT %RSD @ 21.4% (INITIAL CALIBRATION)

III. INITIAL AND CONTINUING CALIBRATION - ALL CRITERIA MET FOR HP5890P3 AND HP5890P4

IV. BLANK ANALYSES - ALL CRITERIA MET

V. SURROGATE RECOVERIES - TWO SAMPLES WITH ONE SURROGATE RECOVERY OUTSIDE THE ADVISORY Q.C. LIMITS OF 50-160%
- ONE SAMPLE WITH THREE SURROGATES OUTSIDE THE ADVISORY Q.C. LIMITS OF 50-160%
- ALL RECOVERIES OUTSIDE LIMITS ATTRIBUTED TO MATRIX INTERFERENCE -
NO QUALIFIERS FOR SURROGATES OUTSIDE ADVISORY LIMITS

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATE - ALL % RECOVERIES AND ALL % RPDs WITHIN Q.C. LIMITS

VII. FIELD DUPLICATES - NO POSITIVE DETECTIONS IN SAMPLE OR DUPLICATE; 1 SET FOR 6 SAMPLES

VIII. COMPOUND IDENTIFICATION - NO POSITIVE DETECTS IN SAMPLES; MS/MSD O.K.

IX. COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS -
QUANTIFICATION - NO POSITIVE DETECTS IN SAMPLES; MS/MSD CALCS O.K.
- REPORTED DETECTION LIMITS - ADJUSTED @ CRQLs

X. SYSTEM PERFORMANCE -
- OVERALL CHROMATOGRAPHIC QUALITY - ACCEPTABLE

IEA **SDG NARRATIVE PESTICIDE FRACTION**

CASE:2240-015 SDG NO.:12550 CONTRACT: CLP SOW 1/91

Samples: (6) Water samples

This case was closed on December 28, 1996. The temperature of the samples upon receipt by the Industrial and Environmental Analysts, Inc. (IEA) was 4°C.

Each sample has been assigned a 9-character IEA lab identification number.

The chromatographic separation of the analytes was performed using a J & W 30 m X 0.53 mm DB-1701 fused silica capillary column with a 1.0 μm bonded phase film thickness and a Restek 30 m X 0.53 mm Rt_x-35 fused silica capillary column with a 1.0 μm bonded phase film thickness. The Rt_x-35 column used as one of the analytical columns is equivalent to the DB-608 column specified in the SOW.

The filenames have an extension of ".D" to denote the use of the ASCII file generated by the data system to produce the forms. Two significant figures were reported for the "calculated amount" on Form VII PEST-1 and -2.

Florisil column cleanup was performed on all sample extracts as required by the SOW.

The "P" flag is used to designate that there is a greater than 25% difference in the detected concentration of an analyte between the two analytical columns.

The "J" flag is used to designate target compounds that appear to be present but have concentrations below the quantitation limit.

The "*" used on the Form III PEST designates percent recoveries and/or RPD's are outside the QC limits.

Any nonconformances associated with the analysis of the samples in this case are note as follows:

The surrogate recovery was outside method limits for several of the sample analyses due to matrix interference.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature.

Katrina Travis 01/15/97
Katrina L. Travis
GC Volatile Supervisor
IEA, Inc.

IEA, Inc Doc# RPF00801.NC

CASE 2240-015 SDG# 12550 LAB IEA NC

PESTICIDE/PCB DATA REVIEW
SOW OLM01.01

RUN #				
INSTRUMENT #	HP5890P3	HP5890P4		
RUN DATE	1/9/97-1/11/97	1/9/97-1/11/97		
COLUMN	RTX-35	DB-1701		
QUANT/CONFIRM				
FORM VI PEST-1 Retention time windows within limits	✓	✓		
FORM VI PEST-2 Percent RSD within QC limits for single component cmpds	✓	✓		
FORM VI PEST-3 Multicomponent cmpd calibrations within QC limits	✓	✓		
FORM VI PEST-4 Resolution check greater than 60 %	✓	✓		
FORM VII LCP-1 Continuing calibration verification, breakdown acceptable	✓	✓		
FORM VII LCP-2 Continuing calibration verification, RPD acceptable	✓	✓		
FORM VIII Analytical sequence correct, Surrogate shift within QC limits.	✓	✓		

Affected Samples				
	EQUIP-BLK	EQUIP-BLK		
	MW52	MW52		
	MW52MS	MW52MS		
	MW52MSD	MW52MSD		
	MW53	MW53		
	MW54	MW54		
	MW55	MW55		
	MW550NP	MW550NP		
	PBLK50	PBLK50		

Review Date: Reviewed by:

Review of Contract Data; SMO Case No. 2240-015
Site Name: ACS Contract Lab: IEA
Contract No.: 12250 Project No.: 1252042.0809.0076
SMO Traffic No's:
Sample Matrix: Low Level X Med. Level ____ High Level ____ Soil/Seq ____
Water X Waste ____

I. HOLDING TIMES

Water: VOA A SV A PEST A
~~Sed/Soil: VOA ____ SV ____ PEST ____~~

A - Acceptable - All contract and 40 CFR 136 holding times met.
P - Provisional - Some contract and 40 CFR 136 holding times exceeded.
U - Unacceptable - All holding times exceeded.

REMARKS: VOLATILES - ALL HOLDTIMES MET FOR HCL PRESERVED SAMPLES (14DAYS)

SEMI-VOLATILES - ALL SAMPLES EXTRACTED WITH-IN 7DAYS OF SAMPLE COLLECTION AND ANALYZED WITH-IN 40DAYS

PESTICIDE/PCBs - ALL SAMPLES EXTRACTED WITH-IN 7DAYS OF SAMPLE COLLECTION AND ANALYZED WITH-IN 40DAYS

II. GC/MS TUNING AND PERFORMANCE

Water: VOA (BFB) A SV (DFTPP) A
~~Sed/Soil: VOA (BFB) ____ SV (DFTPP) ____~~

A - Acceptable - All criteria met, spectra of good quality.
P - Provisional - All criteria not met, spectra of reasonable quality; date usable.
U - Unacceptable - Criteria not met, spectra of poor quality, data unusable.

VOLATILES - INITIAL BFB 11/21/96 17:16 ✓
BFB 01/03/97 07:29 7hr 4MIN ✓

SEMI-VOLATILES - INITIAL DFTPP 12/19/96 10:46 ✓
DFTPP 01/03/97 13:18 5hrs 03MIN ✓
DFTPP 01/06/97 07:42 9hrs 52MIN ✓

SMO Case No.: 2240-015 Contract Lab: IEA

III. INITIAL AND CONTINUING CALIBRATION CHECKS

Water: VOA P SV A PEST A
~~Sed/Soil: VOA ___ SV ___ PEST ___~~

A - Acceptable - All criteria met.
P - Provisional - Some criteria not met, data usable, see remarks.
U - Unacceptable - Criteria not met, data unusable, see remarks.

REMARKS: VOLATILES - INITIAL #MSD10 11/21/96 17:43 → 20:31: 1,1,2,2TECA RRF @ 0.396 ; NOTE: 2-HEXANONE %RSD @ 27.2% (NO MINIMUM RSD% REQUIRED)
CONTINUING - #MSD10 1/9/97 08:00 1,1,2,2TECA %D @ -30.8%; NOTE: ACETONE %D @ -57%
2-BUTANONE %D @ -65.0%, 4-METHYL-2 PENTONE %D @ -52.3%, 2-HEXANONE %D @ -69.9%
AND SYSTEM MONITORING COMPOUND 1,2DCAd4 %D @ -26.7%

SEMI-VOLATILES - INITIAL - #MSD14 12/19/96 11:05 → 14:18: ALL REQUIRED CRITERIA MET
CONTINUING - #MSD14 01/03/97 13:33: ALL REQUIRED CRITERIA MET; NOTE: 2-NITROPHENOL %D @ -53.1%, 3,3'-DICHLOROBENZIDINE %D @ -52.6, Di-n-OCTYL PHTHALATE %D @ -32.6%
#MSD14 01/06/97 07:57: ALL REQUIRED CRITERIA MET; NOTE: HEXACHLOROCYCLOPENTADIENE %D @ 25.2%

PESTICIDE/PCBs - • HP5890P3 (RTX-35) 01/09/97 → 01/10/97: ALL REQUIRED CRITERIA MET
• HP5890P4 (DB-1701) 01/09/97 → 01/10/97: ALL REQUIRED CRITERIA MET

IV. BLANK ANALYSIS

Water: VOA A SV P PEST A
~~Sed/Soil: VOA ___ SV ___ PEST ___~~

A - Acceptable - No contaminants above minimum detection limit, no interference with sample results, appropriate blank for each GC/MS system and extraction method.

P - Provisional - Contaminants present but minimal interference with sample results.

U - Unacceptable - Gross contamination, too much interference to use data for certain components or the entire fraction, appropriate blanks not analyzed.

VOLATILES - ALL CRITERIA MET

SEMI-VOLATILES - NO DETECTIONS OF TCL COMPOUNDS
UNKNOWN TIC DETECTED IN METHOD BLANK SBLK90 01/03/97
• bis(2-ethylhexyl) PHTHALATE DETECTED IN EQUIPMENT BLANK @ 3 ug/L
ALL SAMPLES WITH DETECTIONS FOR bis(2-ethylhexyl) PHTHALATE QUALIFIED AS NON-DETECTS.

PESTICIDE/PCBs - ALL CRITERIA MET

SMO Case No.: 2240-015 Contract Lab: IEA

V. SURROGATE SPIKE RESULTS

Water: VOA A SV A PEST P

~~Sed/Soil: VOA ____ SV ____ PEST ____~~

NOTE: Sample data flagged on individual basis.

A. Individual sample flagging criteria.

Acceptable - All surrogate recoveries within criteria.
Suspect - Any surrogate recoveries outside criteria and/or recoveries of <10% substantiated as a matrix effect.
Invalid - Any recoveries of <10% that are unsubstantiated as a matrix effect.

		No. Samples	No. Suspect	No. Invalid
Water:	VOA	7	0	0
	SV	6	0	0
	PEST	6	1	0
~~Sed/Soil:~~	~~VOA~~			
	~~SV~~			
	~~PEST~~			

B. Summary of Surrogates

A - Acceptable - <10% of samples reported as suspect.
P - Provisional - >10% but <50% of samples reported as suspect.
U - Unacceptable - >50% of samples reported as suspect and/or >10% samples reported as invalid.

REMARKS: VOLATILES - ALL RECOVERIES WITHIN Q.C. LIMITS

SEMI-VOLATILES - SYSTEM MONITORING COMPOUND TERPHENYL-d14 (TPH) OUTSIDE Q.C. LIMITS IN SAMPLES MW53 AND MW55. NO OTHER RECOVERIES OUTSIDE Q.C. LIMITS. NO QUALIFIERS FOR SYSTEM MONITORING COMPOUND RECOVERIES.

PESTICIDE/PCBS - SAMPLES MW52 AND MW55 WITH ONE RECOVERY OUTSIDE THE ADVISORY LIMITS OF 60-150%
SAMPLE MW55DUP WITH THREE RECOVERIES OUTSIDE THE ADVISORY LIMITS OF 61-150%.

- ALL LOW RECOVERIES ATTRIBUTED TO MATRIX INTERFERENCE
- ALL RECOVERIES >50% OR <200% - NO QUALIFIERS

SMO Case No.: 2240-015 Contract Lab: IEA

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A. MATRIX SPIKE RESULTS:

Water: VOA A SV P PEST A
~~Sed/Soil: VOA ___ SV ___ PEST ___~~

NOTE: No action taken on Matrix Spike Results alone.

A - Acceptable - <10% of compounds outside criteria.
P - Provisional - >10% but <50% of compounds outside criteria.
U - Unacceptable - >50% of compounds outside criteria and/or >10% of compounds with recoveries of <10%.

		No. Compounds	No. Outside Criteria	No. <10% Recovery
Water:	VOA	5	0	0
	SV	11	2	0
	PEST	6	0	0
~~Sed/Soil:~~	~~VOA~~			
	~~SV~~			
	~~PEST~~			

B. DUPLICATE RESULTS

Water: VOA A SV A PEST ___
~~Sed/Soil: VOA ___ SV ___ PEST ___~~

A - Acceptable - <10% of compounds outside criteria.
P - Provisional - >10% but <50% of compounds outside criteria.
U - Unacceptable - >50% of compounds outside criteria and/or >10% of compounds with recoveries of <10%.

		No. Compounds	No. Outside Criteria
Water:	VOA	5	0
	SV	11	2
	PEST	6	0
~~Sed/Soil:~~	~~VOA~~		
	~~SV~~		
	~~PEST~~		

REMARKS: VOLATILES - ALL % RECOVERIES AND % RPDs WITHIN Q.C. LIMITS

SEMI-VOLATILES - spiking compounds 2-Nitrophenol and Pentachlorophenol with bias that recoveries in MS/MSD. Another acid spiking compounds with recoveries within Q.C. limits. No qualifiers for MS/MSD recoveries.

[V-SOP-99]

PESTICIDE/PCBs - ALL % RECOVERIES AND % RPDs WITHIN Q.C. LIMITS - NO QUALIFIERS

SMO Case No.: 2240-015 Contract Lab: IEA

VII. FIELD DUPLICATES

Water: VOA A SV A PEST A
~~Sed/Soil: VOA ____ SV ____ PEST ____~~

A - Acceptable - All compounds are within 25% of each other for waters or within 50% of each other for soils.

P - Provisional - Some compounds are greater than 25% RPD for waters and greater than 50% RPD for soils, see remarks.

U - Unacceptable - Professional judgement, see remarks.

REMARKS:

	VOLATILES-						
	APD-GWMW55-01	N.D.					
	APD-GWMW55-91	N.D.					
	SEMI-VOLATILES-						
	APD-GWMW55-01	N.D.		3 TIC's IN EACH SAMPLE - ALL R.T.'s MATCH			
	APD-GWMW55-91	N.D.					
	PESTICIDE/PCBs-						
	APD-GWMW55-01	N.D.					
	APD-GWMW55-91	N.D.					

N.D = No Detections

SMO Case No.: 2240-015 Contract Lab: IEA

VIII. INTERNAL STANDARD PERFORMANCE

Water: VOA A SV A PEST NA
~~Sed/Soil: VOA ____ SV ____ PEST ____~~

A - Acceptable - Is area counts between - 50% to +100% from associated calibration standard and ±30 seconds from associated calibration standards.

P - Provisional - Most all area counts between -50% to +100% and ±30 seconds, from associated calibration standard, see remarks.

U - Unacceptable - Extremely low area counts or major abrupt drop-off of sensitivity or greater than ±30 second time shift, see remarks.

REMARKS: VOLATILES - ALL CRITERIA MET

SEMI-VOLATILES - ALL CRITERIA MET

PESTICIDE/PCBs - NOT APPLICABLE

IX. COMPOUND IDENTIFICATION

Water: VOA A SV A PEST A
~~Sed/Soil: VOA ____ SV ____ PEST ____~~

A - Acceptable - All compounds within retention time windows, spectral criteria met.
P - Provisional - Some criteria not met, data usable, see remarks.
U - Unacceptable - Criteria not met, data unusable, see remarks.

REMARKS: VOLATILES - ALL CRITERIA MET

SEMI-VOLATILES - ALL CRITERIA MET

PESTICIDE/PCBs - ALL CRITERIA MET

SMO Case No.: 2240-015 Contract Lab: IEA

X. COMPOUND QUANTIFICATION AND REPORTED D.L.

Water: VOA A SV A PEST A
~~Sed/Soil: VOA ___ SV ___ PEST ___~~

A - Acceptable - Compounds were quantified, as well as the adjustment of the CRQL, was calculated according for the SOW or SAS.

P - Provisional - Some criteria not met, data usable, see remarks.

U - Unacceptable - Gross problems, interferences, unacceptable RT and RRF shifts, see remarks.

REMARKS: VOLATILES - QUANTIFICATION - ACCEPTABLE
REPORTED DETECTION LIMITS - REPORTED AT CRQLs

SEMI-VOLATILES - QUANTIFICATION - ACCEPTABLE
REPORTED DETECTION LIMITS - REPORTED @ CRQLs

PESTICIDE/PCBs - QUANTIFICATION - NO POSITIVE DETECTS; MS/MSD CALCS O.K.
REPORTED DETECTION LIMITS - REPORTED @ CRQLs

XI. SYSTEM PERFORMANCE

Water: VOA A SV A PEST A
~~Sed/Soil: VOA ___ SV ___ PEST ___~~

A - Acceptable - No indication of instrument problems such as baseline shifts, I.S. absolute area changes, etc.
P - Provisional - Indication of minor problems, see remarks.
U - Unacceptable - Indication of instrument problems, see remarks.

REMARKS:

VOLATILES - OVERALL CHROMATOGRAPHIC QUALITY - ACCEPTABLE

- TICs - QUALIFIED AS JN
- DETECTIONS BELOW CRQL - QUALIFIED AS J

SEMI-VOLATILES

- TICs - QUALIFIED AS JN
- DETECTIONS BELOW CRQL - QUALIFIED AS J
- bis(2-ethylhexyl)phthalate DETECTIONS QUALIFIED AS NON-DETECTS DUE TO BLANK CONTAMINATION

PESTICIDE/PCBs - NO QUALIFIERS APPLIED TO PEST/PCB DATA

OVERALL CHROMATOGRAPHIC QUALITY - ACCEPTABLE

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO
APO-GW EQUIPMENT BLANK-0
GWBLK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255004

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103103.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (8)

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

GWBLK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255004

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103103.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 128370	Butylated Hydroxytoluene	27.230	NJ 14	YNJ
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWE QUIPMENT BLANK-01

GWBLK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255004

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031407.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97 (1)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GWBLK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255004

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031407.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	J 3	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

GWBLK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255004

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031407.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.860	66	XNJ
2. 872504	2-Pyrrolidinone, 1-methyl-	10.770	5	NJ
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-6WEQUIPMENT BLANK-01

GWBLK

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_039.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 (2)

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 (9)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APO-6WMW52-01

MW52

DATE SAMPLED: 12/27/96

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103108.D

Level: (low/med) LOW Date Received: 12/28/96 (1)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (7)

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER=1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	22	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW52

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103108.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 60297	Ether	4.340	NJ 970	NJ
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APO-GWMW52-01

MW52

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031403.D

Level: (low/med) LOW Date Received: 12/28/96 (1)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (6)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97 (1)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	J 3	J
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW52

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031403.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	104 2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW52

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031403.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.870~~	~~19~~ B	~~XNJ~~
2.	Unknown	8.570	16 JN	J
3.	Unknown	8.640	16	J
4.	Unknown	8.860	38	J
5.	Unknown	8.920	18	J
6.	Unknown	9.520	5	J
7.	Unknown	10.070	9	J
8.	Unknown	10.140	13	J
9.	Unknown	10.480	10	J
10.	Substituted benzene	10.530	14	J
11.	Unknown	11.860	69	J
12.	Unknown	12.040	91	J
13.	Unknown	13.290	6	J
14.	Unknown	14.180	17	J
15. 632462	Benzoic acid, 2,6-dimethyl-	15.170	5	NJ
16.	Unknown	16.510	18	J
17. 57103	Hexadecanoic acid	22.470	5	XNJ
18.	Unknown	27.200	89	J
19.	Unknown	27.940	7	J
20.	Unknown	28.700	110	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
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29.				
30.				
	Unknown (Total)		JN 532	J

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWMW52-01

MW52

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255005

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_040.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 (7)

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 (6)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 (9)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APO-GWMW53-01

MW53

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255006

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103111.D

Level: (low/med) LOW Date Received: 12/28/96 (7)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (7)

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	11	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	1 J	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW53

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255006

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103111.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 109875	Methane, dimethoxy-	4.920	JN 9	NJ
2. 75650	3-Pentanol	6.210	13	NJ
3. 123911	1,4-Dioxane	12.550	22	NJ
4. 104767	1-Hexanol, 2-ethyl-	23.790	6	NJ
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWMW53-01

MW53

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255306

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1061408.D

Level: (low/med) LOW Date Received: 12/28/96 (1)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (2)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/97 (4)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	J 0.8	J
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW53

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255306

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1061408.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	21	
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW53

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255306

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1061408.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/06/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 13

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.870~~	~~B 16~~	~~XNJ~~
2.	Unknown	8.910	JN 75	J
3.	Unknown	10.130	16	J
4.	Unknown	10.470	22	J
5.	Unknown	11.550	16	J
6.	Unknown	11.850	78	J
7.	Unknown	12.310	410	J
8.	Unknown	13.360	19	J
9. 105602	Caprolactam	14.440	34	NJ
10.	Unknown	15.910	23	J
11.	Unknown	16.540	7	J
12.	Unknown	17.350	14	J
13.	Substituted benzene	17.780	9	J
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30.				
	UNKNOWN (TOTAL)		JN 680	

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWMW53-01

MW53

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255306

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_041.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 1

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 6

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 9

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWMW54-01

MW54

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103107.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (8)

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW54

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103107.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

VALIDATED

CLIENT SAMPLE NO.
APD-GWMW54-01

MW54

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031406.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97 (1)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: CRQL MULTIPLER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW54

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031406.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	104 2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW54

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031406.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.860~~	~~21~~	~~XNJ~~
2.	Unknown	8.650	29	J
3.	Unknown	8.750	22	J
4.	Unknown	10.470	15	J
5.	Unknown	11.930	70	J
6.	Unknown	13.310	2	J
7.	Unknown	14.070	2	J
8.	Unknown	14.790	2	J
9.	Unknown	15.170	12	J
10.	Unknown	16.020	4	J
11.	Unknown	16.270	2	J
12.	Unknown	16.760	2	J
13.	Unknown	16.830	3	J
14.	Substituted benzene	17.780	16	J
15.	Unknown	17.890	3	J
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B JN

unknown (form) JN 168

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APO-GWMW54-01

MW54

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_038.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 (2)

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 (9)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APO-GWMW55-01

MW551

DATE SAMPLED: 12/26/96

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103105.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (8)

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW551

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103105.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

GC Column:DB-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-6WMW55-01

MW551

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031404.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97 (1)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW551

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031404.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10M 5	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW551

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031404.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.870~~	~~34~~	~~XNJ~~
2.	Unknown	10.530	3	J
3.	Unknown	11.700	7	J
4. 0	Phenol, 2-fluoro-4-nitro-	15.330	4	NJ
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Unknown (total) JN 10

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWMW55-01

MW551

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_036.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 (2)

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 (5)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 (9)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CROL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APO-GWMW55-91

MW559

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255002

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103106.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (3)

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW559

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255002

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103106.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWMW55-91

MW559

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255002

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031405.D

Level: (low/med) LOW Date Received: 12/28/96 (2)

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97 (3)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97 (1)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW559

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255002

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031405.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW559

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255002

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1031405.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 01/02/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 108930~~	~~Cyclohexanol~~	~~7.860~~	~~24~~	~~XNJ~~
2.	Unknown	10.530	2	J
3.	Unknown	11.710	10	J
4. 0	Phenol, 2-fluoro-4-nitro-	15.330	3	NJ
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30.				

JN

unknown (total) JN 12

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

VALIDATED

CLIENT SAMPLE NO.
APD-GWMW55-91

MW559

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/26/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4010997_037.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 12/28/96 (2)

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 01/02/97 (7)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 01/11/97 (9)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
APD-GWTRIPBLANK-01

TRIP

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 12/27/96

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255307

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103104.D

Level: (low/med) LOW Date Received: 12/28/96 (7)

% Moisture: not dec. _____ Date Analyzed: 01/03/97 (7)

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

TRIP

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-015 SDG No.: 12550

Matrix: (soil/water) WATER Lab Sample ID: 961255307

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 0103104.D

Level: (low/med) LOW Date Received: 12/28/96

% Moisture: not dec. _____ Date Analyzed: 01/03/97

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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Data Validation Narrative

Project Name ACS January 24, 1997
Project Number 1252042.0809.0076 SDG 12550

This data narrative covers the analysis of 6 groundwater filtered and unfiltered samples from ACS for CLP metals analysis by IEA Laboratories. The data was validated according to the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (2/94).

This data is acceptable for use with the following comments:

Holdtimes - All holdtimes were met.

Calibration - All calibration criteria was met.

Blanks - The laboratory blanks had hits of aluminum, antimony, magnesium, potassium, sodium, selenium, and zinc. Field blanks had detects of aluminum, chromium, iron, lead, magnesium, manganese, nickel, potassium, and zinc. All associated sample results less than 5 times the highest blank concentration have been qualified as undetected ("U") at the sample concentration.

Spikes - Sample MW52 (total and dissolved) was spiked. All recoveries were within acceptable QC limits, with the exception of Aluminum, where the recovery was 185%. All samples were lab qualified "N" and validation qualified "J".

Duplicates - Sample MW52 (total and dissolved) was run in duplicate. All % RPD values were within acceptable QC limits, with the exception of Aluminum, where the RPD was 20.5%. All samples were lab qualified "*" and validation qualified "J".

ICP QC - All ICP QC (Interference Check sample and serial dilution) was within acceptable QC limits, except for Potassium, which exceeded the 10% serial dilution difference criteria and was flagged "E" by the lab and qualified as estimated "J".

LCS - Laboratory spike recoveries were all within acceptable QC limits.

Overall - Data was acceptable. No significant problems were observed. No calculation or transcription errors were observed.

JAH/jah
I:\PROJECT\ACS\1296DV.DOC
4077.0076 - 1252042.0809.0076

IEA Assigned Number Index

Case No.: 2240-015

SDG No.: 12550

IEA Lab Sample Number	Sample Number	Abbreviated Sample Number
9612550-01	APD-GWMW55-01	MW551
9612550-02	APD-GWMW55-91	MW559
9612550-03	APD-GWMW54-01	MW54
9612550-04	APD-GWEQUIPBLK-01	GWBLK
9612550-05	APD-GWMW52-01 MS/MSD	MW52
9612553-06	APD-GWMW53-01	MW53
9612553-07	APD-GWTRIP BLANK-01	TRIP
9612553-21	HB12550	550

ICP

I HOLDTIME- Sampled 12/26-27, Run 1/8, 1/11

II CALIBRATION

Curve - Blk + 1-3 Stds

ICV-CCV - 1/10, 90-110%

CRA - 64-130%

III BLANKS

	ICB	CCB	PB	FB-D	FB-T	Sx	
Al	-	-	17.9	29.9	21.	149	90
Sb	1.2	1.1	-	-	-	6	
Cr	-	-	-	-	2.5	12.5	
Fe	-	-	-	16.9	24.2	121	
Pb	-	-	-	1.5	2.0	10	
Mg	35.9	35.6	18.7	56.5	34.6	282	180
Mn	-	-	-	1.1	-	5.5	
Ni	-	-	-	-	1.2	6	
K	90.3	117.3	83.4	94.4	105	586	
Se	2.9	-	-	-	-	14.5	14.5
Na	-530	-664	-637	-	-	3320	3320
Zn	-	-3.4	-2.77	-	6.3	31.5	17

IV ICP INTERFERENCE CHECK SAMPLE

% Rec 80-120%

V SPIKES

MW52-F % Rec = 91-106% ✓

MW52 % Rec = (93-125%) or (Spl > 4x Spk) except Al $\left(\frac{7897-4191}{2000}\right)$ = 185 N J

VI DUPLICATES

MW52-F RPD < 20% or ± CRDL (Cr, Zn)

MW52 RPD < 20% or ± CRDL (Se) except Al 4191 / 5149 > RPD = 20.5% * J

VII LCS

% Rec 90-110%

VIII ICP SERIAL DILUTION

%D < 10% if Spl > 50x IDL except MW52-F - K = 21.7% / MW52 - K = 23.1% > E J

IX SRV

Calcs + Transcriptions checked

X OVERALL

Data acceptable for use -

Al flagged J due to Spike+ Duplicate criteria

K flagged J due to ICP SERIAL DILUTION Criteria

Hg

I HOLDTIME - Sampled 12/26-27

II CALIBRATION

Curve

ICV/CCV - 1/10, 90-110%

CRA - 125 %

III BLANKS

ICB/CCB - 1/10, < 0.2 ug/L

PB - < 0.2

IV SPIKES

MW52F - 99.0%

MW52 - 106 %

V DUPLICATES

MW52F - ND

MW52 - ND

VI LCS

NA

VII SRV

Calcs + transcriptions checked

VIII OVERALL

Data Acceptable

CN^-

I HOLDTIME - Sampled 12/26-27/96 Run 1-9

II CALIBRATION

Curve - BLK + 6 stds - R = 0.999

ICV|CCV - 1/10, 90-110%

CRA - NA

III BLANKS

ICB|CCB - 1/10, < ~~0.2~~ 10.0 µg/L

PB - < 10

IV SPIKES

MW 52 - 104.8% ✓

V DUPLICATES

MW52 - ND

VI LCS

NA

VII OVERALL

Data acceptable

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No.:2240-015___SAS No.: _____ SDG No.:12550_

SOW No.: ILM03

EPA Sample No.	Lab Sample ID
GWBLK	961255004
GWBLKF	961255004F
MW52	961255005
MW52D	961255005D
MW52S	961255005S
MW52F	961255005F
MW52FD	961255005FD
MW52FS	961255005FS
MW53	961255306
MW53F	961255306F
MW54	961255003
MW54F	961255003F
MW551	961255001
MW551F	961255001F
MW559	961255002
MW559F	961255002F

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Jason D. Jordan for Name: Donald C. Stogner

Date: 1/15/97 Title: Manager, Inorganics

IEA
An Aquarion Company
3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

NO. 79604

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☒ OTHER CLP PROTOCOL

☐ STATE CERT. SPECIFY

Page 1 of 1

COMPANY/LOCATION: MONTGOMERY WATSON / MADISON, WI

PROJECT #: 4077.0076

PROJECT NAME: AMERICAN CHEMICAL SERVICE

SAMPLERS (PLEASE PRINT): MARK PAULI

SIGNATURE: [signature]

REQUESTED PARAMETERS

SAMPLE I.D. (26 CHARACTER MAXIMUM)	DATE	TIME	COMP	GRAB	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: OTHER	TOTAL METALS	DISSOLVED METALS	SVOCs	PEST/PCBs	VOCs	CYANIDE						
APD-GWMW55-01	12/26/96	14:15		X	9		X		9-08640	9-08640	9-08642 & 43	9-08644 08937	9-08938 & 39	9-08940						← TAG #S
APD-GWMW55-91	12/26/96	14:15		X	9		X		9-08941	9-08942	9-08943 & 44	9-08945 46 &	9-08947 & 48	9-08949						← TAG #S
APD-GWMW54-01	12/26/96	15:35		X	9		X		9-08950	9-08951	9-08952 & 53	9-08954 & 55	9-08956 & 57	9-08958						← TAG #S
APD-GWEQUIPBLK-01	12/26/96	16:15		X	9		X		9-08959	9-08960	9-08961 & 62	9-08963 & 64	9-08965 & 66	9-08967						← TAG #S
APD-GWMW52-01	12/27/96	10:05		X	9		X		9-08968	9-08969	9-08970 & 71	9-08972 & 73	9-08974 & 75	9-08976						← TAG #S
APD-GWMW52-01 MS	12/27/96	10:05		X	6		X				9-08977 & 78	9-08979 & 80	9-08981 & 82							← TAG #S
APD-GWMW52-01 MSD	12/27/96	10:05		X	6		X				9-08983 & 84	9-08985 & 86	9-08987 & 88							← TAG #S
APD-GWMW53-01	12/27/96	9:20		X	9		X		9-08989	9-08990	9-08991 & 92	9-08993 & 94	9-08995 & 96	9-08997						← TAG #S
APD-GWTRIPBLANK-01	12/27/96	11:40		X	2		X						9-08974 & 75							
4 Coolers.																				

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	12/20/96		[signature]	12-23	—
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY	DATE	TIME
[signature]	12/27/96	1240	F. Bibeeck	12/28/96	0900

IEA QUOTE NO.: WS612078

IEA PROJECT NO.:

PROJECT MANAGER (PLEASE PRINT):

P.O. NO.:

REMARKS ON SAMPLE RECEIPT

☐ BOTTLE INTACT ☒ CUSTODY SEALS
☐ PRESERVED ☒ SEALS INTACT
☒ CHILLED ☐ SEE REMARKS

IEA REMARKS

RECEIPT TEMPERATURE= 4°C

FIELD REMARKS/COMMENTS

CUSTODY SEAL #'S: 1 OF 4 = 05001, 05002
2 OF 4 = 05003, 05004 3 OF 4 = 05005, 05006
4 OF 4 = 05007, 05008

IEA SDG NARRATIVE INORGANIC/METALS FRACTION

CASE:2240-015 SDG NO.:12550

Sample Numbers:961255001 (MW551), 961255002 (MW559), 961255003 (MW54), 961255004 (GWBLK), 961255005 (MW52), 961255306 (MW53). A total of six (6) water samples were received for Total and Dissolved Metals by Methods 200.7 CLP-M, 245.1 CLP-M, and 335.2 CLP-M.

This case was closed on December 28, 1996. The temperature of the samples upon receipt by the Industrial and Environmental Analysts, Inc. (IEA) was 4°C. All samples were received intact.

The pH of all samples for Metals analysis was less than two (2) at the time of sample preparation.

The pH of all samples for Cyanide analysis was greater than twelve (12) at the time of sample preparation.

Each sample has been assigned a 9-character IEA lab identification number.

The "E" flag is used to identify a value that is estimated due to the presence of an interference. All samples are flagged with an "E" for Potassium.

The "*" flag is used to identify the sample duplicate analysis exceeds the 20% RPD criteria. The following sample(s) are flagged with a "*" for the metal(s) listed:

Sample ID	Metal
All Total Metals Samples	Aluminum

The "N" flag is applied to any samples that do not meet acceptable spike recovery control limits of 75 to 125%. The following sample(s) are flagged with a "N" for the metal(s) listed:

Sample ID	Metal
All Total Metals Samples	Aluminum

Any nonconformances associated with the analysis of samples in this case are noted as follows:

All samples were redigested for Zinc due to a failed PBS, batch number 01089704. The redigest batch number is 01099702.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature.

3
BLANKS

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ab Code: IEA___ Case No.:2240-015___SAS No.: _____ SDG No.: 12550_

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	16.0	U	16.0	U	16.0	U	16.0	U	17.874	B	P
Antimony	1.2	B	1.0	U	1.0	U	1.0	U	1.000	U	P
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Barium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Calcium	77.0	U	77.0	U	77.0	U	77.0	U	77.000	U	P
Chromium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Cobalt	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Copper	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Iron	6.0	U	6.0	U	6.0	U	6.0	U	6.000	U	P
Lead	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Magnesium	35.9	B	20.0	B	24.6	B	26.1	B	18.740	B	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	CV
Nickel	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Potassium	90.3	B	71.4	B	117.3	B	83.6	B	83.390	B	P
Selenium	2.9	B	2.0	U	2.0	U	2.0	U	2.000	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Sodium	-529.8	B	-664.5	B	-403.4	B	-651.5	B	-637.260	B	P
Thallium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Vanadium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Zinc	2.0	U	-3.4	B	-2.3	B	-2.4	B	-2.774	B	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	CA

3
BLANKS

ɔ Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ɔ Code: IEA___ Case No.:2240-015___SAS No.: _____ SDG No.: 12550_

eparation Blank Matrix (soil/water): _____

eparation Blank Concentration Units (ug/L or mg/kg): _____

nalyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
luminum			16.0	U	16.0	U	16.0	U			P
ntimony			1.0	U	1.0	U	1.1	B			P
rsenic			2.0	U	2.0	U	2.0	U			P
Barium			1.0	U	1.0	U	1.0	U			P
Beryllium			1.0	U	1.0	U	1.0	U			P
Cadmium			1.0	U	1.0	U	1.0	U			P
Calcium			77.0	U	77.0	U	77.0	U			P
Chromium			1.0	U	1.0	U	1.0	U			P
obalt			1.0	U	1.0	U	1.0	U			P
opper			1.0	U	1.0	U	1.0	U			P
ron			6.0	U	6.0	U	6.0	U			P
Lead			1.0	U	1.0	U	1.0	U			P
Magnesium			28.5	B	29.1	B	35.6	B			P
Manganese			1.0	U	1.0	U	1.0	U			P
Mercury											NR
Nickel			1.0	U	1.0	U	1.0	U			P
Potassium			81.2	B	77.6	B	89.6	B			P
Selenium			2.0	U	2.0	U	2.0	U			P
Silver			1.0	U	1.0	U	1.0	U			P
Sodium			-552.0	B	-591.5	B	-544.7	B			P
Thallium			2.0	U	2.0	U	2.0	U			P
Vanadium			1.0	U	1.0	U	1.0	U			P
Zinc			-2.2	B	-2.1	B	2.0	U			P
Cyanide											NR

3
BLANKS

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No.:2240-015___SAS No.: _____ SDG No.: 12550_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc			2.0	U							P
Cyanide											NR

APD-GWEQUIPBLK01

12-26-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GWBLK

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255004

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M	IDL
7429-90-5	Aluminum_	J 21.0	B	N*	P_	16.0
7440-36-0	Antimony_	1.0	U		P_	
7440-38-2	Arsenic__	2.0	U		P_	
7440-39-3	Barium___	1.0	U		P_	
7440-41-7	Beryllium	1.0	U		P_	
7440-43-9	Cadmium__	1.0	U		P_	
7440-70-2	Calcium__	77.0	U		P_	
7440-47-3	Chromium_	2.5	B		P_	1.0
7440-48-4	Cobalt___	1.0	U		P_	
7440-50-8	Copper___	1.0	U		P_	
7439-89-6	Iron____	24.2	B		P_	6.0
7439-92-1	Lead____	2.0	B		P_	1.0
7439-95-4	Magnesium	34.6	B		P_	3.0
7439-96-5	Manganese	1.0	U		P_	
7439-97-6	Mercury__	0.20	U		CV	
7440-02-0	Nickel___	1.2	B		P_	1.0
7440-09-7	Potassium	J 105	B	E	P_	16.0
7782-49-2	Selenium_	2.0	U		P_	
7440-22-4	Silver___	1.0	U		P_	
7440-23-5	Sodium___	98.0	U		P_	
7440-28-0	Thallium_	2.0	U		P_	
7440-62-2	Vanadium_	1.0	U		P_	
7440-66-6	Zinc____	6.3	B		P_	2.0
_____	Cyanide__	10.0	U		CA	

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

GWBLKF

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255004F

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	29.9	B		P_
7440-36-0	Antimony_	1.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	1.0	U		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	77.0	U		P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron_____	16.9	B		P_
7439-92-1	Lead_____	1.5	B		P_
7439-95-4	Magnesium	56.5	B		P_
7439-96-5	Manganese	1.1	B		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.0	U		P_
7440-09-7	Potassium	94.4	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	98.0	U		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	2.0	U		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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12-27-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW52

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255005

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 4190		N*	P
7440-36-0	Antimony_	6.8	B		P
7440-38-2	Arsenic__	40.3			P
7440-39-3	Barium___	264			P
7440-41-7	Beryllium	1.2	B		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	135000			P
7440-47-3	Chromium_	134			P
7440-48-4	Cobalt___	13.1	B		P
7440-50-8	Copper___	66.8			P
7439-89-6	Iron_____	11600			P
7439-92-1	Lead_____	31.4			P
7439-95-4	Magnesium	49100			P
7439-96-5	Manganese	673			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	201			P
7440-09-7	Potassium	J 7770		E	P
7782-49-2	Selenium_	2.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	87900			P
7440-28-0	Thallium_	4.1	B		P
7440-62-2	Vanadium_	10.6	B		P
7440-66-6	Zinc_____	90.3			P
	Cyanide__	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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12-27-96

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW52F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255005F

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	UJ 41.6	B		P_
7440-36-0	Antimony_	8.3	B		P_
7440-38-2	Arsenic__	33.8	_		P_
7440-39-3	Barium__	315	_		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	108000	_		P_
7440-47-3	Chromium_	U 4.3	B		P_
7440-48-4	Cobalt___	5.6	B		P_
7440-50-8	Copper___	1.0	U		P_
7439-89-6	Iron____	337	_		P_
7439-92-1	Lead____	U 1.4	B		P_
7439-95-4	Magnesium	36800	_		P_
7439-96-5	Manganese	288	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	61.8	_		P_
7440-09-7	Potassium	J 5640	_	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	124000	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	U 2.5	B		P_
	Cyanide__		_		NR
			_		

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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12-27-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW53

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255306

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 39200		N*	P
7440-36-0	Antimony_	U 1.7	B		P
7440-38-2	Arsenic__	30.1			P
7440-39-3	Barium___	997			P
7440-41-7	Beryllium	6.2			P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	160000			P
7440-47-3	Chromium_	189			P
7440-48-4	Cobalt___	24.9	B		P
7440-50-8	Copper___	107			P
7439-89-6	Iron_____	48800			P
7439-92-1	Lead____	138			P
7439-95-4	Magnesium	75300			P
7439-96-5	Manganese	1630			P
7439-97-6	Mercury__	0.24			CV
7440-02-0	Nickel___	139			P
7440-09-7	Potassium	J 24400		E	P
7782-49-2	Selenium_	U 5.1			P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	252000			P
7440-28-0	Thallium_	2.0	B		P
7440-62-2	Vanadium_	32.3	B		P
7440-66-6	Zinc_____	443			P
_____	Cyanide__	10.0	U		CA
_____	_____	_____			

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW53F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255306F

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	UJ 40.9	B		P_
7440-36-0	Antimony_	U 3.4	B		P_
7440-38-2	Arsenic__	2.4	B		P_
7440-39-3	Barium___	583			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	122000			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	5.1	B		P_
7440-50-8	Copper___	8.1	B		P_
7439-89-6	Iron____	147			P_
7439-92-1	Lead____	1.0	U		P_
7439-95-4	Magnesium	59000			P_
7439-96-5	Manganese	499			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	31.7	B		P_
7440-09-7	Potassium	J 21800		E	P_
7782-49-2	Selenium_	U 2.1	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	293000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	U 18.8	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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12-26-96

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW54

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255003

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 853		N*	P_
7440-36-0	Antimony_	U 3.2	B		P_
7440-38-2	Arsenic__	7.5	B		P_
7440-39-3	Barium___	190	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	132000			P_
7440-47-3	Chromium_	82.2			P_
7440-48-4	Cobalt___	4.0	B		P_
7440-50-8	Copper___	59.9			P_
7439-89-6	Iron_____	1880			P_
7439-92-1	Lead_____	U 6.3			P_
7439-95-4	Magnesium	54100			P_
7439-96-5	Manganese	202			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	66.0			P_
7440-09-7	Potassium	J 4540	B	E	P_
7782-49-2	Selenium_	U 2.7	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	20600			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.9	B		P_
7440-66-6	Zinc_____	U 13.6	B		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW54F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255003F

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	UJ 72.5	B		P_
7440-36-0	Antimony_	U 2.8	B		P_
7440-38-2	Arsenic__	7.3	B		P_
7440-39-3	Barium___	183	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	126000			P_
7440-47-3	Chromium_	U 3.6	B		P_
7440-48-4	Cobalt___	2.1	B		P_
7440-50-8	Copper___	18.5	B		P_
7439-89-6	Iron_____	U 96.7	B		P_
7439-92-1	Lead_____	U 2.0	B		P_
7439-95-4	Magnesium	51400			P_
7439-96-5	Manganese	157			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	10.7	B		P_
7440-09-7	Potassium	J 4170	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	20400			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	U 5.3	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

3/90

VALIDATED

APD-GWMW55-01
12-26-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW551

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255001

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 14900	_	N*	P_
7440-36-0	Antimony_	U 2.1	B		P_
7440-38-2	Arsenic__	12.9	_		P_
7440-39-3	Barium___	271	_		P_
7440-41-7	Beryllium	2.5	B		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	74200	_		P_
7440-47-3	Chromium_	133	_		P_
7440-48-4	Cobalt___	10.5	B		P_
7440-50-8	Copper___	84.4	_		P_
7439-89-6	Iron____	16700	_		P_
7439-92-1	Lead____	43.2	_		P_
7439-95-4	Magnesium	35800	_		P_
7439-96-5	Manganese	546	_		P_
7439-97-6	Mercury__	0.24	_		CV
7440-02-0	Nickel___	101	_		P_
7440-09-7	Potassium	J 10700	_	E	P_
7782-49-2	Selenium_	U 4.5	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	122000	_		P_
7440-28-0	Thallium_	2.1	B		P_
7440-62-2	Vanadium_	15.6	B		P_
7440-66-6	Zinc____	105			P_
	Cyanide__	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

3/90

VALIDATED

APD-GWMW55-01
12-26-96

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW551F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255001F

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	UJ 117	B		P_
7440-36-0	Antimony_	U 3.0	B		P_
7440-38-2	Arsenic__	3.7	B		P_
7440-39-3	Barium__	120	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	46400			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	5.9	B		P_
7439-89-6	Iron____	U 50.2	B		P_
7439-92-1	Lead____	U 1.3	B		P_
7439-95-4	Magnesium	23600			P_
7439-96-5	Manganese	72.6			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	9.6	B		P_
7440-09-7	Potassium	J 8060		E	P_
7782-49-2	Selenium_	U 2.4	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	128000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	2.0	U		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

3/90

VALIDATED

APD-6WMW55-91
12-26-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW559

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255002

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 Total

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 17000	_	N*	P_
7440-36-0	Antimony_	U 2.3	B		P_
7440-38-2	Arsenic__	14.0	_		P_
7440-39-3	Barium___	300	_		P_
7440-41-7	Beryllium	2.9	B		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	84000	_		P_
7440-47-3	Chromium_	157	_		P_
7440-48-4	Cobalt___	11.4	B		P_
7440-50-8	Copper___	106	_		P_
7439-89-6	Iron_____	18700	_		P_
7439-92-1	Lead_____	48.9	_		P_
7439-95-4	Magnesium	40500	_		P_
7439-96-5	Manganese	642	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	118	_		P_
7440-09-7	Potassium	J 12000	_	E	P_
7782-49-2	Selenium_	U 4.9	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	134000	_		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	16.9	B		P_
7440-66-6	Zinc_____	115	_		P_
_____	Cyanide__	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

3/90

VALIDATED

APD-GWMW55-91
12-26-96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW559F

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240-015___ SAS No.: _____ SDG No.: 12550_

Matrix (soil/water): WATER Lab Sample ID: 961255002F

Level (low/med): LOW__ Date Received: 12/28/96

% Solids: __0.0 DISSOLVED

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 367			P_
7440-36-0	Antimony_	U 3.4	B		P_
7440-38-2	Arsenic__	4.1	B		P_
7440-39-3	Barium___	126	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	48300			P_
7440-47-3	Chromium_	U 1.2	B		P_
7440-48-4	Cobalt___	1.1	B		P_
7440-50-8	Copper___	7.1	B		P_
7439-89-6	Iron_____	160			P_
7439-92-1	Lead_____	U 1.7	B		P_
7439-95-4	Magnesium	24700			P_
7439-96-5	Manganese	77.7			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	10.3	B		P_
7440-09-7	Potassium	J 8560		E	P_
7782-49-2	Selenium_	U 3.6	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	134000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	U 3.9	B		P_
	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN

VALIDATED

3/90

11/7/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB03

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120504

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V12.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	14	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VALIDATED

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

FB03

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120504

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: 1115V12.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: not dec. _____ Date Analyzed: 11/16/96

GC Column:DB-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
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VALIDATED

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB03

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120504

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122411.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB03

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120504

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122411.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 U ~~2~~	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

VALIDATED

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

FB03

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120504

Sample wt/vol: 1000 (g/mL) mL Lab File ID: 1122411.D

Level: (low/med) LOW Date Received: 11/08/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:11/12/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 11/22/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108930	Cyclohexanol	7.000	16	NJ
2.	Unknown	7.090	9	J
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VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB03

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-009 SDG No.: 11140

Matrix: (soil/water) WATER Lab Sample ID: 961120504

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P1110796_176.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 11/08/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/13/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 11/22/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED