Underground Injection Control Closure Report

Interim Remedial Measures

December 20, 2000

99-455

conducted at:

2050 Hempstead Turnpike
East Meadow, New York

prepared for:

New York State Department of Environmental Conservation
Bureau of Remedial Action
Division of Environmental Remediation
50 Wolf Road
Albany, New York

IMPACT ENVIRONMENTAL

a division of impact environmental consulting, inc.

1 VILLAGE PLAZA, KINGS PARK, NEW YORK 11754 ❖ 631.269.8800 TELEPHONE ❖ 631.269.1599 FACSIMILE ❖ IMPACTENVIRONMENTAL.COM

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1 Purpose

The Interim Remedial Measures (IRM) described herein were conducted to mitigate point pollution sources that have been identified at the property located at 2050 Hempstead Turnpike, East Meadow, New York, herein identified as the Site. The IRM process was utilized to prevent further contamination of groundwater from the identified point pollution sources.

2 Scope

This assessment describes the remedial tasks performed in an effort to restore the environmental quality of the Site and attempts to determine their effectiveness.

This report details facts relating to the IRM that are segmented into the following sections.

- Site Background
- Remedial Measures
- Waste Management
- End-Point Sample Analysis
- Evaluation of Data

The methodologies and test methods used for the remedial services were based on the following:

- NYSDEC Technical Administrative Guidance Memorandum (TAGM) # 3028, "Contained-In" Criteria for Environmental Media
- New York State Regulations Pertaining to Listed Hazardous Wastes as presented in 6 NYCRR Part 371.
- NYSDEC TAGM # HR-94-4046 Determination of Soil Cleanup Values and Objectives
- Nassau County Department of Health *Cleanup Guidelines for the Remediation of Drywells and Individual Septic Systems*

Presented herein are the results of the Interim Remedial Measures conducted on the Site by Impact Environmental. The Interim Remedial Measures were performed under contract Lowden Properties.

3 Site Background

3.1 Site Description

The Site is a 74,702 square foot commercial shopping center located within the Village of East Meadow in Nassau County, New York (see Plate 1: Site Plan, East Meadow, New York). The Site is triangular in shape, situated between the intersection of Hempstead Turnpike (on the north) and Front Street (to the south).

The Site contains five commercial structures that are currently facilitated by a donut shop, a television repair shop, a self-service laundry, a dry cleaner and a car wash. These buildings were constructed from 1956 to 1959 at which time they utilized on-site waste water disposal systems. Each of these systems were comprised of a septic tank and one or more cesspool that functioned as underground injection wells (as defined by USEPA pursuant to the Safe Drinking Water Act). All of these disposal systems were abandoned in 1986 when each of the buildings was connected to the Nassau County Public sewer system.

3.2 Site Geology

The subsurface soil on the Site consists of well-sorted medium grained sandthat is homogenous in the unsaturated zone (area above the water table). The water table exists approximately thirty-five feet below existing grade. Groundwater flow across the Site is from north to south.

3.3 Recognized Environmental Conditions

In January of 2000, the results of an environmental site assessment yielded data that indicated groundwater beneath the Site was impacted with Perchloroethylene (perc) at concentrations in excess of ambient conditions. Further study of the contamination identified that the source of the contamination was on the Site. In March 2000, a study performed at the direction of the Site owner indicated that three abandoned cesspools, which were identified as UIW-1, UIW-2 and UIW-3 (see Plate 2: Underground Injection Well Location Map, East Meadow, New York) situated on-site were contaminated with elevated concentrations of perc. These cesspools were confirmed to have formerly been part of the existing dry cleaner's on-site sanitary system. In April of 2000, these cesspools were confirmed to be the source of the detected groundwater pollution.

Cesspool UIW-1 was comprised of masonry block and had a diameter of approximately six feet and a depth of ten feet. Cesspool UIW-2 was comprised of eight-foot diameter concrete pre-cast rings with a dome. UIW-2 had been backfilled to approximately four feet below existing grade. Cesspool UIW-3 was also

comprised of eight-foot diameter concrete pre-cast rings with a dome. UIW-3 had been backfilled to approximately six feet below existing grade.

4 Remedial Measures

4.1 Remedial Requirements

Required remedial activities were proposed in an Interim Remedial Measures Work Plan submitted under a Voluntary Cleanup consent agreement between the Site owner and the NYSDEC. The work plan was approved by the NYSDEC in October 2000. The work plan required the excavation of impacted sediments from within the confines of the three polluted cesspools to the maximum depth practical (due to physical constraints) or until the water table was encountered (whichever occurred first).

4.2 Remedial Activities

The remediation of the cesspools occurred on the 27th, 28th and 29th of November, 2000. The remedial activities were performed in accordance with the approved Interim Remedial Work Plan. Photographs of the work are presented in Section 4.5 of this report.

4.2.1 Cesspool UIW-1

The sediment within and the soil below cesspool UIW-1 was excavated utilizing a crane to a depth of approximately thirty (30) feet below existing grade. Caisson rings were used to support the walls of each excavation and to prevent the collapse of a proximal building.

4.2.2 Cesspool UIW-2

The sediment within and the soil below cesspool UIW-2 was excavated utilizing a crane to a depth of approximately thirty-two (32) feet below existing grade. Caisson rings were used to support the walls of each excavation and to prevent the collapse of a proximal building wall.

4.2.3 Cesspool UIW-3

The sediment within and the soil below cesspool UIW-3 was excavated utilizing a crane to a depth of approximately nineteen (19) feet below existing grade.

4.3 Site Air Quality Monitoring

Hydrocarbon concentrations in air were gauged at a location downwind of the excavation on a continual basis. Air quality standards were maintained as required under the work plan, however, significant interference, which made it difficult to pinpoint contaminant source, was encountered during the operating hours of the existing dry cleaning company (Melody Cleaners). There were no odor complaints logged to

the Site Safety Officer or the Project Administrator during or immediately following the excavation and loading of the waste.

4.4 Site Restoration

The bottoms of the excavations were sealed with concrete/bentonite, and then the excavations were backfilled to grade to provide structural stability.

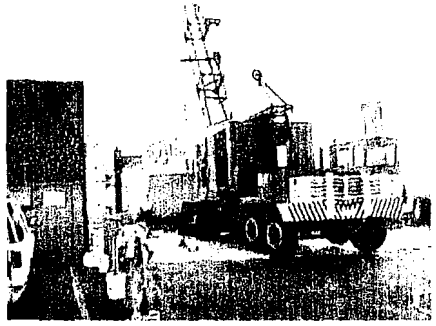
4.5 Photographic Log

The following photographs were taken with a digital camera by the Project Administrator during the performance of the remedial activities. These photographs have not been altered from their original electronic format in any way.

Photographic Log

2050 Hempstead Turnpike, East Meadow, New Yor :

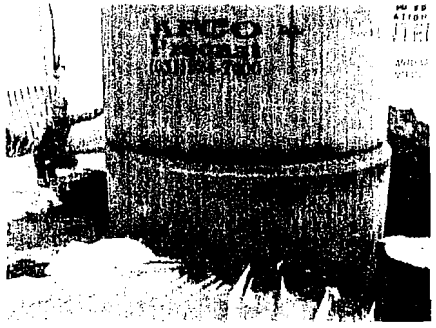
Plastic sheeting covering the ground around the UIWs.



Crane installing caisson ring.

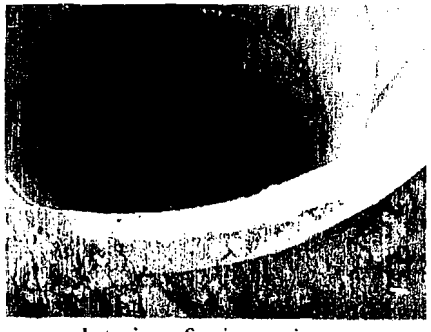
Caisson ring installed around UIW for support during excavation

Crane excavating material from within the caisson ring.



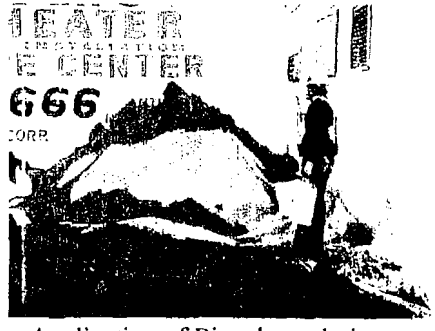
Fitting of additional caisson ring onto the previously installed structure.

Caisson rings being bolted together.



Interior of caisson rings.

Concrete / bentonite for sealing UIW bottoms.



Application of Biosolve solution to excavated material.

5 Waste Management

The waste disposal site selection was based on the nature, extent, concentration, location and source of the contamination.

5.1 Waste Classification

The solid waste media contained within the cesspools was classified as hazardous F-waste, pursuant to Title 6 NYCRR Part 371. Hazardous contaminated soil is a regulated solid waste in New York State and requires disposal in accordance with 6 NYCRR Part 360 Regulations. The concentrations were in excess of those necessary for a contained-in non-hazardous determination pursuant to NYSDEC TAGM #3028.

5.2 Disposal of Waste

A total of 492.72 tons of contaminated soil and UIW debris was excavated from the three underground injection well structures on the subject property and removed from the site. Refer to Appendix B for the waste manifests and disposal weight tickets.

The excavated media was handled, transported and disposed of as a hazardous waste in accordance with 6 NYCRR Part 371. The waste was transported by Transport Rollex Ltee. to Horizon Environment, Inc. located in Grandes-Piles (Quebec), Canada. This transport was authorized by the USEPA (see Appendix A: USEPA Hazardous Waste Export Authorization).

6 End-Point Sample Analysis

End-point samples were secured from the base of each of the cesspool excavations for laboratory analysis to confirm the effectiveness of the remedial services. The samples were transported under an active chain-of custody to Chemtech Laboratories, a New York State Department of Health and USEPA CLP Certified Commercial Laboratory.

6.1 Analytical Test Methods

The laboratory analysis of the end-point samples secured from the base of the cesspool excavation was performed in accordance with the United States Environmental Protection Agency (USEPA) test method 8260 for target volatile organic analytes.

6.2 Laboratory Results

Table 1: *Detected Analytes, East Meadow, New York* presents a summary of the laboratory analysis. The table provides a comparison of the detected contaminants versus the Recommended Soil Cleanup Objectives (RSCO) presented in the *NYSDEC, Technical Administrative Guidance Memorandum (TAGM) # 4046,, Determination of Recommended Soil Cleanup Objectives and Cleanup Levels*. The original laboratory analysis sheets, as prepared by Chemtech Laboratories, are presented in Appendix C of the document.

The laboratory analysis of the subsurface soil samples secured from cesspools UIWs UIW-1, UIW-2, UIW-3 failed to detect concentrations of target volatile organic analytes at concentrations that exceeded the RSCO values listed in the *NYSDEC, TAGM # 4046.*

The RSCO values are derived from a theoretical contaminant migration model identified as the Water-Soil Equilibrium Partition Theory Model. The intent of the model is to determine the soil standards or contamination limits for the protection of groundwater quality. The values derived from it are based on the ability of organic carbon in soil to absorb contamination. It uses these factors to derive an equation from which the RSCO values are derived.

Table 1: Detected Analytes
East Meadow, New York

Sample ID	EP-UIW-1	EP-UIW-2	EP-UIW-3	NYSDEC TAGM #4046 Cleanup Objectives
Volatile Organic Analytes:	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Chloromethane	5.3	5.4	5.2	NA
Vinyl Chloride	5.3	5.4	5.2	120
Bromomethane	5.3	5.4	5.2	NA
Chloroethane	5.3	5.4	5.2	1,900
1,1-Dichloroethene	5.3	5.4	5.2	400
Acetone	5.3	5.4	5.2	110
Carbon Disulfide	5.3	5.4	5.2	2,700
Methylene Chloride	5.3	5.4	7.8	100
trans-1,2-Dichloroethene	5.3	5.4	5.2	300
1,1-Dichloroethane	5.3	5.4	5.2	200
2-Butanone	5.3	5.4	5.2	300
cis-1,2-Dichloroethene	5.3	5.4	5.2	NA
Chloroform	5.3	5.4	5.2	300
1,1,1-Trichloroethane	5.3	5.4	5.2	760
Carbon Tetrachloride	5.3	5.4	5.2	600
Benzene	5.3	5.4	5.2	60
1,2-Dichloroethane	5.3	5.4	5.2	100
Trichloroethene	5.3	5.4	5.2	700
1,2-Dichloropropane	5.3	5.4	5.2	NA
Bromodichloromethane	5.3	5.4	5.2	NA
4-Methyl-2-Pentanone	5.3	5.4	5.2	1,000
Toluene	5.3	5.4	5.2	1,500
trans-1,3-Dichloropropene	5.3	5.4	5.2	NA
cis-1,3-Dichloropropene	5.3	5.4	5.2	NA
1,1,2-Trichloroethane	5.3	5.4	5.2	NA
2-Hexanone	5.3	5.4	5.2	NA
Dibromochloromethane	5.3	5.4	5.2	NA
Tetrachloroethene	74	29	5.2	1,400
Chlorobenzene	5.3	5.4	5.2	1,700
Ethyl Benzene	5.3	5.4	5.2	5,500
m/p-Xylenes	5.3	5.4	5.2	1,200 (Total Xylenes)
o-Xylene	5.3	5.4	5.2	
Styrene	5.3	5.4	5.2	NA
Bromoform	5.3	5.4	5.2	NA
1,1,2,2-Tetrachloroethane	5.3	5.4	5.2	600

7 Evaluation of Data

The following evaluating statements are based upon the guidance documents prepared by the NYSDEC for gauging the effectiveness of remedial services.

The source for groundwater contamination was removed through the excavation of impacted sediments from within the confines of and beneath each of the three (3) contaminated UIWs. It is estimated that approximately 663 gallons of perc were recovered in the remedial process and were thereby prevented from reaching the water table. This estimate is based on conservative values expressed volumetrically.

The table below depicts the average concentrations of perc detected in soil samples secured from each of the UIWs prior to remediation in comparison to the concentrations of perc detected in end-point samples secured from the bottom sediments of each of the UIWs subsequent to remediation.

Underground Injection Well	Average Concentration (ppb)	End-point Sample Concentration (ppb)	Percent Reduction of Perc Concentration
UIW-1	1,295,447.5	74	99.994
UIW-2	2,716	29	98.932
UIW-3	34,236	5.2	99.985

The concrete/bentonite seals on the bottoms of the UIW excavations serve to prevent groundwater vapors from migrating upward through the disturbed subsurface soil. It is recommended that the surface areas disturbed by the excavation be sealed with asphalt.

Impact Environmental has completed remedial services on three (3) UIWs on the Site. Based on this assessment, the performance of the remedial services has sufficiently mitigated the contaminants that existed within the sediments of the UIWs. Accordingly, no further remedial work is recommended to be performed with respect to the UIWs on the Site.

APPENDIX A

USEPA Hazardous Waste Export Authorization
East Meadow, New York

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

November 30, 2000

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

EPA Notice No.: 772/00

MR. R. PARRISH
LOWDEN FAMILY TRUST
2030 HEMPSTEAD TPK.
EAST MEADOW, NY 11554
EPA I.D. No.: NYP000948190

Dear MR. PARRISH:

This is to acknowledge receipt of your notice, dated November 20, 2000, of intent to export hazardous waste to Canada as required by Title 40, Code of Federal Regulations, Part 262, Subpart E, Section 262.53 promulgated pursuant to the Resource Conservation and Recovery Act (RCRA). In accordance with the U.S.-Canada Bilateral Agreement on the Transboundary Movement of Hazardous Waste, the U.S. Environmental Protection Agency (EPA) forwarded your notice to the Government of Canada and Canada has no objection to your shipment(s) of hazardous waste.

This letter constitutes the EPA Acknowledgment of Consent for the export of the following hazardous waste as specified in your notice:

> Waste Description: CONTAMINATED SOIL. EPA Waste Code: D001-D043, F001-F039, K001-K181, P001-P205, U001-U411. DOT Shipping Name: HAZARDOUS WASTE, SOLID, NOS; DOT Hazard Class: 9; DOT I.D. No.: NA3077. Total Volume to be Exported: 200 TONS. Estimated Frequency: 1 load per YEAR.

You may ship this waste to the following consignee:

> HORIZON ENVIRONMENT, INC.
> 120, ROAD 155
> GRANDES-PILES
> QC CANADA G0X 1H0

Shipments may occur during the period from November 23, 2000 to November 23, 2001.

You are also reminded of the following special RCRA requirements for export shipments of hazardous waste. Specific details of these requirements are contained in Title 40 of the Code of Federal Regulations, Part 262, Subpart E.

1. If the major terms of the original notice of intent to export on which this consent is based should change, you must renotify EPA. Please mail your renotification to: USEPA, Ariel Rios Building, Mail Code 2222A, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460, with "ATTENTION: IMPORT-EXPORT PROGRAM" prominently displayed on the front of the envelope. (262.53(c)) Alternately, notices may be sent by courier to the same office at the Ariel Rios Building, Room 5124, 1200 Pennsylvania Avenue, NW, Washington, DC 20004.

2. The Uniform Hazardous Waste Manifest Form for each shipment must identify the point of departure from the United States in Item 15, Special Handling Instructions. (262.54(c))

3. The following statement must be added to the end of the first sentence of the certification set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: "and conforms to the terms of the attached EPA Acknowledgment of Consent". (262.54(d))

4. A copy of this Acknowledgment of Consent must be attached to the U.S. hazardous waste manifest that accompanies each shipment of hazardous waste. (262.54(h))

5. You must provide the waste transporter with an additional copy of the U.S. hazardous waste manifest accompanying the shipment for delivery to a U.S. Customs official at the point the hazardous waste leaves the United States in accordance with 263.20(g)(4) and (262.54(i)).

6. You must file an exception report with the USEPA, Ariel Rios Building, Mail Code 2222A, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, ATTN: IMPORT-EXPORT PROGRAM, if you have not received a copy of the manifest signed by the transporter stating the date and place of departure from the U.S. within forty five (45) days from the date it was accepted by the initial transporter; if within ninety (90) days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received; or if the waste is returned to the United States. (262.55). Alternately, exception reports may be sent by courier to the same office at the Ariel Rios Building, Room 5124, 1200 Pennsylvania Avenue, NW, Washington, DC 20004.

7. You must file an annual report by March 1 of each year with the USEPA, Ariel Rios Building, Mail Code 2222A, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, ATTN: IMPORT-EXPORT PROGRAM, summarizing all hazardous waste shipments exported during the previous calendar year. The report must include all items listed in 262.56. Alternately, annual reports may be sent by courier to the same office at the Ariel Rios

Building, Room 5124, 1200 Pennsylvania Avenue, NW, Washington, DC 20004.

All shipments of hazardous waste must conform to all applicable State and Federal hazardous waste regulations and transportation requirements as well as these specific export requirements.

Any questions you may have concerning this Acknowledgment of Consent or other export requirements may be directed to Mr. Scott Nelson (Phone 202/564-5032), or Mr. Bob Small (Phone 202/564-5043), EPA, Office of Enforcement and Compliance Assurance.

Sincerely,

Robert G. Heiss
Director
Import-Export Program
Enforcement, Planning, Targeting and
Data Division
Office of Compliance (2222A)

APPENDIX B

Waste Manifests and Tickets
East Meadow, New York

The waste manifests and disposal weight tickets will be forwarded upon receipt from the disposal facility.

APPENDIX C

Laboratory Analysis
East Meadow, New York

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
ER-1

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L2286 Site: EAST MEA Location: LB10797 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: 001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N02478.D

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 6 Date Analyzed: 12/6/00

GC Column: DB624 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/Kg	Q
74-87-3	Chloromethane	5.3	U
75-01-4	Vinyl Chloride	5.3	U
74-83-9	Bromomethane	5.3	U
75-00-3	Chloroethane	5.3	U
75-35-4	1,1-Dichloroethene	5.3	U
67-64-1	Acetone	5.3	U
75-15-0	Carbon Disulfide	5.3	U
75-09-2	Methylene Chloride	8.3	
156-60-5	trans-1,2-Dichloroethene	5.3	U
75-34-3	1,1-Dichloroethane	5.3	U
78-93-3	2-Butanone	5.3	U
156-59-2	cis-1,2-Dichloroethene	5.3	U
67-66-3	Chloroform	5.3	U
71-55-6	1,1,1-Trichloroethane	5.3	U
56-23-5	Carbon Tetrachloride	5.3	U
71-43-2	Benzene	5.3	U
107-06-2	1,2-Dichloroethane	5.3	U
79-01-6	Trichloroethene	5.3	U
78-87-5	1,2-Dichloropropane	5.3	U
75-27-4	Bromodichloromethane	5.3	U
108-10-1	4-Methyl-2-Pentanone	5.3	U
108-88-3	Toluene	5.3	U
10061-02-6	t-1,3-Dichloropropene	5.3	U
10061-01-5	cis-1,3-Dichloropropene	5.3	U
79-00-5	1,1,2-Trichloroethane	5.3	U
591-78-6	2-Hexanone	5.3	U
124-48-1	Dibromochloromethane	5.3	U
127-18-4	Tetrachloroethene	74	
108-90-7	Chlorobenzene	5.3	U
100-41-4	Ethyl Benzene	5.3	U
136777-61-2	m/p-Xylenes	5.3	U
95-47-6	o-Xylene	5.3	U
100-42-5	Styrene	5.3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER-1

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L2286 Site: EAST MEA Location: LB10797 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: 001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N02478.D

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 6 Date Analyzed: 12/6/00

GC Column: DB624 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/Kg	Q
75-25-2	Bromoform	5.3	U
79-34-5	1,1,2,2-Tetrachloroethane	5.3	U

1C

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
ER-1

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No. L2286 Site: EAST ME Location: LB10797 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: 001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N02478.D

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 6 Date Analyzed: 12/6/00

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	2.68	27	J
2.				
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER-2

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L2286 Site: EAST MEA Location: LB10797 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: 004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N02481.D

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 8 Date Analyzed: 12/6/00

GC Column: DB624 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/Kg	Q
74-87-3	Chloromethane	5.4	U
75-01-4	Vinyl Chloride	5.4	U
74-83-9	Bromomethane	5.4	U
75-00-3	Chloroethane	5.4	U
75-35-4	1,1-Dichloroethene	5.4	U
67-64-1	Acetone	5.4	U
75-15-0	Carbon Disulfide	5.4	U
75-09-2	Methylene Chloride	8.4	
156-60-5	trans-1,2-Dichloroethene	5.4	U
75-34-3	1,1-Dichloroethane	5.4	U
78-93-3	2-Butanone	5.4	U
156-59-2	cis-1,2-Dichloroethene	5.4	U
67-66-3	Chloroform	5.4	U
71-55-6	1,1,1-Trichloroethane	5.4	U
56-23-5	Carbon Tetrachloride	5.4	U
71-43-2	Benzene	5.4	U
107-06-2	1,2-Dichloroethane	5.4	U
79-01-6	Trichloroethene	5.4	U
78-87-5	1,2-Dichloropropane	5.4	U
75-27-4	Bromodichloromethane	5.4	U
108-10-1	4-Methyl-2-Pentanone	5.4	U
108-88-3	Toluene	5.4	U
10061-02-6	t-1,3-Dichloropropene	5.4	U
10061-01-5	cis-1,3-Dichloropropene	5.4	U
79-00-5	1,1,2-Trichloroethane	5.4	U
591-78-6	2-Hexanone	5.4	U
124-48-1	Dibromochloromethane	5.4	U
127-18-4	Tetrachloroethene	29	
108-90-7	Chlorobenzene	5.4	U
100-41-4	Ethyl Benzene	5.4	U
136777-61-2	m/p-Xylenes	5.4	U
95-47-6	o-Xylene	5.4	U
100-42-5	Styrene	5.4	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
ER-2

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L2286 Site: EAST MEA Location: LB10797 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: 004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N02481.D

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 8 Date Analyzed: 12/6/00

GC Column: DB624 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/Kg	Q
75-25-2	Bromoform	5.4	U
79-34-5	1,1,2,2-Tetrachloroethane	5.4	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
ER-2

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No. L2286 Site: EAST ME Location: LB10797 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: 004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N02481.D

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 8 Date Analyzed: 12/6/00

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 2 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	2.69	29	J
2.	Unknown	22.01	7.1	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 03

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L2286 Site: EAST MEA Location: LB10797 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: 003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N02480.D

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 3 Date Analyzed: 12/6/00

GC Column: DB624 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/Kg	Q
74-87-3	Chloromethane	5.2	U
75-01-4	Vinyl Chloride	5.2	U
74-83-9	Bromomethane	5.2	U
75-00-3	Chloroethane	5.2	U
75-35-4	1,1-Dichloroethene	5.2	U
67-64-1	Acetone	5.2	U
75-15-0	Carbon Disulfide	5.2	U
75-09-2	Methylene Chloride	7.8	
156-60-5	trans-1,2-Dichloroethene	5.2	U
75-34-3	1,1-Dichloroethane	5.2	U
78-93-3	2-Butanone	5.2	U
156-59-2	cis-1,2-Dichloroethene	5.2	U
67-66-3	Chloroform	5.2	U
71-55-6	1,1,1-Trichloroethane	5.2	U
56-23-5	Carbon Tetrachloride	5.2	U
71-43-2	Benzene	5.2	U
107-06-2	1,2-Dichloroethane	5.2	U
79-01-6	Trichloroethene	5.2	U
78-87-5	1,2-Dichloropropane	5.2	U
75-27-4	Bromodichloromethane	5.2	U
108-10-1	4-Methyl-2-Pentanone	5.2	U
108-88-3	Toluene	5.2	U
10061-02-6	t-1,3-Dichloropropene	5.2	U
10061-01-5	cis-1,3-Dichloropropene	5.2	U
79-00-5	1,1,2-Trichloroethane	5.2	U
591-78-6	2-Hexanone	5.2	U
124-48-1	Dibromochloromethane	5.2	U
127-18-4	Tetrachloroethene	5.2	U
108-90-7	Chlorobenzene	5.2	U
100-41-4	Ethyl Benzene	5.2	U
136777-61-2	m/p-Xylenes	5.2	U
95-47-6	o-Xylene	5.2	U
100-42-5	Styrene	5.2	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 03

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L2286 Site: EAST MEA Location: LB10797 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: 003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N02480.D

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 3 Date Analyzed: 12/6/00

GC Column: DB624 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/Kg	Q
75-25-2	Bromoform	5.2	U
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 03

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No. L2286 Site: EAST ME Location: LB10797 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: 003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N02480.D

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 3 Date Analyzed: 12/6/00

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	2.70	26	J
2.				
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