1317-88

HYDROMETER ANALYSIS

DATE 5-3-91

OWNER ALLIED STEEL JOB NO. 10839-047

BORING NO. R-SS-7A 0-4"

SAMPLE SPECIMEN NO.	CLASSIFICATION	
DISH NO. L-8	GRADUATE NO. 6	HYDROMETER NO.

DISPERSING AGENT USED SODIUM H-MPH ; QUANITY 5g

DISPERSING AGENT CORRECTION, C_D .5 ; MENISCUS CORRECTION, C_M= .1

	TIME	ELAPSED TIME	TEMP °C	HYDRO READING (R')	CORRECTED READING $R+C_M-C_D$	HEIGHT Z_R	PARTICLE DIA. (MM)	PERCENT FINER PARTIAL	PERCENT FINER TOTAL
5/6	0835	0	21°						
		.5	21°	32					
	0836	1.	21°	29³					
	0837	2.	21°	26					
	0840	5	21°	22					
	0850	15	21°	19³					
	0905	30	21°	16⁹					
	0935	60	21°	14²					
	1035	120	21°	12⁵					
	1245	250	22°	10²					
	1655	500	24°	8²					
5/7	0812	1417	22°	7⁷					

WEIGHT IN GRAMS		
DISH PLUS DRY SOIL		
DISH		
DRY SOIL	W_O	

SPECIFIC GRAVITY OF SOLIDS, G_S =

CORRECTED HYDROMETER READING (R)

644.22 — 603.66 = HYDROMETER READING (R')+C_M

THE PARTICLE DIAMETER (D) IS CALCULATED FROM STOKE'S EQUATION USING CORRECTED HYDROMETER READING. USE NOMOGRAPHIC CHART FOR SOLUTION OF STOKE'S EQUATION.

HYDROMETER GRADUATED IN SPECIFIC GRAVITY

PARTIAL PERCENT FINER = $\frac{G_S}{G_S-1} \times \frac{100}{W_O}(R-C_D+M)$

HYDROMETER GRADUATED IN GRAMS PER LITER

PARTIAL PERCENT FINER = $\frac{100}{W_O}(R-C_D+M)$

W_S = TOTAL OVEN-DRY WT. OF SAMPLE USED FOR COMBINED ANALYSIS

W_O = OVEN-DRY WT. IN GRAMS OF SOIL USED FOR HYDROMETER ANALYSIS

W_1 = OVEN-DRY WT OF SAMPLE RETAINED ON NO. 200 SIEVE

TOTAL PERCENT FINER = PARTIAL PERCENT FINER X $\frac{W_S-W_1}{W_S}$

REMARKS

TECHNICIAN [signature] COMPUTED BY CHECKED BY [signature]

URAQT FORM 1040-A
2-31-75

AR302498

MECHANICAL ANALYSIS

SA-H1

DATE 5/1/91 BY [illegible]

JOB NUMBER 10839-047 OWNER/CLIENT ALLIED STEEL

LOCATION PARKERFORD, PA.

BORING R-SS-7A SAMPLE _____ DEPTH 0-4"

				#10	#10
NUMBER OF RINGS		DISH		27	L-8
WT. OF RINGS & WET SOIL		WT. OF DISH & WET SOIL		347.8	
WT. OF RINGS		WT. OF DISH & DRY SOIL		288.3	
WT. OF WET SOIL		WT. OF MOISTURE			
FIELD DENSITY		WT. OF DISH		106.4	
DRY DENSITY		WT. OF DRY SOIL			
		FIELD MOISTURE CONTENT			

WASH SIEVE _____ DRY SIEVE _____ WEIGHT OF OVEN DRY SOIL _____ (grams)

DISH NUMBER	DISH WEIGHT	SIEVE NUMBER	WEIGHT RETAINED	ACCUMULATIVE WEIGHT RETAINED	ACCUMULATIVE PERCENT	
					RETAINED	FINER
		3"				
		1-1/2"				
		3/4"		0		
		3/8"		0		
		#4		0.5		
		PAN				
		TOTAL				

DISH NUMBER	DISH WEIGHT	SIEVE NUMBER	WEIGHT RETAINED	ACCUM. WEIGHT RETAINED	ACCUMULATIVE PERCENT		
					PARTIAL		TOTAL
					RETAINED	FINER	FINER
		#10		0.6			
60		#20		2.50			
		#40		1.90			
		#60		5.28			
		#100		9.06			
		#200		12.76			
		PAN					
		TOTAL					

AR302499

EGI

APPENDIX C

APPENDIX C

LABORATORY SUMMARY SHEETS AND DAMES & MOORE DATA VALIDATION REPORT FOR SURFACE WATER SAMPLES

QUALITY ASSURANCE REVIEW

Recticon - Surface Water Samples
Dames & Moore Job No. 10839-047

DATES COLLECTED: 2/14/91, 2/19/91, and 4/4/91
DATES OF REVIEW: 4/22/91, 4/26/91, and 5/2/91

SDGS #: 12261, 12206, and 13171

INTRODUCTION

This quality assurance review (QAR) is based upon a rigorous review of all data generated from the analysis of aqueous samples which were collected during February and April of 1991 from the referenced site. The samples which were reviewed are listed in Table 1.

This review has been performed in accordance with the "Functional Guidelines for Evaluating Organics Analyses" (USEPA, March 1990), "Functional Guidelines of Inorganic Analyses" (USEPA, March 1990), "Region III Modifications to the Organic Functional Guidelines (June 1988) and "Region III Modifications to the Inorganic Functional Guidelines" (June 1988).

The data was examined to determine usability as well as to determine contractual compliance relative to the requirements and deliverables specified in the approved workplan. Qualifier codes have been assigned to each analytical result, as appropriate, to facilitate data interpretation. The detailed findings of the QAR are provided in the narrative section of this report. The analytical results are presented in the attached sample data summary sheets.

This report provides a critical review of the laboratory performance and reported analytical results. Quality assurance reviews of laboratory generated data routinely identify problems associated with analytical measurements, even from the most experienced and capable laboratories. The nature and extent of discrepancies identified in this critical review should not be interpreted to mean that those results which are qualified are less than valid.

TABLE 1

SAMPLES INCLUDED IN THIS QAR

ENSECO LABORATORY NUMBER	DAMES & MOORE SAMPLE IDENTIFICATION	ROCKY MT. LABORATORY NUMBER (Inorganics)	ANALYTICAL PARAMETERS
12261-001	FB	1366901	$M^{(T)}, M^{(D)}, V, S$
12261-002	FB	1366801	$M^{(D)}$
12261-003	TB	-	V
12261-004	SW-1	1366902	$M^{(T)}, S, V$
12261-005	SW-1	1366802	$M^{(D)}$
12206-001	FB	$1361601^{(T)}/1361401^{(D)}$	$CN, V, S, M^{(T)}, M^{(D)}$
12206-002	SW-2	$1361602^{(T)}/1361402^{(D)}$	$CN, V, S, M^{(T)}, M^{(D)}$
12206-004	TB	-	V
13171-001	SW-1	-	I
13172-002	SW-2	-	I

V - Volatile
S - Semi-volatile
M - Metals - (T) Total, (D) Dissolved
CN - Cyanide
I - Inorganics

SECTION 1 QUALITY ASSURANCE REVIEW

A. Organic Data

Four (4) aqueous samples and four (4) quality control samples (field and trip blanks) were collected and analyzed by Enseco, Inc., in Somerset, New Jersey. These samples were collectively analyzed for the volatile organic compounds and base/neutral/acid semivolatile organic compounds.

The findings offered in this report are based upon a rigorous review of holding times, blank analysis results, surrogate and matrix spike recoveries, GC/MS tuning, and calibrations. The organic analytical results with appropriate qualifiers are attached in the data summary sheets.

Overall, the data quality for this data package was acceptable. With regard to the requirements as specified in the workplan, all

deliverables and reporting requirements were met for this data package with the exception of the following.

Correctable Deficiencies

- The semivolatile continuing calibration verification (CCV) B9549 is not listed on Table 5B on Page 123 of package 12261. In order to confirm that the samples were analyzed within 12 hours of calibration, this CCV should be listed on the Table.

Non-Correctable Deficiencies

- The trip blank associated with package 12261 was not preserved and was analyzed one day out of hold for volatiles. Although this is technically non-compliant, no qualifiers were applied to the sample results.

Organic Data Qualifiers

- Methylene chloride, acetone, and chloroform, are present in field blanks, trip blanks, and/or laboratory method blanks. The reported presence of these constituents in the following volatile samples are flagged "B" on the data summary sheets.

Compound	Applicable Samples
Acetone	SW-1, SW-2
Methylene Chloride	SW-2
Chloroform	SW-2

- The phthalates detected in SW-1 are below the Contract Required Detection Limit and may be associated with sampling contamination.

- The calibration criteria were met, however, the following volatile compounds have a percent difference between the initial and continuing calibration of greater than 25 percent. All positive results for these compounds have been flagged "J" as estimated.

Compound	Applicable Samples
Acetone	FB (12206-01), SW-2, TB (12206-004)

- The calibration criteria were met, however, the following semivolatile organic compounds have a percent difference between the initial and continuing calibration of greater than 25 percent criteria. All positive results for these compounds have been flagged "J" and non-detects "UJ" as estimated.

Compound	Applicable Samples
Hexachloropentadiene	FB (12261-001), SW-1

- Per CLP protocol, all sample results detected at levels less than the quantitation limit should be considered estimated and have been flagged "J" on the sample data summary.

B. Inorganic Data

Four (4) aqueous samples and four (4) quality control samples (field blanks) were collected and analyzed by Enseco Corporation of Somerset, New Jersey. These samples were analyzed for metals (total and dissolved), cyanide, COD, BOD, TSS, TDS, TOC, hardness and alkalinity.

The findings offered in this report are based upon a rigorous review of holding times, blank analysis results, pre- and post-digestion spike recoveries, laboratory duplicate analysis, quantitation of positive results, instrument sensitivity, calibration, ICP interference checks, ICP serial dilutions, laboratory control standard recoveries, graphite furnace QC, and adherence to the protocol and requirements specified in EPA CLP SOW3/90. The inorganic analytical results with appropriate qualifiers are attached in the data summary sheets.

Overall, the inorganic quality for this data package appears to be acceptable. With regard to the requirements as specified in the workplan, all deliverables and reporting requirements were met for this data package with the exception of the following.

Correctable Deficiencies

- Intra-laboratory chains-of-custody were not provided in packages 12261 and 12206 for inorganic samples analyzed at Rocky Mountain Analytical.

- A summary table and raw data for the LCS was not provided in the dissolved metal section of package 12261.

- Preparation logs were not provided for Furnace AA and ICP in the dissolved metal section of package 12261.

Non-Correctable Deficiencies

- The cyanide matrix spike of SW-2 was analyzed 25 days out of hold. The sample was re-digested and analyzed because the spike had not been added for the original analysis (which was analyzed within the hold time). Since the sample result was non-detected and the out of hold spike was within control limits, no qualifiers were applied.

Inorganic Data Qualifiers

- Due to low spike recoveries of selenium, iron, lead, and thallium for total metals, all associated samples are qualified as biased low. Positive results are flagged "L" and non-detects are flagged "UL".

- Due to low spike recovery of selenium and thallium in the dissolved metals, associated positive results are flagged "L" and non-detects "UL" as biased low.

- The total metals for package 12261 had aluminum interference. All aluminum positive results are flagged "J" as estimated.

- The serial dilution recoveries for total metal in package were 12206 outside the control limits for calcium and iron. Positive results are flagged "L" and non-detects "UL" as biased low.

- The post-digestion spike for lead and thallium in the total metal and dissolved metal section of package 12206 was below the control limits. Positive results are flagged "L" and non-detects "UL" as biased low.

It should be noted that for SW-1 the dissolved metals for copper, magnesium, potassium, and sodium were higher than the corresponding total metals. The Dames & Moore sampling team stated that the total metals were collected as surficial grab samples, while the dissolved were collected through tygon tubing and a filter attached to a peristaltic pump. The dissolved sample was collected from deeper waters than the total and by different means; therefore, it is possible to see slightly higher results in the dissolved than the total metals.

C. Conclusion

Based upon the data provided, the majority of the organic and inorganic data appears to be acceptable. Two samples were analyzed outside of hold times, the volatile TB and the cyanide matrix spike of SW-2. Although technically non-compliant, no qualifiers were applied to these samples. The data validation review has identified aspects of the analytical data that require qualification. To confidently use any of the data within the data set, the data user should understand the limitations and qualifications presented.

General Chemistry

Enseco
A Corning Company

Client Name: Dames & Moore
Client ID: A-SW-1
Lab ID: 013171-0001-SA
Matrix: AQUEOUS
Authorized: 05 APR 91

Sampled: 04 APR 91
Prepared: See Below

Received: 05 APR 91
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Biochemical Oxygen Demand	17.6	mg/L	4.0	405.1	06 APR 91	11 APR 91
Alkalinity, Total as CaCO3 at pH 4	90.3	mg/L	2.0	310.1	NA	15 APR 91
Alkalinity, Bicarb. as CaCO3 at pH 4	90.3	mg/L	2.0	310.1	NA	15 APR 91
Alkalinity, Carb. as CaCO3 at pH 8	ND	mg/L	2.0	310.1	NA	15 APR 91
Alkalinity, Hydrox. as CaCO3	ND	mg/L	2.0	310.1	NA	15 APR 91
Chemical Oxygen Demand (Regular)	58	mg/L	5	410.4	NA	24 APR 91
Total Organic Carbon	12.4	mg/L	2.0	415.2	NA	16 APR 91
Total Dissolved Solids	170	mg/L	10.0	160.1	NA	08 APR 91
Total Suspended Solids	29.0	mg/L	5.0	160.2	NA	08 APR 91

ND = Not detected
NA = Not applicable

Reported By: Katherine Coogan

Approved By: Joasia Przyluska

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-SW-1

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12261 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12261-0004

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0345

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	14	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-SW-1

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12261 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-0004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B9553

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-SW-1

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12261 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-0004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B9553

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	1	J
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	J
117-84-0	Di-n-Octyl Phthalate	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

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1366802

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: A-SW-1

Level (low/med): LOW Date Received: 02/21/91

% 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	33.0	U		P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	30.7	B		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	22600			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	192			P
7439-89-6	Iron	79.2	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	6850			P
7439-96-5	Manganese	156			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	9500			P
7482-49-2	Selenium	2.0	U	WN	F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	48800			P
7440-28-0	Thallium	10.0	U	N	F
7440-62-2	Vanadium	5.3	B		P
7440-66-6	Zinc	24.7			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: CLOUDY Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:
THALLIUM SAMPLE RESULT IS REPORTED AT A 10X DILUTION DUE TO MATRIX INTERFERENCE.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1366902

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: A-SW-1

Level (low/med): LOW Date Received: 02/21/91

% 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	2250		E	P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	55.6	B		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	24700			P
7440-47-3	Chromium	10.6			P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	90.2			P
7439-89-6	Iron	2820		N	P
7439-92-1	Lead	20.6		SN	F
7439-95-4	Magnesium	6030			P
7439-96-5	Manganese	245			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	6800			P
7482-49-2	Selenium	2.0	U	N	F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	41000			P
7440-28-0	Thallium	1.0	U	WN	F
7440-62-2	Vanadium	9.9	B		P
7440-66-6	Zinc	72.3			P
	Cyanide	10.0	U		AS

Color Before: YELLOW Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN 7/88

000340

AR302512

General Chemistry

Enseco
A Corning Company

Client Name: Dames & Moore
Client ID: A-SW-2
Lab ID: 013171-0002-SA
Matrix: AQUEOUS Sampled: 04 APR 91 Received: 05 APR 91
Authorized: 05 APR 91 Prepared: See Below Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Biochemical Oxygen Demand	6.0	mg/L	4.0	405.1	06 APR 91	11 APR 91
Alkalinity, Total as CaCO3 at pH 4	52.5	mg/L	2.0	310.1	NA	15 APR 91
Alkalinity, Bicarb. as CaCO3 at pH 4	52.5	mg/L	2.0	310.1	NA	15 APR 91
Alkalinity, Carb. as CaCO3 at pH 8	ND	mg/L	2.0	310.1	NA	15 APR 91
Alkalinity, Hydrox. as CaCO3	ND	mg/L	2.0	310.1	NA	15 APR 91
Chemical Oxygen Demand (Regular)	30	mg/L	5	410.4	NA	24 APR 91
Total Organic Carbon	9.3	mg/L	2.0	415.2	NA	16 APR 91
Total Dissolved Solids	110	mg/L	10.0	160.1	NA	08 APR 91
Total Suspended Solids	11.0	mg/L	5.0	160.2	NA	08 APR 91

ND = Not detected
NA = Not applicable

Reported By: Katherine Coogan Approved By: Joasia Przyluska

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-SW-2

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12206 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12206-0002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0189

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. Date Analyzed: 02/23/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	8	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A-SW-2

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12206 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12206-0002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0189

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. Date Analyzed: 02/23/91

Column (pack/cap) CAP Dilution Factor: 1.0

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

EPA SAMPLE NO.

A-SW-2

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12206-0002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B9500

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/18/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/15/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-SW-2

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12206-0002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B9500

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/18/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/15/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	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-Octyl Phthalate	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

AR302517

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1361402

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: A-SW-2

Level (low/med): LOW Date Received: 02/18/91

% 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	64.7	B		P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	31.2	B		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	20600			P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	30.4			P
7439-89-6	Iron	107			P
7439-92-1	Lead	1.0	U	W	F
7439-95-4	Magnesium	6000			P
7439-96-5	Manganese	115			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	5830			P
7482-49-2	Selenium	2.0	U		F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	39600			P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	41.6			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: CLEAR Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1361602

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: A-SW-2

Level (low/med): LOW Date Received: 02/15/91

% 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	1550			P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	51.7	B		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.9	B		P
7440-70-2	Calcium	22600		E	P
7440-47-3	Chromium	6.6	B		P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	87.6			P
7439-89-6	Iron	2190		E	P
7439-92-1	Lead	7.4		W	F
7439-95-4	Magnesium	6310			P
7439-96-5	Manganese	200			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	6030			P
7482-49-2	Selenium	2.6	B	S	F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	38600			P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	6.1	B		P
7440-66-6	Zinc	116			P
	Cyanide	10.0	U		AS

Color Before: YELLOW Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

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000046

AR302519

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12206 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12206-0001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0188

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. Date Analyzed: 02/23/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	2	J
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD_BLANK

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12206-0001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B9499

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/18/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/15/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD_BLANK

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12206-0001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B9499

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/18/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/15/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	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-Octyl Phthalate	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

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1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1361601

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: FIELD BLANK

Level (low/med): LOW Date Received: 02/15/91

% 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	33.0	U		P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	3.0	U		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	159	B	E	P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	10.0	U		P
7439-89-6	Iron	30.6	B	E	P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	74.0	U		P
7439-96-5	Manganese	7.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	174	U		P
7482-49-2	Selenium	2.0	U		F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	1540	U		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	19.5	B		P
	Cyanide	10.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
THIS SAMPLE IS A FIELD BLANK.

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1361401

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

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

Level (low/med): LOW Date Received: 02/18/91

% 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	33.0	U		P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	3.9	B		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	327	B		P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	10.0	U		P
7439-89-6	Iron	24.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	74.0	U		P
7439-96-5	Manganese	7.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	246	B		P
7482-49-2	Selenium	2.0	U		F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	1540	U		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	4.0	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

THIS SAMPLE IS A FIELD BLANK.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12206 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12206-0004

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0190

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. Date Analyzed: 02/23/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	19	
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-01

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12206 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_25FEB91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: A2959

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 02/25/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-01

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12206 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_25FEB91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: A2959

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 02/25/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	29.37	12	J

06 137

FORM I VOA-TIC 1/87 Rev.

AR302527

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 18FEB91BWB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F3210

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

% Moisture: not dec. _____ dec. _____ Date Extracted: 02/18/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/04/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 18FEB91BWB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F3210

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

% Moisture: not dec. _____ dec. _____ Date Extracted: 02/18/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/04/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	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-Octyl Phthalate	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

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 18FEB91BWB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F3210

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/18/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/04/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN AMIDE	31.11	46	J
2.	UNKNOWN AMIDE	35.33	25	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-02

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12206 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB_22FEB91-B

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0177

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 02/22/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-02

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12206 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB_22FEB91-B

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0177

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 02/22/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: ENSECO-EAST Contract: _____

Lab Code: _____ Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12206-SB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F4251

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

% Moisture: not dec. _____ dec. _____ Date Extracted: 04/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/19/91

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-Chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: ENSECO-EAST Contract: _____

Lab Code: _____ Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12206-SB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F4251

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 04/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/19/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-10-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	57	J
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK02

Lab Name: ENSECO-EAST Contract: _____

Lab Code: _____ Case No.: 12206 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12206-SB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F4251

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 04/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/19/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123422	2-PENTANONE, 4-HYDROXY-4-MET	6.37	18000	AJ
2.	UNKNOWN	8.06	780	AJ
3.	UNKNOWN	9.18	140	J
4.	UNKNOWN	27.01	200	J
5.	UNKNOWN	31.02	200	J
6.	OXYGENATED HYDROCARBON	31.51	250	J
7.	UNKNOWN	34.92	130	J
8.	UNKNOWN AMIDE	35.21	220	J
9.	UNKNOWN	40.50	460	J
10.	UNKNOWN	40.69	200	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-FIELD_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12261 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12261-0001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0343

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	15	
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-FIELD_BLANK

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12261 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-0001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B9552

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-FIELD_B

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12261 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-0001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B9552

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	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-Octyl Phthalate	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

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1366801

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: A-FIELDBLANK

Level (low/med): LOW Date Received: 02/21/91

% 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	33.0	U		P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	3.0	U		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	111	U		P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	10.0	U		P
7439-89-6	Iron	24.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	74.0	U		P
7439-96-5	Manganese	7.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	174	U		P
7482-49-2	Selenium	2.0	U	N	F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	1540	U		P
7440-28-0	Thallium	1.0	U	N	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	4.0	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

THIS SAMPLE IS A FIELD BLANK.

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1366901

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: A-FIELD BLANK

Level (low/med): LOW Date Received: 02/21/91

% 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	33.0	U	E	P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	3.0	U		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	111	U		P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	10.0	U		P
7439-89-6	Iron	24.0	U	N	P
7439-92-1	Lead	1.0	U	N	F
7439-95-4	Magnesium	74.0	U		P
7439-96-5	Manganese	7.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	174	U		P
7482-49-2	Selenium	2.0	U	N	F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	1540	U		P
7440-28-0	Thallium	1.0	U	N	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	4.0	U		P
	Cyanide	10.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
THIS SAMPLE IS A FIELD BLANK.

FORM I - IN 7/88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12261 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12261-0003

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0344

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-01

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12261 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB_01MAR91-B

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0340

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12261 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-MB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P0520

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12261 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-MB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P0520

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	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-Octyl Phthalate	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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R-FIELD_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12268-0009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0336

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	1	J
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

R-FIELD_BL

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12268-0009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0336

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R-FIELD_BLK

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12268 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12268-0009

Sample wt/vol: 1000 (g/mL) ML Lab File ID: G0128

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/07/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R-FIELD_BLK

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12268 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12268-0009

Sample wt/vol: 1000 (g/mL) ML Lab File ID: G0128

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/07/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	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-Octyl Phthalate	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

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1367101

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): WATER Lab Sample ID: (7) R-FIELDBLANKS

Level (low/med): LOW Date Received: 02/21/91

% 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	33.0	U		P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	3.0	U		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	150	B		P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	10.0	U		P
7439-89-6	Iron	36.6	B		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	74.0	U		P
7439-96-5	Manganese	7.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	174	U		P
7482-49-2	Selenium	2.0	U	W	F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	1540	U		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	40.2			P
	Cyanide	10.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

THIS SAMPLE IS A FIELD BLANK.

FORM I - IN 7/88

AR302549

000223

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12268-0008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0335

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12268-0008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0335

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-01

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_28FEB91-B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2261

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 02/28/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	2	J
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	1	J
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-01

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_28FEB91-B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2261

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 02/28/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12268 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12296-SB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: G0262

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/13/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-Chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12268 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12296-SB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: G0262

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/13/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-10-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12268 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12296-SB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: G0262

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/13/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123422	2-PENTANONE, 4-HYDROXY-4-MET	6.11	6100	AJ
2.	UNKNOWN	7.73	400	AJ
3.	SUBSTITUTED HEXANEDIOIC ACID	31.03	160	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-02

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_01MAR91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2280

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	5	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-02

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_01MAR91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2280

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_02

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12268 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-MB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P0520

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	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-Octyl Phthalate	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

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_02

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12268 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-MB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P0520

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK_02

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12268 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-MB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P0520

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-03

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_01MAR91-B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2289

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	5	U
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-03

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_01MAR91-B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2289

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	28.52	10	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-04

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_02MAR91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2309

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/02/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	5	U
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-04

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_02MAR91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2309

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/02/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-05

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_02MAR91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: A3089

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/02/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-05

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_02MAR91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: A3089

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/02/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-06

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB_01MAR91-A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0330

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-06

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12268 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB_01MAR91-A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0330

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

APPENDIX D

APPENDIX D

TRACER SOIL VAPOR INVESTIGATION REPORT AND DAMES & MOORE DATA VALIDATION REPORT

PREPARED FOR:

Dames & Moore

2360 Maryland Road
Willow Grove, Pennsylvania 19090
(215)657-5000

SHALLOW SOIL GAS INVESTIGATION
ALLIED STEEL/RECTICON

PARKER FORD, PENNSYLVANIA

JANUARY 1991

SUBMITTED BY:

Tracer Research Corporation

914REC.REP
2-90-914-S

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INTRODUCTION

A shallow soil gas investigation was performed by Tracer Research Corporation (TRC) at the Allied Steel/Recticon site located in Parker Ford, Pennsylvania. The investigation was conducted on January 1-25, 1991 under contract to Dames & Moore. The purpose of the investigation was to delineate the extent of possible contamination in the subsurface.

During this survey, a total of 108 soil gas samples were collected and analyzed. Samples were analyzed for volatile organic compounds from the following suite:

COMPOUND	DETECTOR
chloroform (CHCL3)	ECD
1,1,1-trichloroethane (TCA)	ECD
carbon tetrachloride (CCL4)	ECD
trichloroethene (TCE)	ECD
tetrachloroethene (PCE)	ECD
vinyl chloride	FID
benzene	FID
toluene	FID
ethylbenzene	FID
xylenes	FID
total hydrocarbons (THC)	FID

Xylenes are reported as the total of the three xylene isomers. Total hydrocarbons are reported as gasoline range compounds consisting of approximately C4-C9 aliphatic, alicyclic, and aromatic compounds.

The compounds in this suite were chosen as target compounds because of their suspected presence in the subsurface and amenability to soil gas technology. Soil gas samples were screened on a gas chromatograph equipped with an electron capture detector (ECD) and a flame ionization detector (FID).

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SHALLOW SOIL GAS INVESTIGATION - METHODOLOGY

Shallow soil gas investigation refers to a method developed by TRC for investigating underground contamination from volatile organic chemicals (VOCs) such as industrial solvents, cleaning fluids and petroleum products by looking for their vapors in the shallow soil gas. The method involves pumping a small amount of soil gas out of the ground through a hollow probe driven into the ground and analyzing the gas for the presence of volatile contaminants. The presence of VOCs in shallow soil gas indicates the observed compounds may either be in the vadose zone near the probe or in groundwater below the probe. The soil gas technology is most effective in mapping low molecular weight halogenated solvent chemicals and petroleum hydrocarbons possessing high vapor pressures and low aqueous solubilities. These compounds readily partition out of the groundwater and into the soil gas as a result of their high gas/liquid partitioning coefficients. Once in the soil gas, VOCs diffuse vertically and horizontally through the soil to the ground surface where they dissipate into the atmosphere. The contamination acts as a source and the above ground atmosphere acts as a sink, and typically a concentration gradient develops between the two. The concentration gradient in soil gas between the source and ground surface may be locally distorted by hydrologic and geologic anomalies (e.g. clays, perched water); however, soil gas mapping generally remains effective because distribution of the contamination is usually broader in areal extent than the local geologic barriers and is defined using a large database. The presence of geologic obstructions on a small scale tends to create anomalies in the soil gas-groundwater correlation, but generally does not obscure the broader areal picture of the contaminant distribution.

Soil gas contaminant mapping helps to reduce the time and cost required to delineate underground contamination by volatile contaminants. The soil gas investigation does this by outlining the general areal extent of contamination. Conventional bore holes or observation wells are used to verify both the presence and extent of the subsurface

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contamination as indicated in the soil gas survey. In this manner, soil gas contaminant mapping can assist in determining the placement of monitoring wells. Thus the likelihood of drilling unnecessary monitoring wells is reduced. The soil gas survey is not intended to be substitute for conventional methodology, but rather to enable conventional methods to be used efficiently.

EQUIPMENT

Tracer Research Corporation utilized a one ton Ford analytical van that was equipped with one gas chromatograph and two Spectra Physics computing integrators. In addition, the van had two built-in gasoline powered generators that provide the electrical power (110 volts AC) to operate all of the gas chromatographic instruments and field equipment. A specialized hydraulic mechanism consisting of two cylinders and a set of jaws was used to drive and withdraw the sampling probes. A hydraulic hammer was used to assist in driving probes past cobbles and through unusually hard soil.

SOIL GAS SAMPLING PROCEDURES

Sampling probes consisted of 7-14 foot lengths of 3/4 inch diameter hollow steel pipe that were fitted with detachable drive tips. Soil gas probes were advanced 2.5 - 6 feet below grade. Once inserted into the ground, the above-ground end of the sampling probes were fitted with a steel reducer and a length of polyethylene tubing leading to a vacuum pump. Gas flow was monitored by a vacuum gauge to insure that an adequate flow was obtained.

To adequately purge the volume of air within the probe, 2 to 5 liters of gas was evacuated with a vacuum pump. During the soil gas evacuation, samples were collected in a glass syringe by inserting a syringe needle through a silicone rubber segment in the evacuation line and down into the steel probe. Ten milliliters of gas were collected for immediate analysis in the TRC analytical field van. Soil gas was subsampled (duplicate

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injections) in volumes ranging from 1 uL to 2 mL, depending on the VOC concentration at any particular location.

Sample probe vacuums ranged from 3-22 inches Hg. The maximum pump vacuum was measured at 27 inches Hg.

ANALYTICAL PROCEDURES

A Varian 3300 gas chromatograph was used for the soil gas analyses. It was equipped with an electron capture detector (ECD) and a flame ionization detector (FID). Compounds were separated on a 6' by 1/8" OD packed column with SP-1000 OV-101 as the stationary phase in a temperature controlled oven. Nitrogen was used as the carrier gas.

Halocarbon and hydrocarbon compounds detected in the samples were identified by chromatographic retention time. Quantification of compounds was achieved by comparison of the detector response of the sample with the response measured for calibration standards (external standardization). Instrument calibration checks were run periodically throughout the day and system blanks were run at the beginning of the day to check for contamination in the soil gas sampling equipment. Air samples were also routinely analyzed to check for background levels in the atmosphere.

Detection limits for the compounds of interest were a function of the injection volume as well as the detector sensitivity for individual compounds. Thus the detection limit varied with the sample size. Generally, the larger the injection size the greater the sensitivity. However, peaks for compounds of interest were kept within the linear range of the analytical equipment. If any compound had a high concentration, it was necessary to use small injections, and in some cases to dilute the sample to keep it within linear range. This may have caused decreased detection limits for other compounds in the analyses.

The detection limits for the halocarbon compounds were approximately 0.0004 ug/L. The detection limits for the hydrocarbon compounds were approximately 0.3 ug/L.

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Detection limits were dependant upon the conditions of the measurement, in particular, the sample size. If any component being analyzed was not detected, the detection limit for that compound in that analysis is given as a "less than" value (e. g. < 0.1 ug/L). Detection limits obtained from GC analyses were calculated from the current response factor, the sample size, and the estimated minimum peak size (area) that would have been visible under the conditions of the measurement.

QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

Tracer Research Corporation's normal quality assurance procedures were followed in order to prevent any cross-contamination of soil gas samples. These procedures are described below:

- Steel probes are used only once during the day and then washed with high pressure soap and hot water spray or steam-cleaned to eliminate the possibility of cross-contamination. Enough probes are carried on each van to avoid the need to reuse any during the day.
- Probe adaptors (TRC's patented design) are used to connect the sample probe to the vacuum pump. The adaptor is designed to eliminate the possibility of exposing the sample stream to any part of the adaptor. Associated tubing connecting the adaptor to the vacuum pump is replaced periodically as needed during the job to insure cleanliness and good fit. At the end of each day the adaptor is cleaned with soap and water and baked in the GC oven.
- Silicone tubing (which acts as a septum for the syringe needle) is replaced as needed to insure proper sealing around the syringe needle. This tubing does not directly contact soil gas samples.
- Glass syringes are usually used for only one sample per day and are washed and baked out at night. If they must be used twice, they are purged with carrier gas

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(nitrogen) and baked out between probe samplings.

- Injector port septa through which soil gas samples are injected into the chromatograph are replaced on a daily basis to prevent possible gas leaks from the chromatographic column.
- Analytical instruments are calibrated each day by analytical standards from Chem Service, Inc. Calibration checks are also run after approximately every five soil gas sampling locations.
- Subsampling syringes are checked for contamination prior to sampling each day by injecting nitrogen carrier gas into the gas chromatograph.
- Prior to sampling each day, system blanks are run to check the sampling apparatus (probe, adaptor, 10 cc syringe) for contamination by drawing ambient air from above ground through the system and comparing the analysis to concurrently sampled ambient air analysis.
- All sampling and subsampling syringes are decontaminated each day and no such equipment is reused before being decontaminated each day and no such equipment is reused before being decontaminated. Microliter size subsampling syringes are reused only after a nitrogen carrier gas blank is run to insure it is not contaminated by the previous sample.
- Soil gas pumping is monitored by a vacuum gauge to insure that an adequate gas flow from the vadose zone is maintained. A reliable gas sample can be obtained if the sample vacuum gauge reading is at least 2 inches Hg less than the maximum pump vacuum.

AR302579

APPENDIX A: ANALYTICAL DATA

AR302580

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S

1/9/91

CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	VINYL CHLORIDE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
ASG1-7'	0.6 — <0.02	0.04	0.002	<0.03	3	<0.6	<0.8	<1	<3	<10	<3
ASG9-6'	<0.02	0.08	<0.002	0.01	<0.002	<0.6	<0.8	<1	<3	<10	<3

1/10/91

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	VINYL CHLORIDE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.0006	0.002	0.0008	<0.0009	<0.0007	<0.2	<0.3	<0.5	<1	<4	<1
ASH2-6'	<0.002	0.01	<0.0003	0.4	<0.002	<0.6	<0.8	<1	<3	<11	<3
AIR	<0.009	0.03	0.02	<0.01	<0.0007	<0.2	<0.3	<0.5	<1	<4	<1
ASF11-6'	<0.02	0.01	<0.002	<0.03	<0.002	<0.6	<0.8	<1	<3	<10	<3
ASK16-4'	<0.009	<0.003	<0.001	<0.01	<0.0007	<0.2	<0.3	<0.5	<1	<4	4
ASK11-4'	<0.009	<0.003	<0.001	<0.01	<0.0007	<0.2	<0.3	<0.5	<1	<4	<1
AIR	<0.009	<0.003	0.0004	<0.01	<0.0007	<0.2	<0.3	<0.5	<1	<4	7

AR302581

Analyzed by: M. Stivers

Proofed by: [illegible]

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S
1/11/91
CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	VINYL CHLORIDE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.001	0.0007	0.0002	<0.001	0.001	<0.4	<0.2	<0.5	<0.8	<1	50
ASJ2-4'	<0.001	0.0007	0.0002	<0.001	<0.0002	<0.4	<0.2	<0.5	<0.8	<1	<0.5
ASJ7-4'	<0.001	0.0007	0.0005	0.002	0.0005	<0.4	<0.2	<0.5	<0.8	<1	20
ASL7-3'	<0.001	0.0007	0.0005	<0.001	<0.0002	<0.4	1	<0.5	<0.8	<1	22
ASF17-3'	<0.001	0.001	0.0007	<0.001	0.0005	<0.4	<0.2	<0.5	<0.8	<1	7
ASD11-6'	<0.001	0.2	<0.0001	0.3	<0.0002	<0.4	<0.2	<0.5	<0.8	~~<1~~ 1.5	2
ASD13-6'	<0.0005	0.001	<0.00005	<0.0006	<0.0001	<0.4	<0.2	<0.5	<0.8	<1	<0.5
ASD15-6'	<0.0005	0.0008	0.0001	0.001	0.0003	<0.4	<0.2	<0.5	<0.8	<1	2
ASJ9-5'	<0.0005	0.002	0.0006	0.008	0.002	<0.4	<0.2	<0.5	<0.8	<1	<0.5

AR302582

Analyzed by: M. Stivers
Proofed by: D.J.R.

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S
1/14/91
CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	VINYL CHLORIDE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.0005	0.0007	0.0003	<0.0007	0.001	<0.2	<0.1	<0.2	<0.4	<0.7	3
ASG5-2.5'	~~<0.0005~~ 0.029	~~0.0003~~ ND	~~0.0002~~ ND	<0.0007	<0.0001	<0.2	2	10	0.7	<0.7	17
ASG7-2.5'	~~<0.0005~~ 0.0035	~~0.0005~~ ND	~~0.0002~~ ND	<0.0007	<0.0001	<0.2	<0.1	<0.2	<0.4	8	16
ASG3-3'	~~<0.0005~~ 0.0037	~~0.003~~ ND	~~0.0002~~ ND	<0.0007	<0.0001	<0.2	<0.1	5	<0.4	6	12
ASE1-5'	<0.0005	0.008	0.0004	0.02	0.01	<0.2	0.2	4	<0.4	<0.7	7
ASC1-3'	<0.0005	0.0004	0.00007	<0.0007	<0.0001	<0.2	<0.1	2	<0.4	<0.7	4
ASA1-4'	<0.0005	0.003	0.0002	<0.0007	<0.0001	<0.2	<0.1	5	<0.4	20	40
ASC5-3'	<0.0005	0.007	0.0002	0.2	~~0.006~~ 0.02	<0.2	<0.1	<0.2	<0.4	<0.7	40
ASB5-4.5'	<0.0005	0.001	0.0002	0.01	<0.0001	<0.2	<0.1	0.8	<0.4	<0.7	2
ASC9-3'	<0.0005	0.001	~~0.0004~~ ND	~~<0.0007~~ 0.004	<0.0001	<0.2	<0.1	<0.2	<0.4	<0.7	<0.4
ASB9-3'	<0.0005	0.0006	0.0001	0.003	<0.0001	<0.2	<0.1	<0.2	<0.4	<0.7	<0.4
~~ASE11-4'~~	~~<0.0005~~	~~0.002~~	~~<0.00005~~	~~0.003~~	~~0.0004~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~

[0.016]

AR302583

Analyzed by: M. Stivers
Proofed by: RWR

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S
01/15/91
CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	VINYL CHLORIDE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.0006	<0.0002	<0.00004	<0.0005	<0.00009	<0.2	<0.2	<0.2	<0.4	<0.7	<0.4
E19A-2.5'	<0.0006	0.007	0.0002	0.05	0.002	<0.2	<0.2	<0.2	<0.4	<0.7	3
E11-4'	<0.0006	0.005	0.0002	0.002	0.002	<0.2	<0.2	<0.2	<0.4	<0.7	<0.4

AR302584

Analyzed by: B. Pfeil
Proofed by: PWR

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S
01/17/91
CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	VINYL CHLORIDE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.001	0.002	0.0006	<0.001	<0.0002	<0.5	<0.4	<0.4	<0.8	<1	<1
RH13-2'	<0.001	0.002	0.0007	<0.001	<0.0002	<0.5	<0.4	<0.4	<0.8	<1	<1
RF11-3'	<0.001	0.001	0.0004	<0.001	<0.0002	<0.5	<0.4	<0.4	<0.8	<1	<1
RF9-3'	<0.001	0.002	0.0005	<0.001	<0.0002	<0.5	<0.4	<0.4	<0.8	<1	<1
RD11-3'	<0.001	0.001	0.0002	<0.001	<0.0002	<0.5	<0.4	<0.4	<0.8	<1	<1
R/L" ~~RDF~~11-4'	<0.001	0.004	0.0002	0.05	0.0009	<0.5	<0.4	<0.4	<0.8	<1	<1
RD9-3'	0.003	0.01	0.0002	0.2	0.0004	<0.5	<0.4	<0.4	<0.8	<1	<1
RC9-3'	<0.001	0.008	0.0002	0.06	0.0003	<0.5	<0.4	<0.4	<0.8	<1	<1
RC7-3'	0.007	0.01	0.0002	0.1	<0.0002	<0.5	<0.4	<0.4	<0.8	<1	<1
RA7-3'	0.07	0.06	0.03	170.0	0.02	<0.5	<0.4	<0.4	<0.8	<1	990.0
RA9-3'	0.04	0.05	<0.002	~~31.0~~ 40.	<0.004	<0.5	<0.4	<0.4	<0.8	<1	720.0
AIR	<0.001	0.001	0.0005	<0.001	<0.0002	<0.5	<0.4	<0.4	<0.8	<1	<1

restricted value

RA7-3' <0.07 0.06 0.03 170.0 [illegible] <45.0 [illegible] <18.0 [illegible] <20.0 [illegible]

AR302585

Analyzed by: B. Pfeil
Proofed by: PWR

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S
01/18/91
CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	VINYL CHLORIDE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.001	<0.0004	0.0004	<0.001	<0.0002	<0.6	<0.3	<0.6	<0.9	<2	10
RL-9-2'	<0.01	0.06	<0.001	2.0	0.004	<0.6	<0.3	<0.6	<0.9	<2	<1
RL-15-3'	<0.001	0.009	<0.0002	0.07	0.0004	<0.6	<0.3	<0.6	<0.9	<2	<1
RL-8-3'	0.006	0.03	<0.0001	0.9	0.002	<0.6	<0.3	<0.6	<0.9	<2	<1
RL-6-3'	0.002	0.003	<0.0001	0.007	0.001	<0.6	<0.3	<0.6	<0.9	<2	<1
RJ-1-2'	<0.001	0.002	<0.0001	0.03	0.0009	<0.6	<0.3	<0.6	<0.9	<2	<1
RG-1-3'	<0.001	0.0008	0.0005	0.001	0.0007	<0.6	<0.3	<0.6	<0.9	<2	<1
RL-2-3'	<0.001	0.0007	<0.0001	<0.001	0.002	<0.6	<0.3	<0.6	<0.9	<2	<1

AR302586

Analyzed by: B. Pfeil
Proofed by: PWR

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S
01/21/91
CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	VINYL CHLORIDE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.001	0.002	0.0008	<0.0008	0.003	<0.5	<0.2	2	0.7	<1	2
RF13A-3'	<0.001	0.002	0.0008	<0.0008	0.0005	<0.5	<0.2	1	0.7	<1	<1
RF13B-3'	<0.001	0.001	0.0007	0.0009	0.0003	<0.5	<0.2	1	0.7	<1	<1
RF15-4'	<0.001	0.001	0.0008	0.004	0.0003	<0.5	<0.2	1	0.7	<1	<1
RD13-5'	<0.001	0.0006	0.0002	<0.0008	<0.0002	<0.5	<0.2	1	0.7	<1	<1
RB11-5'	<0.001	0.003	<0.00009	0.03	<0.0002	<0.5	<0.2	1	0.7	<1	<1
RC3-4'	<0.001	0.001	0.0004	0.1	<0.0002	<0.5	<0.2	2	0.7	<1	2
RD1-4'	<0.001	0.02	<0.00009	0.002	<0.0002	<0.5	<0.2	1	0.7	<1	<1
RH5-6'	0.07	0.03	<0.00009	2	0.003	<0.5	<0.2	0.3	0.7	<1	4
RJ5-5'	<0.001	0.006	<0.00009	0.01	0.001	<0.5	<0.2	1	0.7	<1	2
RH3-4'	<0.1	1	<0.01	6	0.03	<0.5	<0.2	<0.3	0.7	<1	5
RG2-3'	0.05	0.2	<0.001	~~NA~~ 6 ug/l	0.007	<0.5	<0.2	<0.3	0.7	<1	3
AIR	<0.001	0.003	0.0005	<0.0008	<0.0002	<0.5	<0.2	2	0.7	<1	7

NA = Not Analyzed
Analyzed by: B. Pfeil
Proofed by: PWR

AR302587

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S
01/23/91
CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.001	<0.0005	<0.0001	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
SYSTEM BLK	<0.001	<0.0005	<0.0001	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
RA1-4'	<0.001	<0.0005	<0.0001	0.007	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
RC1-4'	<0.001	0.002	0.0007	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
RA3-3'	0.003	0.02	0.001	2	0.006	<0.05	<0.1	<0.2	<0.5	4
RA6A-3'	<0.1	0.05	0.02	33.0	<0.01	<0.05	<0.1	<0.2	<0.5	11
RA5-2'	<0.001	0.004	0.0007	0.2	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
RC5-2.5'	<0.001	0.01	0.001	6	<0.0002	<0.05	<0.1	<0.2	<0.5	4
RB13-5'	<0.001	0.001	<0.0001	0.9	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
RA7A-6'	<0.1	<0.05	<0.01	50	<0.02	<0.05	<0.1	<0.2	<0.5	~~<.5~~ 6
RE13-6'	<0.001	<0.0005	<0.0001	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
RF13C-1.5'	<0.001	0.0009	0.0006	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
RJ9-2'	<0.001	0.001	<0.0001	0.05	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
AIR	<0.001	<0.0005	<0.0001	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5
RJ7-2'	<0.001	0.001	<0.0001	0.006	<0.0002	<0.05	<0.1	<0.2	<0.5	<.5

AR302588

Analyzed by: B. Pfeil
Proofed by DWR

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S
01/24/91
CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.001	0.002	0.0008	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
SYSTEM BLK	<0.001	0.003	0.0006	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RH1-3'	<0.001	0.002	0.0006	0.03	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RI1-5'	<0.001	0.002	<0.00009	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RL1-3'	<0.001	0.001	<0.00009	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RL3-5'	<0.001	0.0009	<0.00009	<0.0008	0.002	<0.05	<0.1	<0.2	<.6	<.6
RJ3-4'	<0.001	0.1	<0.00009	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RL5-5'	<0.001	0.002	0.0002	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RH7-2'	<0.001	0.007	0.0004	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RH9-3'	<0.001	0.0007	<0.00009	0.002	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RH15-3.5'	<0.001	0.001	<0.00009	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RJ15-4'	<0.001	0.003	<0.00009	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RJ11-4'	<0.001	0.006	<0.00009	0.06	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
RL13-2'	<0.001	0.003	0.0005	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
ASJ1-4'	<0.001	0.002	<0.00009	0.002	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
ASI2-2'	<0.001	0.001	0.0002	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
ASJ3-2'	<0.001	<0.001	0.0003	0.04	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
ASI3-4'	<0.007	<0.002	<0.0005	0.8	<0.0009	<0.05	<0.1	<0.2	<.6	1.0
ASJ5-2'	<0.001	0.0006	0.0002	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
ASK9A-1.5'	<0.001	0.0009	0.0002	0.03	<0.0002	<0.05	<0.1	<0.2	<.6	<.6
AIR	<0.001	<0.0004	<0.00009	<0.0008	<0.0002	<0.05	<0.1	<0.2	<.6	<.6

AR302589

Analyzed by: B. Pfeil
Proofed by: WR

DAMES & MOORE/RECTICON/ALLIED STEEL/PARKER FORD, PENNSYLVANIA JOB #2-90-914-S
01/25/90
CONDENSED DATA

SAMPLE	CHCL3 ug/l	TCA ug/l	CCL4 ug/l	TCE ug/l	PCE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENE ug/l	TPHC ug/l
AIR	<0.001	0.002	0.0007	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASK9B-3'	<0.001	0.002	0.001	<0.003	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASK10-4'	<0.001	0.001	0.0003	0.4	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASL11-4'	<0.001	0.005	0.001	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASL12-2'	<0.001	0.001	0.0007	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASK12-1'	<0.001	0.0008	0.0004	<0.0001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASJ17-3'	<0.001	0.003	0.0004	<0.0001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASJ19-3'	<0.001	<0.0005	<0.0001	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASE19B-3'	<0.001	0.0008	0.0004	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASE19D-3'	<0.001	0.0009	0.0004	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASD17-3'	<0.001	0.002	<0.0001	0.06	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASB17-3'	<0.001	0.002	0.0004	0.04	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASB15-4'	<0.001	<0.0005	<0.0001	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASB13-3'	<0.001	0.001	0.0004	0.01	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASC11-4'	<0.001	0.08	<0.0007	0.3	0.2	<0.05	<0.1	<0.2	<0.3	<0.3
ASC7-2.5'	<0.001	0.003	<0.0001	0.02	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASB7-4'	<0.001	0.002	0.0004	0.02	0.006	<0.05	<0.1	<0.2	<0.3	<0.3
ASC3-4'	<0.001	0.007	<0.0001	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASB3-4'	<0.001	0.0007	0.0005	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
ASF15-4'	<0.001	0.001	<0.0001	0.006	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3
AIR	<0.001	0.003	0.0004	<0.001	<0.0002	<0.05	<0.1	<0.2	<0.3	<0.3

Analyzed by: B. Pfeil
Proofed by: PWR

AR302590

PHILADELPHIA

OFFICE MEMORANDUM

ACTION	INFO	
To: Rosann Park-Jones	Mike Edelman	File: Rockwell 10839-071
		X-Ref:
		Date: 2-15-91

From: Pam Pidge

Reply Required By:

Subject: Tracer Soil Gas Data

Reference(s):

I reviewed the data and found the following inconsistencies.

1. Some sections of the package were paginated; other sections were not. This made the review of data difficult.

2. The raw data for ASG1-7 identifies a peak at a retention time (RT) of 1.02 as CHCl3. The standard RT of CHCl3 was approximately 1.58. A standard of CH2Cl2 was analyzed later in the package, and had a retention time of approximately 1.02. This peak was misidentified and ASG1-7's result for CHCl3 should be <0.02.

   61 7'
   $CHCl_3$ < 0.02
   CH_2Cl_2 methylene chloride

3. The raw data identifies a sample as ASH2; however, the corresponding condensed data lists the sample as ASH2-6.

4. The raw data of ASD11-6 identifies xylene at the corresponding RT of 19.95. The condensed data lists the value as <1.0. The computation of the raw data is 1.5 ug/l of xylene. This value should be corrected.

5. The raw data for 1/11/91 (CHCl3 through PCE) is out of order and difficult to follow.

6. The raw data for ASG~~2~~5-2.5, ASG7-2.5, and ASG3-3 have a peak at a RT of 1.54, which corresponds to CHCl3. None of them have peaks at RTs corresponding to TCA or CCL4. The condensed data tables need to be corrected. The values for CHCL3 are 0.029 ug/l, 0.0035 ug/l, and 0.0037 ug/l, respectively. All TCA and CCL4 data should be reported as non-detected.

7. From the raw data, the value of PCE for ASC5-3 is 0.016, which should be reported as 0.02; however, the corresponding condensed data reported the value as 0.2 ug/l.

8. The raw data for ASC9-3 has RTs that correspond to TCA and TCE at 0.001 ug/l and TCE at 0.004 ug/l. There is no peak corresponding to CCL4. The corresponding data should be corrected to report CCL4 as ND and TCE as 0.004 ug/l.

9. The raw data lists a sample as E19A; the corresponding condensed data lists the sample as E19A-2.5.

10. The raw data for RA9-3 is out of linear range and should have been reinjected. According to the area obtained, the reported estimated value for should be 40 ug/l.

11. The 1/18/91 raw BTEX data is upside down in the data package.

12. According to the raw data for RG2-3, TCE was out of linear range and reanalyzed at a dilution. The concentration of TCE is 6 ug/l. However, the corresponding condensed data incorrectly reports the concentration as "NA - Not Analyzed."

13. The raw BETX data for 1/21/91 does not show any peaks at the RT of ethylbenzene. These values are incorrectly presented in the condensed data tables. The concentrations should be <0.7 for all samples analyzed on 1/21/91.

14. The raw data for RB11-5 does not indicate a "ruler method" recovery for toluene.

15. The TPHC raw data for RA7A-6 indicates a recovery value that calculates to 6 ug/l, yet the corresponding condensed data reports the TPHC concentration as <0.5.

It should be noted that TCA and CCL4 were detected in the air blanks. Samples that have concentration less than 5 times the value of the corresponding blank are suspect.

AAW00FD6

APPENDIX E

APPENDIX E

SOIL BORING LOGS

BORING R/A7
SURFACE ELEVATION = 136.9'

DEPTH IN FEET	SAMPLES: BLOW COUNT	SYMBOLS	FID/PID READINGS	DESCRIPTIONS
0	5	CL	ND	SILTY CLAY: REDDISH-BROWN, WITH TRACE WELL-ROUNDED QUARTZ GRAVEL (UP TO 1" DIAMETER)
2	4,5 / 6,6	SM	0.2 ppm	SANDY SILT: REDDISH-BROWN
4	6,3 / 2,5	CL/GM	ND	SILTY CLAY TO CLAYEY SILT: REDDISH-BROWN
			ND	CLAYEY SILT: REDDISH-BROWN WITH ROUNDED QUARTZ, QUARTZITE GRAVEL
6	8,12 / 12,10		2.2 ppm	CLAYEY SILT: REDDISH-BROWN WITH GRAVEL (UP TO 2" DIAMETER)
8	14,18 / 9,10		4 ppm	CLAYEY SILT: REDDISH-BROWN, SOME SAND AND GRAVEL
10	7,3 / 4,7		6 ppm	
			7.5 ppm	CLAYEY SILT: REDDISH-BROWN WITH LARGE ANGULAR SANDSTONE AND QUARTZITE CLASTS
12	9,14 / 13,7		8 ppm	SILTY CLAY: REDDISH-BROWN, GRADES TO ORANGE-RED SANDY SILT
14	4,4 / 5,6	SM	30 ppm	SILTY SAND AND SILTY CLAY: RED, TRACE ANGULAR QUARTZITE CLASTS
16	8,10 / 17,25	CL/GM	8 ppm	SILTY CLAY TO CLAYEY SILT: REDDISH-BROWN WITH TRACE SUBROUNDED QUARTZITE GRAVEL (UP TO 2" DIAMETER) GRADES TO PURPLISH-REDDISH-BROWN SAND AND ANGULAR GRAVEL
18	19,20 / 20,14	SW	20 ppm	GRAVELLY SAND
20	50/5" / 10,50/1"	SM	100-200 ppm	SILTY SAND: DARK RED, DRY, ODOR WITH SOME ANGULAR GRAVEL (UP TO 3/4" DIAMETER)
				AUGER REFUSAL AT 20.5'
22				

14 7

LOG OF SOIL BORING
RECTICON/ALLIED STEEL SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING DRILLED ON FEBRUARY 13, 1991 BY M&R SOIL INVESTIGATIONS, INC.
2. SAMPLES FROM ANALYSIS COLLECTED FROM 9.5-11' AND 18.5-20' INTERVALS. SAMPLES FROM THE 9.5-11' AND 18.5-20' INTERVAL WERE SPLIT WITH RESOURCE APPLICATIONS, INC. OF BURKE, VIRGINIA.
3. VOLATILE ORGANIC VAPORS RECORDED BY FID (OVA 108). ALL FID READINGS ARE POSITIVE VALUES ABOVE BACKGROUND.
4. ND-NOT DETECTED ABOVE BACKGROUND.

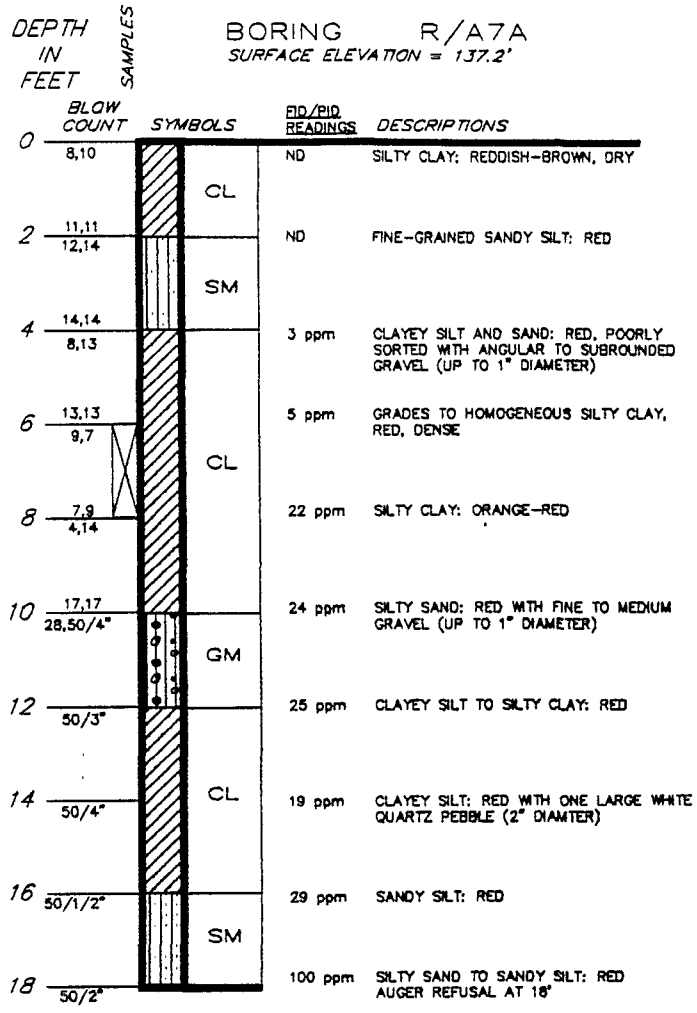
EXPLANATION:

☒ SAMPLE INTERVAL

ALLIED\BL-RA7 (6)

AR302595

DAMES & MOORE



LOG OF SOIL BORING
RECTICON/ALLIED STEEL SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING DRILLED ON FEBRUARY 18, 1991 BY M&R SOIL INVESTIGATIONS, INC.
2. SAMPLES FOR ANALYSIS COLLECTED FROM 6-8' INTERVAL.
3. VOLATILE ORGANIC VAPORS RECORDED BY FID (OVA 108). ALL FID READING ARE POSITIVE VALUES ABOVE BACKGROUND.
4. ND-NOT DETECTED ABOVE BACKGROUND.

EXPLANATION:

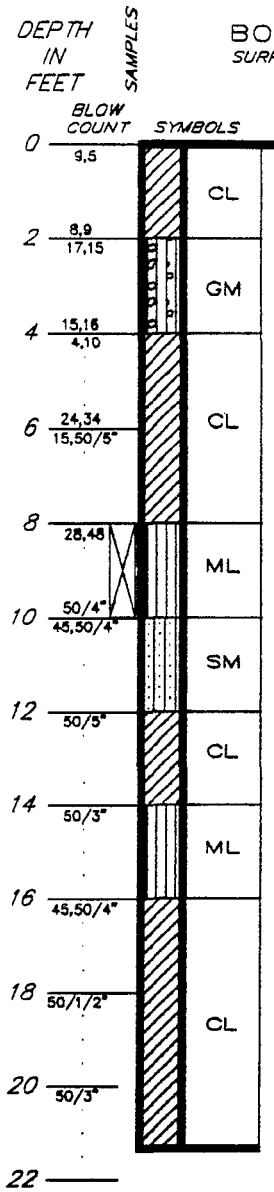
☒ SAMPLE INTERVAL

ALLIED\BL-A7A (S)

AR302596

DAMES & MOORE

BORING R/G2
SURFACE ELEVATION = 132.1'



FID/PID READINGS	DESCRIPTIONS
2 ppm	SILTY CLAY: REDDISH-BROWN, MOIST
3.5 ppm	SANDY, GRAVELLY SILT: ORANGE-RED
1 ppm	CLAYEY SILT: DARK RED, DRY
50 ppm	CLAYEY SILT: RED, MOIST AT 6'
25 pm	SILT: DARK RED, DRY, MICACEOUS
10 ppm	FINE-GRAINED SANDY, CLAYEY SILT: DARK RED
8 ppm	CLAYEY SILT: DARK RED, MOIST
32 ppm	SILT: RED, DRY
11-12 ppm	CLAYEY SILT: RED
22-29 ppm	CLAYEY SILT: RED
10 ppm	SILTY CLAY: RED, WITH WEATHERED RED SHALE FRAGMENTS
	AUGER REFUSAL AT 21'4"

LOG OF SOIL BORING
RECTICON/ALLIED STEEL SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING DRILLED ON FEBRUARY 19, 1991 BY M&R SOIL INVESTIGATIONS, INC.
2. SAMPLES FOR ANALYSIS COLLECTED FROM 8-10' INTERVAL.
3. VOLATILE ORGANIC VAPORS RECORDED BY FID (OVA 128). ALL FID READINGS ARE POSITIVE VALUES ABOVE BACKGROUND.
4. ND-NOT DETECTED ABOVE BACKGROUND.

EXPLANATION:

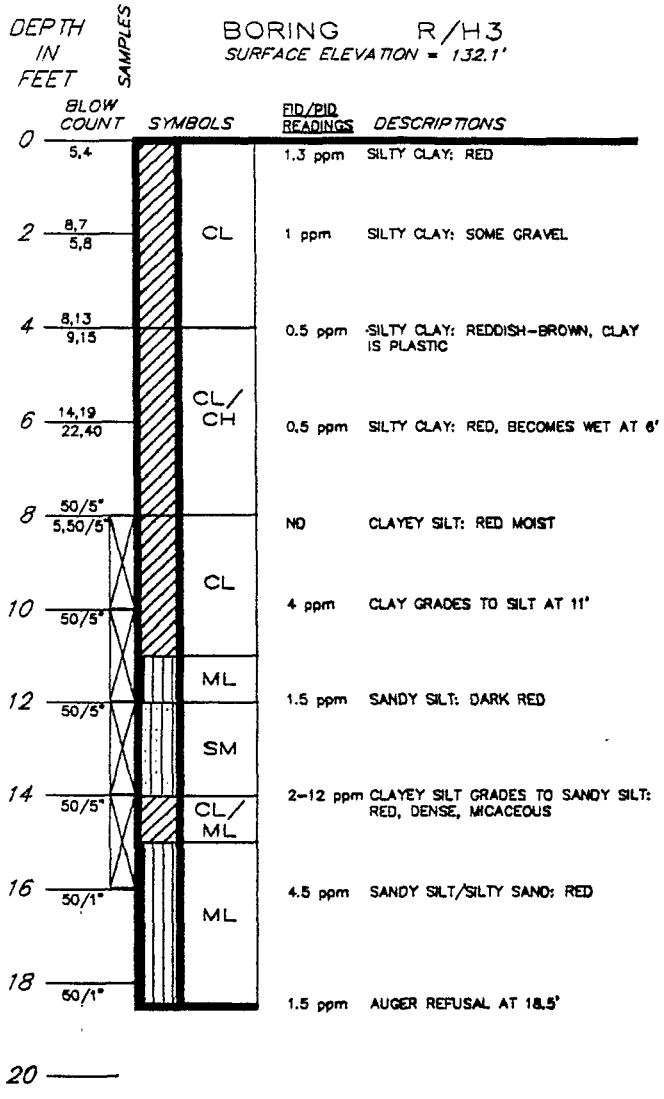
☒ SAMPLE INTERVAL

ALLIED\BL-RG2 (5)

AR302597

DAMES & MOORE

BORING R/H3
SURFACE ELEVATION = 132.1'



LOG OF SOIL BORING
RECTICON/ALLIED STEEL SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING DRILLED ON FEBRUARY 19, 1991 BY M&R SOIL INVESTIGATIONS, INC.
2. SAMPLES FOR ANALYSIS COLLECTED FROM 8-10', 8-12', AND 12-16' INTERVALS.
3. VOLATILE ORGANIC VAPORS RECORDED BY FID (OVA 128). ALL FID READINGS ARE POSITIVE VALUES ABOVE BACKGROUND.
4. ND-NOT DETECTED ABOVE BACKGROUND.

EXPLANATION:

☒ SAMPLE INTERVAL

DAMES & MOORE

ALLIED\BL-RH3 (6)

BORING R/L9

SURFACE ELEVATION = 131.9'

DEPTH IN FEET	SAMPLES: BLOW COUNT	SYMBOLS	FID/PID READINGS	DESCRIPTIONS
0	2,4	CL	ND	SILTY CLAY: RED, DRY
2	4,5 / 8,6	CL	ND	SILTY CLAY: RED WITH TRACE ROUNDED GRAVEL, SAND
4	8,11 / 8,15	CL	ND	SILTY CLAY: RED, TRACE GRAVEL
		SW	ND	SAND: TAN WITH ANGULAR QUARTZ GRAVEL (1" DIAMETER)
6	18,48 / 20,23	CL/GM	ND	SILTY CLAY: RED, INTERBEDDED WITH GRAVELLY SAND, LIGHT BROWN, CLAY IS MOIST
8	30,24 / 9,20	CL/GM	ND	SILTY CLAY: RED, TRACE ANGULAR TO SUBANGULAR GRAVEL (1/2" TO 3/4" DIAMETER)
10	23,25 / 18,20	CL/GM	ND	SILTY CLAY: RED, INTERBEDDED WITH TRACE SAND AND GRAVEL
12	18,22 / 18,20	CL/GM	ND	SILTY CLAY: RED, INTERBEDDED WITH WELL ROUNDED TO SUBROUNDED GRAVEL COMPOSED OF QUARTZITE, SANDSTONE, AND GRANITE
14	24,26 / 35,50/2"	CL/GM	ND	SILTY CLAY: RED, WITH SUBANGULAR GRAVEL COMPOSED OF SANDSTONE AND QUARTZ
16	45,50/3" / 3,5	CL/GM	ND	SILTY CLAY: RED WITH SANDY INTERBEDS, WATER TABLE ENCOUNTERED AT 16'
18	5,5 / 11,17	SW	ND	SAND: BROWN, MEDIUM TO COARSE-GRAINED, MOIST
20	24,23 / 50/4"	CL	ND	SILT: RED, WITH WEATHERED SHALY ROCK FRAGMENTS, (1/2" TO 1" DIAMETER), DRY
22	50/0"			REFUSAL AT 22'

LOG OF SOIL BORING
RECTICON/ALLIED STEEL SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING DRILLED ON FEBRUARY 11, 1991 BY M&R SOIL INVESTIGATIONS, INC.
2. SAMPLES FOR ANALYSIS COLLECTED FROM 16–18' AND 16–20' INTERVALS.
3. NO PID READINGS RECORDED ABOVE BACKGROUND.
4. ND – NOT DETECTED ABOVE BACKGROUND.

EXPLANATION:

☒ SAMPLE INTERVAL

ALLIED\BL-RL9 (6)

DAMES & MOORE

AR302599

BORING A/C5
SURFACE ELEVATION = 126.9'

DEPTH IN FEET	BLOW COUNT	SYMBOLS	FID/PID READINGS	DESCRIPTIONS
0	12,13	FILL	6 ppm	SAND: DARK BROWN WITH BLACK ORGANIC STAINING, SOME CONCRETE, ASPHALT, WIRE AND SCRAP METAL
2	35,50/1" 3,5			
4	4,6 1,3	CL	1 ppm	CLAY: REDDISH-BROWN, MOIST
6	3,4 7,11		1 ppm	SILTY CLAY: REDDISH-BROWN WITH LARGE CLASTS OF QUARTZ, QUARTZITE
8	12,17 12,8		2 ppm	SILTY CLAY: RED, SATURATED, ODOR FROM BORING AND SPLIT-SPOON
10	8,8 4,5		1 ppm	SILTY CLAY: RED
12	5,7 15,25		1 ppm	SILT: DARK RED, LARGE ANGULAR FRAGMENTS OF DARK RED AND WHITE QUARTZITE
14	20,25 20,28		6 ppm	SILTY CLAY: RED, ROUNDED QUARTZ AND SANDSTONE GRAVEL
16	29,31 16,21	SM	20 ppm	SANDY SILT: DARK RED, MOIST, STRONG ODOR-SWEET SMELL
18	50/4"	CL	500 ppm	SANDY SILT: RED
NOT RECORDED				
20	12,28		ND	SILTY CLAY: RED WITH TRACE QUARTZ GRAVEL AUGER REFUSAL AT 21'
22	50/5"			

LOG OF SOIL BORING
RECTICON/ALLIED STEEL SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING DRILLED ON FEBRUARY 12, 1991 BY M&R SOIL INVESTIGATIONS, INC. TO A DEPTH OF 20'. ON FEBRUARY 13, 1991 M&R SOIL INVESTIGATIONS, INC. DRILLED TO AUGER REFUSAL AT 21'.
2. SAMPLES FOR ANALYSIS COLLECTED FROM 4–6', 14–16', 16–18' AND 18–20' INTERVALS.
3. VOLATILE ORGANIC VAPORS RECORDED BY FID (OVA 108). ALL FID READINGS ARE POSITIVE VALUES ABOVE BACKGROUND.
4. ND–NOT DETECTED ABOVE BACKGROUND.

EXPLANATION:

☒ SAMPLE INTERVAL

DAMES & MOORE

ALLIED\BL-AC5 (5)

BORING A/C11

SURFACE ELEVATION = 127.3'

DEPTH IN FEET	SAMPLES BLOW COUNT	SYMBOLS	FID/PID READINGS	DESCRIPTIONS
0	9,9	CL	ND	CLAY: DARK RED TO GRAY, GRADES TO SANDY SILT AND GRAVEL
2	12,12 / 8,6	GP	ND	SAND AND ANGULAR GRAVEL
4	7,8 / 4,4		ND	NO RECOVERY
6	4,6 / 7,11	CL	20 – >1000 ppm (MANURE SPREADER NEARBY)	CLAY AND SILT: DARK BROWN, MOIST, STRONG ODOR FROM BOREHOLE
8	17,18 / 6,9		>1000 ppm	CLAYEY SILT: REDDISH-BROWN, TRACE FINE SAND AND GRAVEL
10	11,13 / 4,8		>1000 ppm	SILTY CLAY: REDDISH-BROWN TO TAN
12	13,17 / 10,18		>1000 ppm	SILTY CLAY: RED, MOIST
14	16,15 / 5,18		>1000 ppm	SILT AND CLAY: MOIST
16	27,32 / 35,31	SM/GM	>1000 ppm	SILTY SAND: RED WITH COARSE ANGULAR GRAVEL COMPOSED OF SANDSTONE AND QUARTZITE
18	28,44 / 10,22	GM	>1000 ppm	COARSE-GRAINED SANDY GRAVEL: RED, TRACE SILT WATER TABLE AT ~ 18.6'
20	44,50/2" / 14,24	CL		CLAY: TRACE FINE GRAVEL, SATURATED
		SM		SILTY SAND: SATURATED
22	52,23 / 25,40	GM		CLAYEY SANDY SILT WITH ANGULAR GRAVEL, SATURATED
24	50/4" / 30,50/3"	CL		SILTY CLAY: RED, TRACE GRAVEL
		SM		SANDY SILT: DARK RED REFUSAL AT 28'
26				

LOG OF SOIL BORING
RECTICON/ALLIED STEEL SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING DRILLED ON FEBRUARY 18, 1991 BY M&R SOIL INVESTIGATIONS, INC.
2. SAMPLES FOR ANALYSIS COLLECTED FROM 16–18' INTERVAL.
3. VOLATILE ORGANIC VAPORS RECORDED BY FID (OVA 108). ALL FID READINGS ARE POSITIVE VALUES ABOVE BACKGROUND.
4. ND–NOT DETECTED ABOVE BACKGROUND

EXPLANATION:

☒ SAMPLE INTERVAL

ALLIED\BL-AC11 (6)

DAMES & MOORE

AR302601

BORING A/H2
SURFACE ELEVATION = 128.7'

DEPTH IN FEET	SAMPLES: BLOW COUNT	SYMBOLS	FID/PID READINGS	DESCRIPTIONS
0	3,4			SILTY CLAY: RED, TRACE FINE GRAVEL
2	3,3 / 3,4		NA	MOIST AT 2'
4	3,3 / 3,2	CL	NA	CLAY: RED, TRACE GRAVEL, PERCHED WATER
6	2,1 / 3,5		NA	CLAY: RED, MOIST
			NA	SILTY CLAY: TRACE SAND AND GRAVEL, DRY
8	6,6 / 5,5		NA	CLAY: RED, MOIST
10	5,7 / 8,7	CL/GC	NA	SILTY CLAY: RED WITH ANGULAR GRAVEL (UP TO 1" DIAMETER)
12	8,8 / 5,8	ML	NA	SANDY SILT: RED, TRACE CLAY AND GRAVEL
14	9,12 / 5,4	SM	NA	SILTY SAND: RED, DRY
16	8,9 / 10,22		NA	SILTY COARSE SAND AND GRAVEL: RED, GRAVEL IS ROUNDED (UP TO 1/2"-3/4" DIAMETER), SOME SHALE FRAGMENTS
18	33,30 / 12,21	GM	NA	RED SILT, SAND AND GRAVEL: SATURATED
20	26,35 / 17,19		NA	SAND: RED WITH QUARTZ GRAVEL, WET
22	19,20 / 15,39	GP	NA	GRAVEL-SAND MIXTURE
				REFUSAL AT 23'
24	50/5"			

LOG OF SOIL BORING
RECTICON/ALLIED STEEL SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING DRILLED ON FEBRUARY 12, 1991 BY M&R SOIL INVESTIGATIONS, INC.
2. SAMPLES FOR ANALYSIS COLLECTED FROM 10-12' INTERVAL.
3. NA-PID NOT FUNCTIONING PROPERLY, BATTERY CHECK ON PID OK. FID NOT OPERATIONAL.

EXPLANATION:

☒ SAMPLE INTERVAL

ALLIED\BL-AH2 (4)

DAMES & MOORE

AR 302 602

BORING A/K9A

SURFACE ELEVATION = 127.7'

DEPTH IN FEET	SAMPLES: BLOW COUNT	SYMBOLS	FID/PID READINGS	DESCRIPTIONS
0	2,3		NA	CLAY: DARK RED, MOIST WITH TRACE GRAVEL
2	3,4 / 4,4		NA	CLAY: REDDISH-BROWN, MOIST, GRADES TO SILTY CLAY
4	9,14 / 5,7	CL	NA	SILTY CLAY: REDDISH-BROWN, PERCHED WATER
6	7,7 / 11,24		NA	SILTY CLAY: REDDISH-BROWN, GRADES TO ORANGE-RED CLAY
8	20,17 / 8,11		NA	SILTY GRAVELLY CLAY: DARK RED, MOIST, GRAVEL INCLUDES QUARTZ-RICH ROCKS, GRAY APHANITIC ROCKS, YELLOWISH SANDSTONE
10	10,14 / 5,11	CL/GC	NA	CLAYEY SILT: REDDISH-BROWN, INTER-BEDDED WITH POORLY SORTED ANGULAR TO ROUNDED GRAVEL (UP TO 1/2" DIAMETER)
12	14,15 / 13,11		NA	SILTY SAND: DARK REDDISH-BROWN, TRACE WELL-ROUNDED GRAVEL
14	11,8 / 6,8	GM		
16	23,8 / 6,7		NA	SILTY SAND AND SUBROUNDED QUARTZ: DARK RED
		CL		SILTY CLAY: TRACE FINE GRAVEL
18	8,26 / 17,17		NA	GRAVELLY SAND: DARK RED, APPROXIMATE LOCATION OF WATER TABLE
20	34,50/4" / 17,47	GP	NA	SANDY GRAVEL: SATURATED
22	27,26 / 5,6		NA	GRAVELLY SAND: SATURATED
24	12,20			REFUSAL AT 24'

LOG OF SOIL BORING
RECTICON/ALLIED STEEL SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING DRILLED ON FEBRUARY 12, 1991 BY M&R SOIL INVESTIGATIONS, INC.
2. SAMPLES FOR ANALYSIS COLLECTED FROM 8-10' INTERVAL.
3. NA – NO FID OR PID READINGS RECORDED AS HNU AND OVA DID NOT FUNCTION.

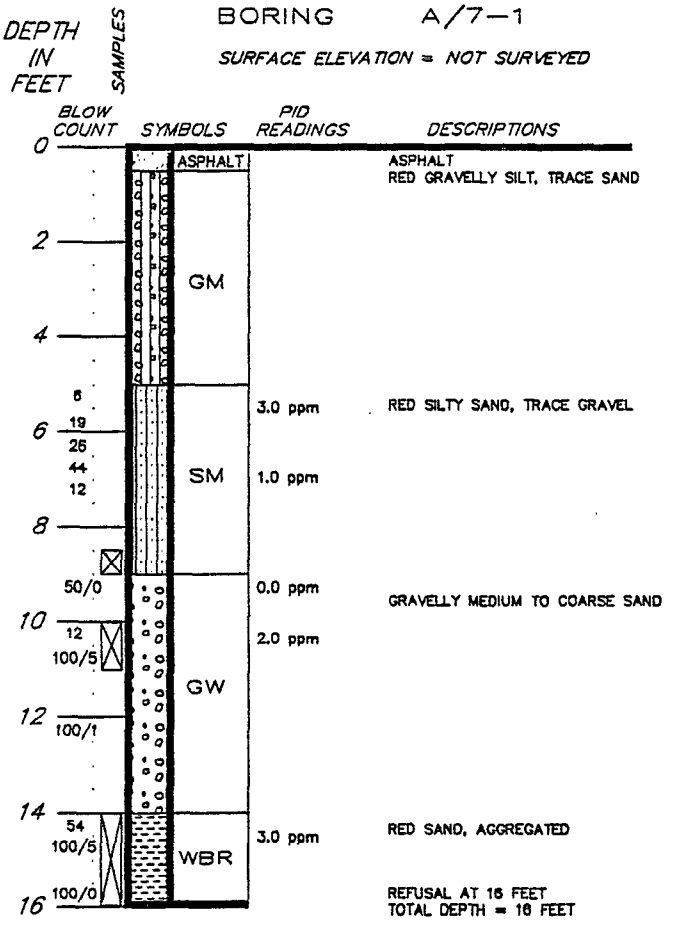
EXPLANATION:

☒ SAMPLE INTERVAL

DAMES & MOORE

ALLIED\BL-AK9A (5)

AR 302603



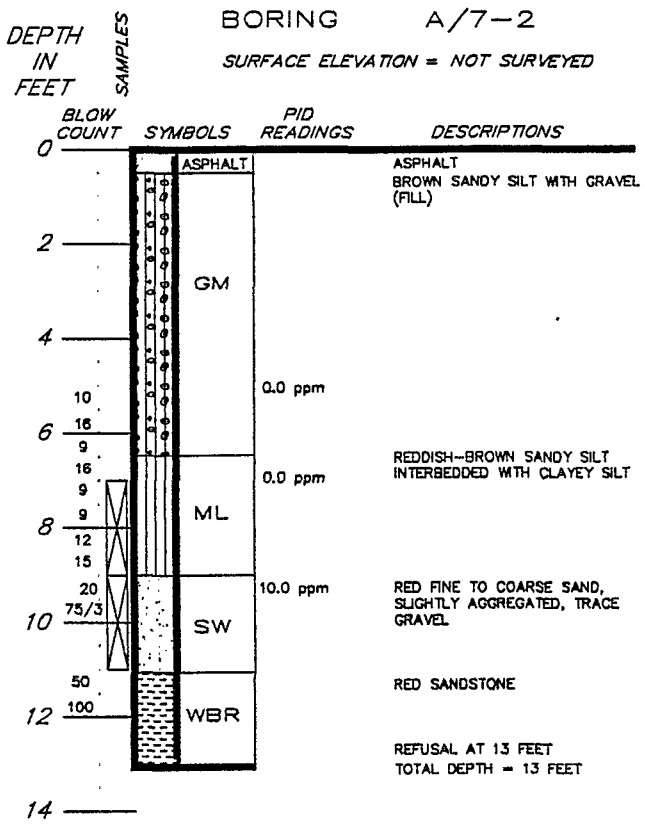
LOG OF SOIL BORING
RECTICON/ALLIED SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING ADVANCED WITH CME-55 HOLLOW STEM AUGER RIG AND SPLIT-SPOON SAMPLER ON 2/20/93 BY M&R SOIL INVESTIGATIONS, INC., OF HAMMONTON, NEW JERSEY.
2. BORING TERMINATED AT 16 FEET ON 2/20/93.
3. BORING GROUTED TO 1.5 FEET BELOW GROUND SURFACE AND FINISHED WITH AN ASPHALT PATCH ON 2/20/93.
4. SAMPLES WERE CONTINUOUSLY COLLECTED AT THIS BORING LOCATION WITH A 2-INCH DIAMETER SPLIT-SPOON SAMPLER (0'-5' AUGERED).
5. A "BLOW COUNT" REFERS TO THE NUMBER OF BLOWS REQUIRED TO DRIVE A STANDARD SPLIT-SPOON SAMPLER A DISTANCE OF 6-INCHES USING A 140 lb. HAMMER FALLING 30 INCHES.
6. SOIL SAMPLES WERE COLLECTED FROM THE FOLLOWING INTERVALS FOR LABORATORY ANALYSIS:
   8.5'-9.0' (A/7-1-1)
   10.0'-11.0' (A/7-1-2)
   14.0'-16.0' (A/7-1-3)
7. BORING LOGGED BY M. EDELMAN OF DAMES & MOORE.

(1) 10839126\SBL-A71 03/25/93 08:02

DAMES & MOORE



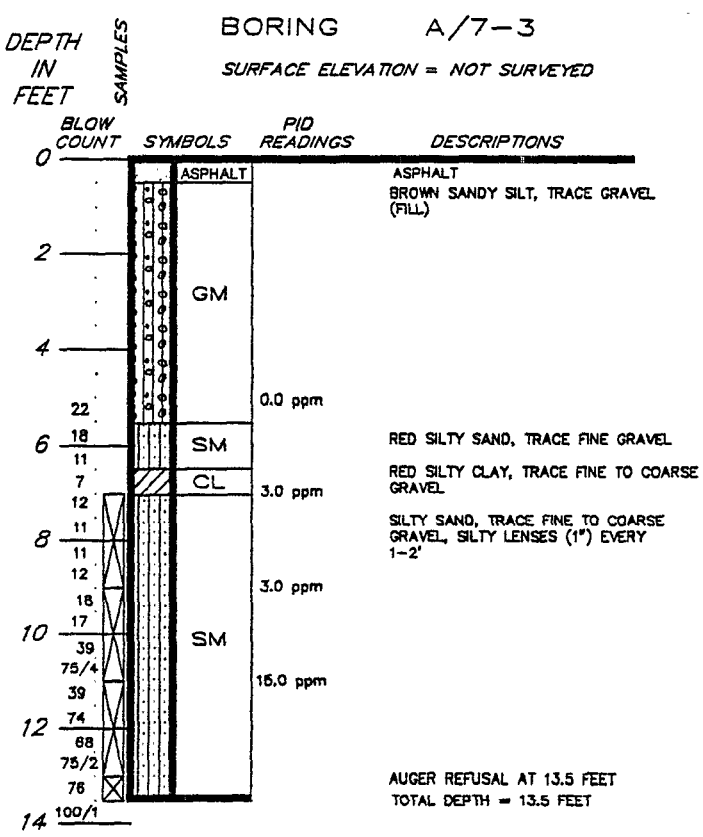
LOG OF SOIL BORING
RECTICON/ALLIED SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING ADVANCED WITH CME-55 HOLLOW STEM AUGER RIG AND SPLIT-SPOON SAMPLER ON 2/20/93 BY M&R SOIL INVESTIGATIONS, INC., OF HAMMONTON, NEW JERSEY.
2. BORING TERMINATED AT 13 FEET ON 2/20/93.
3. BORING GROUTED TO 1.5 FEET BELOW GROUND SURFACE AND FINISHED WITH AN ASPHALT PATCH ON 2/20/93.
4. SAMPLES WERE CONTINUOUSLY COLLECTED AT THIS BORING LOCATION WITH A 2-INCH DIAMETER SPLIT-SPOON SAMPLER (0'-5' AUGERED).
5. A "BLOW COUNT" REFERS TO THE NUMBER OF BLOWS REQUIRED TO DRIVE A STANDARD SPLIT-SPOON SAMPLER A DISTANCE OF 6-INCHES USING A 140 lb. HAMMER FALLING 30 INCHES.
6. SOIL SAMPLES WERE COLLECTED FROM THE FOLLOWING INTERVALS FOR LABORATORY ANALYSIS:
   7.0'-9.0' (A/7-2-1)
   9.0'-11.0' (A/7-2-2)
7. BORING LOGGED BY M. EDELMAN OF DAMES & MOORE.

(1) 10839126\SBL-A72 03/25/93 08:30

DAMES & MOORE



LOG OF SOIL BORING
RECTICON/ALLIED SITE
PARKER FORD, PENNSYLVANIA

NOTES:

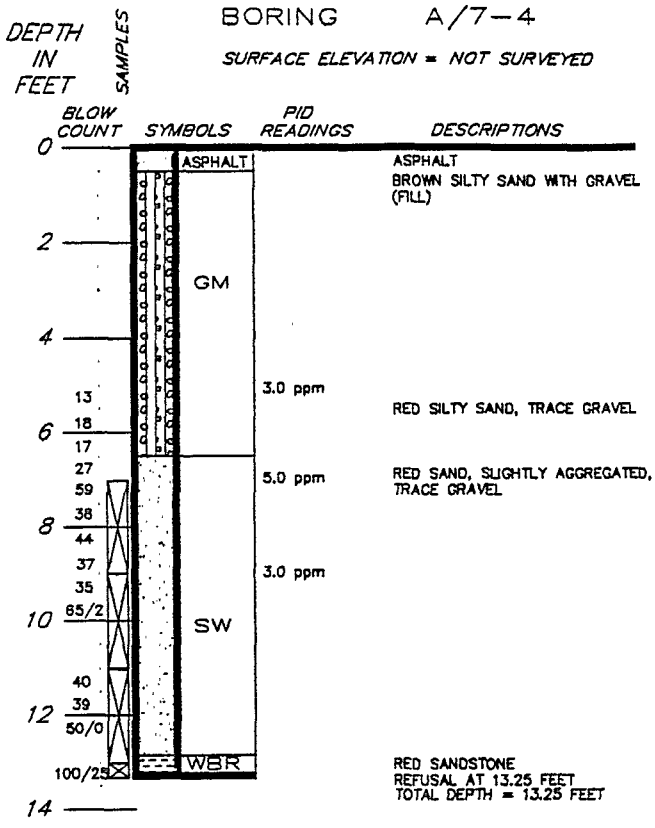
1. BORING ADVANCED WITH CME-55 HOLLOW STEM AUGER RIG AND SPLIT-SPOON SAMPLER ON 2/20/93 BY M&R SOIL INVESTIGATIONS, INC., OF HAMMONTON, NEW JERSEY.
2. BORING TERMINATED AT 13.5 FEET ON 2/20/93.
3. BORING GROUTED TO 1.5 FEET BELOW GROUND SURFACE AND FINISHED WITH AN ASPHALT PATCH ON 2/20/93.
4. SAMPLES WERE CONTINUOUSLY COLLECTED AT THIS BORING LOCATION WITH A 2-INCH DIAMETER SPLIT-SPOON SAMPLER (0'-5' AUGERED).
5. A "BLOW COUNT" REFERS TO THE NUMBER OF BLOWS REQUIRED TO DRIVE A STANDARD SPLIT-SPOON SAMPLER A DISTANCE OF 6-INCHES USING A 140 lb. HAMMER FALLING 30 INCHES.
6. SOIL SAMPLES WERE COLLECTED FROM THE FOLLOWING INTERVALS FOR LABORATORY ANALYSIS:
   7.0'-9.0' (A/7-3-1)
   9.0'-11.0' (A/7-3-2)
   11.0'-13.0' (A/7-3-3)
   13.0'-13.5' (A/7-3-4)
7. BORING LOGGED BY M. EDELMAN OF DAMES & MOORE.

(1) 10839 SBL-A73 03/25/93 08:29

DAMES & MOORE

BORING A/7-4

SURFACE ELEVATION = NOT SURVEYED



LOG OF SOIL BORING
RECTICON/ALLIED SITE
PARKER FORD, PENNSYLVANIA

NOTES:

1. BORING ADVANCED WITH CME-55 HOLLOW STEM AUGER RIG AND SPLIT-SPOON SAMPLER ON 2/20/93 BY M&R SOIL INVESTIGATIONS, INC., OF HAMMONTON, NEW JERSEY.
2. BORING TERMINATED AT 13.25 FEET ON 2/20/93.
3. BORING GROUTED TO 1.5 FEET BELOW GROUND SURFACE AND FINISHED WITH AN ASPHALT PATCH ON 2/20/93.
4. SAMPLES WERE CONTINUOUSLY COLLECTED AT THIS BORING LOCATION WITH A 2-INCH DIAMETER SPLIT-SPOON SAMPLER (0'-5' AUGERED).
5. A "BLOW COUNT" REFERS TO THE NUMBER OF BLOWS REQUIRED TO DRIVE A STANDARD SPLIT-SPOON SAMPLER A DISTANCE OF 6-INCHES USING A 140 lb. HAMMER FALLING 30 INCHES.
6. SOIL SAMPLES WERE COLLECTED FROM THE FOLLOWING INTERVALS FOR LABORATORY ANALYSIS:
   7.0'-9.0' (A/7-4-1)
   9.0'-11.0' (A/7-4-2)
   11.0'-13.0' (A/7-4-3)
7. BORING LOGGED BY M. EDELMAN OF DAMES & MOORE.

(1) 10839126\SBL-A74 03/25/93 10:06

DAMES & MOORE

APPENDIX F

APPENDIX F

LABORATORY SUMMARY SHEETS AND DAMES & MOORE DATA VALIDATION REPORT FOR SOIL BORING SAMPLES

QUALITY ASSURANCE REVIEW

Recticon - Soil Boring Samples
Dames & Moore Job No. 10839-047

DATES COLLECTED: 2/11,13,14,19/91
DATES OF REVIEW: 4/17-22,25,26/91 and 5/2,8/91

SDGS #: 12408, 12139, 12262, and 12205

INTRODUCTION

This quality assurance review (QAR) is based upon a rigorous review of all data generated from the analysis of soil samples which were collected during February of 1991 from the referenced site. The samples which were reviewed are listed in Table 1.

This review has been performed in accordance with the "Functional Guidelines for Evaluating Organics Analyses" (USEPA, March 1990), "Functional Guidelines of Inorganic Analyses" (USEPA, March 1990), "Region III Modifications to the Organic Functional Guidelines (June 1988) and "Region III Modifications to the Inorganic Functional Guidelines" (June 1988).

The data was examined to determine usability as well as to determine contractual compliance relative to the requirements and deliverables specified in the approved workplan. Qualifier codes have been assigned to each analytical result, as appropriate, to facilitate data interpretation. The detailed findings of the QAR are provided in the narrative section of this report. The analytical results are presented in the attached sample data summary sheets.

This report provides a critical review of the laboratory performance and reported analytical results. Quality assurance reviews of laboratory generated data routinely identify problems associated with analytical measurements, even from the most experienced and capable laboratories. The nature and extent of discrepancies identified in this critical review should not be interpreted to mean that those results which are qualified are less than valid.

TABLE 1

SAMPLES INCLUDED IN THIS QAR

ENSECO LABORATORY NUMBER	DAMES & MOORE SAMPLE IDENTIFICATION	ROCKY MT. LABORATORY NUMBER (Inorganics)	ANALYTICAL PARAMETERS
12408-001	R/L-9 (16-18')	-	V,S
12408-002	R/L-9 (16-18')	1353907	CN
12408-003	R/L-9 (16-18')	1353901	M
12139-001	A/C5 (18-20')	1353902	V,S,M,CN
12139-002	A/C5 (18-20')	-	V
12139-003	A/C5 (14-16')	1353903	V,S,M,CN
12139-004	A/C5 (4-6')	1353904	V,S,M,CN
12139-005	A/K9A (8-10')	1353905	V,S,M,CN
12139-006	A/H-2 (10-12')	1353906	V,S,M,CN
12139-007	TB	-	V
12262-001	A/C11 (16-18')	1367201	V,S,M,CN
12262-002	R/A7A (6-8')	1367202	V,S,M,CN
12262-003	R/G2 (8-10')	1367203	V,S,M,CN
12262-004	R/H3 (8-10')	-	V
12262-005	R/H3 (8-10-12')	-	S
12262-006	R/H3 (12-14-16')	1367204	M,CN
12262-007	FB	1367001	V, S, M,CN
12262-008	TB	-	V
12205-001	R/A7 (9.5 - 11')	1361701	V,S,M,CN
12205-002	R/A7 (18.5 - 20')	1361702	V,S,M,CN
12205-003	FB	1361501	V,S,M,CN

V - Volatile
S - Semi-volatile
M - Metals
CN - Cyanide

SECTION 1 QUALITY ASSURANCE REVIEW

A. Organic Data

Fifteen (15) soil samples and four (4) quality control samples (field and trip blanks) were collected and analyzed by Enseco, Inc., in Somerset, New Jersey. These samples were collectively analyzed for the volatile organic compounds and base/neutral/acid semivolatile organic compounds.

The findings offered in this report are based upon a rigorous review of holding times, blank analysis results, surrogate and matrix spike recoveries, GC/MS tuning, and calibrations. The organic analytical results with appropriate qualifiers are attached in the data summary sheets.

Overall, the data quality for this data package was acceptable. With regard to the requirements as specified in the workplan, all deliverables and reporting requirements were met for this data package with the exception of the following.

Correctable Deficiencies

- In the summary section of package 12205 page 1B Semivolatile Organic Analyses Data Sheet for BLK02 was not provided.

Non-Correctable Deficiencies

- The semi-volatile sample R/L-9 (16-18′), A/C5 (18-20′), A/C5 (14-16′), A/C5 (4-6′), A/K9A (8-10′), A/H2 (10-12′), A/C11 (16-18′), were extracted within hold, but analyzed out of hold (4,4,3,4,4,4, and 5 days out of hold, respectively). These samples are technically non-compliant. The positive results are flagged "L" and non-detects "UL" as biased low. However, extractable compounds are extremely persistent in the environment and would not be expected to degrade significantly during sample storage (Region III Modification).

- The semi-volatile sample R/A7 (9-1/2 - 11′) was re-extracted 45 days out of hold. The laboratory noted "poor extraction efficiency" in the initial analysis. This sample is non-compliant. However, the lab supplied copies of the initial analysis, and the data is consistent and was determined to be acceptable.

Organic Data Qualifiers

Methylene chloride, acetone, and 2-hexanone are present in field blanks, trip blanks, and/or laboratory method blanks. The reported presence of these constituents in the following volatile samples are qualified as questionable and have been flagged "B" on the data summary sheets.

Compound	Applicable Samples
Methylene Chloride	R/L-9 (16-18′), R/A7A (6-8′), R/G2 (8-10′), R/H3 (8-10′)
Acetone	R/A7A (6-8′), R/H3 (8-10′), R/A-7 (18-1/2 - 20′)

- The calibration criteria were met, however, the following semivolatile compounds have a greater than 25 percent difference between the initial and continuing calibration. All positive results for these compounds are flagged "J" as estimated "UJ" as non-detects.

Compound	Applicable Samples
2,4-Dinitrophenol	A/C5 (18-20′), A/C5 (4-6′), A/K9A (8-10′), and A/H2 (10-12′)
Bis(2-Chloroisopropyl)ether	A/C11 (16-18′)
N-Nitroso-di-N-propylamine	A/C11 (16-18′)
Hexachloropentadiene	FB (12262-001)

- Benzoic acid was detected in R/L-9 (16-18′), A/C5 (18-20′), A/C5 (14-16′), A/C5 (4-6′), and A/K9A (B-10′) above the Instrument Detection Limit but below the Contract Required Detection Limit. The values are considered estimated and are flagged "J".

- Per CLP protocol, all results obtained from the diluted sample R/A7 (9-1/2 - 11′) are flagged "D" on the data summary sheet.

- Per CLP protocol, all sample results detected at levels less than the quantitation limit should be considered estimated and have been flagged "J" on the sample data summary.

B. Inorganic Data

Thirteen (13) soil samples and two (2) quality control samples (field blanks) were collected and analyzed by Enseco Corporation of Somerset, New Jersey. These samples were analyzed for metals and cyanide.

The findings offered in this report are based upon a rigorous review of holding times, blank analysis results, pre- and post-digestion spike recoveries, laboratory duplicate analysis, quantitation of positive results, instrument sensitivity, calibration, ICP interference checks, ICP serial dilutions, laboratory control standard recoveries, graphite furnace QC, and

adherence to the protocol and requirements specified in EPA CLP SOW3/90. The inorganic analytical results with appropriate qualifiers are attached in the data summary sheets.

Overall, the inorganic quality for this data package appears to be acceptable. With regard to the requirements as specified in the workplan, all deliverables and reporting requirements were met for this data package with the exception of the following.

Correctable Deficiencies

- Intra-laboratory chains-of-custody were not provided for inorganic samples that were sent to Rocky Mountain Analytical.

Inorganic Data Qualifiers

- Due to low spike recoveries of selenium, antimony, and arsenic associated with all soil borings, all associated samples are qualified as biased low. Positive results are flagged "L" and non-detects are flagged "UL".

- Due to high spike recoveries of lead associated with all soil borings, all associated positive results are flagged "K" as biased high.

- The percent recovery for the LCS associated with package 12262 was below the control limits for thallium and selenium. All associated positive results are flagged "L" and non-detects "UL" as biased low.

- Due to poor reproducibility of the duplicate analysis of barium, iron, manganese, and zinc, all associated positive results are qualified "J" and non-detects "UJ" as estimated.

- The serial dilution recovery of magnesium for package 12262 was >10%. All associated samples are qualified as estimated and flagged "J".

- The post-digestion spike recovery of arsenic was below the control limits for A/C11 (16-18′), R/A7A (6-8′) and R/G2 (8-10′). Positive results are flagged "L" as biased low.

- The post-digestion spike recovery of selenium was below the control limits for A/C5 (4-6′), A/C5 (14-16′), A/H2 (10-12′), and FB (12205-003). The non-detect results are flagged "UL" as biased low.

- The post-digestion spike recovery of thallium was below the control limits for R/A7 (9-1/2 - 11′). The non-detect result is flagged "UL" as biased low.

- The post-digestion spike recovery in sample R/A7 (18-1/2 - 20′) was biased high and the matrix spike was biased low for arsenic. The arsenic results are flagged "J" as estimated.

- The ICP serial dilution associated with R/A7 (9-1/2 - 11′) and R/A7 (18-1/2 - 20′) was outside the control limits for barium. These results are flagged "J" as estimated.

- The ICP serial dilution associated with R/L-9 (16-18′), A/C5 (4-6′), A/C5 (14-16′), A/C5 (16-18′), A/C5 (18-20′), A/K9A (8-10′), and A/H2 (10-12′), was outside control limits for barium and magnesium. These results are flagged "J" as estimated.

C. Conclusion

Based upon the data provided, the majority of the organic and inorganic data appears to be acceptable. The data validation review has identified aspects of the analytical data that require qualification. To confidently use any of the data within the data set, the data user should understand the limitations and qualifications presented.

AAW014B0

QUALITY ASSURANCE REVIEW

Recticon - Surface Water Samples
Dames & Moore Job No. 10839-047

DATES COLLECTED: 2/14/91, 2/19/91, and 4/4/91
DATES OF REVIEW: 4/22/91, 4/26/91, and 5/2/91

SDGS #: 12261, 12206, and 13171

INTRODUCTION

This quality assurance review (QAR) is based upon a rigorous review of all data generated from the analysis of aqueous samples which were collected during February and April of 1991 from the referenced site. The samples which were reviewed are listed in Table 1.

This review has been performed in accordance with the "Functional Guidelines for Evaluating Organics Analyses" (USEPA, March 1990), "Functional Guidelines of Inorganic Analyses" (USEPA, March 1990), "Region III Modifications to the Organic Functional Guidelines (June 1988) and "Region III Modifications to the Inorganic Functional Guidelines" (June 1988).

The data was examined to determine usability as well as to determine contractual compliance relative to the requirements and deliverables specified in the approved workplan. Qualifier codes have been assigned to each analytical result, as appropriate, to facilitate data interpretation. The detailed findings of the QAR are provided in the narrative section of this report. The analytical results are presented in the attached sample data summary sheets.

This report provides a critical review of the laboratory performance and reported analytical results. Quality assurance reviews of laboratory generated data routinely identify problems associated with analytical measurements, even from the most experienced and capable laboratories. The nature and extent of discrepancies identified in this critical review should not be interpreted to mean that those results which are qualified are less than valid.

TABLE 1

SAMPLES INCLUDED IN THIS QAR

ENSECO LABORATORY NUMBER	DAMES & MOORE SAMPLE IDENTIFICATION	ROCKY MT. LABORATORY NUMBER (Inorganics)	ANALYTICAL PARAMETERS
12261-001	FB	1366901	$M^{(T)}, M^{(D)}, V, S$
12261-002	FB	1366801	$M^{(D)}$
12261-003	TB	-	V
12261-004	SW-1	1366902	$M^{(T)}, S, V$
12261-005	SW-1	1366802	$M^{(D)}$
12206-001	FB	$1361601^{(T)}/1361401^{(D)}$	$CN, V, S, M^{(T)}, M^{(D)}$
12206-002	SW-2	$1361602^{(T)}/1361402^{(D)}$	$CN, V, S, M^{(T)}, M^{(D)}$
12206-004	TB	-	V
13171-001	SW-1	-	I
13172-002	SW-2	-	I

V - Volatile
S - Semi-volatile
M - Metals - (T) Total, (D) Dissolved
CN - Cyanide
I - Inorganics

SECTION 1 QUALITY ASSURANCE REVIEW

A. Organic Data

Four (4) aqueous samples and four (4) quality control samples (field and trip blanks) were collected and analyzed by Enseco, Inc., in Somerset, New Jersey. These samples were collectively analyzed for the volatile organic compounds and base/neutral/acid semivolatile organic compounds.

The findings offered in this report are based upon a rigorous review of holding times, blank analysis results, surrogate and matrix spike recoveries, GC/MS tuning, and calibrations. The organic analytical results with appropriate qualifiers are attached in the data summary sheets.

Overall, the data quality for this data package was acceptable. With regard to the requirements as specified in the workplan, all

deliverables and reporting requirements were met for this data package with the exception of the following.

Correctable Deficiencies

- The semivolatile continuing calibration verification (CCV) B9549 is not listed on Table 5B on Page 123 of package 12261. In order to confirm that the samples were analyzed within 12 hours of calibration, this CCV should be listed on the Table.

Non-Correctable Deficiencies

- The trip blank associated with package 12261 was not preserved and was analyzed one day out of hold for volatiles. Although this is technically non-compliant, no qualifiers were applied to the sample results.

Organic Data Qualifiers

- Methylene chloride, acetone, and chloroform, are present in field blanks, trip blanks, and/or laboratory method blanks. The reported presence of these constituents in the following volatile samples are flagged "B" on the data summary sheets.

Compound	Applicable Samples
Acetone	SW-1, SW-2
Methylene Chloride	SW-2
Chloroform	SW-2

- The phthalates detected in SW-1 are below the Contract Required Detection Limit and may be associated with sampling contamination.

- The calibration criteria were met, however, the following volatile compounds have a percent difference between the initial and continuing calibration of greater than 25 percent. All positive results for these compounds have been flagged "J" as estimated.

Compound	Applicable Samples
Acetone	FB (12206-01), SW-2, TB (12206-004)

- The calibration criteria were met, however, the following semivolatile organic compounds have a percent difference between the initial and continuing calibration of greater than 25 percent criteria. All positive results for these compounds have been flagged "J" estimated and "UJ" as non-detects.

Compound	Applicable Samples
Hexachloropentadiene	FB (12261-001), SW-1

- Per CLP protocol, all sample results detected at levels less than the quantitation limit should be considered estimated and have been flagged "J" on the sample data summary.

B. Inorganic Data

Four (4) aqueous samples and four (4) quality control samples (field blanks) were collected and analyzed by Enseco Corporation of Somerset, New Jersey. These samples were analyzed for metals (total and dissolved), cyanide, COD, BOD, TSS, TDS, TOC, hardness and alkalinity.

The findings offered in this report are based upon a rigorous review of holding times, blank analysis results, pre- and post-digestion spike recoveries, laboratory duplicate analysis, quantitation of positive results, instrument sensitivity, calibration, ICP interference checks, ICP serial dilutions, laboratory control standard recoveries, graphite furnace QC, and adherence to the protocol and requirements specified in EPA CLP SOW3/90. The inorganic analytical results with appropriate qualifiers are attached in the data summary sheets.

Overall, the inorganic quality for this data package appears to be acceptable. With regard to the requirements as specified in the workplan, all deliverables and reporting requirements were met for this data package with the exception of the following.

Correctable Deficiencies

- Intra-laboratory chains-of-custody were not provided in packages 12261 and 12206 for inorganic samples analyzed at Rocky Mountain Analytical.

- A summary table and raw data for the LCS was not provided in the dissolved metal section of package 12261.

- Preparation logs were not provided for Furnace AA and ICP in the dissolved metal section of package 12261.

Non-Correctable Deficiencies

- The cyanide matrix spike of SW-2 was analyzed 25 days out of hold. The sample was re-digested and analyzed because the spike had not been added for the original analysis (which was analyzed within the hold time). Since the sample result was non-detected and the out of hold spike was within control limits, no qualifiers were applied.

Inorganic Data Qualifiers

- Due to low spike recoveries of selenium, iron, lead, and thallium for total metals, all associated samples are qualified as biased low. Positive results are flagged "L" and non-detects are flagged "UL".

- Due to low spike recovery of selenium and thallium in the dissolved metals, associated positive results are flagged "L" and non-detects "UL" as biased low.

- The total metals for package 12261 had aluminum interference. All aluminum positive results are flagged "J" as estimated.

- The serial dilution recoveries for total metal in package were 12206 outside the control limits for calcium and iron. Positive results are flagged "L" and non-detects "UL" as biased low.

- The post-digestion spike for lead and thallium in the total metal and dissolved metal section of package 12206 was below the control limits. Positive results are flagged "L" and non-detects "UL" as biased low.

It should be noted that for SW-1 the dissolved metals for copper, magnesium, potassium, and sodium were higher than the corresponding total metals. The Dames & Moore sampling team stated that the total metals were collected as surficial grab samples, while the dissolved were collected through tygon tubing and a filter attached to a peristaltic pump. The dissolved sample was collected from deeper waters than the total and by different means; therefore, it is possible to see slightly higher results in the dissolved than the total metals.

C. Conclusion

Based upon the data provided, the majority of the organic and inorganic data appears to be acceptable. Two samples were analyzed outside of hold times, the volatile TB and the cyanide matrix spike of SW-2. Although technically non-compliant, no qualifiers were applied to these samples. The data validation review has identified aspects of the analytical data that require qualification. To confidently use any of the data within the data set, the data user should understand the limitations and qualifications presented.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R_A-7_9,5-11

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12205 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2151

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 8 Date Analyzed: 02/23/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	47	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	910	E
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

R_A-7_95-11

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12205 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2151

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 8 Date Analyzed: 02/23/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	28.46	8.7	BJ.

FORM I VOA-TIC

1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R_A-7_9.5-1

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12205 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0001DL

Sample wt/vol: 0.50 (g/mL) G Lab File ID: V2153

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 8 Date Analyzed: 02/23/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	110	U
74-83-9	Bromomethane	110	U
75-01-4	Vinyl Chloride	110	U
75-00-3	Chloroethane	110	U
75-09-2	Methylene Chloride	54	U
67-64-1	Acetone	110	U
75-15-0	Carbon Disulfide	54	U
75-35-4	1,1-Dichloroethene	54	U
75-35-3	1,1-Dichloroethane	54	U
540-59-0	1,2-Dichloroethene (total)	48	DJ
67-66-3	Chloroform	54	U
107-06-2	1,2-Dichloroethane	54	U
78-93-3	2-Butanone	110	U
71-55-6	1,1,1-Trichloroethane	54	U
56-23-5	Carbon Tetrachloride	54	U
108-05-4	Vinyl Acetate	110	U
75-27-4	Bromodichloromethane	54	U
78-87-5	1,2-Dichloropropane	54	U
10061-01-5	cis-1,3-Dichloropropene	54	U
79-01-6	Trichloroethene	1400	D
124-48-1	Dibromochloromethane	54	U
79-00-5	1,1,2-Trichloroethane	54	U
71-43-2	Benzene	54	U
10061-02-6	Trans-1,3-Dichloropropene	54	U
75-25-2	Bromoform	54	U
108-10-1	4-Methyl-2-Pentanone	110	U
591-78-6	2-Hexanone	110	U
127-18-4	Tetrachloroethene	54	U
79-34-5	1,1,2,2-Tetrachloroethane	110	U
108-88-3	Toluene	54	U
108-90-7	Chlorobenzene	54	U
100-41-4	Ethylbenzene	54	U
100-42-5	Styrene	54	U
1330-20-7	Total Xylenes	54	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

R_A-7_9.5-11DL

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12205 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0001DL

Sample wt/vol: 0.50 (g/mL) G Lab File ID: V2153

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 8 Date Analyzed: 02/23/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RA-7_9_5-1

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12205 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0001RX

Sample wt/vol: 30.1 (g/mL) G Lab File ID: G0628

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 04/16/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/26/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)Ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl Alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
39638-32-9	bis(2-Chloroisopropyl)Ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-Di-n-Propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(2-Chloroethoxy)Methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-Methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RA-7_9_5-11RE

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12205 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0001RX

Sample wt/vol: 30.1 (g/mL) G Lab File ID: G0628

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 04/16/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/26/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-10-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-Butylphthalate	160	BJ
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo(a)Anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)Phthalate	360	U
117-84-0	Di-n-Octyl Phthalate	360	U
205-99-2	Benzo(b)Fluoranthene	360	U
207-08-9	Benzo(k)Fluoranthene	360	U
50-32-8	Benzo(a)Pyrene	360	U
193-39-5	Indeno(1,2,3-cd)Pyrene	360	U
53-70-3	Dibenz(a,h)Anthracene	360	U
191-24-2	Benzo(g,h,i)Perylene	360	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1361701

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: R/A-7 9.5-11

Level (low/med): LOW Date Received: 02/18/91

% Solids: 92.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7580			P
7440-36-0	Antimony	8.9	U		P
7440-38-2	Arsenic	2.2			F
7440-39-3	Barium	68.3		E	P
7440-41-7	Beryllium	0.43	U		P
7440-43-9	Cadmium	0.86	U		P
7440-70-2	Calcium	344	B		P
7440-47-3	Chromium	16.5			P
7440-48-4	Cobalt	10.4	B		P
7440-50-8	Copper	9.7			P
7439-89-6	Iron	14600			P
7439-92-1	Lead	7.1			F
7439-95-4	Magnesium	758	B		P
7439-96-5	Manganese	410			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	5.3	B		P
7440-09-7	Potassium	502	B		P
7482-49-2	Selenium	0.43	U		F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	333	U		P
7440-28-0	Thallium	0.22	U	W	F
7440-62-2	Vanadium	20.1			P
7440-66-6	Zinc	18.1			P
	Cyanide	0.54	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R_A-7_185-20

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12205 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2152

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 6 Date Analyzed: 02/23/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	12	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

R_A-7_185-20

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12205 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2152

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 6 Date Analyzed: 02/23/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	28.44	7.4	BJ

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RA-7_18_5-20

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12205 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0002

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9723

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 7 dec. ____ Date Extracted: 02/22/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/28/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)Ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl Alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
39638-32-9	bis(2-Chloroisopropyl)Ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-Propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic Acid	1700	U
111-91-1	bis(2-Chloroethoxy)Methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-Methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethyl Phthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RA-7_18_5-

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12205 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12205-0002

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9723

Level: (low/med) LOW Date Received: 02/15/91

% Moisture: not dec. 7 dec. ____ Date Extracted: 02/22/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/28/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	350	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-10-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-Methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
84-74-2	Di-n-Butylphthalate	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	700	U
56-55-3	Benzo(a)Anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)Phthalate	350	U
117-84-0	Di-n-Octyl Phthalate	350	U
205-99-2	Benzo(b)Fluoranthene	350	U
207-08-9	Benzo(k)Fluoranthene	350	U
50-32-8	Benzo(a)Pyrene	350	U
193-39-5	Indeno(1,2,3-cd)Pyrene	350	U
53-70-3	Dibenz(a,h)Anthracene	350	U
191-24-2	Benzo(g,h,i)Perylene	350	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1361702

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: R/A-7 18.5-20

Level (low/med): LOW Date Received: 02/18/91

% Solids: 87.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2290			P
7440-36-0	Antimony	9.4	U		P
7440-38-2	Arsenic	0.46	U	W	F
7440-39-3	Barium	38.3	B	E	P
7440-41-7	Beryllium	0.46	U		P
7440-43-9	Cadmium	0.92	U		P
7440-70-2	Calcium	269	B		P
7440-47-3	Chromium	2.6			P
7440-48-4	Cobalt	4.7	B		P
7440-50-8	Copper	4.7	B		P
7439-89-6	Iron	2300			P
7439-92-1	Lead	1.1			F
7439-95-4	Magnesium	189	B		P
7439-96-5	Manganese	270			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	3.3	B		P
7440-09-7	Potassium	203	B		P
7482-49-2	Selenium	0.46	U		F
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	352	U		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	4.1	B		P
7440-66-6	Zinc	6.4			P
	Cyanide	0.57	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R-A7A_6-8'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2268

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 15 Date Analyzed: 02/28/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	9	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

R-A7A_6-8

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2268

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 15 Date Analyzed: 02/28/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	20.60	21	J
2.	Unknown	28.42	7.1	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RA7A_6_8

ab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0002

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B0115

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/06/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
39638-32-9	bis(2-Chloroisopropyl)Ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RA7A_6_8

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0002

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B0115

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/06/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-10-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	390	U
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1367202

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: R/A7A 6-8'

Level (low/med): LOW Date Received: 02/21/91

% Solids: 86.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9440			P
7440-36-0	Antimony	9.5	U	N	P
7440-38-2	Arsenic	0.81	B	WN	F
7440-39-3	Barium	62.3		*	P
7440-41-7	Beryllium	0.93	B		P
7440-43-9	Cadmium	0.93	U		P
7440-70-2	Calcium	1480			P
7440-47-3	Chromium	15.2			P
7440-48-4	Cobalt	11.9			P
7440-50-8	Copper	11.9			P
7439-89-6	Iron	17500		*	P
7439-92-1	Lead	4.4		N	F
7439-95-4	Magnesium	2310		E	P
7439-96-5	Manganese	439		*	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	18.9			P
7440-09-7	Potassium	1380			P
7482-49-2	Selenium	0.46	U	N	F
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	357	U		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	20.8			P
7440-66-6	Zinc	38.5		*	P
	Cyanide	0.58	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN 7/88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R-G2_8-10'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2269

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 10 Date Analyzed: 02/28/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

R-G2_8-10'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2269

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 10 Date Analyzed: 02/28/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	20.62	6.7	J
2.	Unknown	28.44	6.7	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RG2_8_10

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B0116

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 11 dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/06/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
100-51-6	Benzyl Alcohol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
39638-32-9	bis(2-Chloroisopropyl)Ether	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-Di-n-Propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(2-Chloroethoxy)Methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RG2_8_10

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B0116

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 11 dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/06/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-10-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
84-74-2	Di-n-Butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	740	U
56-55-3	Benzo(a)Anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)Phthalate	370	U
117-84-0	Di-n-Octyl Phthalate	370	U
205-99-2	Benzo(b)Fluoranthene	370	U
207-08-9	Benzo(k)Fluoranthene	370	U
50-32-8	Benzo(a)Pyrene	370	U
193-39-5	Indeno(1,2,3-cd)Pyrene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
191-24-2	Benzo(g,h,i)Perylene	370	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1367203

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: R/G2 8-10'

Level (low/med): LOW Date Received: 02/21/91

% Solids: 88.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8250			P
7440-36-0	Antimony	9.2	U	N	P
7440-38-2	Arsenic	0.45	U	WN	F
7440-39-3	Barium	317		*	P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	0.90	U		P
7440-70-2	Calcium	443	B		P
7440-47-3	Chromium	8.9			P
7440-48-4	Cobalt	15.1			P
7440-50-8	Copper	2.3	U		P
7439-89-6	Iron	9130		*	P
7439-92-1	Lead	15.7		N	F
7439-95-4	Magnesium	2360		E	P
7439-96-5	Manganese	1450		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	31.7			P
7440-09-7	Potassium	1060	B		P
7482-49-2	Selenium	0.45	U	N	F
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	347	U		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	8.4	B		P
7440-66-6	Zinc	46.9		*	P
	Cyanide	0.56	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R-H3_8-10'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2270

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 19 Date Analyzed: 02/28/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	10	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	14	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

R-H3_8-10'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2270

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 19 Date Analyzed: 02/28/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	28.44	7.4	J

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RH3_8_10_1

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0005

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B0117

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/07/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
39638-32-9	bis(2-Chloroisopropyl)Ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RH3_8_10_12

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0005

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B0117

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/07/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-10-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	390	U
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1367204

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: R/H3 12-14', 14-16

Level (low/med): LOW Date Received: 02/21/91

% Solids: 88.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4270			P
7440-36-0	Antimony	9.3	U	N	P
7440-38-2	Arsenic	0.45	U	WN	F
7440-39-3	Barium	225		*	P
7440-41-7	Beryllium	0.85	B		P
7440-43-9	Cadmium	0.91	U		P
7440-70-2	Calcium	308	B		P
7440-47-3	Chromium	6.6			P
7440-48-4	Cobalt	7.3	B		P
7440-50-8	Copper	2.6	B		P
7439-89-6	Iron	5240		*	P
7439-92-1	Lead	3.2		SN	F
7439-95-4	Magnesium	521	B	E	P
7439-96-5	Manganese	1100		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	12.1			P
7440-09-7	Potassium	575	B		P
7482-49-2	Selenium	0.45	U	N	F
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	349	U		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	9.1	B		P
7440-66-6	Zinc	16.4		*	P
	Cyanide	0.57	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN 7/88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R_L-9_16-18'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12048 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12048-0001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1911

Level: (low/med) LOW Date Received: 02/11/91

% Moisture: not dec. 21 Date Analyzed: 02/14/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	7	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

FORM I VOA 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R_L-9_16-18

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12048 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12048-0001

Sample wt/vol: 30.5 (g/mL) G Lab File ID: B9891

Level: (low/med) LOW Date Received: 02/11/91

% Moisture: not dec. 22 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
100-51-6	Benzyl Alcohol	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
39638-32-9	bis(2-Chloroisopropyl)Ether	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
65-85-0	Benzoic Acid	99	J
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

R_L-9_16-18

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12048 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12048-0001

Sample wt/vol: 30.5 (g/mL) G Lab File ID: B9891

Level: (low/med) LOW Date Received: 02/11/91

% Moisture: not dec. 22 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-10-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	830	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	420	U
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1353901

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: R/L9 16-18', 18-2 compos

Level (low/med): LOW Date Received: 02/13/91

% Solids: 81.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9150			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	1.6	B		F
7440-39-3	Barium	181		E	P
7440-41-7	Beryllium	0.71	B		P
7440-43-9	Cadmium	0.98	U		P
7440-70-2	Calcium	460	B		P
7440-47-3	Chromium	11.6			P
7440-48-4	Cobalt	9.4	B		P
7440-50-8	Copper	16.3			P
7439-89-6	Iron	18800			P
7439-92-1	Lead	6.6			F
7439-95-4	Magnesium	1860		E	P
7439-96-5	Manganese	346			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	10.4			P
7440-09-7	Potassium	786	B		P
7482-49-2	Selenium	0.49	U		F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	376	U		P
7440-28-0	Thallium	0.24	U		F
7440-62-2	Vanadium	22.2			P
7440-66-6	Zinc	37.1			P
	Cyanide				NR

Color Before: ORANGE Clarity Before: _____ Texture: COARSE

Color After: ORANGE Clarity After: _____ Artifacts: _____

Comments:

CYANIDE ANALYSIS IS NOT REQUIRED FOR THIS SAMPLE.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1353907

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: R/L9 18-20'

Level (low/med): LOW Date Received: 02/15/91

% Solids: 87.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7482-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.57	U		AS

Color Before: ORANGE Clarity Before: _____ Texture: COARSE

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

CYANIDE ANALYSIS ONLY IS REQUIRED ON THIS SAMPLE.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-C5_4-6'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12139 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1933

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 20 Date Analyzed: 02/15/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_C5_4-6

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0004

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9901

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 20 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
100-51-6	Benzyl Alcohol	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
39638-32-9	bis(2-Chloroisopropyl)Ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
65-85-0	Benzoic Acid	54	J
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_C5_4-6

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0004

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9901

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 20 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-10-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	820	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	410	U
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1353904

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: A/C5 4-6'

Level (low/med): LOW Date Received: 02/14/91

% Solids: 81.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4990			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	2.0	B		F
7440-39-3	Barium	32.2	B	E	P
7440-41-7	Beryllium	0.49	U		P
7440-43-9	Cadmium	0.98	U		P
7440-70-2	Calcium	1190	B		P
7440-47-3	Chromium	21.4			P
7440-48-4	Cobalt	13.2			P
7440-50-8	Copper	16.3			P
7439-89-6	Iron	15200			P
7439-92-1	Lead	15.3			F
7439-95-4	Magnesium	953	B	E	P
7439-96-5	Manganese	619			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	7.3	B		P
7440-09-7	Potassium	855	B		P
7482-49-2	Selenium	0.49	U	W	F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	377	U		P
7440-28-0	Thallium	0.24	U		F
7440-62-2	Vanadium	16.1			P
7440-66-6	Zinc	22.4			P
	Cyanide	0.61	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN 7/88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-C5_14-16

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12139 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1932

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 27 Date Analyzed: 02/15/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-35-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	Trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_C5_14-16

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0003

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9875

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 27 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	450	U
111-44-4	bis(2-Chloroethyl)Ether	450	U
95-57-8	2-Chlorophenol	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
100-51-6	Benzyl Alcohol	450	U
95-50-1	1,2-Dichlorobenzene	450	U
95-48-7	2-Methylphenol	450	U
39638-32-9	bis(2-Chloroisopropyl)Ether	450	U
106-44-5	4-Methylphenol	450	U
621-64-7	N-Nitroso-Di-n-Propylamine	450	U
67-72-1	Hexachloroethane	450	U
98-95-3	Nitrobenzene	450	U
78-59-1	Isophorone	450	U
88-75-5	2-Nitrophenol	450	U
105-67-9	2,4-Dimethylphenol	450	U
65-85-0	Benzoic Acid	120	J
111-91-1	bis(2-Chloroethoxy)Methane	450	U
120-83-2	2,4-Dichlorophenol	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U
91-20-3	Naphthalene	450	U
106-47-8	4-Chloroaniline	450	U
87-68-3	Hexachlorobutadiene	450	U
59-50-7	4-Chloro-3-Methylphenol	450	U
91-57-6	2-Methylnaphthalene	450	U
77-47-4	Hexachlorocyclopentadiene	450	U
88-06-2	2,4,6-Trichlorophenol	450	U
95-95-4	2,4,5-Trichlorophenol	2200	U
91-58-7	2-Chloronaphthalene	450	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethyl Phthalate	450	U
208-96-8	Acenaphthylene	450	U
606-20-2	2,6-Dinitrotoluene	450	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_C5_14-1

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0003

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9875

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 27 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	450	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
86-73-7	Fluorene	450	U
100-10-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	450	U
120-12-7	Anthracene	450	U
84-74-2	Di-n-Butylphthalate	450	U
206-44-0	Fluoranthene	450	U
129-00-0	Pyrene	450	U
85-68-7	Butylbenzylphthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	900	U
56-55-3	Benzo(a)Anthracene	450	U
218-01-9	Chrysene	450	U
117-81-7	bis(2-Ethylhexyl)Phthalate	450	U
117-84-0	Di-n-Octyl Phthalate	450	U
205-99-2	Benzo(b)Fluoranthene	450	U
207-08-9	Benzo(k)Fluoranthene	450	U
50-32-8	Benzo(a)Pyrene	450	U
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U
53-70-3	Dibenz(a,h)Anthracene	450	U
191-24-2	Benzo(g,h,i)Perylene	450	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1353903

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: A/C5 14-16

Level (low/med): LOW Date Received: 02/14/91

% Solids: 81.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8200			P
7440-36-0	Antimony	10.1	U		P
7440-38-2	Arsenic	1.5	B		F
7440-39-3	Barium	50.3		E	P
7440-41-7	Beryllium	0.49	U		P
7440-43-9	Cadmium	0.99	U		P
7440-70-2	Calcium	998	B		P
7440-47-3	Chromium	12.4			P
7440-48-4	Cobalt	11.2	B		P
7440-50-8	Copper	18.4			P
7439-89-6	Iron	18300			P
7439-92-1	Lead	12.3			F
7439-95-4	Magnesium	1500		E	P
7439-96-5	Manganese	494			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	10.9			P
7440-09-7	Potassium	1050	B		P
7482-49-2	Selenium	0.49	U	W	F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	379	U		P
7440-28-0	Thallium	0.25	U		F
7440-62-2	Vanadium	19.3			P
7440-66-6	Zinc	36.0			P
	Cyanide	0.62	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN 7/88

AR302660

000449

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-C5_16-1

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12139 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1931

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 5 Date Analyzed: 02/15/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-C5_18-20'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12139 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1930

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 8 Date Analyzed: 02/15/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_C5_18-2

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0001

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9900

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 8 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)Ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl Alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
39638-32-9	bis(2-Chloroisopropyl)Ether	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-Di-n-Propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic Acid	50	J
111-91-1	bis(2-Chloroethoxy)Methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-Methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethyl Phthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_C5_18-20

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0001

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9900

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 8 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-10-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-Methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-Butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo(a)Anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)Phthalate	360	U
117-84-0	Di-n-Octyl Phthalate	360	U
205-99-2	Benzo(b)Fluoranthene	360	U
207-08-9	Benzo(k)Fluoranthene	360	U
50-32-8	Benzo(a)Pyrene	360	U
193-39-5	Indeno(1,2,3-cd)Pyrene	360	U
53-70-3	Dibenz(a,h)Anthracene	360	U
191-24-2	Benzo(g,h,i)Perylene	360	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1353902

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: A/C5 18-20'

Level (low/med): LOW Date Received: 02/14/91

% Solids: 91.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4040			P
7440-36-0	Antimony	9.0	U		P
7440-38-2	Arsenic	2.7			F
7440-39-3	Barium	47.5		E	P
7440-41-7	Beryllium	0.44	U		P
7440-43-9	Cadmium	0.88	U		P
7440-70-2	Calcium	329	B		P
7440-47-3	Chromium	17.9			P
7440-48-4	Cobalt	5.9	B		P
7440-50-8	Copper	22.4			P
7439-89-6	Iron	11600			P
7439-92-1	Lead	5.3			F
7439-95-4	Magnesium	1400		E	P
7439-96-5	Manganese	330			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	9.2			P
7440-09-7	Potassium	496	B		P
7482-49-2	Selenium	0.44	U		F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	338	U		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	14.0			P
7440-66-6	Zinc	24.2			P
	Cyanide	0.55	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN 7/88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-C11_16-18'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2282

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 19 Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

A-C11_16-1

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2282

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 19 Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AC11_16_18

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B0391

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 20 dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/16/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
100-51-6	Benzyl Alcohol	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
39638-32-9	bis(2-Chloroisopropyl)Ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AC11_16_18

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12262-0001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B0391

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. 20 dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/16/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-10-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	820	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	410	U
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1367201

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: A/C11 16-13

Level (low/med): LOW Date Received: 02/21/91

% Solids: 88.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5430			P
7440-36-0	Antimony	9.3	U	N	P
7440-38-2	Arsenic	1.2	B	WN	F
7440-39-3	Barium	65.4		*	P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	0.90	U		P
7440-70-2	Calcium	453	B		P
7440-47-3	Chromium	12.6			P
7440-48-4	Cobalt	10.1	B		P
7440-50-8	Copper	9.8			P
7439-89-6	Iron	13600		*	P
7439-92-1	Lead	7.9		N	F
7439-95-4	Magnesium	1610		E	P
7439-96-5	Manganese	747		*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	9.7			P
7440-09-7	Potassium	613	B		P
7482-49-2	Selenium	0.45	U	N	F
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	348	U		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	18.1			P
7440-66-6	Zinc	21.8		*	P
	Cyanide	0.57	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN 7/88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-H2_10-12

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12139 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0006

Sample wt/vol: 2.5 (g/mL) G Lab File ID: V2120

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 0 Date Analyzed: 02/22/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	20	U
74-83-9	Bromomethane	20	U
75-01-4	Vinyl Chloride	20	U
75-00-3	Chloroethane	20	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-35-3	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	20	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
108-05-4	Vinyl Acetate	20	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	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	20	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	Total Xylenes	10	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_H2_10-12

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0006

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9903

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 0 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-Chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_H2_10-1

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0006

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B9903

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 0 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-10-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1353906

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: A/HZ 10'-12'

Level (low/med): LOW Date Received: 02/14/91

% Solids: 89.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6460			P
7440-36-0	Antimony	9.2	U		P
7440-38-2	Arsenic	1.5	B		F
7440-39-3	Barium	106		E	P
7440-41-7	Beryllium	0.49	B		P
7440-43-9	Cadmium	0.90	U		P
7440-70-2	Calcium	424	B		P
7440-47-3	Chromium	21.7			P
7440-48-4	Cobalt	15.7			P
7440-50-8	Copper	9.9			P
7439-89-6	Iron	21600			P
7439-92-1	Lead	7.2			F
7439-95-4	Magnesium	1350		E	P
7439-96-5	Manganese	1000			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	13.2			P
7440-09-7	Potassium	807	B		P
7482-49-2	Selenium	0.45	U	W	F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	346	U		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	23.2			P
7440-66-6	Zinc	30.6			P
	Cyanide	0.56	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A-K9A_8-10'

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12139 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0005

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V1934

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 16 Date Analyzed: 02/15/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_K9A_8-

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0005

Sample wt/vol: 30.4 (g/mL) G Lab File ID: B9902

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
39638-32-9	bis(2-Chloroisopropyl)Ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	49	J
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A_K9A_8-10

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12139 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12139-0005

Sample wt/vol: 30.4 (g/mL) G Lab File ID: B9902

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 02/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/30/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-10-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	790	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	62	J
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1353905

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: A/K9A 8-10'

Level (low/med): LOW Date Received: 02/14/91

% Solids: 87.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4830			P
7440-36-0	Antimony	9.4	U		P
7440-38-2	Arsenic	2.1	B		F
7440-39-3	Barium	97.1		E	P
7440-41-7	Beryllium	0.59	B		P
7440-43-9	Cadmium	0.92	U		P
7440-70-2	Calcium	540	B		P
7440-47-3	Chromium	21.7			P
7440-48-4	Cobalt	9.9	B		P
7440-50-8	Copper	9.7			P
7439-89-6	Iron	15100			P
7439-92-1	Lead	10.1			F
7439-95-4	Magnesium	1090	B	E	P
7439-96-5	Manganese	584			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	9.4			P
7440-09-7	Potassium	754	B		P
7482-49-2	Selenium	0.46	U		F
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	353	U		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	20.6			P
7440-66-6	Zinc	24.9			P
	Cyanide	0.57	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN 7/88

AR302678

000451

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12262-0007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0341

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	1	J
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12262-0007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0341

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD_BLANK

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12262-0007

Sample wt/vol: 1000 (g/mL) ML Lab File ID: G0103

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/06/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

AR302681

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD_BLANK

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12262-0007

Sample wt/vol: 1000 (g/mL) ML Lab File ID: G0103

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/06/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	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-Octyl Phthalate	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

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

1367001

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: _____

Lab Code: ENSECO Case No.: _____ SAS No.: _____ SDG No.: _____

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

Level (low/med): LOW Date Received: 02/21/91

% 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	33.0	U		P
7440-36-0	Antimony	41.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	3.0	U		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	213	B		P
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt	8.0	U		P
7440-50-8	Copper	10.0	U		P
7439-89-6	Iron	24.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	74.0	U		P
7439-96-5	Manganese	7.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	174	U		P
7482-49-2	Selenium	2.0	U		F
7440-22-4	Silver	6.0	U		P
7440-23-5	Sodium	1540	U		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	4.0	U		P
	Cyanide	10.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

THIS SAMPLE IS A FIELD BLANK.

FORM I - IN 7/88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12262-0008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0342

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12262-0008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0342

Level: (low/med) LOW Date Received: 02/20/91

% Moisture: not dec. Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-01

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB_01MAR91-B

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0340

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-01

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: MB_01MAR91-B

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0340

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12296-SB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: G0262

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/13/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-Chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12296-SB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: G0262

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/13/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-10-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK_01

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 12296-SB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: G0262

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 03/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/13/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123422	2-PENTANONE, 4-HYDROXY-4-MET	6.11	6100	AJ
2.	UNKNOWN	7.73	400	AJ
3.	SUBSTITUTED HEXANEDIOIC ACID	31.03	160	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-02

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_28FEB91-B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2261

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 02/28/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	2	J
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	1	J
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-02

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_28FEB91-B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2261

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 02/28/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_02

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-MB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P0520

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK_02

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-MB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P0520

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	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	20	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-Octyl Phthalate	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

EPA SAMPLE NO.

SBLK_02

Lab Name: ENSECO-EAST Contract: _____

Lab Code: EEAST Case No.: 12262 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 12261-MB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P0520

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/25/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK-03

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_01MAR91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2280

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	5	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK-03

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12262 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: MB_01MAR91-A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: V2280

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 03/01/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP_BLAN

Lab Name: ENSECO EAST Contract: 68-W8-0069

Lab Code: Case No.: 12139 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 12139-0007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C0178

Level: (low/med) LOW Date Received: 02/13/91

% Moisture: not dec. Date Analyzed: 02/22/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U