EA Laboratories

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

3 9 2

September 5, 1996

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

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

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 and leachate sampling event at the subject facility on June 25, 1996. Analytical report numbers 961008 (groundwater Appendix I) and 961007 (leachate) 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.

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,

R. Thomas Randall
Laboratory Project Manager

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

SITE NAME: TONITOWN LANDFILL

SAMPLING EVENT: JUNE 1996

LOCATION: FAYETTEVILLE, ARKANSAS

SAMPLING DATE: JUNE 25, 1996

SAMPLE LOCATION	WELL DEPTH (ft)[1]	STATIC WATER LEVEL (ft)[1]	WATER COLUMN (ft)	VOLUME IN WELL CASING (gal.)	VOLUME PURGED (gal.)	FIELD PARAMETERS (AVERAGE)				COMMENTS	WELL SEAL NUMBER	
						pH	COND (µS/cm)	TURB (NTU)	TEMP (°C)		ARRIVAL	DEPARTURE
MW-1	100.00	75.36	24.64	38.80	65.00	6.67	1188.00	[illegible]	24.3	Well purged dry	None	None
MW-2	85.00	36.44	48.56	71.30	70.00	8.26	267.00	96.00	22.7	Well purged dry	None	None
MW-3	61.00	41.68	19.32	12.00	80.00	6.21	387.00	[illegible]	17.8		None	None
MW-4	50.00	35.84	14.16	9.25	7.00	5.95	976.00	37.00	25.7	Well purged dry	None	None
MW-5	109.00	71.84	37.16	54.60	57.00	7.16	975.00	77.00	24.9	Well purged dry	None	None
MW-6	105.00	28.00	77.00	113.00	380.00	6.68	476.00	14.00	19.8		None	None
MW-7	150.00	106.60	43.40	28.30	105.00	6.92	615.50	14.00	19.1		None	None
MW-8	60.00	31.88	28.12	41.30	52.00	7.65	463.00	60.00	24.9	Well purged dry	None	None
MW-10	89.00	38.85	50.15	32.70	27.00	8.08	409.00	[illegible]	24.8	Well purged dry	None	None
MW-11	110.00	60.38	49.62	26.10	36.00	8.77	498.00	[illegible]	23.2	Well purged dry	None	None

Notes:

[1] Measured from the top of the well casing

Acronyms and Abbreviations:

Cond = Conductivity
ft = Feet
mg/L = Milligrams per liter
us/cm = Microsiemens per centimeter
Turb = Turbidity
°C = Degrees Celsius
gal. = Gallon
NA = Not available
NTU = Nephlometric turbidity units

EA Laboratories

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

23 July 1996

Mr. Mike Dae
USA Waste Services Company
3001 South Pioneer Drive
Smyrna, GA 30080

Re: USA Waste - Tontitown Landfill (70110.01)

Dear Mr. Dae:

Enclosed is our report on the analysis of four water samples collected for the USA Waste - Tontitown Landfill project on 25 June 1996. The invoice is included.

Please contact me if you have any questions or require further information and refer to report 961007. 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,

R. Thomas Randall
Laboratory Project Manager

enclosure

LABORATORY DATA REPORT

Prepared for:

USA Waste Services, Inc.
Tontitown Landfill

Prepared by:

EA Laboratories
19 Loveton Circle
Sparks, Maryland 21152

Report 961007

July 1996

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TABLE OF CONTENTS
USA Waste - Tontitown Landfill
EA Laboratories Report No. 961007

1. NARRATIVE

EA Laboratories
ANALYTICAL NARRATIVE

Client: **USA Waste Services, Inc.**
Site: **Tontitown Landfill**
Project number: **70110.01**

EA Laboratories Report: **961007**
Laboratory Project Manager: **R. Thomas Randall**
Report Date: **23 July 1996**

This report contains the results of the analysis of four water samples collected on 25 June 1996 in support of the referenced project.

SAMPLE RECEIPT

The samples arrived by Federal Express at EA Laboratories on 26 June1996. Upon receipt, the samples were inspected and compared with the chain-of-custody record. The samples were then logged into the laboratory computer system with assigned laboratory accession numbers and released for analysis.

Client Sample Designation	EA Lab Number
TRANSFER STATION	9609453
CLASS 4	9609454
SITE 4	9609455
SITE 3	9609456

Following this narrative section are a description of analytical methods (Table 1), data qualifiers (Table 2), and the original chain-of-custody. 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 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.

TCLP VOLATILES by GC/MS - WATER (EA9609453 - EA9609456)

Sample Chronology: Four samples and associated quality control were TCLP extracted on 28 June 1996 by USEPA SW-846, Method 1311. The resultant leachates and associated quality control were analyzed by USEPA SW-846, Methods 5030/8260 on 1, 2, 8, and 9 July 1996 for the hazardous waste characterization analyte list. All specified holding times were met.

Samples TRANSFER STATION and Site 3 required a 10X dilution in order to achieve concentrations of target analytes within instrument calibration range. Sample CLASS 4 required a 2X dilution.

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

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

TCLP SEMIVOLATILES by GC/MS - SOIL (EA9609453 - EA9609456)

Sample Chronology: Four samples were TCLP extracted by USEPA SW-846, Method 1311 on 28 June 1996. The resultant leachates were extracted by USEPA SW-846, Method 3520 on 3 July 1996. The sample extracts and the associated quality control samples were analyzed by USEPA SW-846, Method 8270 on 17, 18 and 19 July 1996 for the hazardous waste characterization analyte list. All specified holding times were met.

Samples TRANSFER STATION required a 250X dilution in order to achieve concentrations of target analytes within instrument calibration range. Sample CLASS 4 required a 20X

dilution. SITE 4 required a 25X dilution. SITE 3 required a 5X dilution.

Laboratory Method Performance: The 2-fluorobiphenyl surrogate recovery in the TCLP extraction blank (36%) was slightly below the lower method quality control limit of 43%. This low recovery may indicate a slight negative bias for some base/neutral extractable compounds. All other laboratory method performance criteria were met for the reported samples.

Sample Performance: The nitrobenzene-d5 surrogate recoveries in sample TRANSFER STATION (17%) and its reanalysis (20%) were below the lower method quality control limit of 35%. These low recoveries may indicate a slight negative bias for some base/neutral extractable compounds.

The diluted analysis of this sample had the surrogate recovery of phenol-d5 (122%) above the QC limit of 94%. This recovery should not be indicative of bias.

Sample TRANSFER STATION had the internal standard area for chrysene-d12 below the laboratory QC limit of -50% of the daily calibration standard and the internal standard areas for 1,4-dichlorobenzene-d4 and perylene-d12 below the method QC limits of -25% of the daily calibration standard. This sample was reanalyzed with similar internal standard areas indicating a possible matrix influence. The matrix spike and matrix spike duplicate, analyzed on sample SITE 3 had the internal standard areas for perylene-d12 below laboratory QC limits. These QC samples were not reanalyzed.

Internal standard areas of less than -50% of the daily calibration are not so low as to impact the laboratory's ability to detect target analytes at the reporting limits, however, positive results of target analytes which are quantitated using these low internal standards may be biased. Internal standard areas of -25% of the daily calibration standard, may impact the laboratory's ability to detect certain analytes at the reporting limit and positive results of target analytes which are quantitated using these low internal standards may be biased. All internal standard areas were within QC limits for the method blank and LCS indicating acceptable method performance.

All other quality control criteria were met for the reported samples.

TCLP PESTICIDES by GC - WATER (EA9609453-EA9609456)

EA Laboratories
ANALYTICAL NARRATIVE

Client: **USA Waste Services, Inc.**
Site: **Tontitown Landfill**
Project number: **70110.01**

EA Laboratories Report: **961007**
Laboratory Project Manager: **R. Thomas Randall**
Report Date: **23 July 1996**

Sample Chronology: The samples were TCLP extracted (filtered) by SW-846 Method 1311 on 28 June 1996. The resultant leachates were extracted by SW-846 Method 3520 on 3 July 1996. The extracts and associated quality control were analyzed by SW-846 Method 8080 on 10 July 1996 for the hazardous waste characterization analyte list. All method specified holding times were met.

Laboratory Method Performance: The recoveries for the surrogate tetrachloro-m-xylene (TCX) for both column analyses of the method blank (20% and 17%) and the TCLP extraction blank (19% and 15%) were below the lower QC limit of 30%. The recoveries for the other surrogate, decachlorobiphenyl (DCB), were within QC limits ranging from 73% to 98%. The low TCX recoveries may be indicative of a negative bias, however, the low TCX recoveries were isolated to these two QC samples. The TCX recoveries were within QC limits for all of the field samples.

The percent differences (%Ds) in the continuing calibration standards that bracketed these samples for methoxychlor were above the method QC limit of 15% ranging from 18.3% to 57.7%. Also, the %D for heptachlor in one column analysis of one continuing calibration standard exceeded the QC limit of 15% at 17.5%. However, since these analytes exhibited an increased response relative to the initial calibration (positive bias) and neither analyte was detected in the samples, data usability should not be impacted.

All other laboratory method performance criteria were met for the reported samples.

Sample Performance: The recoveries for the surrogate decachlorobiphenyl (DCB) for both column analyses of sample TRANSFER STATION (13% and 17%) were below the lower QC limit of 30%. The DCB recovery for the Rtx-35 column analysis of sample CLASS 4 (29%) was below the lower QC limit of 30% (the Rtx-5 column recovery was 31%). The recoveries for the other surrogate, tetrachloro-m-xylene (TCX), were within QC limits ranging from 49% to 146%. The low DCB recoveries may be indicative of a negative bias, however, the recoveries are not so low as to impact the laboratory's ability to detect the target analytes at the TCLP regulatory limits, which are many times higher than the method reporting limits. The only target analyte detected in these samples was gamma-BHC in sample TRANSFER STATION at 1.1 ug/L. This result is just over 360 times lower than the TCLP regulatory limit. Data usability should not be impacted.

All other quality control criteria were met for the reported samples.

EA Laboratories
ANALYTICAL NARRATIVE

Client: **USA Waste Services, Inc.**
Site: **Tontitown Landfill**
Project number: **70110.01**

EA Laboratories Report: **961007**
Laboratory Project Manager: **R. Thomas Randall**
Report Date: **23 July 1996**

TCLP HERBICIDES by GC - WATER (EA9609453-EA9609456)

Sample Chronology: The samples were TCLP extracted (filtered) by SW-846 Method 1311 on 28 June 1996. The resultant leachates were extracted by SW-846 Method 8150 on 28 June 1996. The extracts and associated quality control were analyzed by SW-846 Method 8150 on 11-12 July 1996 for the hazardous waste characterization analyte list. All method specified holding times were met.

The batch MS/MSD was performed on another client's sample, however, a TCLP MS was performed on a sample from this site (SITE 3) per the method.

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

Sample Performance: The MS/MSD recoveries (performed on another client's sample) for 2,4-D (42%/45%) were slightly lower than the lower QC limit of 51%. However, since the TCLP regulatory limit for 2,4-D is 83 times higher than the method reporting limit, the recoveries in the TCLP MS performed on sample SITE 3 were within QC limits, and no 2,4-D was detected in the samples, data usability should not be impacted. All LCS recoveries were within QC limits indicating acceptable method performance.

All other quality control criteria were met for the reported samples.

METALS - SOIL (EA9609453-EA9609456)

Sample Chronology: Four samples were prepared on 7-11 July 1996 and analyzed for TCLP metals (SW846 methods 6010/7470) on 10-11 July 1996.

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.

GENERAL CHEMISTRY - WATER (EA9609453-EA9609456)

Sample Chronology: Four samples were analyzed for the following USEPA methods. All holding

EA Laboratories
ANALYTICAL NARRATIVE

Client: **USA Waste Services, Inc.**
Site: **Tontitown Landfill**
Project number: **70110.01**

EA Laboratories Report: **961007**
Laboratory Project Manager: **R. Thomas Randall**
Report Date: **23 July 1996**

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times were met for the reported samples.

Parameter	Method#	PrepDate	AnalysisDate
Flashpoint	1010	N/A	3 July 1996
Corrosivity	9045	N/A	26 June 1996
Cyanide total	335.3	3 July 1996	3 July 1996
Sulfide total	376.1	N/A	28 June 1996

Since these are water samples, total cyanide/sulfide were performed instead of releasable cyanide/sulfide. Reactivity was determined from the total cyanide/sulfide results.

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.

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

for Joel Deutsch 23 July 1996
Phyllis A. Christopher, Production Manager

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 x 10 U) 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:

Reported limit = (330 U) x df / D

where: df = dilution factor = 10

D = (100 - %moisture) / 100 (At 24% moisture, D = (100-24) / 100 = 0.76)

Reported limit = (330 U) x 10 / 0.76 = 4300 U (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 that 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 that 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

Chain of Custody Record

EA Laboratories
19 Loveton Circle
Sparks, MD 21152
Telephone: (410) 771-4920
Fax: (410) 771-4407

Company Name: Chambers USA	Project Manager or Contact: Mike Duce
Project No. 70110.01	Phone:
Dept.: Task:	Project Name: Tantalon Landfill Trans Leachate
Sample Storage Location: L4	ATO Number:
Page of	Report #: 960007

Report Deliverables: 1 (2) 3 4 D (E)
EDD: Yes (No)
DUE TO CLIENT: 7/17/96

Date	Time	Water	Soil	Sample Identification 19 Characters	No. of Containers	TCLP VOA 1311/8240C	TCLP BNA 1311/8270C	TCLP Pest 1311/8080	TCLP Herb 1311/8151C	TCLP Metals 1311/6010/7470	Reactive S,1.3.4.2	Reactive Cyanide 7.3.3.2	pH 9040	Flashpoint 1010	EA Labs Accession Number	Remarks
6/25/96	0815	X		Transfer Station	12	X	X	X	X	X	X	X	X	X	9609453	LPM: RANDALL
6/25/96	1000	X		Class 4	12	X	X	X	X	X	X	X	X	X	9609454	one BROKEN Amber liter received for Transfer Station five remain for herb/BNA/PEST TCLP's 6/26/96 KL
6/25/96	0740	X		Site 4	12	X	X	X	X	X	X	X	X	X	9609455	
6/25/96	0930	X		Site 3	12	X	X	X	X	X	X	X	X	X	9609456	
																L9623

Sampled by: (Signature) Pete Nault	Date/Time 6/25/96 1100	Relinquished by: (Signature) Pete Nault	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature) Pete Nault	Date/Time 6/25/96 1700	Received by Laboratory: (Signature) KRISTIN LEWIS	Date/Time 6/26/96 10:45	Airbill Number: 950263985	Sample Shipped by: (Circle) Fed Ex Puro. UPS Hand Carried Other:

Cooler Temp. 1-2.3 °C pH: ☑ Yes ☐ No Comments: 1 12 G 12 Custody Seals Intact ☑ Yes ☐ No one each COOLER 4 total coolers

NOTE: Please indicate method number for analyses requested. This will help clarify any questions with laboratory techniques.

1.7 2.3 2.1 2.3

WHITE—EA Laboratories YELLOW—EA Laboratories PINK—Project Manager *Shaded Areas for Lab Use Only*

3. VOLATILES DATA

A. QC Summary

LCS Recovery Report

Lab Name : EA Laboratories File ID : VA1A8898.D Instrument: VA1

Sample : VL607015,LCS,WATER,5ml Date Analyzed: 1 Jul 96 10:55 pm

Matrix : WATER Date Sampled:

Client : Project : Method : 8260W.M

Spike Compound	Spike Added	Spike Res	Spike %Rec	QC Limits % Rec
1,1-Dichloroethene	50	43.4	87	73-125
Benzene	50	46.6	93	77-124
Trichloroethene	50	42.4	85	65-131
Toluene	50	47.8	96	71-142
Chlorobenzene	50	44.4	89	70-145

* - Indicates values outside of QC limits

This LCS has been checked and is (within) outside current limits

James J Faulkner Jr 7/9/96 N/A

Analyst Date Non-conformance form no.

LCS Recovery Report

Lab Name : EA Laboratories File ID : VA1A8966.D Instrument: VA1

Sample : VL607084,LCS,WATER,5ml Date Analyzed: 8 Jul 96 11:22 pm

Matrix : WATER Date Sampled:

Client : Project : Method : 8260W.M

Spike Compound	Spike Added	Spike Res	Spike %Rec	QC Limits % Rec
1,1-Dichloroethene	50	41.8	84	73-125
Benzene	50	46.2	92	77-124
Trichloroethene	50	43.5	87	65-131
Toluene	50	48.3	97	71-142
Chlorobenzene	50	44.9	90	70-135

* - Indicates values outside of QC limits

This LCS has been checked and is (within) outside current limits

Analyst 7/16/96 Date N/A Non-conformance form no.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: EA LABORATORIES Contract:

Lab Code: EA ENG Case No.: SAS No.: 8260 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: VB607015

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1A8897.D

Level: (low/med) Date Received:

% Moisture: not dec. Date Analyzed: 7/1/96

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
75-35-4	1,1-Dichloroethene	5	U
75-01-4	Vinyl Chloride	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: EA LABORATORIES Contract:

Lab Code: EA ENG Case No.: SAS No.: 8260 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: VB607084

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1A8965.D

Level: (low/med) Date Received:

% Moisture: not dec. Date Analyzed: 7/8/96

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
75-35-4	1,1-Dichloroethene	5	U
75-01-4	Vinyl Chloride	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U

B. Sample Data

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRANS STATION

Lab Name: EA LABORATORIES Contract:

Lab Code: EA ENG Case No.: SAS No.: 8260 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9609453

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1A8902.D

Level: (low/med) Date Received: 6/26/96

% Moisture: not dec. Date Analyzed: 7/2/96

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-35-4	1,1-Dichloroethene	5	U
75-01-4	Vinyl Chloride	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	1700	E
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRANS STATIONDL

Lab Name: EA LABORATORIES Contract:

Lab Code: EA ENG Case No.: SAS No.: 8260 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9609453DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1A8967.D

Level: (low/med) Date Received: 6/26/96

% Moisture: not dec. Date Analyzed: 7/9/96

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 10.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-35-4	1,1-Dichloroethene	50	U
75-01-4	Vinyl Chloride	50	U
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	50	U
78-93-3	2-Butanone	2400	D
56-23-5	Carbon Tetrachloride	50	U
71-43-2	Benzene	50	U
79-01-6	Trichloroethene	50	U
127-18-4	Tetrachloroethene	50	U
108-90-7	Chlorobenzene	50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CLASS4

Lab Name: EA LABORATORIES Contract:

Lab Code: EA ENG Case No.: SAS No.: 8260 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9609454

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1A8905.D

Level: (low/med) Date Received: 6/26/96

% Moisture: not dec. Date Analyzed: 7/2/96

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
75-35-4	1,1-Dichloroethene	5	U
75-01-4	Vinyl Chloride	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	680	E
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	1	J
79-01-6	Trichloroethene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CLASS4DL

Lab Name: EA LABORATORIES Contract:

Lab Code: EA ENG Case No.: SAS No.: 8260 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9609454DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1A8968.D

Level: (low/med) Date Received: 6/26/96

% Moisture: not dec. Date Analyzed: 7/9/96

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 2.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-35-4	1,1-Dichloroethene	10	U
75-01-4	Vinyl Chloride	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	540	D
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	5	JD
79-01-6	Trichloroethene	10	U
127-18-4	Tetrachloroethene	10	U
108-90-7	Chlorobenzene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SITE4

Lab Name: EA LABORATORIES Contract:

Lab Code: EA ENG Case No.: SAS No.: 8260 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9609455

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1A8908.D

Level: (low/med) Date Received: 6/26/96

% Moisture: not dec. Date Analyzed: 7/2/96

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
75-35-4	1,1-Dichloroethene	5	U
75-01-4	Vinyl Chloride	4	J
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	150	
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	
79-01-6	Trichloroethene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	2	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SITE3

Lab Name: EA LABORATORIES Contract:

Lab Code: EA ENG Case No.: SAS No.: 8260 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9609456

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1A8909.D

Level: (low/med) Date Received: 6/26/96

% Moisture: not dec. Date Analyzed: 7/2/96

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
75-35-4	1,1-Dichloroethene	5	U
75-01-4	Vinyl Chloride	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	2600	E
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	2	J
79-01-6	Trichloroethene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	7	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SITE3DL

Lab Name: EA LABORATORIES Contract:

Lab Code: EA ENG Case No.: SAS No.: 8260 SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 9609456DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VA1A8969.D

Level: (low/med) Date Received: 6/26/96

% Moisture: not dec. Date Analyzed: 7/9/96

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 10.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-35-4	1,1-Dichloroethene	50	U
75-01-4	Vinyl Chloride	50	U
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	50	U
78-93-3	2-Butanone	1700	D
56-23-5	Carbon Tetrachloride	50	U
71-43-2	Benzene	50	U
79-01-6	Trichloroethene	50	U
127-18-4	Tetrachloroethene	50	U
108-90-7	Chlorobenzene	50	U

4. SEMIVOLATILES DATA

A. QC Summary

LCS RECOVERY REPORT

LAB NAME: EA LABORATORIES

DATA FILE: SC3A9938

INSTRUMENT:

DATE: 07/17/96

SAMPLE ID: SL607032

MATRIX: WATER

ANALYST: RHS

SPIKE COMPOUND	SPIKE ADDED	SAMPLE CONC.	%REC.
4-Chloro-3-methylphenol	1000.00	556.96	56
2-Chlorophenol	1000.00	553.94	55
4-Nitrophenol	1000.00	549.18	55
Pentachlorophenol	1000.00	609.65	61
Phenol	1000.00	685.91	69
Acenaphthene	500.00	301.85	60
1,4-Dichlorobenzene	500.00	193.34	39
2,4-Dinitrotoluene	500.00	334.99	67
N-Nitroso-di-n-propylamine	500.00	334.99	67
Pyrene	500.00	332.88	67
1,2,4-Trichlorobenzene	500.00	190.95	38

CURRENT SEMIVOLATILE LCS LIMITS

	WATER	SOIL
4-Chloro-3-methylphenol	45 - 97	51 - 96
2-Chlorophenol	42 - 94	39 - 98
4-Nitrophenol	52 - 117	50 - 120
Pentachlorophenol	38 - 119	16 - 119
Phenol	38 - 91	35 - 97
Acenaphthene	49 - 103	51 - 109
1,4-Dichlorobenzene	28 - 90	39 - 102
2,4-Dinitrotoluene	57 - 115	54 - 126
N-Nitroso-di-n-propylamine	53 - 115	51 - 115
Pyrene	45 - 114	44 - 119
1,2,4-Trichlorobenzene	33 - 94	50 - 104

If LCS is outside limits, a non-conformance form is required.

The LCS has been checked and is within/outside current limits.

ANALYST 7/24/96 DATE

Non-conformance form #

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO: SB607032

Lab Name: EA LABS Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: SB607032

Sample wt/vol: 200 (g/mL) ML Lab File ID: SC3A9937

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 07/03/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/17/96

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)ug/L	Q
110-86-1	Pyridine	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	50	U
106-44-5	3+4-Methylphenol	50	U
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	250	U
121-14-2	2,4-Dinitrotoluene	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	250	U

B. Sample Data

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

TRANSFER

Lab Name: EA LABS Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: 9609453

Sample wt/vol: 200 (g/mL) ML Lab File ID: SC3A9941

Level: (low/med) LOW Date Received: 06/26/96

% Moisture: _____ decanted: (Y/N) N Date Extracted: 07/03/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/17/96

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)ug/L	Q
110-86-1	Pyridine	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	50	U
106-44-5	3+4-Methylphenol	12000	E
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	250	U
121-14-2	2,4-Dinitrotoluene	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	250	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

TRANSFERRE

Lab Name: EA LABS Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: 9609453

Sample wt/vol: 200 (g/mL) ML Lab File ID: SC3A9942

Level: (low/med) LOW Date Received: 06/26/96

% Moisture: _____ decanted: (Y/N) N Date Extracted: 07/03/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/18/96

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)ug/L	Q
110-86-1	Pyridine	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	50	U
106-44-5	3+4-Methylphenol	11000	E
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	250	U
121-14-2	2,4-Dinitrotoluene	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	250	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

TRANSFERDL

Lab Name: EA LABS Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: 9609453

Sample wt/vol: 200 (g/mL) ML Lab File ID: SC3A9982

Level: (low/med) LOW Date Received: 06/26/96

% Moisture: _____ decanted: (Y/N) N Date Extracted: 07/03/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/18/96

Injection Volume: 1.0 (uL) Dilution Factor: 250.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)ug/L	Q
110-86-1	Pyridine	2500	U
106-46-7	1,4-Dichlorobenzene	2500	U
95-48-7	2-Methylphenol	2500	U
106-44-5	3+4-Methylphenol	22000	D
67-72-1	Hexachloroethane	2500	U
98-95-3	Nitrobenzene	2500	U
87-68-3	Hexachlorobutadiene	2500	U
88-06-2	2,4,6-Trichlorophenol	2500	U
95-95-4	2,4,5-Trichlorophenol	12000	U
121-14-2	2,4-Dinitrotoluene	2500	U
118-74-1	Hexachlorobenzene	2500	U
87-86-5	Pentachlorophenol	12000	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

CLASS 4

Lab Name: EA LABS Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: 9609454

Sample wt/vol: 200 (g/mL) ML Lab File ID: SC3A9943

Level: (low/med) LOW Date Received: 06/26/96

% Moisture: _____ decanted: (Y/N) N Date Extracted: 07/03/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/18/96

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)ug/L	Q
110-86-1	Pyridine	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	50	U
106-44-5	3+4-Methylphenol	1300	E
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	250	U
121-14-2	2,4-Dinitrotoluene	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	48	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

CLASS 4DL

Lab Name: EA LABS Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: 9609454

Sample wt/vol: 200 (g/mL) ML Lab File ID: SC3A9983

Level: (low/med) LOW Date Received: 06/26/96

% Moisture: _____ decanted: (Y/N) N Date Extracted: 07/03/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/19/96

Injection Volume: 1.0 (uL) Dilution Factor: 20.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)ug/L	Q
110-86-1	Pyridine	200	U
106-46-7	1,4-Dichlorobenzene	200	U
95-48-7	2-Methylphenol	200	U
106-44-5	3+4-Methylphenol	2100	D
67-72-1	Hexachloroethane	200	U
98-95-3	Nitrobenzene	200	U
87-68-3	Hexachlorobutadiene	200	U
88-06-2	2,4,6-Trichlorophenol	200	U
95-95-4	2,4,5-Trichlorophenol	1000	U
121-14-2	2,4-Dinitrotoluene	200	U
118-74-1	Hexachlorobenzene	200	U
87-86-5	Pentachlorophenol	150	DJ

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

SITE 4

Lab Name: EA LABS Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: 9609455

Sample wt/vol: 200 (g/mL) ML Lab File ID: SC3A9984

Level: (low/med) LOW Date Received: 06/26/96

% Moisture: _____ decanted: (Y/N) N Date Extracted: 07/03/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/19/96

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)ug/L	Q
110-86-1	Pyridine	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	15	J
106-44-5	3+4-Methylphenol	1000	E
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	250	U
121-14-2	2,4-Dinitrotoluene	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	250	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

SITE 4DL

Lab Name: EA LABS Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: 9609455

Sample wt/vol: 200 (g/mL) ML Lab File ID: SC3A9985

Level: (low/med) LOW Date Received: 06/26/96

% Moisture: _____ decanted: (Y/N) N Date Extracted: 07/03/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/19/96

Injection Volume: 1.0 (uL) Dilution Factor: 25.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)ug/L	Q
110-86-1	Pyridine	250	U
106-46-7	1,4-Dichlorobenzene	250	U
95-48-7	2-Methylphenol	250	U
106-44-5	3+4-Methylphenol	1800	D
67-72-1	Hexachloroethane	250	U
98-95-3	Nitrobenzene	250	U
87-68-3	Hexachlorobutadiene	250	U
88-06-2	2,4,6-Trichlorophenol	250	U
95-95-4	2,4,5-Trichlorophenol	1200	U
121-14-2	2,4-Dinitrotoluene	250	U
118-74-1	Hexachlorobenzene	250	U
87-86-5	Pentachlorophenol	1200	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

SITE 3

Lab Name: EA LABS Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: 9609456

Sample wt/vol: 200 (g/mL) ML Lab File ID: SC3A9945

Level: (low/med) LOW Date Received: 06/26/96

% Moisture: _____ decanted: (Y/N) N Date Extracted: 07/03/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/18/96

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)ug/L	Q
110-86-1	Pyridine	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	10	J
106-44-5	3+4-Methylphenol	250	
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
87-68-3	Hexachlorobutadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	250	U
121-14-2	2,4-Dinitrotoluene	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	250	U

5. PESTICIDES DATA

A. QC Summary

LCS RECOVERY REPORT

LAB NAME: EA LABORATORIES

DATA FILE: 169FACSU

INSTRUMENT: SU1

DATE: 07/10/96

SAMPLE ID: PL607031

MATRIX: WATER

ANALYST: GMG

SPIKE I.D.: S-6450

SPIKE COMPOUND	SPIKE ADDED	SAMPLE CONC.	%REC.
Aldrin	2.500	0.70	28
gamma-BHC	2.500	2.2	88
Dieldrin	5.000	4.3	86
4,4'-DDT	5.000	4.3	86
Endrin	5.000	4.7	94
Heptachlor	2.500	0.92	37

CURRENT PESTICIDE LIMITS

	WATER	SOIL
Aldrin	25 - 136	68 - 129
gamma-BHC	56 - 125	59 - 103
Dieldrin	63 - 113	67 - 111
4,4'-DDT	56 - 139	66 - 127
Endrin	69 - 125	71 - 129
Heptachlor	25 - 128	69 - 118

If LCS is outside limits, a non-conformance form is required.

The LCS has been checked and is within/outside current limits.

ANALYST DATE Non-conformance form #

1D

PESTICIDE COMPOUNDS ORGANICS ANALYSIS SHEET

EPA SAMPLE NO.

PB607031

Lab Name: EA LABS Contract:

Lab Code: EAENG Case No: SAS No: SDG No:

Matrix: (soil/water) WATER Lab Sample ID: PB607031

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: 168FACSU

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

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 07/03/96

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/10/96

Injection Volume: 1.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) ug/L	Q
58-89-9	gamma-BHC	0.25	U
76-44-8	Heptachlor	0.25	U
1024-57-3	Heptachlor Epoxide	0.25	U
72-20-8	Endrin	0.50	U
72-43-5	Methoxychlor	2.5	U
57-74-9	Chlordane	5.0	U
8001-35-2	Toxaphene	25	U

PESTICIDE COMPOUNDS ORGANICS ANALYSIS SHEET

XB606271

Lab Name: EA LABS Contract:

Lab Code: EAENG Case No: SAS No: SDG No:

Matrix: (soil/water) WATER Lab Sample ID: XB606271

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: 170FACSU

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

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 07/03/96

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/10/96

Injection Volume: 1.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) ug/L	Q
58-89-9	gamma-BHC	0.25	U
76-44-8	Heptachlor	0.25	U
1024-57-3	Heptachlor Epoxide	0.25	U
72-20-8	Endrin	0.50	U
72-43-5	Methoxychlor	2.5	U
57-74-9	Chlordane	5.0	U
8001-35-2	Toxaphene	25	U

B. Sample Data

PESTICIDE COMPOUNDS ORGANICS ANALYSIS SHEET

TRANSFER STA

Lab Name: EA LABS Contract:

Lab Code: EAENG Case No: SAS No: SDG No:

Matrix: (soil/water) WATER Lab Sample ID: 9609453

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: 171FACSU

% Moisture: decanted: (Y/N): N Date Received: 06/26/96

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 07/03/96

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/10/96

Injection Volume: 1.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) ug/L	Q
58-89-9	gamma-BHC	1.1	
76-44-8	Heptachlor	0.25	U
1024-57-3	Heptachlor Epoxide	0.25	U
72-20-8	Endrin	0.50	U
72-43-5	Methoxychlor	2.5	U
57-74-9	Chlordane	5.0	U
8001-35-2	Toxaphene	25	U

10A

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

TRANSFER STA

Lab Name: EA LABS Contract: _____

Lab Code: EAENG Case No: _____ SAS No: _____ SDG No:

Lab Sample ID: 9609453 Date(s) Analyzed: 07/10/96

Instrument ID (1): SU1 Instrument ID (2):

GC Column (1): RTX-5 ID:0.53(mm) GC Column (2):RTX-35 ID:0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
gamma-BHC	1	6.92	6.87	6.97	1.1	
	2	8.83	8.78	8.88	1.3	18

PESTICIDE COMPOUNDS ORGANICS ANALYSIS SHEET

CLASS 4

Lab Name: EA LABS Contract:

Lab Code: EAENG Case No: SAS No: SDG No:

Matrix: (soil/water) WATER Lab Sample ID: 9609454

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: 172FACSU

% Moisture: decanted: (Y/N): N Date Received: 06/26/96

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 07/03/96

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/10/96

Injection Volume: 1.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) ug/L	Q
58-89-9	gamma-BHC	0.25	U
76-44-8	Heptachlor	0.25	U
1024-57-3	Heptachlor Epoxide	0.25	U
72-20-8	Endrin	0.50	U
72-43-5	Methoxychlor	2.5	U
57-74-9	Chlordane	5.0	U
8001-35-2	Toxaphene	25	U

PESTICIDE COMPOUNDS ORGANICS ANALYSIS SHEET

SITE 4

Lab Name: EA LABS Contract:

Lab Code: EAENG Case No: SAS No: SDG No:

Matrix: (soil/water) WATER Lab Sample ID: 9609455

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: 173FACSU

% Moisture: decanted: (Y/N): N Date Received: 06/26/96

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 07/03/96

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/10/96

Injection Volume: 1.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) ug/L	Q
58-89-9	gamma-BHC	0.25	U
76-44-8	Heptachlor	0.25	U
1024-57-3	Heptachlor Epoxide	0.25	U
72-20-8	Endrin	0.50	U
72-43-5	Methoxychlor	2.5	U
57-74-9	Chlordane	5.0	U
8001-35-2	Toxaphene	25	U

PESTICIDE COMPOUNDS ORGANICS ANALYSIS SHEET

SITE 3

Lab Name: EA LABS Contract:

Lab Code: EAENG Case No: SAS No: SDG No:

Matrix: (soil/water) WATER Lab Sample ID: 9609456

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: 174FACSU

% Moisture: decanted: (Y/N): N Date Received: 06/26/96

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 07/03/96

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/10/96

Injection Volume: 1.0 (uL) Dilution Factor: 1

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) ug/L	Q
58-89-9	gamma-BHC	0.25	U
76-44-8	Heptachlor	0.25	U
1024-57-3	Heptachlor Epoxide	0.25	U
72-20-8	Endrin	0.50	U
72-43-5	Methoxychlor	2.5	U
57-74-9	Chlordane	5.0	U
8001-35-2	Toxaphene	25	U

6. HERBICIDES DATA

A. QC Summary

LCS
LAB CONTROL SAMPLE RECOVERY

Lab Name: EA LABORATORIES
Lab Code: EAENG
Analyst : GMG
Instrument ID : GC#SL2F
Analysis Date : 07/11/96
Analysis Time : 22:17 GC Column ID: RTX-5
Date Extracted: 05/30/96 Matrix Spike No.: HL606281

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONC (ug/L)	LCS CONC (ug/L)	LCS % REC	#	QC LIMITS REC.
2,4-D	200	0.0	119	60%		51-116
2,4,5-TP	40	0.0	27	68%		56-111

Column to be used to flag recovery values with an asterisk
$ No limits available
* Values outside of QC limits

Comments:

1

HERBICIDES ANALYSIS DATA SHEET

EPA SAMPLE NO.

HB606281

ab Name: EA LABORATORIES

ab Code: EAENG

atrix: (soil/water) TCLP — Lab Sample ID: HB606281

amle wt/vol: 100 mL — Lab File ID: _____

Moisture: N/A — Date Received: _____

xtraction: SEPF — Date Extracted: 06/28/96

oncentrated Extract Volume: 10000 uL — Date Analyzed: 07/11/96

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP	17	U

B. Sample Data

1

HERBICIDES ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRANSFER STATION

Lab Name: EA LABORATORIES

Lab Code: EAENG

Matrix:(soil/water) TCLP

Lab Sample ID: 9609453

Samle wt/vol: 100 mL

Lab File ID: _____

% Moisture: N/A

Date Received: 6/20/96 GG 7/17/96

Extraction: SEPF

Date Extracted: 06/28/96

Concentrated Extract Volume: 10000 uL

Date Analyzed: 07/12/96

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
94-75-7---------	2,4-D	120	U
93-72-1---------	2,4,5-TP	17	U

1

HERBICIDES ANALYSIS DATA SHEET

EPA SAMPLE NO.

CLASS4

Lab Name: EA LABORATORIES

Lab Code: EAENG

Matrix: (soil/water) TCLP

Lab Sample ID: 9609454

Samle wt/vol: 100 mL

Lab File ID: _____

% Moisture: N/A

Date Received: 6/20/96 GG 7/17/96

Extraction: SEPF

Date Extracted: 06/28/96

Concentrated Extract Volume: 10000 uL

Date Analyzed: 07/12/96

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
94-75-7---------	2,4-D	120	U
93-72-1---------	2,4,5-TP	17	U

1

HERBICIDES ANALYSIS DATA SHEET

EPA SAMPLE NO.

SITE4

Lab Name: EA LABORATORIES

Lab Code: EAENG

Matrix:(soil/water) TCLP — Lab Sample ID: 9609455

Samle wt/vol: 100 mL — Lab File ID: _____

% Moisture: N/A — Date Received: 6/20/96

Extraction: SEPF — Date Extracted: 06/28/96

Concentrated Extract Volume: 10000 uL — Date Analyzed: 07/12/96

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
94-75-7---------	2,4-D	120	U
93-72-1---------	2,4,5-TP	17	U

1

HERBICIDES ANALYSIS DATA SHEET

EPA SAMPLE NO.

SITE3

Lab Name: EA LABORATORIES

Lab Code: EAENG

Matrix: (soil/water) TCLP

Lab Sample ID: 9609456

Samle wt/vol: 100 mL

Lab File ID:

% Moisture: N/A

Date Received: 6/20/96 GG 7/14/96

Extraction: SEPF

Date Extracted: 06/28/96

Concentrated Extract Volume: 10000 uL

Date Analyzed: 07/12/96

Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
94-75-7---------	2,4-D	120	U
93-72-1---------	2,4,5-TP	17	U

7. METALS DATA

A. Analytical Results

EA LABORATORIES ANALYTICAL REPORT SUMMARY
METALS TCLP RESULTS FOR CHAMBERS REPORT #961007
EA SAMPLE ID: 9609453 **CLIENT ID:** TRANSFER STATION

ELEMENT	CONC, UG/L
Arsenic	<100
Barium	1700
Cadmium	<5 0
Chromium	38.8
Lead	<100
Mercury	0.42
Selenium	<100
Silver	<20.0

EA LABORATORIES ANALYTICAL REPORT SUMMARY
METALS TCLP RESULTS FOR CHAMBERS REPORT #961007
EA SAMPLE ID: 9609454 **CLIENT ID:** CLASS 4

ELEMENT	CONC, UG/L
Arsenic	<100
Barium	956
Cadmium	<5 0
Chromium	106
Lead	<100
Mercury	<0.20
Selenium	<100
Silver	15.6

EA LABORATORIES ANALYTICAL REPORT SUMMARY
METALS TCLP RESULTS FOR CHAMBERS REPORT #961007
EA SAMPLE ID: 9609455 **CLIENT ID:** SITE 4

ELEMENT	CONC, UG/L
Arsenic	<100
Barium	946
Cadmium	<5.0
Chromium	<10.0
Lead	<100
Mercury	<0.20
Selenium	<100
Silver	<20.0

EA LABORATORIES ANALYTICAL REPORT SUMMARY
METALS TCLP RESULTS FOR CHAMBERS REPORT #961007
EA SAMPLE ID: 9609456 **CLIENT ID:** SITE 3

ELEMENT	CONC, UG/L
Arsenic	<100
Barium	1390
Cadmium	<5.0
Chromium	17 0
Lead	<100
Mercury	<0.20
Selenium	<100
Silver	<10.0

B. Quality Control Data

EA LABORATORIES
LCS Recovery Report

Client: Chambers USA
Project: Tontitown Landfill
Date Analyzed: 10-11 July 1996

Matrix: water
Method: SW846
Units: µg/L

Liquid LCS

Parameter	True Conc.	Found conc	% rec
Arsenic	2000	1980	99.0
Barium	2000	2020	101.0
Cadmium	50.0	48.2	96.4
Chromium	200	206	103.0
Lead	500	503	100.6
Mercury	4.0	4.13	103.2
Selenium	2000	2020	101.0
Silver	500	505	101.0

EA LABORATORIES
Method Blank Report

Client: Chambers USA
Project: Tontitown Landfill
Date Analyzed: 10-11 July 1996

Method: SW846
Matrix: water
Units: ug/L

Parameter	Detection Limit	Blank result
Arsenic	100	< 100
Barium	200	< 200
Cadmium	5.0	< 5.0
Chromium	10.0	< 10.0
Lead	100	< 100
Mercury	0.2	< 0.20
Selenium	100	< 100
Silver	10.0	< 10.0

8. GENERAL CHEMISTRY DATA

A. Analytical Results

EA Laboratories Recovery Report
Chambers USA
Report # 961007

	Transfer Station	Class 4	Site 4	Site 3	
Sulfide total	8.5	28.0	<1.0	1.5	mg/L
Cyanide total	<0.010	<0.010	<0.010	<0.010	mg/L
Corrosivity	5.4	6.6	6.7	7.2	pH units
Flashpoint	>60	>60	>60	>60	C
Reactivity	No	No	No	No	None
Accession Number	9609453	9609454	9609455	9609456	

B. Quality Control Data

EA Laboratories
LCS Recovery Report

Client: Chambers USA
Project: Tontitown Landfill
Date Analyzed. June/July 1996

Method: EPA
Matrix: Water

Parameter	True Conc	Found Conc	Units	%Rec	Limits(%)
Sulfide total	40.4	40.0	mg/L	99	81-112
Cyanide total	0.0963	0.0782	mg/L	81	49-136
Corrosivity	6 00	6 04	pH units	+0.04	+/-0.10
Flashpoint	26.7	26.0	C	97	N/A

EA Laboratories
Method Blank Report

Client. Chambers USA
Project. Tontitown Landfill
Date Analyzed: June/July 1996

Method: EPA
Matrix: Water

Parameter	Detection Limit	Blank Result	Units
Total sulfide	1.0	<1 0	mg/L
Total cyanide	0.010	<0 010	mg/L
Flashpoint	N/A	>60	C