

EA Laboratories

19 Loveton Circle
Sparks, MD 21152
Telephone: 410-771-4920
Fax: 410-771-4407



November 26, 1996

B
12/3/96
MT
DAP
NO

Mr. Al Eckert
Arkansas Department of Pollution Control and Ecology
Solid Waste Management Division
8001 National Drive
P.O. Box 8913
Little Rock, Arkansas 72219-8913

4350 4351
0162-SR-2 0163-SR-3

Re: Groundwater Monitoring Data Submittal
Tontitown Landfill Permit Numbers 123-SR-2 and/or 162-SR-2

72-044

Dear Mr. Eckert:

In accordance with Chapter 12 of Regulation 22, Rules for Solid Waste Management, the Tontitown Landfill, Inc. has performed the second quarter groundwater sampling event at the subject facility on September 25, 1996. Analytical report number is 961577 (groundwater Appendix I) from EA Laboratories for samples collected during this event are enclosed. Included in the subject reports are copies of field parameter forms completed during the sampling event. Observations and measurements made in the field are listed on these forms.

Please note that sample MW-12 is a field duplicate of sample MW-8.

If you have any questions concerning the enclosed analytical reports, please contact me at 410-771-4920. If you have any other questions concerning the environmental compliance at the subject site, please contact either Mr. Michael Dae of USA Waste at 404-799-2950 or Mr. Kevin Hodges of USA Waste at 501-751-7024.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Thomas Randall".

R. Thomas Randall
Laboratory Project Manager

enclosure

cc: Michael S. Dae, w/o enclosure
Kevin Hodges, w/o enclosure

EA Laboratories

19 Loveton Circle
Sparks, MD 21152
Telephone: 410-771-4920
Fax: 410-771-4407



25 October 1996

Mr. Mike Dae
USA Waste Services Company
2236 Bolton Road, N.W.
Atlanta, GA 30318

Re: Tontitown Landfill (70110.01)

Dear Mr. Dae:

Enclosed is our report on the analysis of eleven water samples, and one equipment blank collected for the Tontitown Landfill project on 25 September 1996. The invoice is included.

Please contact me if you have any questions or require further information and refer to report 961577. Unless other arrangements are made, we reserve the right to dispose of your samples sixty (60) days from the date of this letter. We will retain the raw data for seven years from this date.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Thomas Randall".

R. Thomas Randall
Laboratory Project Manager

enclosure
cc: Kevin Hodges

LABORATORY DATA REPORT

Prepared for:

Tontitown Landfill

Prepared by:

EA Laboratories
19 Loveton Circle
Sparks, Maryland 21152

Report 961577

October 1996

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EA Laboratories Report No. 961577

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I NARRATIVE

EA Laboratories
ANALYTICAL NARRATIVE

Client: **USA Waste**
Site: **Tontitown Landfill**
Project number: **70110.01**

EA Laboratories Report: **961577**
Laboratory Project Manager: **R. Thomas Randall**
Report Date: **25 October 1996**

This report contains the results of the analysis of eleven water samples, and one equipment blank collected on 25 September 1996 in support of the referenced project.

SAMPLE RECEIPT

The samples, one equipment blank, and one trip blank arrived by Federal Express at EA Laboratories on 27 September 1996. Upon receipt, the samples and blanks were inspected and compared with the chain-of-custody record. The samples and blanks were then logged into the laboratory computer system with assigned laboratory accession numbers and released for analysis.

<u>Client Sample Designation</u>	<u>EA Lab Number</u>
MW-1	9614486
MW-2	9614487
MW-3	9614488
MW-4	9614489
MW-5	9614490
MW-6	9614491
MW-7	9614492
MW-8	9614493
MW-10	9614494
MW-11	9614495
MW-12	9614496
EQUIP-BLANK	9614497
TRIP BLANK	9614498

Following this narrative section are a description of analytical methods (Table 1), a glossaries of data qualifiers used in this report (Table 2), and the original chain-of-custody record. Analytical results and quality control information are summarized in the appended data package which has been formatted to be consistent with the deliverable requirements of this project.

QUALITY CONTROL

The following sections are ordered as the data appears in this report. They contain observations made during sample analysis, summarize the results of quality control measurements, and address the impact on data usability based upon project Data Quality Objectives. For each fractional

EA Laboratories
ANALYTICAL NARRATIVE

Client: USA Waste
Site: Tontitown Landfill
Project number: 70110.01

EA Laboratories Report: 961577
Laboratory Project Manager: R. Thomas Randall
Report Date: 25 October 1996

analysis the narrative includes.

- **Sample chronology:** This section summarizes the sample history by fraction including the sample preparation method and date, analytical method, and analysis date. Anything unusual about the samples, digestates or extracts is identified. Holding time compliance is evaluated in this section.
- **Laboratory method performance:** All quality control criteria for method performance must be met for all target analytes for data to be reported. These criteria generally apply to instrument tune, calibration, method blanks, and Laboratory Control Samples (LCS). In some instances where method criteria fail, useable data can be obtained and are reported with client approval. The narrative will then include a thorough discussion of the impact on data quality.
- **Sample performance:** Quality control field samples are analyzed to determine any measurement bias due to the sample matrix based on evaluation of matrix spikes (MS), matrix spike duplicates (MSD), and laboratory duplicates (D). If acceptance criteria are not met, matrix interferences are confirmed either by reanalysis or by inspection of the LCS results to verify that laboratory method performance is in control. Data are reported with appropriate qualifiers or discussion.

VOLATILES by GC/MS - WATER (EA9614486-EA9614498)

Sample Chronology: The samples and associated quality control samples were analyzed by SW-846 Methods 5030/8260 on 7 and 8 October 1996 for the RCRA Appendix I analyte list. All analyses were performed within holding times.

Laboratory Method Performance: All laboratory method performance criteria were met for the reported samples.

Sample Performance: All quality control criteria were met for the reported samples.

METALS - WATER (EA9614486-EA9614497)

Sample Chronology: Twelve samples were prepared on 15-23 October 1996 and analyzed for total metals according to EPA SW846 methods 6010/7470/7060/7421/7740/7841 on 16-24 October 1996.

Laboratory Method Performance: All laboratory method performance criteria were met for the reported samples.

EA Laboratories
ANALYTICAL NARRATIVE

Client: USA Waste
Site: Tontitown Landfill
Project number: 70110.01

EA Laboratories Report: **961577**
Laboratory Project Manager: **R. Thomas Randall**
Report Date: **25 October 1996**

Sample Performance: The iron matrix spike recovery (127.4%) was above the upper control limit (125%). Any bias to the sample data is unlikely as the matrix spike duplicate recovery was within control limits. All other quality control criteria were met for the reported samples.

GENERAL CHEMISTRY - WATER (EA9614486-EA9614497)

Sample Chronology: Twelve samples were analyzed for the following USEPA methods. All holding times were met for the reported samples. The nitrate value was calculated by subtracting the nitrite result from the nitrate/nitrite result. The bicarbonate results were calculated from the pH, alkalinity, and TDS results.

<u>Parameter</u>	<u>Method#</u>	<u>PrepDate</u>	<u>AnalysisDate</u>
TOC	415.1	N/A	1 October 1996
Chloride	325.2	N/A	7 October 1996
Cyanide	335.4	7 October 1996	7 October 1996
Nitrite	353.2	N/A	27 September 1996
Nitrate+nitrite	353.2	N/A	3 October 1996
Ammonia	350.1	8 October 1996	8 October 1996
TDS	160.3	N/A	2 October 1996
COD	410.4	N/A	4 October 1996
Sulfate	375.4	N/A	17 October 1996
pH	150.1	N/A	27 September 1996
Alkalinity	310.1	N/A	9 October 1996

Laboratory Method Performance: The nitrate+nitrite LCS recovery (90.4%) was below the in-house limits of 94-106%. This does not affect the reported results. All other laboratory method performance criteria were met for the reported samples.

Sample Performance: All quality control criteria were met for the reported samples.

CERTIFICATION OF RESULTS

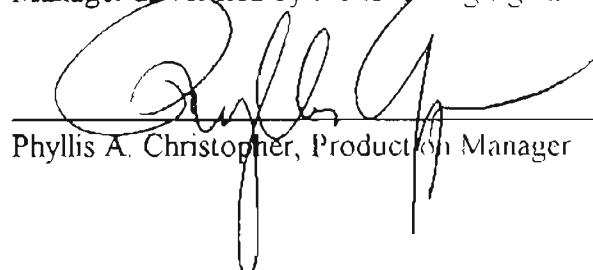
The Laboratory certifies that this report meets the project requirements for analytical data as stated in the Analytical Task Order (ATO) and the chain-of-custody. In addition, the Laboratory certifies that the data as reported meet the Data Quality Objectives for precision, accuracy, and completeness specified for this project or as stated in EA Laboratories Quality Assurance program for other than the conditions detailed above.

EA Laboratories
ANALYTICAL NARRATIVE

Client: USA Waste
Site: Tontitown Landfill
Project number: 70110.01

EA Laboratories Report: 961577
Laboratory Project Manager: R. Thomas Randall
Report Date: 25 October 1996

Release of the data contained in this report has been authorized by the appropriate Laboratory Manager as verified by the following signature



Phyllis A. Christopher, Production Manager

25 October 1996

TABLE I. ANALYTICAL METHODS

Page 1 of 3

Parameter	Method	Method Number	Matrix	Reference
SAMPLE PREPARATION				
Total Metals Digestion (FAA/ICP)	Nitric Acid - Hydrochloric Acid	3010	W	(3)
ORGANICS				
Chemical Oxygen Demand	Colorimetric - Manual	410.4	W	(2)
Total Organic Carbon	Oxidation - Infrared	415.2	W	(2)
Volatile Organic Compounds	Gas Chromatography/Mass Spectrometry	8260	W	(3)
METALS				
Aluminum	Atomic Emission - ICP	6010	W	(3)
Arsenic	Atomic Absorption - Furnace	7060	W	(3)
Barium	Atomic Emission - ICP	6010	W	(3)
Cadmium	Atomic Emission - ICP	6010	W	(3)
Calcium	Atomic Emission - ICP	6010	W	(3)
Chromium, Total	Atomic Emission - ICP	6010	W	(3)
Cobalt	Atomic Emission - ICP	6010	W	(3)
Iron	Atomic Emission - ICP	6010	W	(3)
Lead	Atomic Absorption - Furnace	7421	W	(3)

TABLE I. ANALYTICAL METHODS

Page 2 of 3

Parameter	Method	Method Number	Matrix	Reference
Magnesium	Atomic Emission - ICP	6010	W	(3)
Manganese	Atomic Emission - ICP	6010	W	(3)
Mercury	Atomic Absorption - Cold Vapor	7470	W	(3)
Nickel	Atomic Emission - ICP	6010	W	(3)
Potassium	Atomic Emission - ICP	6010	W	(3)
Selenium	Atomic Absorption - Furnace	7740	W	(3)
Silver	Atomic Emission - ICP	6010	W	(3)
Sodium	Atomic Emission - ICP	6010	W	(3)
Thallium	Atomic Absorption - Furnace	7841	W	(3)
Vanadium	Atomic Emission - ICP	6010	W	(3)
Zinc	Atomic Emission - ICP	6010	W	(3)
INORGANIC NONMETALS				
Bicarbonate/Carbonate	Calculation	130.1	W	(1)
Chloride	Colorimetric - Ferricyanide	325.2	W	(2)
Cyanide, Total	Semiautomated Spectrophotometric	335.2	W	(4)
Nitrogen, Ammonia	Colorimetric - Automated Phenate	350.1	W	(2)

TABLE I. ANALYTICAL METHODS

Page 3 of 3

Nitrogen, Nitrate+Nitrite	Colorimetric - Cadmium Reduction	353.2	W	(2)
Sulfate	Turbidimetric	375.4	W	(2)
PHYSICAL DETERMINATIONS				
Residue, Total Filterable	Gravimetric - 180C	160.1	W	(1)

Matrix codes:

W = Estuarine water, ground water, leachates, ocean water, surface water, and wastewater

References:

- 1 American Public Health Association, American Water Works Association, Water Pollution Control Federation 1985 Standard Methods for the Examination of Water and Wastewater, 16th edition APHA, Washington, D.C.
- 2 United States Environmental Protection Agency 1979. Methods for Chemical Analysis of Water and Wastes EPA-600/4-79-020. U.S. EPA, Cincinnati, Ohio
- 3 United States Environmental Protection Agency August 1993 Test Methods for Evaluating Solid Waste Physical/Chemical Methods EPA SW-846, 3rd edition, including Final Update I. U.S. EPA, Washington, D.C
- 4 United States Environmental Protection Agency. September 1991. U.S. EPA Contract Laboratory Program. Statement of Work for Inorganics Analysis. ILM02.1. U.S. EPA, Washington, D.C

TABLE 2. ORGANIC ANALYSIS DATA QUALIFIERS

ND or U Indicates a compound on the target compound list (TCL) was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and, if a soil sample, for percent moisture. For example, 10 U is used for phenol in water if the sample final volume is the protocol-specified final volume. If a 1-to-10 dilution of the extract was necessary, the reported limit is (10×10) or 100 U. For a soil sample, the value is also adjusted for percent moisture. For example, if the sample had 24% moisture and a 1-to-10 dilution factor, the soil sample quantitation limit for phenol (330 U) would be corrected as follows:

$$\text{Reported limit} = (330 \text{ U}) \times df / D$$

where $df = \text{dilution factor} = 10$

$$D = (100 - \% \text{ moisture}) / 100 \quad (\text{At } 24\% \text{ moisture}, D = (100-24) / 100 = 0.76)$$

$$\text{Reported limit} = (330 \text{ U}) \times 10 / 0.76 = 4300 \text{ U} \quad (\text{rounded to two significant figures})$$

For soil samples subjected to gel permeation chromatography (GPC) cleanup procedures, the contract required quantitation limit (CRQL) is also multiplied by 2 to account for the fact that only half of the extract is recovered. Note: If GPC procedures are employed, the factor of 2 is not included in the dilution factor reported; a "Y" is entered for GPC (Y/N).

TR or J Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, 2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, 3) when the retention time data indicate the presence of a compound that meets the pesticide/Aroclor identification criteria and the result is less than the CRQL but greater than zero. Note: the "J" code is not used and the compound is not reported as being identified for pesticide/Aroclor results less than the CRQL, if the technical judgement of the pesticide residue analysis expert determines that the peaks used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.). For example, if the sample quantitation limit is 10 ug/L but a concentration of 3 ug/L is calculated report it as 3 J. The sample quantitation limit must be adjusted for dilution as discussed for the U flag.

- C** This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides with concentration equal to or greater than 10 ng/uL in the final extract must be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified TCL compound.
- E** This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag does not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and reanalyzed according to the specifications listed in the SOW. All such compounds with a response greater than full scale should have a concentration flagged with an "E" on Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses are reported on separate Forms I. The Form I for the diluted sample will have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak is considered separately; e.g., a diluted analysis is not required for total xylenes unless the concentration of either peak separately exceeds 200 ug/L
- D** This flag identifies all compounds identified in the analysis at a secondary dilution factor. If a sample or extract is reanalyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.
- A** This flag indicates that a TIC is a suspected aldol-condensation product.
- X** Other specific flags may be required to properly define the results. If used, they are fully described and such description attached to the Sample Data Summary Package and the Case Narrative. The flags begin by using "X". If more than one flag is required, "Y" and "Z" are used, as needed. For instance, the "X" flag might combine the "A", "B", and "D" flags for some sample.
- N** Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the "N" code is not used.
- P** This flag is used for GC analyses when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

2. CHAIN OF CUSTODY

Company Name: USA Waste		Project Manager or Contact: Mike Due/Karen Hodge Phone:		Parameters/Method Numbers for Analysis										Chain of Custody Record							
Project No. 70110.01	Dept.: Task:	Project Name: Tortillion Landfill Sept Groundwater																			
Sample Storage Location: BS		ATO Number:																			
Page 1 of 1	Report #:	961577																			
Date	Time	Water	Soil	Sample Identification 19 Characters				No. of Containers	Apx I VOA 8260	Apx II Metals 600/1ac	Sulfate 375.1	TDS 160.1 / CDD 910.4	Ammonia 350.1	Bicarbonate 130.1	Nitrate 153.2	Cyanide 335.2	Chloride 325.2	Metals 600 Series	TOC 415.2	EA Labs Accession Number	Remarks
9-25-96	0831	✓		MW-1				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614486	LPM: RANDALL
"	0915	✓		MW-2				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614487	6010 Series Metals
"	0950	✓		MW-3				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614488	Ca, Fe, Mg, Mn, K
"	1020	✓		MW-4				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614489	Na, Hg
"	1350	✓		MW-5				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614490	
"	1410	✓		MW-6				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614491	
"	1135	✓		MW-7				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614492	
"	1110	✓		MW-8				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614493	
"	1040	✓		MW-10				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614494	
"	1205	✓		MW-11				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614495	
"	1230	✓		MW-12				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614496	
"	1450	✓		E911P. Blank				7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9614497	L 10232
+	-	✓		TRIP Blank				2	✓											9614498	

3 VOLATILES DATA

A QC Summary

LCS Recovery Report

Lab Name : EA Laboratories File ID : VA1B0058.D Instrument: VA1

Sample : VL610071, LCS, WATER, 5ml Date Analyzed: 7 Oct 96 3:24 am

Matrix : WATER Date Sampled:

Client : Project : Method : 8260W.M

Spike Compound	Spike Added	Spike Res	QC % Rec	Limits % Rec
1,1-Dichloroethene	50	44.6	89	73-125
Benzene	50	48.0	96	77-124
Trichloroethene	50	47.4	95	65-131
Toluene	50	48.5	97	71-142
Chlorobenzene	50	47.1	94	70-145

* - Indicates values outside of QC limits

This LCS has been checked and is within\ outside current limits

Jean J. Zuckert J. 10/16/96 N/A
Analyst Date Non-conformance form no.

Spike Recovery Report

VA1B0058.D

Page 1

LCS Recovery Report

Lab Name : EA Laboratories File ID : VA1B0078.D Instrument: VA1

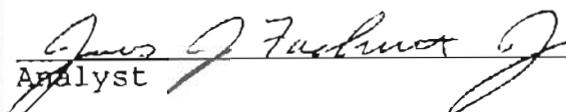
Sample : VL610081,LCS,WATER,5ml Date Analyzed: 8 Oct 96 2:13 am

Matrix : WATER Date Sampled:

Client : Project : Method : 8260W.M

Spike Compound	Spike Added	Spike Res	%Rec	QC Limits % Rec
1,1-Dichloroethene	50	44.3	89	73-125
Benzene	50	49.9	100	77-124
Trichloroethene	50	48.4	97	65-124
Toluene	50	49.2	98	71-142
Chlorobenzene	50	48.8	98	70-145

* - Indicates values outside of QC limits

This LCS has been checked and is within\ outside current limitsJames J. Faulkner J. 10/16/96 n/a
Analyst Date Non-conformance form no.

Spike Recovery Report

VA1B0078.D

Page 1

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: VB610071

Sample wt/vol:

5.0 (g/mL)

ML

Lab File ID: VA1B0057.D

Level: (low/med)

Date Received:

% Moisture: not dec.

0

Date Analyzed: 10/7/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
---------	----------	-----------------	------	---

74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	50	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
108-05-4	Vinyl acetate	10	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromoform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
591-78-6	2-Hexanone	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) WATER

Lab Sample ID: VB610071

Sample wt/vol. 5.0 (g/mL) ML

Lab File ID: VA1B0057.D

Level: (low/med)

Date Received:

% Moisture: not dec. 0

Date Analyzed: 10/7/96

GC Column: RTX 502.2

Dilution Factor: 1.0

Soil Extract Volume: (uL)

—}

Aliquot Volume:

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

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/L Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: EA LABORATORIES

Contract: _____

Lab Code: EA ENG

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: VB610081

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: VA1B0077.D

Level: (low/med)

Date Received: _____

% Moisture: not dec. 0

Date Analyzed: 10/8/96

GC Column: RTX 502.2 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
---------	----------	-----------------	------	---

74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	50	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
108-05-4	Vinyl acetate	10	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromo-chloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
591-78-6	2-Hexanone	10	U

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: VB610081

Sample w/vol: 5.0 (g/mL) ML

Lab File ID: VA1B0077.D

Level: (low/mid)

Date Received:

% Moisture: not dec. 0

Date Analyzed: 10/8/96

GC Column: RTX 502.2

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/L Q

B Sample Data

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1

Lab Name: BA LABORATORIES Contract: _____
 Lab Code: EA ENG Case No.: _____ SAS No.: _____ SDG No.: _____
 Matrix: (soil/water) WATER Lab Sample ID: 9614486
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1B0072.D
 Level: (low/med) _____ Date Received: 9/26/96
 % Moisture: not dec. 0 Date Analyzed: 10/7/96
 GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	14		
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	6		
75-69-4	Trichlorofluoromethane	5	U	
67-64-1	Acetone	10	U	
75-35-4	1,1-Dichloroethene	5	U	
74-88-4	Iodomethane	5	U	
75-09-2	Methylene Chloride	5	U	
75-15-0	Carbon Disulfide	5	U	
107-13-1	Acrylonitrile	50	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	24		
108-05-4	Vinyl acetate	10	U	
78-93-3	2-Butanone (MEK)	10	U	
156-59-2	cis-1,2-Dichloroethene	9		
67-66-3	Chloroform	5	U	
74-97-5	Bromoform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
107-06-2	1,2-Dichloroethane	5	U	
71-43-2	Benzene	5		
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
74-95-3	Dibromomethane	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
106-93-4	1,2-Dibromoethane (EDB)	5	U	
591-78-6	2-Hexanone	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: 9614486

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VAI B0072-D

[level]: (low/med)

Date Received: 9/26/96

% Moisture: not dec

0

Date Analyzed: 10/7/96

GC Column: RTX 502.2

[D: 0.53 (mm)]

Dilution Factor: 1.0

Soil Extract Volume

Soil Aliquot Volume: (ml.)

Concentration Units:

CAS No Compound Concentration (Initial) (µg/L or µg/Kg) ug/L Q

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2

Lab Name: EA LABORATORIES Contract: _____
 Lab Code: EA ENG Case No.: _____ SAS No.: _____ SDG No.: _____
 Matrix: (soil/water) WATER Lab Sample ID: 9614487
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1B0079.D
 Level: (low/med) Date Received: 9/26/96
 % Moisture: not dec. Date Analyzed: 10/8/96
 GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
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74-87-3	Chloromethane	5		U
75-01-4	Vinyl Chloride	5		U
74-83-9	Bromomethane	5		U
75-00-3	Chloroethane	5		U
75-69-4	Trichlorofluoromethane	5		U
67-64-1	Acetone	10		U
75-35-4	1,1-Dichloroethene	5		U
74-88-4	Iodomethane	5		U
75-09-2	Methylene Chloride	5		U
75-15-0	Carbon Disulfide	5		U
107-13-1	Acrylonitrile	50		U
156-60-5	trans-1,2-Dichloroethene	5		U
75-34-3	1,1-Dichloroethane	5		U
108-05-4	Vinyl acetate	10		U
78-93-3	2-Butanone (MEK)	10		U
156-59-2	cis-1,2-Dichloroethene	5		U
67-66-3	Chloroform	5		U
74-97-5	Bromoform	5		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
107-06-2	1,2-Dichloroethane	5		U
71-43-2	Benzene	5		U
79-01-6	Trichloroethene	5		U
78-87-5	1,2-Dichloropropane	5		U
75-27-4	Bromodichloromethane	5		U
74-95-3	Dibromomethane	5		U
108-10-1	4-Methyl-2-Pentanone	10		U
10061-01-5	cis-1,3-Dichloropropene	5		U
108-88-3	Toluene	5		U
10061-02-6	trans-1,3-Dichloropropene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
106-93-4	1,2-Dibromoethane (EDB)	5		U
591-78-6	2-Hexanone	10		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: 9614487

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0079.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec

0

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (num)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No. Compound (µg/L or µg/Kg) µg/L Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3

Lab Name: EA LABORATORIES Contract: _____
 Lab Code: EA ENG Case No.: _____ SAS No.: _____ SDG No.: _____
 Matrix: (soil/water) WATER Lab Sample ID: 9614488
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1B0080.D
 Level: (low/med) _____ Date Received: 9/26/96
 % Moisture: not dec. 0 Date Analyzed: 10/8/96
 GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
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74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	50	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	3	J
108-05-4	Vinyl acetate	10	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
591-78-6	2-Hexanone	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3

Lab Name: EA LABORATORIES

Contract: _____

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: 9614488

Sample wt/vol:

5.0 (g/mL) mL

Lab File ID: VA1B0080.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec.

0

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(vL)

Soil Aliquot Volume: (ml.)

Concentration Units

CAS No. Compound (µg/L or µg/Kg) µg/L 0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4

Lab Name: EA LABORATORIES

Contract: _____

Lab Code: EA ENG

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water)

WATER

Lab Sample ID: 9614489

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0083.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec.

0

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

_____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	7	U	
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
67-64-1	Acetone	10	U	
75-35-4	1,1-Dichloroethene	5	U	
74-88-4	Iodomethane	5	U	
75-09-2	Methylene Chloride	5	U	
75-15-0	Carbon Disulfide	5	U	
107-13-1	Acrylonitrile	50	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	10	U	
108-05-4	Vinyl acetate	10	U	
78-93-3	2-Butanone (MEK)	10	U	
156-59-2	cis-1,2-Dichloroethene	16	U	
67-66-3	Chloroform	5	U	
74-97-5	Bromochloromethane	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
107-06-2	1,2-Dichloroethane	5	U	
71-43-2	Benzene	3	J	
79-01-6	Trichloroethene	4	J	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
74-95-3	Dibromomethane	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
106-93-4	1,2-Dibromoethane (EDB)	5	U	
591-78-6	2-Hexanone	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: 9614489

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0083.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: per dec.

0

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume

11

Soil Aliquot Volume: (ml)

Concentration Units:

($\mu\text{g/L}$ or $\mu\text{g/Kg}$) $\mu\text{g/L}$

0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5

Lab Name: EA LABORATORIES

Contract: _____

Lab Code: EA ENG

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water)

WATER

Lab Sample ID: 9614490

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0084.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec.

0

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

_____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	5	U	
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	4	J	
67-64-1	Acetone	10	U	
75-35-4	1,1-Dichloroethene	5	U	
74-88-4	Iodomethane	5	U	
75-09-2	Methylene Chloride	5	U	
75-15-0	Carbon Disulfide	5	U	
107-13-1	Acrylonitrile	50	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	6		
108-05-4	Vinyl acetate	10	U	
78-93-3	2-Butanone (MEK)	10	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
74-97-5	Bromochloromethane	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
107-06-2	1,2-Dichloroethane	5	U	
71-43-2	Benzene	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
74-95-3	Dibromomethane	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
106-93-4	1,2-Dibromoethane (EDB)	5	U	
591-78-6	2-Hexanone	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MWS

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: 9614490

Sample wt/vol:

5.0 (g/mL) mL

Lab File ID: VA1B0084 D

[Level]: (low/med)

Date Received: 9/26/96

% Moisture: not dec.

{}

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (min)

Dilution Factor: 1.0

Soil Extract Volume:

(11)

Soil Aliquot Volume: (mL)

Concentration Units:

CAS No. Compound (µg/L or µg/Kg) µg/L

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6

Lab Name: EA LABORATORIES Contract: _____
 Lab Code: EA ENG Case No.: _____ SAS No.: _____ SDG No.: _____
 Matrix: (soil/water) WATER Lab Sample ID: 9614491
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1B0085.D
 Level: (low/med) Date Received: 9/26/96
 % Moisture: not dec. 0 Date Analyzed: 10/8/96
 GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
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74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	50	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
108-05-4	Vinyl acetate	10	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	3	J
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromonethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
591-78-6	2-Hexanone	10	U

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7

Lab Name:	EA LABORATORIES	Contract:	
Lab Code:	EA ENG	Case No.:	SAS No.:
Matrix: (soil/water)	WATER	Lab Sample ID: <u>9614492</u>	
Sample wt/vol:	<u>5.0</u> (g/mL)	ML	Lab File ID: <u>VA1B0086.D</u>
Level:	(low/med)	Date Received: <u>9/26/96</u>	
% Moisture:	not dec.	Date Analyzed: <u>10/8/96</u>	
GC Column:	RTX 502.2	ID: <u>0.53</u> (mm)	Dilution Factor: <u>1.0</u>
Soil Extract Volume:	<u> </u> (uL)	Soil Aliquot Volume:	<u> </u> (uL)
Concentration Units:			
CAS No.	Compound	(ug/L or ug/Kg)	ug/L
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	36	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	50	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	cis-1,1-Dichloroethane	3	U
108-05-4	Vinyl acetate	10	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	7	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
591-78-6	2-Hexanone	10	U

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8

Lab Name: EA LABORATORIES

Contract: _____

Lab Code: EA ENG

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water)

WATER

Lab Sample ID: 9614493

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0087.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec.

0

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

_____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
---------	----------	-----------------	------	---

74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	50	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
108-05-4	Vinyl acetate	10	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromoform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
591-78-6	2-Hexanone	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: 9614493

Sample wt/vol:

5.0 (g/mL) mL

Lab File ID: VAI B0087.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec.

6

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

111

Soil Aliquot Volume: (ml.)

Concentration Units

CAS No Compound (mg/L or mg/Kg) ug/L Q

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW10

Lab Name: EA LABORATORIES

Contract: _____

Lab Code: EA ENG

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water)

WATER

Lab Sample ID: 9614494

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0088.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec.

0

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

_____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
---------	----------	-----------------	------	---

74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	50	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
108-05-4	Vinyl acetate	10	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromochloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
591-78-6	2-Hexanone	10	U

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW10

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: 9614494

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0088.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec

0

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume: _____ (µL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/L Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11

Lab Name: EA LABORATORIES Contract: _____
 Lab Code: EA ENG Case No.: _____ SAS No.: _____ SDG No.: _____
 Matrix: (soil/water) WATER Lab Sample ID: 9614495
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1B0089.D
 Level: (low/med) Date Received: 9/26/96
 % Moisture: not dec. 0 Date Analyzed: 10/8/96
 GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	5	U	
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
67-64-1	Acetone	10	U	
75-35-4	1,1-Dichloroethene	5	U	
74-88-4	Iodomethane	5	U	
75-09-2	Methylene Chloride	5	U	
75-15-0	Carbon Disulfide	5	U	
107-13-1	Acrylonitrile	50	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
108-05-4	Vinyl acetate	10	U	
78-93-3	2-Butanone (MEK)	10	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
74-97-5	Bromochloromethane	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
107-06-2	1,2-Dichloroethane	5	U	
71-43-2	Benzene	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
74-95-3	Dibromomethane	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
106-93-4	1,2-Dibromoethane (EDB)	5	U	
591-78-6	2-Hexanone	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: EA LABORATORIES Contract: _____

Lab Code: EA ENG Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 9614496

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1B0090.D

Level: (low/med) Date Received: 9/26/96

% Moisture: not dec. 0 Date Analyzed: 10/8/96

GC Column: RTX 502.2 ID: 0 53 (mm) Dilution Factor: 1.0

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

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	5	U	
75-01-4	Vinyl Chloride	5	U	
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	
75-69-4	Trichlorofluoromethane	5	U	
67-64-1	Acetone	10	U	
75-35-4	1,1-Dichloroethene	5	U	
74-88-4	Iodomethane	5	U	
75-09-2	Methylene Chloride	5	U	
75-15-0	Carbon Disulfide	5	U	
107-13-1	Acrylonitrile	50	U	
156-60-5	trans-1,2-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
108-05-4	Vinyl acetate	10	U	
78-93-3	2-Butanone (MEK)	10	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
74-97-5	Bromoform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
107-06-2	1,2-Dichloroethane	5	U	
71-43-2	Benzene	5	U	
79-01-6	Trichloroethylene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
74-95-3	Dibromomethane	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-88-3	Toluene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
106-93-4	1,2-Dibromoethane (EDB)	5	U	
591-78-6	2-Hexanone	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: 9614496

Sample wt/vol:

$$5.0 \quad (\text{g}/\pi)L) \quad \text{ML}$$

Lab File ID: VA1B0090 D

Level: (low/mid)

Date Received: 9/26/96

% Moisture: not dec.

Date Analyzed: 10/8/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

Soil Aliquot Volume: _____ (mL)

Concentration Units:

CAS No.

Compound

Concentration C
(mg/l or μg/Kg)

1100

8

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EQUIPBLANK

Lab Name: EA LABORATORIES

Contract: _____

Lab Code: EA ENG

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water)

WATER

Lab Sample ID: 9614497

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0069.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec.

0

Date Analyzed: 10/7/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
---------	----------	-----------------	------	---

74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	50	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
108-05-4	Vinyl acetate	10	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromo-chloromethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromo-dichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
591-78-6	2-Hexanone	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EQUIPBLANK

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) WATER

Lab Sample ID: 9614497

Sample wt/vol: 5.0 (g/mL) ML

Lab File [D:\VA1B0069.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec. 0

Date Analyzed: 10/7/96

GC Column: RTX 502.2

Dilution Factor: 1.0

Soil Extract Volume:

Soil Aliquot Volume: (uL)

Concentration Units

CAS No. Compound (ug/L or ug/Kg) ug/L Q

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK

Lab Name: EA LABORATORIES

Contract: _____

Lab Code: EA ENG

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water)

WATER

Lab Sample ID: 9614498

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0070.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not det.

0

Date Analyzed: 10/7/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
---------	----------	-----------------	------	---

74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
74-88-4	Iodomethane	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
107-13-1	Acrylonitrile	50	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
108-05-4	Vinyl acetate	10	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
74-97-5	Bromoform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
74-95-3	Dibromomethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
591-78-6	2-Hexanone	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK

Lab Name: EA LABORATORIES

Contract:

Lab Code: EA ENG

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water)

WATER

Lab Sample ID: 9614498

Sample wt/vol:

5.0 (g/mL) ML

Lab File ID: VA1B0070.D

Level: (low/med)

Date Received: 9/26/96

% Moisture: not dec

0

Date Analyzed: 10/7/96

GC Column: RTX 502.2

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(u[\cdot])

Soil Aliquot Volume: _____ (ml)

Concentration Units:

CAS No. Compound (μg/L or μg/Kg) μg/L Q

4. METALS DATA

A. Analytical Results

EA LABORATORIES ANALYTICAL REPORT SUMMARY

TOTAL METALS RESULTS FOR USA WASTE REPORT #961577 EA SAMPLE 9614486 - MW-1

ug/L

Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	197000
Chromium	<10.0
Cobalt	71.1
Copper	<10.0
Iron	1600
Lead	<3.0
Magnesium	4640
Manganese	8940
Mercury	<0.20
Nickel	178
Potassium	3290
Selenium	<5.0
Silver	<10.0
Sodium	27900
Thallium	<10.0
Vanadium	<50.0
Zinc	366

EA LABORATORIES ANALYTICAL REPORT SUMMARY

**TOTAL METALS RESULTS FOR USA WASTE REPORT #961577
EA SAMPLE 9614487 - MW-2**

ug/L

Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	48000
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	251
Lead	<3.0
Magnesium	830
Manganese	<15.0
Mercury	<0.20
Nickel	<40.0
Potassium	<1000
Selenium	<5.0
Silver	<10.0
Sodium	5780
Thallium	<10.0
Vanadium	<50.0
Zinc	<20.0

EA LABORATORIES ANALYTICAL REPORT SUMMARY
TOTAL METALS RESULTS FOR USA WASTE REPORT #961577
EA SAMPLE 9614488 - MW-3

	<u>ug/L</u>
Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	68200
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	6340
Lead	<3.0
Magnesium	2030
Manganese	2210
Mercury	<0.20
Nickel	43.3
Potassium	1440
Selenium	<5.0
Silver	<10.0
Sodium	3260
Thallium	<10.0
Vanadium	<50.0
Zinc	61.4

EA LABORATORIES ANALYTICAL REPORT SUMMARY

TOTAL METALS RESULTS FOR USA WASTE REPORT #961577 EA SAMPLE 9614489 - MW-4

	<u>ug/L</u>
Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	235000
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	1010
Lead	<3.0
Magnesium	3130
Manganese	9320
Mercury	<0.20
Nickel	386
Potassium	1370
Selenium	<5.0
Silver	<10.0
Sodium	7000
Thallium	<10.0
Vanadium	<50.0
Zinc	78.6

EA LABORATORIES ANALYTICAL REPORT SUMMARY

**TOTAL METALS RESULTS FOR USA WASTE REPORT #961577
EA SAMPLE 9614490 - MW-5**

ug/L

Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	148000
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	<100
Lead	<3.0
Magnesium	2040
Manganese	<15.0
Mercury	<0.20
Nickel	<40.0
Potassium	1370
Selenium	<5.0
Silver	<10.0
Sodium	14600
Thallium	<10.0
Vanadium	<50.0
Zinc	67.9

EA LABORATORIES ANALYTICAL REPORT SUMMARY

TOTAL METALS RESULTS FOR USA WASTE REPORT #961577 EA SAMPLE 9614491 - MW-6

µg/L

Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	112000
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	<100
Lead	<3.0
Magnesium	2200
Manganese	41.3
Mercury	<0.20
Nickel	<40.0
Potassium	1260
Selenium	<5.0
Silver	<10.0
Sodium	8510
Thallium	<10.0
Vanadium	<50.0
Zinc	33.1

EA LABORATORIES ANALYTICAL REPORT SUMMARY

TOTAL METALS RESULTS FOR USA WASTE REPORT #961577 EA SAMPLE 9614492 - MW-7

ug/L

Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	137000
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	<100
Lead	<3.0
Magnesium	2300
Manganese	1060
Mercury	<0.20
Nickel	<40.0
Potassium	1720
Selenium	<5.0
Silver	<10.0
Sodium	6170
Thallium	<10.0
Vanadium	<50.0
Zinc	68.7

EA LABORATORIES ANALYTICAL REPORT SUMMARY

**TOTAL METALS RESULTS FOR USA WASTE REPORT #961577
EA SAMPLE 9614493 - MW-8**

ug/L

Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	86000
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	110
Lead	<3.0
Magnesium	1180
Manganese	<15.0
Mercury	<0.20
Nickel	<40.0
Potassium	2170
Selenium	<5.0
Silver	<10.0
Sodium	4970
Thallium	<10.0
Vanadium	<50.0
Zinc	<20.0

EA LABORATORIES ANALYTICAL REPORT SUMMARY

**TOTAL METALS RESULTS FOR USA WASTE REPORT #961577
EA SAMPLE 9614494 - MW-10**

ug/L

Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	47900
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	<100
Lead	<3.0
Magnesium	7870
Manganese	<15.0
Mercury	<0.20
Nickel	<40.0
Potassium	1060
Selenium	<5.0
Silver	<10.0
Sodium	4330
Thallium	<10.0
Vanadium	<50.0
Zinc	<20.0

EA LABORATORIES ANALYTICAL REPORT SUMMARY

TOTAL METALS RESULTS FOR USA WASTE REPORT #961577 EA SAMPLE 9614495 - MW-11

ug/L

Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	94800
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	■■■■■
Lead	3.7
Magnesium	<1000
Manganese	22.7
Mercury	<0.20
Nickel	<40.0
Potassium	3400
Selenium	<5.0
Silver	<10.0
Sodium	4540
Thallium	<10.0
Vanadium	<50.0
Zinc	44.4

EA LABORATORIES ANALYTICAL REPORT SUMMARY

TOTAL METALS RESULTS FOR USA WASTE REPORT #961577 EA SAMPLE 9614496 - MW-12

ug/L

Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	87200
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	<100
Lead	<3.0
Magnesium	1180
Manganese	<15.0
Mercury	<0.20
Nickel	<40.0
Potassium	2180
Selenium	<5.0
Silver	<10.0
Sodium	4960
Thallium	<10.0
Vanadium	<50.0
Zinc	<20.0

EA LABORATORIES ANALYTICAL REPORT SUMMARY

TOTAL METALS RESULTS FOR USA WASTE REPORT #961577 EA SAMPLE 9614497 - EQUIP BLANK

	<u>ug/L</u>
Antimony	<6.0
Arsenic	<10.0
Barium	<200
Beryllium	<5.0
Cadmium	<5.0
Calcium	<1000
Chromium	<10.0
Cobalt	<50.0
Copper	<10.0
Iron	<100
Lead	<3.0
Magnesium	<1000
Manganese	<15.0
Mercury	<0.20
Nickel	<40.0
Potassium	<1000
Selenium	<5.0
Silver	<10.0
Sodium	1070
Thallium	<10.0
Vanadium	<50.0
Zinc	<20.0

B. QC Data

EA LABORATORIES
LCS Recovery Report

Client: USA Waste
Project: Tontitown Landfill
Date Analyzed: 16-24 October 1996

Matrix: water
Method: SW846
Units: µg/L

Liquid LCS

<u>Parameter</u>	<u>True Conc.</u>	<u>Found Conc.</u>	<u>% rec</u>
Antimony	500	446	89.2
Arsenic	25.0	22.0	88.0
Barium	2000	1870	93.5
Beryllium	50.0	47.9	95.8
Cadmium	50.0	44.9	89.8
Calcium	10000	9610	96.1
Chromium	200	198	99.0
Cobalt	500	479	95.8
Copper	250	247	98.8
Iron	1000	982	98.2
Lead	25.0	21.8	87.2
Magnesium	10000	9300	93.0
Manganese	500	479	95.8
Mercury	4.0	4.1	102.5
Nickel	500	489	97.8
Potassium	10000	9610	96.1
Selenium	50.0	41.4	82.8
Silver	500	438	87.6
Sodium	10000	10300	103.0
Thallium	25.0	21.0	84.0
Vanadium	500	486	97.2
Zinc	500	455	91.0

EA LABORATORIES
Method Blank Report

Client: USA Waste
Project: Tontitown Landfill
Date Analyzed: 16-24 October 1996

Method: SW846
Matrix: water
Units: $\mu\text{g/L}$

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Blank result</u>
Antimony	6.0	<6.0
Arsenic	10.0	<10.0
Barium	200	<200
Beryllium	5.0	<5.0
Cadmium	5.0	<5.0
Calcium	1000	<1000
Chromium	10.0	<10.0
Cobalt	50.0	<50.0
Copper	10.0	<10.0
Iron	100	<100
Lead	3.0	<3.0
Magnesium	1000	<1000
Manganese	15.0	<15.0
Mercury	0.20	<0.20
Nickel	40.0	<40.0
Potassium	1000	<1000
Selenium	5.0	<5.0
Silver	10.0	<10.0
Sodium	1000	<1000
Thallium	10.0	<10.0
Vanadium	50.0	<50.0
Zinc	20.0	<20.0

5 GENERAL CHEMISTRY DATA

A. Analytical Results

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
SAS Case No.: 7011001
EPA Sample No.: MW-1
Sample matrix: WATER
Total Solids: %

Contract: USA WASTE
SDG No.: 9614486
Lab Sample ID No.: 9614486
Date Received: 09/26/96

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
9614486	AMMONIA	0.38	mg N/L	10/08/96
	BICARBONATE	535	mg CaCO ₃ /L	10/17/96
	CHLORIDE	41.7	mg/L	10/07/96
	COD	35.0	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	0.31	mg N/L	10/03/96
	SULFATE	3.6	mg/L	10/17/96
	TDS	626	mg/L	10/02/96
	TOC	5.0	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
 CAS Case No.: 7011001
 EPA Sample No.: MW-2
 Sample matrix: WATER
 Total Solids: %

Contract: USA WASTE
 SDG No.: 9614486
 Lab Sample ID No.: 9614487
 Date Received: 09/26/96

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
614487	AMMONIA	<0.10	mg N/L	10/08/96
	BICARBONATE	121	mg CaCO ₃ /L	10/17/96
	CHLORIDE	11.3	mg/L	10/07/96
	COD	41.1	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	0.76	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	155	mg/L	10/02/96
	TOC	1.1	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
SAS Case No.: 7011001
EPA Sample No.: MW-3
Sample matrix: WATER
Total Solids: %

Contract: USA WASTE
SDG No.: 9614486
Lab Sample ID No.: 9614488
Date Received: 09/26/96

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
9614488	AMMONIA	0.27	mg N/L	10/08/96
	BICARBONATE	195	mg CaCO ₃ /L	10/17/96
	CHLORIDE	2.8	mg/L	10/07/96
	COD	10.8	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	<0.050	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	206	mg/L	10/02/96
	TOC	4.0	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
AS Case No.: 7011001
PA Sample No.: MW-4
Sample matrix: WATER
Total Solids: %

Contract: USA WASTE
SDG No.: 9614486
Lab Sample ID No.: 9614489
Date Received: 09/26/96

ab D	Parameter	Sample Conc.	Concentration Units	Analyzed Date
614489	AMMONIA	0.18	mg N/L	10/08/96
	BICARBONATE	605	mg CaCO ₃ /L	10/17/96
	CHLORIDE	10.0	mg/L	10/07/96
	COD	35.0	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	<0.050	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	634	mg/L	10/02/96
	TOC	149	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
SAS Case No.: 7011001
EPA Sample No.: MW-5
Sample matrix: WATER
Total Solids: %

Contract: USA WASTE
SDG No.: 9614486
Lab Sample ID No.: 9614490
Date Received: 09/26/96

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
9614490	AMMONIA	<0.10	mg N/L	10/08/96
	BICARBONATE	359	mg CaCO ₃ /L	10/17/96
	CHLORIDE	40.2	mg/L	10/07/96
	COD	12.2	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	1.7	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	455	mg/L	10/02/96
	TOC	1.2	mg/L	10/01/96

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FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
AS Case No.: 7011001
PA Sample No.: MW-6
Sample matrix: WATER
Total Solids: %

Contract: USA WASTE
SDG No.: 9614486
Lab Sample ID No.: 9614491
Date Received: 09/26/96

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
614491	AMMONIA	<0.10	mg N/L	10/08/96
	BICARBONATE	268	mg CaCO ₃ /L	10/17/96
	CHLORIDE	21.6	mg/L	10/07/96
	COD	<10.0	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	2.6	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	334	mg/L	10/02/96
	TOC	1.8	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
SAS Case No.: 7011001
EPA Sample No.: MW-7
Sample matrix: WATER
Total Solids: %

Contract: USA WASTE
SDG No.: 9614486
Lab Sample ID No.: 9614492
Date Received: 09/26/96

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
9614492	AMMONIA	0.19	mg N/L	10/08/96
	BICARBONATE	372	mg CaCO ₃ /L	10/17/96
	CHLORIDE	9.9	mg/L	10/07/96
	COD	15.9	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	0.66	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	403	mg/L	10/02/96
	TOC	3.8	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
 CAS Case No.: 7011001
 CPA Sample No.: MW-8
 Sample matrix: WATER
 Total Solids: %

Contract: USA WASTE
 SDG No.: 9614486
 Lab Sample ID No.: 9614493
 Date Received: 09/26/96

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
614493	AMMONIA	<0.10	mg N/L	10/08/96
	BICARBONATE	241	mg CaCO ₃ /L	10/17/96
	CHLORIDE	4.1	mg/L	10/07/96
	COD	<10.0	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	0.50	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	242	mg/L	10/02/96
	TOC	1.5	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
 SAS Case No.: 7011001
 EPA Sample No.: MW-10
 Sample matrix: WATER
 Total Solids: %

Contract: USA WASTE
 SDG No.: 9614486
 Lab Sample ID No.: 9614494
 Date Received: 09/26/96

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
9614494	AMMONIA	0.19	mg N/L	10/08/96
	BICARBONATE	153	mg CaCO ₃ /L	10/17/96
	CHLORIDE	2.6	mg/L	10/07/96
	COD	18.7	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	<0.050	mg N/L	10/03/96
	SULFATE	5.9	mg/L	10/17/96
	TDS	157	mg/L	10/02/96
	TOC	<1.0	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
AS Case No.: 7011001
PA Sample No.: MW-11
Sample matrix: WATER
Total Solids: %

Contract: USA WASTE
SDG No.: 9614486
Lab Sample ID No.: 9614495
Date Received: 09/26/96

ab D	Parameter	Sample Conc.	Concentration Units	Analyzed Date
614495	AMMONIA	<0.10	mg N/L	10/08/96
	BICARBONATE	187	mg CaCO ₃ /L	10/17/96
	CHLORIDE	10.2	mg/L	10/07/96
	COD	16.9	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	3.9	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	239	mg/L	10/02/96
	TOC	1.5	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
 SAS Case No.: 7011001
 EPA Sample No.: MW-12
 Sample matrix: WATER
 Total Solids: %

Contract: USA WASTE
 SDG No.: 9614486
 Lab Sample ID No.: 9614496
 Date Received: 09/26/96

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
9614496	AMMONIA	0.12	mg N/L	10/08/96
	BICARBONATE	231	mg CaCO ₃ /L	10/17/96
	CHLORIDE	4.2	mg/L	10/07/96
	COD	15.5	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	0.51	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	244	mg/L	10/02/96
	TOC	1.4	mg/L	10/01/96

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
 AS Case No.: 7011001
 PA Sample No.: EQUIP BLANK
 Sample matrix: WATER
 Total Solids: %

Contract: USA WASTE
 SDG No.: 9614486
 Lab Sample ID No.: 9614497
 Date Received: 09/26/96

ab D	Parameter	Sample Conc.	Concentration Units	Analyzed Date
614497	AMMONIA	<0.10	mg N/L	10/08/96
	BICARBONATE	2.4	mg CaCO ₃ /L	10/17/96
	CHLORIDE	<1.0	mg/L	10/07/96
	COD	<10.0	mg/L	10/04/96
	CYANIDE	<0.010	mg/L	10/07/96
	NITRATE	<0.050	mg N/L	10/03/96
	SULFATE	<2.0	mg/L	10/17/96
	TDS	<10.0	mg/L	10/02/96
	TOC	<1.0	mg/L	10/01/96

B. Quality Control Data

FORM II
LABORATORY CONTROL SAMPLE (LCS) RECOVERY

Lab Name: EA Laboratories
 SAS Case No.: 7011001

Contract: USA WASTE
 SDG No.: 9614486

Parameter	Target Conc.	Measured Conc.	Units	Recovery %	Analysis Date
ALKALINITY	119	121	mg CaCO ₃ /L	101.7	10/09/96
AMMONIA	0.500	0.475	mg N/L	95.0	10/08/96
CHLORIDE	10.0	9.83	mg/L	98.3	10/07/96
COD	250	244	mg/L	97.6	10/04/96
CYANIDE	0.0960	0.0968	mg/L	100.8	10/07/96
NITRATE+NITRITE	0.500	0.452	mg N/L	90.4	10/03/96
NITRITE	0.500	0.522	mg N/L	104.4	09/27/96
pH	9.08	9.08	pH units	100.0	09/27/96
SULFATE	25.0	25.5	mg/L	102.0	10/17/96
TDS	959	926	mg/L	96.6	10/02/96
TOC	20.0	19.9	mg/L	99.5	10/01/96

FORM III
METHOD BLANK AND DETECTION LIMIT

Lab Name: EA Laboratories
 SAS Case No.: 7011001

Contract: USA WASTE
 SDG No.: 9614486

Parameter	Method Bk. Conc.	Detection Limit	Units	Analysis Date
ALKALINITY	<1.0	1.0	mg CaCO ₃ /L	10/09/96
AMMONIA	<0.10	0.10	mg N/L	10/08/96
CHLORIDE	<1.0	1.0	mg/L	10/07/96
COD	<10.0	10.0	mg/L	10/04/96
CYANIDE	<0.010	0.010	mg/L	10/07/96
NITRATE+NITRITE	<0.050	0.050	mg N/L	10/03/96
NITRITE	<0.050	0.050	mg N/L	09/27/96
SULFATE	<2.0	2.0	mg/L	10/17/96
TDS	<10.0	10.0	mg/L	10/02/96
TOC	<1.0	1.0	mg/L	10/01/96

Solid Matrix detection limits will vary slightly for each sample depending on sample weight processed and total solids.