

Remedial Investigation & Interim Remedial Measure Report

Nassau Tool Works, Inc.

34 Lamar Street

West Babylon, New York

NYSDEC Hazardous Waste Disposal Site No. 1-52-142

April 1998

Revised June 1998

Prepared by:



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NYSDEC Hazardous Waste Disposal Site No. 1-52-142

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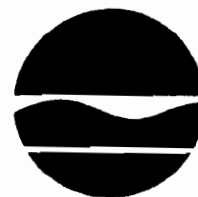


P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.
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file

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

May 26, 1994



Langdon Marsh
Acting Commissioner

Mr. John Kaiser
Edison Realty
34 Lamar Street
West Babylon, NY 11704

Dear Mr. Kaiser:

Re: Groundwater sampling in the vicinity of Nassau
Tool Works (34 Lamar St.) (South Lamar Street
Site; ID #152142)

As we discussed via phone on May 23, 1994, and as requested in your letter of the same date, I have enclosed the draft sampling results for the above-mentioned property. I included a copy of a sketch showing the approximate locations of the geoprobe sampling points.

The final PSA report in which we interpret these results and set forth our conclusions and recommendations is scheduled for completion in late September 1994.

Sincerely,

Hayden Brewster, P.E.
Eastern Investigation Section
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation

Enclosures

Water Preliminary Field Report

PROJECT : NYSDEC/~~Babylon Landfill~~
 CLIENT: Babylon, Long Island, New York
 Engineering-Science, Inc.
 290 Elwood Davis Road
 Suite 312
 Liverpool, New York 13088

Matrix: WATER
 Analyst: TJS
 File #: 010F0101.D
 Instr. #: GC # 3
 Date Coll: 5/03/94
 Date Analyzed: 5/3/94
 Dilution Factor: 10
 Method: 8010WA.MTH

Sample ID: GW-L01-25
 GC Sample ID: GW-L01-25 0.5 mL
 W.O. #: 0

RESULTS:

EPA Method 8010/8020 Gas Chromatography for Volatile Organics

COMPOUND	DET. LIMIT ug/L	RESULT ug/L
VINYL CHLORIDE	20.0	ND
1,1-DICHLOROETHENE	10.0	ND
METHYLENE CHLORIDE	20.0	ND
1,2-DICHLOROETHENE	10.0	ND
1,1-DICHLOROETHANE	10.0	15.0
c-1,2-DICHLOROETHENE	10.0	79.0
1,1,1-TRICHLOROETHANE	3.0	52.0
CARBON TET.	10.0	ND
1,2-DICHLOROETHANE	10.0	ND
TRICHLOROETHENE	10.0	18.0
TETRACHLOROETHENE	3.0	37.0

total 201
 BTL
 6 + (211)

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020
 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.
 Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected
 NA = Not Analyzed

BQL = Detected below the minimum quantitation limit
 B = Detected in the laboratory blank

Comments:

Surrogate Recovery = 98 %
 Sample collection time: 09:40
 Sample dilution: 10 X

Signed

[Signature] 5-3-94

Reviewed

Tetra K Testing Mobile Laboratory

Westfield, MA

(413) 572-3200

Water Preliminary Field Report

PROJECT : NYSDEC/Babylon Landfill
 CLIENT: Babylon, Long Island, New York
 Engineering-Science, Inc.
 290 Elwood Davis Road
 Suite 312
 Liverpool, New York 13088

Matrix: WATER
 Analyst: TJS
 File #: 012F0101.D
 Instr. #: GC # 3
 Date Coll: 5/11/94
 Date Analyzed: 5/11/94
 Dilution Factor: 100
 Method: 8010WA.MTH

Sample ID: GW-L10-25
 GC Sample ID: GW-L10-25 50 uL
 W.O. #: 0

RESULTS:

EPA Method 8010/8020
 Gas Chromatography for Volatile Organics

COMPOUND	DET. LIMIT ug/L	RESULT ug/L
VINYL CHLORIDE	200.0	ND
1,1-DICHLOROETHENE	100.0	ND
METHYLENE CHLORIDE	200.0	ND
1,1,2-DICHLOROETHENE	100.0	ND
1,1-DICHLOROETHANE	100.0	150.0 ✓
1,2-DICHLOROETHANE	100.0	ND
1,1,1-TRICHLOROETHANE	30.0	1200.0 ✓
CARBON TET.	100.0	ND
1,2-DICHLOROETHANE	100.0	ND
TRICHLOROETHENE	100.0	ND
TETRACHLOROETHENE	30.0	ND

1350.0

0

1350

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020
 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.
 Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected
 NA = Not Analyzed

BQL = Detected below the minimum quantitation limit
 B = Detected in the laboratory blank

Comments: Surrogate Recovery = 106 %

Sample collection time: 09:25

Sample dilution: 100 X

Signed JS 5-11-94

Reviewed _____

Tetra K Testing Mobile Laboratory

Westfield, MA

(413) 572-3200

Preliminary Field Report

PROJECT : NYSDEC/Babylon Landfill
 Babylon, Long Island, New York
 CLIENT: Engineering-Science, Inc.
 290 Elwood Davis Road
 Suite 312
 Liverpool, New York 13088

Matrix: WATER
 Analyst: TJS
 File #: 018F0101.D
 Instr. #: GC # 3
 Date Coll: 5/03/94
 Date Analyzed: 5/3/94
 Dilution Factor: 1
 Method: 8010WA.MTH

Sample ID: GW-L04-25
 GC Sample ID: GW-L04-25 5 mL
 W.O. #: 0

RESULTS:

EPA Method 8010/8020 Gas Chromatography for Volatile Organics

COMPOUND	DET. LIMIT ug/L	RESULT ug/L
VINYL CHLORIDE	2.0	ND
1,1-DICHLOROETHENE	1.0	3.6
METHYLENE CHLORIDE	2.0	ND
1,1,2-DICHLOROETHENE	1.0	ND
1,1-DICHLOROETHANE	1.0	5.6
c-1,2-DICHLOROETHENE	1.0	10.0
1,1,1-TRICHLOROETHANE	0.3	9.2
CARBON TET.	1.0	ND
1,2-DICHLOROETHANE	1.0	ND
TRICHLOROETHENE	1.0	ND
TETRACHLOROETHENE	0.3	5.4

34.8
 0
 34.8

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020
 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.
 Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected
 NA = Not Analyzed

BQL = Detected below the minimum quantitation limit
 B = Detected in the laboratory blank

Comments: Surrogate Recovery = 101 %
 Sample collection time: 11:25

Signed TJS 5-3-94

Reviewed _____

Tetra K Testing Mobile Laboratory

Westfield, MA

(413) 572-3200

Water Preliminary Field Report

PROJECT :	NYSDEC/Babylon Landfill	Matrix:	WATER
	Babylon, Long Island, New York	Analyst:	TJS
CLIENT:	Engineering-Science, Inc.	File #:	011F0101.D
	290 Elwood Davis Road	Instr. #:	GC # 3
	Suite 312	Date Coll:	5/03/94
	Liverpool, New York 13088	Date Analyzed:	5/3/94
		Dilution Factor:	10
Sample ID:	GW-L02-25	Method:	8010WA.MTH
GC Sample ID:	GW-L02-25 0.5 mL		
W.O. #:	0		

RESULTS: **EPA Method 8010/8020**
Gas Chromatography for Volatile Organics

COMPOUND	DET. LIMIT ug/L	RESULT ug/L
VINYL CHLORIDE	2.0	ND
1,1-DICHLOROETHENE	1.0	4.8
METHYLENE CHLORIDE	2.0	ND
1,1,2-DICHLOROETHENE	1.0	ND
1,1-DICHLOROETHANE	10.0	260.0
c-1,2-DICHLOROETHENE	1.0	3.6
1,1,1-TRICHLOROETHANE	3.0	690.0
CARBON TET.	10.0	ND
1,2-DICHLOROETHANE	1.0	2.7
TRICHLOROETHENE	1.0	3.8
TETRACHLOROETHENE	0.3	0.9

Handwritten:
 4+ 965.8
 870X 11
 6 wt 976.8

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A. Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected
NA = Not Analyzed

BQL = Detected below the minimum quantitation limit
B = Detected in the laboratory blank

Comments: Surrogate Recovery = 105 %
Sample collection time: 10:20
Sample dilution: 10 X

Signed TJS 5-3-94

Reviewed _____

Tetra K Testing Mobile Laboratory

Westfield, MA

(413) 572-3200

Water Preliminary Field Report

PROJECT : NYSDEC/Babylon Landfill
Babylon, Long Island, New York
CLIENT: Engineering-Science, Inc.
290 Elwood Davis Road
Suite 312
Liverpool, New York 13088

Matrix: WATER
Analyst: TJS
File #: 021F0101.D
Instr. #: GC # 3
Date Coll: 5/11/94
Date Analyzed: 5/11/94
Dilution Factor: 100
Method: 8010WAMTH

Sample ID: GW-L13-25
GC Sample ID: GW-L13-25 50 uL
W.O. #: 0

RESULTS:

EPA Method 8010/8020
Gas Chromatography for Volatile Organics

COMPOUND	DET. LIMIT ug/L	RESULT ug/L
VINYL CHLORIDE	200.0	BQL
1,1-DICHLOROETHENE	100.0	ND
METHYLENE CHLORIDE	200.0	ND
1,1,2-DICHLOROETHENE	100.0	ND
1,1-DICHLOROETHANE	100.0	180.0 ✓
1,2-DICHLOROETHENE	100.0	370.0 ✓
1,1,1-TRICHLOROETHANE	30.0	880.0 ✓
CARBON TET.	100.0	ND
1,2-DICHLOROETHANE	100.0	ND
TRICHLOROETHENE	100.0	500.0 ✓
TETRACHLOROETHENE	30.0	480.0 ✓

2410.0
0

2410

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020
from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.
Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected
NA = Not Analyzed

BQL = Detected below the minimum quantitation limit
B = Detected in the laboratory blank

Comments: Surrogate Recovery = 99 %
Sample collection time: 12:00
Sample dilution: 100 X

Signed TJS 5-12-94

Reviewed _____

Tetra K Testing Mobile Laboratory

Westfield, MA

(413)572-3200

Soil Preliminary Field Report

PROJECT: NYSDEC/Babylon Landfill
Babylon, Long Island, New York
CLIENT: Engineering Science, Inc.
290 Elwood Davis Road
Suite 312
Liverpool, New York 13088

Matrix: SOIL
Analyst: TJS
File #: 005F0101.D
Instr. #: GC #3
Date Coll: 5/11/94
Date Analyzed: 5/12/94
Dilution Factor: 1
Method: 8010WAMTH
MeOH Extract: No
MeOH Vol. (ml):
Extract Vol. (ml):

Sample ID: SS-L13-14
GC Sample ID: SS-L13-14 5 g
W.O. #: 0

RESULTS:

EPA Method 8010/8020
Gas Chromatography for Volatile Organics

COMPOUND	DET. LIMIT ug/kg	RESULT ug/kg
VINYL CHLORIDE	2.0	ND
1,1-DICHLOROETHENE	1.0	ND
METHYLENE CHLORIDE	2.0	ND
1,2-DICHLOROETHENE	1.0	ND
1,1-DICHLOROETHANE	1.0	ND
1,2-DICHLOROETHANE	1.0	ND
1,1,1-TRICHLOROETHANE	0.3	ND
CARBON TET.	1.0	ND
1,2-DICHLOROETHANE	1.0	ND
TRICHLOROETHENE	1.0	ND
TETRACHLOROETHENE	0.3	ND

00/00

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020
from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.
Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected
NA = Not Analyzed

BQL = Detected below the minimum quantitation limit
B = Detected in the laboratory blank

Comments: Surrogate Recovery = 98 %
Sample collection time : 11:45

Signed: 9/5 5-12-94

Reviewed: _____

Tetra K Testing Mobile Laboratory

Westfield, MA

(415) 572-3200

Preliminary Field Report

PROJECT : NYSDEC/Babylon Landfill
 CLIENT: Babylon, Long Island, New York
 Engineering-Science, Inc.
 290 Elwood Davis Road
 Suite 312
 Liverpool, New York 13088

Matrix: WATER
 Analyst: TJS
 File #: 020F0101.D
 Instr. #: GC # 3
 Date Coll: 5/4/94
 Date Analyzed: 5/5/94
 Dilution Factor: 1
 Method: 8010WA.MTH

Sample ID: GW-L08-25
 GC Sample ID: GW-L08-25 5 mL
 W.O. #: 0

RESULTS: EPA Method 8010/8020 Gas Chromatography for Volatile Organics

COMPOUND	DET. LIMIT ug/L	RESULT ug/L
VINYL CHLORIDE	2.0	ND
1,1-DICHLOROETHENE	1.0	ND
METHYLENE CHLORIDE	2.0	ND
1,1,2-DICHLOROETHENE	1.0	ND
1,1-DICHLOROETHANE	1.0	ND
c-1,2-DICHLOROETHENE	1.0	ND
1,1,1-TRICHLOROETHANE	0.3	ND
CARBON TET.	1.0	ND
1,2-DICHLOROETHANE	1.0	ND
TRICHLOROETHENE	1.0	ND
TETRACHLOROETHENE	0.3	0.5

0.5
 0
 0.5

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020
 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.
 Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected
 NA = Not Analyzed

BQL = Detected below the minimum quantitation limit
 B = Detected in the laboratory blank

Comments: Surrogate Recovery = 87 %
 Sample collection time: 15:50

Signed TJS 6.5.94

Reviewed _____

Tetra K Testing Mobile Laboratory

Westfield, MA

(413) 572-3200

Water Preliminary Field Report

PROJECT : NYSDEC/Babylon Landfill
Babylon, Long Island, New York
CLIENT: Engineering-Science, Inc.
290 Elwood Davis Road
Suite 312
Liverpool, New York 13088

Matrix: WATER
Analyst: TJS
File #: 004F0101.D
Instr. #: GC # 3
Date Coll: 5/5/94
Date Analyzed: 5/5/94
Dilution Factor: 10
Method: 8010WA.MTH

Sample ID: GW-L09-25
GC Sample ID: GW-L09-25 10X
W.O. #: 0

RESULTS: EPA Method 8010/8020 Gas Chromatography for Volatile Organics

COMPOUND	DET. LIMIT ug/L	RESULT ug/L
VINYL CHLORIDE	2.0	BQL
1,1-DICHLOROETHENE	10.0	59.0
METHYLENE CHLORIDE	1.0	ND
1,1,2-DICHLOROETHENE	1.0	ND
1,1-DICHLOROETHANE	10.0	120.0
c-1,2-DICHLOROETHENE	10.0	630.0
1,1,1-TRICHLOROETHANE	3.0	200.0
CARBON TET.	1.0	ND
1,2-DICHLOROETHANE	1.0	ND
TRICHLOROETHENE	1.0	13.0
TETRACHLOROETHENE	0.3	21.0

1043.0
3.3
1046.3

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020
from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.
Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected
NA = Not Analyzed

BQL = Detected below the minimum quantitation limit
B = Detected in the laboratory blank

Comments: Surrogate Recovery = 100 %
Sample collection time: 16:25

Signed

TJS 5.594

Reviewed

Tetra K Testing Mobile Laboratory

Westfield, MA

(413) 572-3200

Preliminary Field Report

PROJECT : NYSDEC/Babylon Landfill
 CLIENT: Babylon, Long Island, New York
 Engineering-Science, Inc.
 290 Elwood Davis Road
 Suite 312
 Liverpool, New York 13088

Matrix: WATER
 Analyst: TJS
 File #: 019F0101.D
 Instr. #: GC # 3
 Date Coll: 5/03/94
 Date Analyzed: 5/3/94
 Dilution Factor: 1
 Method: 8010WA.MTH

Sample ID: GW-L05-25
 GC Sample ID: GW-L05-25 5 mL
 W.O. #: 0

RESULTS:

EPA Method 8010/8020 Gas Chromatography for Volatile Organics

COMPOUND	DET. LIMIT ug/L	RESULT ug/L
VINYL CHLORIDE	2.0	ND
1,1-DICHLOROETHENE	1.0	ND
METHYLENE CHLORIDE	2.0	ND
1,1,2-DICHLOROETHENE	1.0	ND
1,1-DICHLOROETHANE	1.0	ND
c-1,2-DICHLOROETHENE	1.0	ND
1,1,1-TRICHLOROETHANE	0.3	0.3
CARBON TET.	1.0	ND
1,2-DICHLOROETHANE	1.0	ND
TRICHLOROETHENE	1.0	ND
TETRACHLOROETHENE	0.3	2.5

BTEX
 2.9
 2.3
 5.6

Notes:

Volatile Organic Compounds analyzed using EPA methods 8010/8020
 from Test Methods for Evaluating Solid Waste, SW 846, U.S. E.P.A.
 Office of Solid Waste and Emergency Response, Washington, D.C., November 1986.

ND = Not Detected
 NA = Not Analyzed

BQL = Detected below the minimum quantitation limit
 B = Detected in the laboratory blank

Comments: Surrogate Recovery = 100 %
 Sample collection time: 13:45

Signed 9155394

Reviewed _____

Tetra K Testing Mobile Laboratory

Westfield, MA

(413)572-3200

EXECUTIVE SUMMARY

P. W. Grosser Consulting Engineer & Hydrogeologist, P. C. (PWGC) has prepared this Remedial Investigation (RI) and Interim Remedial Measure report on behalf of Nassau Tool Works (NTW) of West Babylon, New York. The report documents the investigation and interim remedial measure performed to address groundwater contamination identified at NTW's 34 Lamar Street site by the New York State Department of Environmental Conservation (NYSDEC). The NYSDEC identified 1,1,1 trichloroethane (1,1,1 TCA) and other chlorinated solvents in the groundwater in the vicinity of and at NTW. In response to the discovery of groundwater contamination on the NTW site, the NYSDEC added NTW to the NYSDEC list of Inactive Hazardous Waste Sites as Site No. 1-52-142 and required NTW to perform a focused Remedial Investigation/Feasibility Study (RI/FS). NTW voluntarily entered into a Consent Order with the NYSDEC in the fall of 1996.

The objective of the RI was to identify and sample potential sources of groundwater contamination suspected to exist on the NTW property and remediate them. Additionally, research of available public records was performed to obtain information regarding groundwater quality and other contaminated sites in the area that may be impacting the NTW site. The RI was conducted in a phased approach which allowed initial phases to guide subsequent phases thereby optimizing available resources and data usefulness. The RI was performed in accordance with, and is supported by, the NYSDEC approved RI/FS Work Plan, Quality Assurance Project Plan, Health and Safety Plan, and Citizen's Participation Plan prepared by PWGC.

The RI/FS resulted in a total of 44 soil and groundwater samples collected. This included 18 separate leaching structures, 11 of which warranted removal of sediments as an interim remedial measure with endpoint sample collection. A total of 108.5 tons of material were removed from these structures. In general, the remedial action was warranted based upon elevated levels of metals in the sediments in 9 of the 11 locations. Incidental volatile organic compounds (VOCs) such as toluene, and 1,1, dichloroethane were identified at two locations. Endpoint sample results indicate concentrations of metals and VOC within guidance criteria levels; VOC constituents were below

laboratory detection limits. Based upon the endpoint results, no further remedial action is warranted.

A 550-gallon underground storage tank (originally believed to be a 55-gallon drum) was removed as part of the RI. The tank was removed without incident and endpoint samples were collected from the open excavation. The endpoint results indicated incidental metal contamination. No VOCs were detected in the endpoint samples. Based upon this, no further action relative to the underground storage tank is necessary.

Six groundwater monitoring wells were installed, flow direction was obtained, and two rounds of groundwater samples were collected. Groundwater flow direction across the site is south-southeast. Groundwater data confirmed the presence of VOC contamination in the groundwater upgradient of the NTW facility. Upgradient concentrations of VOCs detected in groundwater were higher upgradient than downgradient, indicating that NTW was not contributing to groundwater contamination. Based upon the groundwater data, installation of additional wells or additional sampling is not warranted.

Initial and endpoint sample results indicate VOCs, specifically 1,1,1 trichloroethane, were not contaminants of concern on the NTW site. Therefore, the source of groundwater contamination identified by the NYSDEC did not exist on the NTW site at the time of the investigation, and NTW is not contributing to further degradation of groundwater quality. The RI results confirm that the groundwater contamination beneath the NTW facility is the result of an off-site and upgradient source.

Since an on-site source of groundwater contamination was not identified by the remedial investigation, the risk assessment requirement identified in the RI/FS work plan was reduced to an exposure assessment. The exposure assessment, which was performed to evaluate residual metals contamination in soil and groundwater found that no significant threat to the on-site worker or general public exists.

The interim remedial measure conducted during the RI have effectively eliminated potential sources of soil and groundwater contamination. As no further investigative or corrective actions are necessary, a Feasibility Study is not warranted.

PWGC requests, on NTW's behalf, that the RI/FS requirement of the Consent Order be deemed complete. In addition, PWGC requests that NTW be removed from the NYSDEC's Inactive Hazardous Waste Disposal Sites List (Nassau/Suffolk) by June 30, 1998.

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1.0 INTRODUCTION

P. W. Grosser Consulting Engineer & Hydrogeologist, P. C. (PWGC) has prepared this Remedial Investigation (RI) and Interim Remedial Measure (IRM) report on behalf of Nassau Tool Works (NTW) of West Babylon, New York. The report documents the investigation and IRM performed to address groundwater contamination identified at NTW's 34 Lamar Street site by the New York State Department of Environmental Conservation (NYSDEC). In response to the discovery of groundwater contamination on the NTW site, the NYSDEC added NTW to the NYSDEC list of Inactive Hazardous Waste Sites as Site No. 1-52-142 and required NTW to perform a focused Remedial Investigation/Feasibility Study (RI/FS). NTW voluntarily entered into a Consent Order with the NYSDEC in the fall of 1996.

The objective of the RI was to identify and sample potential sources of groundwater contamination suspected to exist on the NTW property and remediate them. Additionally, research of available public records was performed to obtain information regarding groundwater quality and other contaminated sites in the area that may be impacting the NTW site. The RI was conducted in a phased approach which allowed initial phases to guide subsequent phases thereby optimizing available resources and data usefulness. The RI was performed in accordance with, and is supported by, the NYSDEC approved RI/FS Work Plan, Quality Assurance Project Plan, and Health and Safety Plan prepared by PWGC.

File searches conducted at several regulatory agencies as part of the RI/FS Work Plan development revealed contamination at a number of sites in the vicinity of NTW. These searches indicated a number of documented sources of contamination in the vicinity of the NTW site.

The RI was conducted in accordance with the NYSDEC approved RI/FS Work Plan.

2.0 SITE DESCRIPTION AND HISTORY

The NTW site is located at 34 Lamar Street, West Babylon, Town of Babylon, Suffolk County, New York. New York tax map identification is Section 75, Block 2, Lots 19.1, 19.3, 19.4, 23.2, 329, 330, 331, 332 and 334. The location of the site is illustrated in Figure 1.

The site is located in the Pinelawn Industrial Area (PIA), a 300-acre area zoned for mostly light industrial businesses and a municipal landfill. Based upon our field investigation and review of the United States Geological Quadrangle (USGS), there does not appear to be habitats that would support significant terrestrial or aquatic biota in the area. As mentioned above, the surrounding area is zoned light industrial and there are no surface water bodies within a one mile radius of the facility. Therefore, it is believed that a Fish and Wildlife Assessment or similar study is not appropriate for this site.

The site property is approximately 166,440 square feet in four acre area. Forty five percent (74,000 square feet) is occupied by a one-story brick and cinder block steel frame building. The remaining 55 percent of the site is paved parking and undeveloped land. A site plan of the facility is shown in Figure 2.

The present structure was constructed in five interconnected sections (buildings one through five) between the years 1969 and 1982, see Figure 3. The additions are all connected, serving as one large complete building. The RI/FS Work Plan discussed the potential for the presence of dry wells under newly constructed additions, specifically during the second and fifth expansions. Based upon this, a review of the Town of Babylon Building Department records was performed to obtain copies of record drawings. There were no record drawings on file with the Town. The presence of open dry wells under a building addition is unlikely, as their existence could compromise the structural

integrity of foundations. As part of the RI, field verification of leaching structures was performed and details can be found in Section 4.1.

2.1 RCRA Permit

Past and present uses of the site include: a machine shop which constructed gun milling machines, hydraulic parts manufacturing, rough milling, gun drilling, trepanning, and other precision drilling and grinding operations. Typical materials with a potential for contamination used at the site in the manufacturing process include: perchloroethylene; 1,1,1-trichloroethane; as well as lubricating and cutting oils. In 1987, a containment area was constructed to store these materials. The containment area is located toward the north central end of the building. See Figure 2 for the location.

The containment area consists of a steel rack system upon which 55-gallon drums are stored. The rack system contains four levels each capable of holding eight drums. In addition to the rack system, a machine used to recycle machine coolant is also located in the containment area. The system sits on the concrete floor slab and is surrounded by a bermed containment area. The concrete floor which forms the base of the system has been treated with multiple coats of epoxy to prevent penetration of spilled liquids. The containment area is currently permitted under Article 12 by the Suffolk County Department of Health Services (SCDHS) and is rated for 3,850 gallons of storage.

2.2 Aboveground and Underground Storage Tanks

Records for the site obtained from SCDHS pertaining to Article 12 issues, including above and underground storage tanks, indicates that six tanks were listed for the site. These are detailed below and a copy of the SCDHS's updated listing is contained in Appendix A.

No.	Tank/Unit	Capacity (gal)	Contents	Status
1	UST	2,000	Fuel oil	Removed 1992
2	UST	4,000	Fuel oil	Active
3	UST	5,000	Fuel oil	Removed 1992
4	AST/drum storage	3,850	Assorted Materials	Active
5	UST	550	Waste coolants	Removed 1997
6	AST/lube cube	500	Waste oils	Active

Figure 2 illustrates the locations of both former and active storage tanks. Tanks 1 and 3 were removed to the SCDHS's satisfaction in 1992. Tank 2 is currently active and used to store the building's heating oil. Tank 4 is the containment area discussed in the previous section.

Tank 5 was reported in the RI Work Plan to be a 55-gallon drum; however, upon removal it was determined to be of 550-gallon capacity. Based on interviews with site personnel, this tank had not been used for the past 23 years and the type of waste coolant last held by the tanks is unknown. Tank 5 was removed as part of the RI and is discussed in Section 4.2 of this report. Tank 6 is an AST recently permitted with the SCDHS and is used to store waste oils.

The RI Work Plan included an additional tank on the SCDHS tank listing referred to as "other" in the SCDHS file with a 501-gallon capacity. Through conversations with the SCDHS, this unit was determined to be a "parts washer" a self-contained unit that circulates kerosene over the manufactured parts for cleaning purposes. This unit is no longer regulated by the SCDHS under Article 12.

2.3 Inactive Cooling and Diffusion Wells

At the site are two sets of inactive non-contact cooling water supply and diffusion wells. Locations are presented on Figure 2. The extraction (cooling) wells provided non-contact water for cooling lubricating and cutting oils. The water was extracted from the Upper Glacial aquifer and was

circulated around the oils through a heat exchanger during the manufacturing process to lower the oil temperature. The non-contact water was returned to the Upper Glacial aquifer via diffusion wells. These wells were investigated during the RI and confirmed to be inactive. Greater detail regarding these wells is contained in the RI Work Plan.

2.4 Previous Investigations of the Pinelawn Industrial Area

The NTW site is located in close proximity to four designated NYSDEC Class 2 Inactive Hazardous Waste Disposal Sites. The Town of Babylon Landfill, in operation from 1947 to 1993, is positioned approximately 1,000 feet west of the subject property and is located side-gradient of the site with respect to groundwater flow. It was the initial investigation into two volatile organic plumes believed to be emanating from the landfill that prompted the inquiry into the alleged PIA contamination. Both the Babylon Landfill and the Pinelawn Industrial Area PIA investigation will be discussed in the following paragraphs followed by specific sites under investigation with the NYSDEC or SCDHS in the vicinity of NTW.

The Babylon Plume Tracking Investigation, September 1992, was undertaken as a result of the discovery of volatile organic compound (VOC) groundwater contamination in the Upper Glacial aquifer in the vicinity of the Babylon Landfill. This study was used to further investigate and delineate two VOC plumes, as well as identify their sources and responsible parties. Groundwater samples were collected from a total of 45 shallow, intermediate, and deep upper glacial locations. Borings were positioned with respect to suspected sources of contamination, as well as groundwater flow. The primary VOCs detected in the groundwater sampling were tetrachloroethene (PCE), trichloroethene (TCE), 1,2 dichloroethene (1,2-DCE), 1,1 dichloroethane (1,1-DCA), and 1,1,1 trichloroethane (1,1,1-TCA). The most prevalent contamination was found throughout the shallow zone of the Upper Glacial Aquifer.

The results of the Babylon Plume Tracking Investigation indicated that the VOC plumes originated within the PIA, to the east and west of the landfill, thus precipitating the Preliminary Site Investigation (PSI) of the area.

The PSI for the PIA involved the collection of groundwater and soil samples from locations throughout the PIA to more precisely identify the sources of groundwater contamination. Groundwater samples were again collected from shallow, intermediate, and deep Upper Glacial locations. Soil borings were positioned near the suspected sources of contamination and relative to groundwater flow. Background information pertaining to the South Lamar Street area, within the PIA, indicated the presence of TCE and 1,1,1-TCA in the groundwater.

Analytes detected in the shallow zone were: 1,1-DCE; methylene chloride; 1,2-DCE; 1,1,1-TCA; TCE; PCE; toluene; and xylenes. Analytes detected in the intermediate zone were: 1,1-DCE; cis-1,2-DCE; 1,1,1-TCA; TCE; PCE; toluene; and xylenes. Analytes detected in the deep zone were: vinyl chloride; 1,1-DCE; trans-1,2 DCE; 1,1-DCA; cis-1,2-DCE; 1,1,1-TCA; TCE; PCE; toluene; ethylbenzene; and xylenes.

The plume configuration at the South Lamar Street site strongly suggested that NTW was the source of the observed contamination and, thus, listed as a Class 2 Inactive Hazardous Waste Site as defined by 6NYCRR Part 371.4(b). Based upon this, the NYSDEC entered into a Consent Order with NTW to conduct an RI.

In addition to the Babylon Landfill, three other Class 2, Inactive Hazardous Waste Disposal Sites are located in the vicinity of the NTW site. They are: Pride Solvents; U.S. Electroplating; and Spectrum Finishing Corporation. Pride Solvents, located approximately 300 feet north, upgradient of the NTW site, operates as a chemical and solvent distribution and reclamation facility. Discharge of hazardous materials reportedly occurred over the last two decades at the Pride Solvents site.

Thus, samples collected from a groundwater monitoring well installed downgradient of the facility have been found to be contaminated with chlorinated solvents. Upgradient wells revealed lower contamination levels. Hazardous wastes confirmed at this site in groundwater were: TCE; toluene; methyl chloride; 1,1,1-TCA; methylene chloride; tetrachloroethene; freon 113; 1,1,3-trimethylbenzene; iron; and manganese.

U.S. Electroplating, an electroplating and anodizing facility located approximately 4,000 feet west of the NTW site, had reportedly discharged hazardous materials into storm drains between the years 1971 and 1981. Additionally, three buried holding tanks, used as leaching basins, were responsible for the discharge of heavy metals into the ground. High levels of heavy metals have been confirmed in the groundwater and in sediment found within the storm drain. Confirmed contaminants were copper, iron, lead, nickel, cadmium, and chromium. According to the NYSDEC project manager, Ms. Sally Dewes, the interim remediation measure was completed in March 1998 and the project is proceeding to the second phase of the RI.

Spectrum Finishing Corporation, also an electroplating operation located approximately 4,000 feet west of the NTW site, was responsible for the improper discharge of hazardous wastes. This discharge occurred into storm drains also as a result of holding tank leakage on site. Additionally, samples collected from a sanitary pool on site have been confirmed to contain contaminated material. The presence of hazardous levels of cadmium, chromium, copper, nickel, zinc, toluene, and methyl ethyl ketone have been documented at the site.

In addition, to the four Class 2 Inactive Hazardous Waste Sites there are other sites under investigation with by SCDHS. Two sites, Diamond Roller Corporation and Ross Electric are significant, not only as contaminant sources but also due to their proximity to the NTW site.

Diamond Roller Corporation (DRC) is a rubber manufacturing plant which uses and stores significant amounts of hazardous material and waste. This factory is located on the northwest boundary of the NTW site, directly upgradient with respect to groundwater flow. Inspection of the site in 1984 by the SCDHS revealed numerous violations regarding the handling, storage, and removal of toxic wastes. Based upon this, the SCDHS in December 1995 sampled numerous dry wells and storm drains on the site. Endpoint samples, collected at a depth of 18 feet, detected levels of 1,1,1-TCA at 10,000,000 ppb. PCE and TCE were detected at concentrations of 100,000 and 24,000 ppb, respectively. Due to these findings, the SCDHS required that a groundwater investigation be performed, in which monitoring wells were installed and sampled. 1,1,1-TCA was detected in the groundwater from four on-site monitoring wells at concentrations ranging from 85 ug/L to 7,200 ug/L. To further clarify the vertical extent of the groundwater plume, additional samples were collected at various depths below the water table using a temporary well and at varying locations downgradient of the source (upgradient of the NTW site). Concentrations of 1,1,1-TCA were detected at a level of 830 ug/l within a few feet of the NTW property line and at a depth of 25 feet.

Additionally, groundwater samples from between 30 and 50 feet below the water table were collected to further delineate the vertical extent of the contamination. The upgradient location, at depths of 30 and 50 feet, revealed concentrations of 1,1,1-TCA at 37 ug/L and 9.1 ug/L, respectively. The results from the downgradient sampling, situated near the southeast corner of the property, detected 1,1,1-TCA at concentrations of 7.8 ug/L, 7.6 ug/L, and 28 ug/L in the 30, 40, and 50 foot samples, respectively. According to a SCDHS representative, to date, a Consent Order has not been signed by DRC.

Also relevant to the investigation was information found in the SCDHS file regarding a contaminated sanitary pool at the New Ross Electrical Contractors facility, on the northeast boundary of the NTW site. A sample collected from an on-site dry well detected significant

concentrations in sediments of TCE, PCE, and cis-1,2-DCE. These compounds comprise the majority of the VOC contaminant plume downgradient and east of the NTW facility.

In summary, numerous operations within the PIA have impacted the groundwater quality of the area in the vicinity of the NTW site. Additionally, NYSDEC Class 2 Inactive Hazardous Waste Disposal Sites encircle the site and contaminants released at these sites have been confirmed and documented. Diamond Roller Corp., a significant source of VOC contaminating the groundwater to concentrations significantly above that which has been quantified beneath the NTW property.

Figure 4 illustrates contaminant profiles of 1,1,1 TCA, PCE and TCE for the surrounding facilities. This information was obtained from the PSA. The figure was included in the RI/FS Work Plan and was updated with groundwater data collected as part of the RI. These local facilities may or may not have contributed increased contaminant levels to the groundwater in the vicinity of the NTW site.

3.0 GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology of Long Island

The geology of Long Island, New York is comprised of unconsolidated sediments deposited upon southeasterly dipping consolidated bedrock. The bedrock is crystalline and of Precambrian age. The bedrock is exposed in northern Queens County and dips gently to the southeast to a depth of 2,000 feet below grade in eastern Long Island. The overlying Upper Cretaceous sediments generally follow the dip of the bedrock, and the Pleistocene material overlying the Upper Cretaceous trends horizontally.

The older Upper Cretaceous deposits, lie directly above the bedrock. The Upper Cretaceous deposits are made up of the Raritan formation and the Magothy-Matawan group. The Raritan formation is

broken down into the Lloyd Sand Member and the Raritan clay. The Lloyd Sand Member is comprised of medium to coarse sand and fine to medium gravel with clay in some areas. The Raritan clay is described as a silty clay with few inter-bedded sand layers and lenses. Above the Raritan formation is the Magothy-Matawan group undifferentiated. This group is a fine clayey sand.

Lying above the Cretaceous deposits are the younger Pleistocene deposits made up of the glacial outwash from the Pleistocene period. The Upper Pleistocene deposits are glacial till and outwash from two glacial advances during this period. The glacial till forms the Harbor Hill and Ronkonkoma terminal moraines and is made up of unsorted sand, clay, gravel, and boulders. The outwash deposits are products of erosion of the moraine and are made up of coarse sand and gravel.

NTW is situated upon the Upper Pleistocene glacial outwash. The soils at the site can be generally described as a light brown unstratified fine to coarse sand with silt, and fine to coarse well rounded gravel.

3.2 Regional Hydrogeology of Long Island

Long Island contains several aquifers, three of which are considered the main water bearing formations. The three aquifers are the Lloyd, Magothy, and Upper Glacial. Other limited aquifers exist, such as the Jameco, and others in Queens, Brooklyn, and the North Shore.

The Lloyd aquifer is the oldest and deepest of the three, bounded on the bottom by the unfractured bedrock and on the top by the confining Raritan clay. The Lloyd aquifer is artesian. There are no wells known to be drilled to the Lloyd aquifer in the vicinity of the site. The depth to the top of the Lloyd at the site is estimated to be 900 feet below land surface (Soren and Simmons). The Lloyd aquifer is approximately 400 feet thick in this area. A typical hydraulic conductivity for the Lloyd aquifer is 300 gpd/sq. ft. (McClymonds and Franke). Approximately 175 feet of Raritan clay sits atop the Lloyd aquifer. The Raritan clay is a solid silty clay with few inter-bedded sand layers and

lenses. The Raritan clay has hydraulic conductivities three or four orders in magnitude less than the Lloyd aquifer.

The Magothy aquifer is the largest and most important supply of drinking water for Suffolk County. The Magothy aquifer is bounded below by the Raritan clay, and to a lesser extent, above by the Gardiners clay. The basal 100 to 200 feet is generally composed of coarse sand and gravel beds. The hydraulic conductivity of the Magothy aquifer in the vicinity of the site is approximately 400 gpd/sq.ft. in the horizontal direction and 10 gpd/sq.ft. in the vertical direction (McClymonds and Franke). The anisotropy of the formation indicates that the water preferentially flows in the horizontal direction giving the aquifer semi-confined characteristics. The above characteristics of the Magothy aquifer tend to isolate the basal portion from contamination located in the upper portions.

The youngest and the most shallow aquifer is the Upper Glacial. Groundwater exists under water table conditions in this aquifer. The Upper Glacial aquifer is highly permeable and has a typical hydraulic conductivity of 2,000 gpd/sq.ft. in the horizontal direction and 200 gpd/sq.ft. in the vertical direction (McClymonds and Franke). Currently, the Upper Glacial ground water is used mainly for industrial and agricultural purposes in the western portions of Long Island since water quality has been degraded by modern development and in most cases is not appropriate for consumption. This aquifer is still used for potable domestic supply in eastern Long Island.

The site is located in the central portion of Long Island at an approximate elevation of 60 feet above mean sea level. Based upon the SCDHS Groundwater Table Elevation Map of March 1994, groundwater elevation occurs at approximately 40 feet above mean sea level. Groundwater is estimated to be 20 feet below grade with movement generally in a southeastern direction.

As part of the RI, six shallow groundwater monitoring wells were installed around the site to obtain local flow direction. This information obtained from the monitoring well network is contained in Section 4.4 of this report

3.3 Surface Water

There are no surface water bodies (lakes, ponds, streams, etc.) within a one-mile radius of the NTW site.

3.4 Site-Specific Geology and Hydrogeology

From shallow borings installed in the 1992 Babylon Plume Tracking Investigation, it is reported that Upper Glacial sands and gravels were encountered from grade to approximately 90 feet below grade. The Gardiner's clay was confirmed in nine borings to be approximately 83 to 90 feet below grade. The elevations of the contact between the clay and the sands and gravels indicate a general dip of the clay unit to the south with a mound in the vicinity of Gleam Street. The confirmation of the clay unit throughout the PIA illustrate that it is one continuous unit.

From Buxton and Modeca, the outwash material in the Upper Glacial formation is relatively homogeneous and anisotropic. The generalized horizontal hydraulic conductivity is 230 feet/day and the vertical hydraulic conductivity is 23 feet/day. From the PSA, groundwater was encountered at approximate depths of 12 to 18 feet below grade throughout the PIA. Flow direction was estimated to be south 35° east at a gradient of 0.0017. Porosity of the sand material in the Upper Glacial formation is estimated to be 25%. Using the hydraulic conditions indicated in the Buxton and Modeca report and the PSA, groundwater velocity is estimated to be 1.6 feet/day.

The geology encountered during the investigation was that of the Upper Glacial aquifer and was found to be consistent with that detailed in the literature.

4.0 REMEDIAL INVESTIGATION

The RI Work Plan was developed to address the concerns outlined in the NYSDEC Consent Order dated September 6, 1996, specifically the presence of VOC contamination in the shallow groundwater beneath the site. The objectives of the RI were to:

- identify and investigate potential sources of VOC contamination to determine whether a VOC source area exists at the NTW site.
- confirm groundwater flow direction and the groundwater contamination identified in the PSA.

Potential sources of groundwater contamination at the NTW site include underground wastewater disposal systems such as dry wells and sanitary systems and underground storage tanks. The first phase of the RI concentrated on these potential sources by identifying these structures and characterizing them through analysis. During the RI, a total of 18 separate dry wells and sanitary leaching pools were sampled and sediments analyzed. When contamination was encountered, efforts were implemented to remediate these structures. The remediation of the structures were performed as an Interim Remedial Measure with appropriate approval from the NYSDEC. At the completion of the RI, 11 of the 18 locations were remediated by the IRM. The IRM is also noted in this report as a remedial or corrective action.

The investigation was conducted in accordance with the approved RI/FS Work Plan, unless prior approval from the NYSDEC was obtained. Details regarding these exceptions are discussed in the appropriate sections. An overview of procedures implemented as part of the RI are contained in this report and a more detailed description of procedures can be found in the RI/FS Work Plan and accompanying QAPP.

The main tasks of the investigation included:

- Dry well and primary sanitary leaching pool sampling
 - Sampling of secondary sanitary overflows
 - Interim Remedial Action
- Underground storage tank investigation
 - UST Removal
- Groundwater Investigation
 - Monitoring well installation
 - Groundwater sampling, two rounds.

Each of these tasks are discussed in detail in the following sections. Quality assurance/quality control (QA/QC) procedures are contained in Section 5.0 of this report.

4.1 Dry Well and Sanitary System Leaching Pool Investigation

This section of the report contains information relative to the investigation of dry well and sanitary system leaching pools. This includes sampling procedures and criteria used as a basis for interim remedial measure followed by a discussion on a location by location basis. Information contained under individual locations includes: descriptions; initial sampling results; remediation, if performed; and endpoint results. Procedures for sample collection and analyses performed are briefly discussed in the following section and succeeded by remedial activities.

A number of dry wells are located at various points around the building to manage stormwater on-site. Eight dry wells were selected for sampling based upon locations relative to loading dock areas where the probability of a spill or discharge is greatest; locations are illustrated on Figure 5. These dry wells have slotted covers to grade, receiving parking lot runoff and some receive roof discharge.

In addition, four separate sanitary systems are present with leaching pools to manage the building's sanitary waste. The four on-site sanitary systems range from single pool to multiple structure systems. Multiple pool systems consist of a septic tank (tank with solid sides and bottom to settle solids) with overflows to primary or secondary leaching pools. A primary leaching pool is connected directly to a septic tank, secondary pools are connected to primary pools. Structures for the four separate systems combined consist of two septic tanks and ten leaching pools (six primary and four secondary). The four sanitary systems are illustrated on Figure 5. Initial samples were collected from the primary sanitary system leaching pools.

Visual inspection of the dry wells and sanitary systems indicated some piping and overflow pools were not illustrated on Figure 1-2 contained in the RI/FS Work Plan. A description of each location can be found in the appropriate sections that follow and deviations from Figure 1-2 are noted.

4.1.1 Sampling of Dry Wells & Sanitary System Leaching Pools

Fourteen initial samples were collected, eight from the dry wells and six from the primary sanitary leaching pools, on September 17 and 18, 1997. Sample collection procedures were performed in accordance with those specified in the RI/FS Work Plan. Sanitary systems without covers to grade required excavation for access. A backhoe was used to expose and open sanitary system leaching pools.

Sediment samples were extracted from each dry well/leaching pool from three equally spaced locations at the base of the pool using a decontaminated hand auger. Decontamination procedures are discussed in Section 5.1. Each soil core was divided into three portions: the first was placed directly into laboratory supplied glassware for VOC analysis; the second in a resealable bag for screening purposes; and the third in a bowl for homogenization for metals analysis.

The portion reserved in the resealable bag was screened with a photoionization detector (PID) which was used to determine which of the three sediment samples would be submitted for analysis. The PID was equipped with an 11.7 eV lamp that is capable of ionizing VOC's and many typical solvents and degreasers. The jarred sample that corresponds with the location exhibiting the greatest PID response was submitted. If no PID responses were observed, the sample exhibiting typical signs of contamination such as staining and odor was submitted for VOC analysis. PID responses as well as a brief description of sample appearance is presented in Table 1.

The samples submitted for metals analysis were a composite of the three locations within the pool. Samples were stored on ice and delivered to H2M Laboratories, Melville, New York for analyses on the same day of collection.

Sediment samples were analyzed for target compound list (TCL), volatile organic compounds (VOCs), plus 10 tentatively identified compounds (TICs), by EPA Method 8260 and total metals target analyte list (TAL) plus cyanide by EPA Method series 6000 and 7000 for mercury. NYSDEC analytical services protocol 1995 Revisions (ASP) were followed for both the VOCs and metals analyses with category B deliverables. QA/QC samples as well as data validation services are discussed in Section 5.0. Form 1 Data sheets are supplied in Appendix B with the complete deliverables package under separate cover. The initial sample results for the VOC analysis are presented in Table 2. If a concentration received an "E" qualifier and a dilution run, the higher of the two values are presented. The metals analysis results are presented on Table 3. Laboratory results are discussed for each location separately starting in Section 4.1.4.

4.1.2 Basis for Determination of Interim Remedial Measure

Analytical results were compared to two sets of criteria to evaluate the need for an IRM. The first criteria is contained in the NYSDEC's Technical Administrative Guidance Memorandum, Determination of Soil Cleanup Objectives and Cleanup Levels, HWR-94-4046, January 1994

(TAGM). The second criteria applied are values contained in the Suffolk County Department of Health Services (SCDHS), Standard Operating Procedure for the Administration of Article 12 of the Suffolk County Sanitary Code, Pumpout and Soil Cleanup Criteria, Article 12 SOP No. 9-95 (SOP). The SOP provides guidance to determine if sediments in storm drains, sanitary pools, etc. require removal. A copy of this document is contained in Appendix E of the RI/FS Work Plan.

In respect to metal concentrations, it is appropriate to consider background concentrations when determining if remedial action is required since these compounds occur naturally in the environment. The NYSDEC TAGM addresses this issue by indicating a numerical value or site background (SB) as a soil cleanup objective. Generally, the numerical value is used unless a site specific background is known to be greater. The document also supplies typical regional site background levels, which can be used as guidance when site specific background concentrations have not been determined. When determining if remedial action was warranted with respect to metals during the NTW investigation, metal concentrations were compared to both the numerical value specified in the TAGM as well as the high range of the regional background concentration given by the document. Concentrations of metals exceeding both these values clearly indicates that the levels of the compound have resulted from on-site activity.

The initial sample results were supplied to the NYSDEC for review. Based upon the results, it was determined that removal of sediments at certain locations and sampling of sanitary system overflows was necessary. Sampling of the overflows was performed using the same protocol specified in the RI/FS Work Plan for the initial samples. The IRM as well as additional sampling was performed in accordance with NYSDEC's correspondence dated October 30, 1997, a copy of the correspondence is contained in Appendix C.

In summary, 10 of the 14 initial locations warranted removal of sediments and four overflows required sampling. The additional sampling resulted in remedial action at one of the four sanitary

overflows. Therefore, remedial action was necessary at 11 locations and a total of 18 separate dry wells/leaching pools were sampled and laboratory analyses performed.

4.1.3 Interim Remedial Measure

An IRM was warranted at 11 locations based upon laboratory results that indicated levels in excess of the TAGM or SCDHS SOP. Additional sampling and removal of the sediments was performed between November 10 and 25, 1997. Prior to removal of sediments, standing liquid was pumped out and properly disposed (discussed in the following section). Remediation of each structure consisted of removal of bottom sediments within the structure until “clean” soils were encountered. After removal of the sediments was complete, an endpoint sample was collected to confirm the effectiveness of the remedial action and to quantify remaining concentrations. Sediments were stored on site until acceptance at an approved facility.

4.1.4 Characterization of Standing Liquids

Prior to commencing remedial activities, sediment results were sent to Suffolk County Department of Public Works (SCDPW) requesting permission to dispose of liquids at Bergen Point Waste Water Treatment Facility. A representative from SCDPW visited the site and additional analyses were requested at specific locations. Acceptance of liquids from one location was denied (Sanitary System 3, discussed in Section 4.2.13). The samples were submitted to EcoTest Laboratories, Inc., North Babylon, New York, a New York State Environmental Laboratory Approval Program (ELAP) certified laboratory, for analyses on the day of collection. The analyses performed were based upon concentrations found in the sediments and data were provided in results only format. Copies of the liquid results can be found in Appendix D.

The SCDPW representative reviewed the liquid results and approved of liquid disposal for each location, except Sanitary System 3, at the Suffolk County Waste Water Treatment Facility at Bergen

Point, West Babylon, New York (Bergen Point). A copy of the correspondence dated November 5, 1997, can be found in Appendix C.

4.1.5 Sediment Characterization for Disposal

Prior to removal of sediments, additional analyses were necessary at four locations to determine toxicity characteristics for disposal requirements. This was a result of elevated levels in the initial samples. Toxic characteristic leaching procedure (TCLP) analysis was performed on samples from the four locations. TCLP is an extraction process used to determine the potential of a contaminant to leach from soils. The analysis mimics the leaching action that occurs in a landfill. Results are summarized in Table 4 with EPA hazardous waste regulatory levels for toxicity characteristics effective 1990. Copies of the data sheets are contained in Appendix D.

Results indicated that the material can be handled and disposed of as a non-hazardous waste. Waste manifests for disposal are contained in Appendix E. The material was transported by a licensed waste hauler and delivered to R3 Technologies, Manorville, Pennsylvania, treated and landfilled.

4.1.6 Removal of Sediments/Endpoint Sample Collection

Sediment removal was conducted by Trade Winds of West Babylon, New York, in November 1997 and a total of 108.5 tons of material were removed from the 11 locations, dry wells, sanitary leaching pools and septic tanks. Each structure was remediated by removing sediments until visibly clean soils were encountered using a truck mounted vacuum system. The vacuum system is equipped with an eight-inch diameter hose. The hose was lowered into the structure and maneuvered around the base of the pool, including the edges of the pool, to remove sediments. Via the vacuum system, sediments were placed directly into roll-off containers for temporary storage. Because the sediments were wet, nine roll-offs were necessary to store the material. The sediments were mixed with kiln dust to solidify prior to shipment. The containers remained on-site until acceptance at a disposal facility.

Once visibly clean soils were encountered, an endpoint sample was collected. In the sanitary systems, samples were extracted and screened with the PID, prior to endpoint sample collection. Screening of bottom sediments from the sanitary systems was performed since low levels of VOCs were detected in the initial samples. If pools were undermined due to removal of sediments below the bottom of the ring, leaching structures were recharged with clean sand to a level above the bottom of the ring.

Endpoint samples were collected using a decontaminated hand auger bucket following the procedures for the initial sample collection. Soil samples were collected from three locations within the structure. These samples were composited into one for metals analysis and one grab sample selected for VOC analysis. Samples were placed directly into laboratory supplied glassware and stored on ice. In general samples were delivered to the laboratory on the day of collection. If this was not possible, the samples were stored on ice overnight and relinquished the following day.

Endpoint samples from the sanitary systems were analyzed for VOCs and TAL metals plus cyanide (same as initial samples). Endpoint samples from the drywells were analyzed for TAL metals plus cyanide. Tailoring of endpoint sample analyses was based upon detections in the initial samples and in accordance with the RI/FS Work Plan. The number of QA/QC samples collected deviated slightly from the RI/FS Work Plan during the remedial phase. This will be discussed in Section 5.0.

Endpoint sample results are presented on Tables 5 and 6 for VOCs and metals. Copies of the Form 1 data sheets are contained in Appendix B.

4.2 Dry Well & Sanitary System Leaching Pools

Each location investigated as part of the RI is discussed in detail in the following sections on a location by location basis. Included with each location is information obtained during the RI and exceptions to the previously outlined procedures are noted, when appropriate.

4.2.1 Dry Well DW-1

DW-1 is located in the northern loading bay and is a stand alone pool; Figure 5 illustrates the location. VOC's were not detected in the initial sample results and were well below TAGM guidance criteria, except for two laboratory artifacts: methylene chloride and acetone. Metals were detected slightly in excess of the TAGM values, but below TAGM Eastern Background values. Based upon the VOC laboratory results and metals within Eastern Background, remedial action was not necessary at this location.

4.2.2 Dry Well DW-2

Visual inspection of DW-2 indicated that it is a stand alone pool and is located in the northern loading bay area. This well was originally depicted in the RI/FS Work Plan with an overflow. VOCs were not detected in the initial sample results from this location or were well below TAGM guidance criteria (1,1,1-TCA was below laboratory detection limits). If a contaminant is below laboratory detection limits, it is also well below NYSDEC TAGM guidance criteria. Metals were detected in excess of the TAGM and slightly above Eastern Background values for cadmium, chromium, copper, nickel and zinc. Based upon the concentrations of these metals, this location warranted remedial action.

Removal of sediments was performed in November 1997, an endpoint sample collected and analyzed for total metals. The laboratory results indicated concentrations of metals were not detectable or well below TAGM guidance values. Based upon these results, no further remedial action is warranted at this location.

4.2.3 Dry Well DW-3

DW-3 is located in the northern loading bay. An inlet/outlet pipe is present in DW-3 and trends towards the southwest. This most likely receives roof runoff and/or is connected to an overflow. The initial sample collected from this location indicated the presence of five metals in excess of the

TAGM Eastern Background values: arsenic, cadmium, copper, nickel, and zinc. VOCs were either not detected or well below TAGM guidance values. Based upon the metals results, this location warranted remedial action.

In November 1997, removal of sediments was performed, and an endpoint sample collected and analyzed for total metals. The endpoint sample results reported iron at 2790 mg/Kg which is in excess of the TAGM guidance of 2,000 mg/Kg. This level is orders of magnitude below the upper limit of the Eastern Background range of 2,000 to 550,000 mg/Kg. In addition, iron is not considered a health threat and is naturally occurring on Long Island. Based upon the metals results within Eastern Background and no VOCs in excess of guidance criteria, no further remedial action is required at this location.

4.2.4 Dry Well DW-4

This well is located in the southern loading bay area and is a stand alone pool, as originally illustrated. Initial samples collected in September 1997 indicated the presence of metals in excess of TAGM guidance values and Eastern Background values. These metals were: cadmium, copper, mercury, nickel, and zinc. VOCs were not detectable except for low estimated concentrations of two laboratory artifacts, methylene chloride and acetone as well as an estimated concentration of 1,1,1 TCA at 2 ug/Kg which is below the contract required detection limit. Based upon the concentrations of metals detected, remedial action was necessary in DW-4.

The remedial action was performed in November 1997, and an endpoint sample collected and analyzed for total metals. The endpoint results indicate concentrations of metals to be either not detected and/or well below TAGM guidance criteria. Based upon the endpoint results and that significant VOCs were not quantified in the initial samples, no further action is warranted.

4.2.5 Dry Well DW-5

DW-5 is located in the southern loading bay and is a stand-alone pool. Initial samples collected in September 1997 indicated the presence of seven metals in excess of the TAGM guidance values and Eastern Background. These metals were: cadmium, chromium, cobalt, copper, mercury, nickel and zinc. VOCs were below laboratory detection limits except for low, estimated concentrations of methylene chloride, acetone and tetrachloroethene (PCE). The concentration of PCE was estimated to be 4 ug/Kg and the TAGM guidance is 1400 ug/Kg. Based upon the metals results for DW-5, remedial action was necessary.

Prior to performing the remedial action TCLP analysis was necessary to determine handling requirements of the sediments. The analysis was based upon the concentration of total chromium (199 ug/Kg) in the initial sample. The result of the TCLP analysis was compared to EPA hazardous waste regulatory levels for toxicity characteristics effective 1990 and a copy of the data sheet is contained in Appendix D. The concentration was below laboratory detection limits (<0.01 mg/L) and the EPA regulatory level is 5.0 mg/L. Based upon the total and TCLP results, the material was handled and disposed of as non-hazardous.

The remedial action was performed in November 1997, an endpoint sample collected and analyzed for total metals. The endpoint analysis indicated the concentration of the seven metals identified in the initial sample were significantly reduced to levels below TAGM guidance values. The remaining metals were below TAGM guidance values and/or below laboratory detection limits as well. Based upon the endpoint results below TAGM guidance criteria, and the fact that VOCs were not elevated in the initial sample, no further remedial action is warranted.

4.2.6 Dry Well DW-6

DW-6 receives roof runoff and contains an overflow (originally depicted as a stand alone pool). This pool is located in the southern loading bay. Initial sample results indicated metals results in excess

of Eastern Background values for cadmium, nickel, and zinc. VOCs were below laboratory detection limits and/or well below TAGM guidance criteria. Based upon the metals concentrations in the initial samples, remedial action was warranted at DW-6.

The remedial action was performed in November 1997; endpoint samples were collected and analyzed for total metals. The endpoint results reported iron and zinc slightly in excess of the TAGM with levels of 2,720 mg/Kg and 23.2 mg/Kg, respectively. This level is two orders of magnitude less than the upper limit of the Eastern Background range of 550,000 ug/Kg. As previously mentioned, iron is naturally occurring on Long Island and is not a health threat. The TAGM guidance for zinc is 20 mg/Kg and Eastern Background range is 9 to 50 mg/Kg. Therefore, the concentrations of iron and zinc are within Eastern Background values and based upon this, no further remedial action is required.

4.2.7 Dry Well DW-7

DW-7 is a stand alone pool and does not receive roof runoff as previously illustrated. Initial sample results for VOCs were below laboratory detection limits and/or well below TAGM guidance criteria. The concentration of metals detected were below TAGM guidance values and/or within Eastern Background values. Based upon this remedial action was not warranted for DW-7.

4.2.8 Dry Well DW-8

DW-8 is located on the south side of the building in the vicinity of the loading bay area and is connected to two overflow pools. This dry well was originally depicted as a stand alone pool. The initial sample results for VOCs indicated levels well below TAGM guidance criteria. Three constituents were reported with estimated concentrations, below the contract required detection limit, for acetone, carbon disulfide and toluene. Remaining VOC concentrations were below laboratory detection limits. Metals were detected in excess of Eastern Background values for cadmium

mercury, nickel, and zinc. Therefore, DW-8 warranted remedial action based upon the four metals concentrations.

Prior to performing the remedial action, a liquid sample was collected from this location to determine disposal option for the standing liquid. The sample was submitted for analyses for total petroleum hydrocarbons, 8 RCRA metals plus zinc. The results were forwarded to the SCDPW for review and the liquids were acceptable for disposal at the Bergen Point Facility.

The remedial action was performed in November 1997 and an endpoint sample collected. The endpoint sample was analyzed for total metals. The laboratory results indicated concentrations of metals were significantly reduced to levels below the TAGM guidance values. Based upon this, no further remedial action is warranted.

4.2.9 Sanitary System SS-1

Sanitary system one (SS-1), located on the south side of the building, consists of one primary leaching pool that acts as a settling tank and two secondary overflows. It was originally believed to be a single pool system. The primary leaching pool has a cover to grade and the two secondary overflows required excavation for access. This system is located in the main driveway and is in a paved area. The primary leaching pool was labeled SS-1 and the overflows labeled SS-1 OF1 and SS-1 OF2.

An initial sample was collected from the primary leaching pool in September 1997. VOCs were detected in excess of the TAGM guidance for chloroethane, acetone, 1,1, dichloroethane and toluene. Chloroethane and toluene were reported in greatest concentrations with levels of 12,000 and 19,000 ug/Kg respectively. The standards for these compounds are 1900 ug/Kg for chloroethane and 1500 ug/Kg for toluene. In addition, one tentatively identified compound (TIC) 1,4 dichlorobenzene (1,4 DCB) was detected at 220,000 ug/Kg above its respective soil cleanup objective of 8,500 ug/Kg

contained in the NYSDEC TAGM. 1,4 DCB is a common constituent found in urinal tablets used to control odors. Metals detected in excess of the Eastern Background range were cadmium, calcium, chromium, copper, magnesium, mercury, nickel and zinc. Based upon the initial sample results, VOCs and metals, remedial action was necessary at this location. In addition, sampling of the two overflow pools was required.

4.2.10 Sanitary System 1: Sampling of Overflows

SS-1 required sampling of the secondary overflows based upon the levels of metals detected as well as VOCs. The overflows were sampled following the same procedures performed for the initial samples. At location SS1 OF1, concentrations of metals such as cadmium, copper, mercury, nickel, and zinc were reported over the Eastern Background values. Concentrations in SS1 OF2 were within the Eastern Background levels specified in the TAGM. Laboratory results are summarized on Tables 2 and 3 for VOCs and metals respectively. The sample results for the overflow pools indicated that SS1 OF1 warranted remedial action based upon metals concentrations of cadmium, copper, mercury, nickel, and zinc. SS1 OF2 did not warrant remediation.

4.2.11 SS-1: Interim Remedial Measure

Prior to performing the remedial action, a liquid sample was collected of the standing water to determine disposal options. The liquid sample was analyzed for VOCs by EPA Method 8260 and 8 RCRA metals plus zinc. Upon receipt, the liquid results were forwarded to the SCDPW for their approval. The liquids were accepted at Bergen Point for disposal. In addition to the liquid sampling, the sediments were analyzed by TCLP for 1,4-dichlorobenzene to determine disposal requirements of the sediments. The results indicated that the material can be handled and disposed of as a non-hazardous waste. The concentration detected was 4.0 ug/L and the EPA regulatory level for this compound is 7.5 mg/L.

The remedial action for SS-1 and SS-1 OF1 was performed in November 1997 and endpoint samples were collected. The endpoint samples were analyzed for VOCs and total metals (same as initial samples). The endpoint results for VOCs and metals in both locations were below laboratory detection limits and/or TAGM guidance values. Based upon the endpoint results for SS-1 and SS-1 OF1 as well as the initial sample from SS-1 OF2, no further remedial action is necessary relative to Sanitary System one.

4.2.12 Sanitary System SS-2

SS-2, located on the east side of the building, was originally reported as a septic tank with two overflow pools. However, visual inspection revealed that this is a single leaching pool. This pool is located in a grassy area and has a cover to grade.

An initial sample was collected from this pool in September 1997. The results of the VOC analysis indicated no VOCs in excess of the NYSDEC TAGM. However, one TIC was reported, 1,4 DCB, at 35,000 ug/Kg which is in excess of its NYSDEC TAGM soil cleanup objective of 8,500 ug/Kg. Six metals were reported in excess of the NYSDEC Eastern Background: cadmium, chromium, copper, mercury, nickel, and zinc. Based upon the presence of metals and the TIC, remedial action was necessary at SS-2.

Prior to performing the remedial action, a liquid sample was collected from this location to determine disposal options for the standing liquid. The sample was submitted for analyses for total petroleum hydrocarbons and two metals, lead and zinc. The results were forwarded to the SCDPW for review and the liquids were acceptable for disposal at the Bergen Point Facility.

Removal of the sediments was performed in November 1997 and an endpoint sample collected. The endpoint sample was analyzed for VOCs and metals. The results of the VOC analysis indicated concentrations to be not detectable except for acetone and methylene chloride which were very low

concentrations that were also identified in the laboratory associated blank. Therefore, VOCs were well below TAGM guidance values. The TIC 1,4 DCB was not identified in the endpoint sample. The results of the metals analysis indicated that concentrations were significantly reduced to levels well below TAGM guidance values. Based upon the endpoint sample results, no further action is necessary for sanitary system SS-2.

4.2.13 Sanitary System SS-3

SS-3 is located on the east side of the building which consists of a septic tank, primary leaching pool and two secondary overflows. SS-3 was initially noted as a single pool. This sanitary system is inactive because it is connected to a large bathroom facility that has been barricaded to prevent use for a few years.

The leaching pools for this system are not to grade, and required locating and excavation for access. The primary leaching pool is labeled SS-3 and secondary labeled SS-3 OF1 and SS-3 OF-3. The initial sample collected from SS-3, the primary leaching pool was labeled (SS-3 OF1). However, this sample will be referred to SS3 as the overflows were labeled SS-3 OF-1 and SS-3 OF-3.

An initial sample was collected from SS-3 in September 1997. The results of the VOC analysis indicated the presence of one VOC, 1,1 dichloroethane (1,1 DCA) at a concentration of 640 ug/Kg, which is in excess of the NYSDEC TAGM value of 200 ug/Kg. Seven metals were also detected in excess of Eastern Background: cadmium, calcium, chromium, copper, mercury, nickel, and zinc. Based upon the levels of metals and 1,1 DCA, remedial action and sampling of the two secondary overflows was warranted at this location.

4.2.14 SS-3: Sampling of Overflows

Sampling of the two secondary overflows was performed in November 1997. The samples were collected and analyzed following the same procedures as the initial samples. The VOC results are

presented on Table 2 and metals on Table 3. The VOC results were below laboratory detection limits in both samples except for the laboratory artifact methylene chloride at a low, estimated value. Metals were either not detected and/or well below the TAGM guidance values. Based upon this, no action was warranted for sanitary system three secondary overflows, SS-3 OF1 and SS-3 OF3.

4.2.15 SS-3: Interim Remedial Measure

Prior to performing removal of the sediments at location SS-3, the primary leaching pool, TCLP analysis was performed for cadmium. The TCLP results was not detectable, <0.005 mg/L, the EPA regulatory level for cadmium is 1.0 mg/L. Based upon the total results and TCLP analysis, the material was handled and disposed of as a non-hazardous waste.

SCDPW visited the site to determine acceptability of liquid wastes and number of samples to be collected. No sample was collected, and the liquids were not acceptable from this system for two reasons, (see correspondence dated November 5, 1997). The septic tank had an oil film on the top of the standing water and the primary pool had a very hard crust on the top of the water. Since there was not a large volume of standing liquid present, it was removed as part of the sediment removal process from both the septic tank and leaching pool.

Removal of the sediments was performed in November 1997 and an endpoint sample collected. The endpoint sample was analyzed for VOCs and metals. Other than the laboratory artifact methylene chloride at an estimated value of 2 ug/Kg, VOCs were not detected in the endpoint sample, including 1,1 DCA. Therefore, concentrations are well below TAGM guidance criteria. Two TICs were identified, chlorotrifluoromethylbenzene and chloromethylbenzene at low, estimated values of 23 and 17 ug/Kg. There are no NYSDEC guidance values for these compounds. The metals reported copper with a concentration of 36.6 ug/Kg and iron at 3030 ug/Kg which are slightly in excess of the TAGM guidance values of 25 and 2,000 ug/Kg, respectively. However, these levels are below Eastern Background values of 50 ug/Kg for copper and 550,000 for iron. As previously mentioned,

iron is naturally occurring on Long Island and is not considered a health threat. Copper may be attributed to associated piping and not a result of an inappropriate discharge.

Based upon on the not detectable endpoint results for VOCs which are well below TAGM guidance values as well as metal concentrations within Eastern Background ranges, no further action is warranted at this location.

4.2.16 Sanitary System SS-4

The fourth sanitary system (SS-4) is located on the west side of the building and consists of a septic tank and three overflows. Each overflow is connected directly to the tank and therefore, considered to be primary leaching pools (the overflows are labeled OF1 through OF3). Each of these pools receives flow directly from the tank and are not connected to each other. This system is located in a grassy area as well and required excavation for access. Since sanitary system SS-4 did not have one primary leaching pool, initial samples were collected from the three pools in September 1997.

VOCs were either not detected and/or well below guidance criteria in each location. The highest concentration reported from the VOC analysis was at location SS-4 OF1 with carbon disulfide at 94 ug/Kg, the TAGM guidance value is 2,700 ug/Kg for this compound. One TIC, 1,4 DCB, was identified in each location: -OF1 at 2800 ug/Kg; -OF2 at 250 ug/Kg; and -OF3 at 180 ug/Kg. These levels are one to two orders of magnitude less than the SCDHS criteria of 10,000 ug/Kg.

Seven metals analyses were reported in excess of Eastern Background ranges at location SS-4 OF1: cadmium, calcium, chromium, copper, mercury, nickel, and zinc. Based upon this, SS-4 OF1 warranted remedial action.

At locations SS-4 OF2 and SS-4 OF3, cadmium was detected in excess of the Eastern Background with concentrations of 2.6 and 1.1 mg/Kg, respectively. This level is below the SCDHS action level

of 10 mg/Kg. Since VOCs were not present in excess of the TAGM guidance and cadmium was the only metal detected in excess of Eastern Background with a value below SCDHS criteria, remedial action was not warranted at locations SS-4 OF2 and SS-4 OF3.

Prior to performing removal of the sediments, a liquid sample was collected and analyzed for total petroleum hydrocarbons, lead and zinc. The results were forwarded to the SCDPW for review and the liquids were accepted for disposal at the Bergen Point Facility. In addition, TCLP analysis was performed on the sediments for cadmium and chromium to determine disposal requirements. Cadmium was detected at 0.016 mg/L and chromium was not detectable, <0.01 mg/L. The EPA regulatory levels for these metals are 1.0 mg/L and 5.0 mg/L, respectively. Based upon this the material was handled and disposed of as non-hazardous.

The remedial action for SS-4 OF1 was performed in November 1997 and an endpoint sample collected. The endpoint sample was analyzed for VOCs and total metals. The VOC analysis indicated concentrations below laboratory detections limits. Two laboratory artifacts, acetone and methylene chloride, were both detected with concentrations of 2 ug/Kg and were also detected in the associated laboratory blank. No TICs were quantified. The results of the metals analysis indicate iron was detected at 2,210 mg/Kg which is slightly in excess of the TAGM guidance of 2,000 mg/Kg. However, this concentration is within Eastern Background range of 2,000 to 550,000. As previously mentioned, iron is not considered a health threat and may be naturally occurring in the area. Based upon the endpoint results of no detectable VOCs and metals concentrations within Eastern Background ranges, no further remedial action is warranted at SS-4 OF1.

4.2.17 Conclusions: Dry Well & Sanitary System Leaching Pool Investigation

Eighteen separate leaching structures were sampled and analyzed as part of the RI. The initial sampling resulted in remedial action at 11 structures. The basis for remedial action at each location

was due to elevated levels of metals. A total of 108.5 tons of material were removed from the 11 leaching structures and two septic tanks.

In general, these metals were cadmium, chromium, copper, nickel, and zinc. Endpoint sample results indicate that concentrations of these metals were significantly reduced to levels below the TAGM guidance values or within Eastern Background ranges. Two locations, SS-1 and SS-3, indicated elevated levels of VOCs in the initial samples. The constituents reported in highest concentrations were: toluene and chloroethane in SS-1; and 1,1, dichloroethane in SS-3. Endpoint sample results for the VOC analysis indicate levels well below TAGM guidance criteria or not detectable in the sediments.

Removal of sediments from the 11 locations indicates that the IRM was successful in reducing or eliminating concentrations of contaminants. In addition, the analyses indicate that these leaching structures were not the source of 1,1,1 TCA identified in the PSA. Based upon endpoint results within TAGM guidance or Eastern Background criteria, no further remedial action is necessary relative to the leaching pools or sanitary systems.

4.3 UNDERGROUND STORAGE TANK INVESTIGATION

A 550-gallon underground storage tank (UST) was removed from the site in November 1997 without incident. This tank was originally believed to have a capacity of 55 gallons, as indicated in the RI/FS Work Plan. Based on interviews with site personnel, this tank had not be used for the past 23 years and the type of waste coolant last held by the tank is unknown. The tank was removed as part of the RI and three endpoint samples were collected from the base and side walls of the excavation. Prior to removal, the NYSDEC and SCDHS were notified. The NYSDEC opted not to be present for the activities. At the time of removal, a SCDHS representative, was on site to witness the removal.

The UST was located on the south side of the building in the vicinity of the metal shavings recycling area. Refer to Figure 5 for location. The tank had an east-west orientation.

4.3.1 UST Removal

Prior to removal the tank was inspected to determine whether liquid product was present. It was found to be empty of liquid contents. A backhoe was used to remove surface asphalt and concrete, expose and remove the tank. The limits of the excavation were 9.5 feet wide by 23 feet long and 8 feet deep. Associated piping was also disconnected and removed. Trade Winds Environmental, a licensed and qualified contractor, performed removal services.

The tank was inspected for signs of corrosion and found to be in fair condition with no visible holes other than those caused by the backhoe upon removal. A representative from the SCDHS, Ms Janet Gremli, was on site to inspect the open excavation and condition of the tank. Ms. Gremli was satisfied with site conditions and did not request further action.

Once removed the tank was aerated cut open and sludges removed. One drum of tank sludges was generated in the process. The sludges were disposed of as non-hazardous. Copies of the waste manifest and Certificate of Destruction are contained in Appendix F. The tank was recycled and a copy of the receipt is also contained in Appendix F.

Soils beneath and surrounding the tank were screened with a PID; no responses were obtained, and visual inspection did not reveal staining. Three confirmatory endpoint soil samples were collected using a decontaminated hand auger from the base center, east, and west sidewall of the excavation. Sample identifications are 550BC, 550E, and 550W, respectively. Soils were placed in laboratory supplied glassware, stored on ice overnight, and delivered to H2M Laboratories for analyses of VOCs by EPA Method 8260 plus 10 tentatively identified compounds (TICs) and target analyte list

(TAL) metals by series 7000 using NYSDEC ASP with Category B deliverables. QA/QC for this task was coordinated with sediment removal as field effort was performed concurrently.

After endpoint samples were collected, the excavation was backfilled using clean sand and gravel. The old asphalt and concrete was not used as backfill material and was properly disposed. Patching of the asphalt will be completed in Spring, 1998 with other concrete maintenance repairs around the site.

4.3.2 UST Endpoint Sample Results

The VOCs results for the endpoint samples from the UST excavation met applicable standards and guidance values for each compound. Copies of the Form I data sheets are contained in Appendix G. The VOC results were below laboratory detection limits in each of the samples except for the laboratory artifact methylene chloride at a low, estimated value and an estimated value of tetrachloroethene at 1 ug/Kg in sample 550E (TAGM guidance for tetrachloroethene is 1400 ug/Kg). These were the only VOCs detected.

Metals were detected in each of the three endpoint samples and results are summarized on Table 7. Four metals (cadmium, magnesium, nickel, and zinc) were detected in slightly elevated levels with concentrations in excess of the Eastern Background values. The elevated levels were detected in samples collected from the sidewalls of the excavation, 550E and 550W. The concentrations reported were less than an order of magnitude over Eastern Background. It is possible that metals on site cross-contaminated the sample during excavating activities as metal shavings are stored on site for recycling in close proximity to the excavation, see Figure 5. Based upon the levels detected, and the fact that the area will be paved thus minimizing percolation through the former tank bed, it is not believed that the levels of metals detected pose a risk to groundwater.

4.3.3 Conclusions: UST Investigation

Based upon visual observations and VOC endpoint sample results, it is not believed that a release occurred or that the tank was the source of 1,1,1 TCA contamination identified in the PSA. The metals detected most likely were a result of incidental surface contamination and not believed to pose a health risk. Therefore, it is recommended no further action relative to the UST be required.

4.4 GROUNDWATER INVESTIGATION

Six water table groundwater monitoring wells were installed to obtain information regarding local groundwater flow direction and quantify possible contaminant concentrations below the site. The monitoring wells were placed as proposed in the RI/FS Work Plan. Alteration of the locations was not necessary because no on-site sources of VOC contamination were found. The wells were placed where the highest levels of contaminants were detected in the PSA. Figure 5 illustrates the locations of the six monitoring wells. Subsequent to installation and well development, two rounds of groundwater samples were collected. The groundwater results do not indicate the presence of on-site sources of contamination that are contributing to the degradation of groundwater quality.

Two wells, MW-1 and MW-6, were placed upgradient with respect to groundwater flow. MW-1 was placed along the north edge, slightly east of center of the parcel and MW-6 is located in the northwest portion of the property. MW-2 was located in the northern loading dock area in the vicinity of DW-2 and DW-3. MW-3 was located along the east side of the building downgradient of sanitary systems two and three. MW-4 was placed downgradient of the southern loading dock area (drywells DW-4 through DW-6) as well as SS-1. MW-5 was located on the south side of the building west of the loading dock area and placed based. The remaining four wells were placed downgradient of potential sources of contamination on the site.

Drilling services were performed by Land, Air, Water Environmental Services (LAWES), Center Moriches, New York, on October 20 and 21, 1997. Drilling was performed utilizing the hollow stem auger technique, using 10½-inch diameter augers.

4.4.1 Monitoring Well Construction

The wells were constructed of four-inch diameter, flush joint, schedule 40 PVC casing and 20 feet of 0.020 inch slot, schedule 40 PVC screen. After drilling to fifteen feet below the water table, the screen and riser were set into the auger stem and a gravel pack of Number 2 morie sand was placed in the annulus around the screen up to two feet above the screen. A two-foot bentonite pellet layer was installed and hydrated above the gravel pack and the remaining annular space was grouted to grade with a bentonite/Portland cement grout. Each riser was finished below ground surface with a flush-mounted road box installed at grade. A monitoring well construction detail is provided in Figure 6.

Down-hole drilling equipment was cleaned with a high-pressure steam cleaner prior to being brought on site and after use at each well location. Decontamination fluids were contained and stored on site for future disposal.

Drillers' logs for the six monitoring wells are contained in Appendix H. In general, the soils encountered were fine-medium sands and gravels. For additional detail regarding soil characteristics, refer to drillers' logs.

The RI/FS Work Plan originally stated that drill cuttings would be placed in drums for disposal. Prior to the well installations, it was agreed with the NYSDEC that the cuttings could be stockpiled until the groundwater data was received, at which time a determination for handling of the cuttings would be made. A copy of the correspondence dated November 11, 1997, can be found in Appendix C. The drill cuttings were stored on site after being placed on and covered with plastic.

Based upon the groundwater data for monitoring well MW-6, an upgradient well, the NYSDEC requested these drill cuttings be drummed and disposed of off site. The drill cuttings from MW-6 were placed in two drums and removed for off-site disposal. Copies of the waste manifest and Certificate of Destruction for this material are contained in Appendix I. The cuttings from the remaining five wells were spread on site.

4.4.2 Well Installations/Soil Boring

During installation of the six monitoring wells drill cuttings were screened with a PID, no PID responses above background were obtained at five of the six well locations. During installation of MW-2, at a depth of approximately 10 to 15 feet below grade, a PID response of 110 ppm and a slight odor were noted at the emerging cuttings. Based upon this, a sample was collected from the drill cuttings. In addition, a soil boring, B-1, was performed immediately adjacent to the well with continuous split spoons collected from the surface to the top of the water table, 16 feet below grade. Each two-foot interval was given a corresponding letter designation (e.g. 0-2 feet B-1A).

No staining, odors, or elevated PID responses were noted in the spoons. A soil sample was collected from the 10-12 foot spoon, B-1F. The drill cuttings sample was collected from the soils where the elevated PID response was obtained and labeled MW-2. Both soil samples were placed in laboratory supplied glassware, stored on ice, and submitted for VOC analysis by EPA Method 8260 to EcoTest Laboratories, North Babylon, New York. Samples were stored on ice overnight and relinquished to the laboratory the day after collection. Data was supplied in reports only format. A copy of the results can be found in Appendix J.

The laboratory results indicated no detectable concentrations of VOCs. The VOCs in the groundwater at the water table may have contributed to the elevated PID response in the drill cuttings.

4.4.3 Monitoring Well Development

Monitoring wells were developed on October 22, 1997, by over-pumping and surging in order to remove fine material and to restore the hydraulic properties of the surrounding formation. Development services were performed by LAWES, under the supervision of PWGC. A submersible pump was used to develop the wells and was decontaminated prior to and between each well. Decontamination for the pump consisted of washing with a non-phosphate detergent scrub followed by tap water rinse. Development water and decontamination fluids were temporarily stored in a 1,000-gallon aboveground water holding tank.

Four field parameters were monitored during well development: pH, conductivity, and temperature, and turbidity. The parameters were monitored until stabilized and turbidity was below 50 ntu. Following development, the wells were allowed to equilibrate approximately two weeks before the first round of groundwater samples were collected.

4.4.4 Groundwater Sampling and Analysis

Two rounds of groundwater samples were collected from the six monitoring wells installed on site. The first round was collected two weeks after well development, on November 6, 1997. The second sampling event was completed on December 29, 1997. The procedures followed for both sampling events are discussed in the following paragraphs; necessary exception are noted.

Prior to sampling the wells, a synoptic round of water level measurements were collected. (Water level measurements are discussed in Section 4.3.4). Three to five casing well volumes were removed from each well prior to sample collection; purge water was contained on site in the temporary 1,000-gallon storage tank. The wells were purged using a submersible pump. Non-disposable equipment was decontaminated following procedures discussed in the previous section.

Field readings were collected from the purge water from the six groundwater monitoring wells and data are presented on Table 8. The groundwater samples were collected with dedicated, disposable, polyethylene bailers. The samples were poured directly from the bailer into laboratory-supplied bottles, and stored on ice in a cooler. The coolers were delivered to H2M Laboratories on the same or following day after collection. The samples were submitted for analyses by EPA Method 8260 for TCL VOCs plus TICs, and EPA Method 7000 series, for TAL metals plus cyanide, using NYSDEC ASP with category B deliverables. Form I data sheets for both rounds of sampling can be found in Appendix K.

Groundwater sample results were compared to standards contained in NYSDEC Ambient Water Quality Standards & Guidance Values, Division of Water, October 1993. NYSDEC standards are presented with data for both rounds of groundwater sampling on Tables 9 and 10 for VOCs and metals, respectively. The results for each event are discussed in the following sections and QA/QC procedures are discussed in Section 5.4.2.3.

4.4.5 Groundwater Quality: First Round

The six shallow groundwater samples were analyzed for VOCs and total metals. The results indicate a higher concentration of VOCs to the north, upgradient of the NTW facility and no significant difference in metals concentrations upgradient or on site.

The highest concentration of total VOCs (TVOCs) of 450 ug/L was detected in monitoring well MW-1. In this well three constituents were in excess of NYSDEC groundwater standards: chloroethane; 1,1 DCA; and 1,1,1 TCA. Monitoring well MW-2 TVOCs detected were 14 ug/L and one constituent, 1,1,1 TCA, was detected in excess of the groundwater standard of 5 ug/L with a concentration of 12 ug/L. This well is located downgradient of MW-1. Concentrations of VOCs in MW-3 were below NYSDEC groundwater standards. TVOCs in MW-4 was 28 ug/L and two constituents (1,1, DCA and 1,1,1 TCA) were detected in excess of groundwater standards with

concentrations of 22 ug/L and 6 ug/L, respectively. Concentrations in MW-5 and MW-6 were below laboratory detection limits and, therefore, NYSDEC groundwater standards.

The metals analysis reported elevated levels both upgradient and downgradient of the site. Iron was detected in each of the six wells in excess of the standard and the highest concentration was reported in MW-1 at 9,880 ug/L. The groundwater standard for iron is 300 ug/L. As discussed previously in this report, iron may be naturally occurring in this area. Manganese was detected in two of the six wells, MW-1 and MW-4, with levels of 339 and 979 ug/L, respectively; the standard is 300 ug/L. The standards for these metals are based upon aesthetic considerations and not considered detrimental to health.

Based upon the groundwater data that indicates higher concentrations of VOCs in the upgradient well, the source of contamination identified in the PSA is off-site and upgradient of the NTW facility. This conclusion was confirmed by the NYSDEC as stated in their correspondence dated December 16, 1997, which can be found in Appendix C.

4.4.6 Groundwater Quality: Second Round

The second round of groundwater samples were collected on December 29, 1997. Procedures followed were as discussed previously except that purge water was not contained for wells MW-2 through MW-6. The purge water from MW-1 was contained in the 1,000-gallon holding tank. This was in accordance with NYSDEC correspondence dated December 16, 1997, contained in Appendix C. MW-1 is upgradient of the NTW facility relative to groundwater flow.

The highest concentration of TVOCs of 928 ug/L was detected in monitoring well MW-1. This is two times the concentration seen in the first round. In this well, six constituents were in excess of NYSDEC groundwater standards: chloroethane; 1,1 DCA; 1,2 DCE (total); 1,1,1 TCA; benzene; and toluene. In monitoring well MW-2, the concentration of TVOCs detected were 14 ug/L. One

constituent, 1,1,1 TCA, was detected in excess of the groundwater standard of 5 ug/L with a concentration of 8 ug/L. This represents a slight decrease when compared to the previous round. Concentrations of VOCs in MW-3 were below NYSDEC groundwater standards for the second consecutive round. TVOCs in MW-4 were 76 ug/L and two constituents (1,1, DCA and 1,1,1 TCA) were detected in excess of groundwater standards with concentrations of 70 ug/L and 6 ug/L, respectively. This represents a slight increase in 1,1 DCA concentrations. Concentrations in MW-4 are probably a result of upgradient contamination because this well is downgradient of MW-1. Concentrations in MW-5 and MW-6 were below laboratory detection limits and, therefore, NYSDEC groundwater standards.

The metals analysis reported elevated levels of iron and manganese both upgradient and downgradient of the site. Iron was detected in four of the six wells in excess of the standard and the highest concentration was reported in MW-1 at 9,210 ug/L. The groundwater standard for iron is 300 ug/L. As discussed previously in this report, iron may be naturally occurring in this area. Manganese was detected in two of the six wells, MW-4 and MW-5, with levels of 337 and 440 ug/L, respectively; and the standard is 300 ug/L. The standards for these metals are based upon aesthetic considerations and not considered detrimental to health.

The second round of groundwater sampling is consistent with concentrations detected in the first event. The second round of groundwater sampling confirms that higher concentrations of VOCs are present in the upgradient well, MW-1, and that the source of contamination identified in the PSA is off site and upgradient of the NTW facility.

4.4.7 Groundwater Elevations & Flow Direction

The six monitoring wells were surveyed for vertical and horizontal position by D'Amaro Engineering and Surveying, West Babylon, New York, a licensed land surveyor. Ground and well casing elevations were reported to 0.01 foot accuracy relative to the National Geodetic Vertical

Datum Mean Sea Level (MSL). The measuring point on the well casing was marked to maintain consistency between monitoring events. Water levels were measured relative to the measuring points using an electronic probe. Depth to water measurements were converted into groundwater elevation data and used to construct groundwater contour maps and obtain flow direction. Well elevations and calculated groundwater elevation data are contained in Table 8.

The two rounds of depth to water measurements were used to generate groundwater elevation contour maps in order to demonstrate groundwater flow direction. The groundwater elevation was determined by subtracting DTW measurements from the well elevation. Figures 7 and 8 illustrates groundwater elevation contours for November 6, and December 29, 1997, respectively. The contours for both rounds of measurements indicate that the predominant direction of groundwater flow is south-southeast which is consistent with regional orientation.

The gradient was calculated across the site for the first and second rounds and was found to be 0.00196 and 0.00187 feet/feet, respectively. This does not differ significantly from the regional gradient of 0.0017 feet/feet.

4.4.8 Disposal of Temporary Holding Tank Liquids

Decontamination fluids, well development water, and purge water were temporarily stored on site in a 1,000-gallon storage tank supplied by LAWES. In order to dispose of the tank the groundwater sampling results were submitted to the SCDPW and permission was requested for disposal of the liquids at Bergen Point. Based upon the data, the liquids were accepted, and a copy of the correspondence dated January 8, 1998 (incorrectly noted on correspondence as 1997) can be found in Appendix C.

Once the tank was empty of liquid contents, the tank was removed from the site by LAWES. Cleaning of the tank was not necessary as residual sludges did not accumulate.

4.4.9 Conclusions: Groundwater Investigation

Six shallow groundwater monitoring wells were installed around the NTW facility to obtain local groundwater flow direction and groundwater quality. Groundwater flow direction trends to the south-southeast with an approximate gradient of 0.0019 feet/foot. The two rounds of groundwater data confirms that higher concentrations of VOCs are present in the upgradient well, MW-1. Based upon this, the data indicate that the source of contamination identified in the PSA is off site and upgradient of the NTW facility. Therefore, the installation of deeper wells or further groundwater investigation is *not* necessary relative to the NTW facility.

5.0 QA/QC PROCEDURES

Quality assurance/quality control (QA/QC) samples were collected during each phase of the project in accordance with the RI/FS Work Plan. The QA/QC samples pertaining to each task are discussed in the following sections. In addition, data validation services were performed by a third party validator to determine usability of data. In general, the data is valid and usable as reported. Decontamination procedures used during the RI are discussed first in the following section.

5.1 Decontamination Methodologies

In order to minimize the potential for cross-contamination drilling and sampling equipment was properly decontaminated prior to and after each use. Decontamination fluids for each task of the RI were contained and stored on site in a 1,000-gallon holding tank.

Stainless steel auger buckets, bowls, and spoons used in sampling of the dry wells/sanitary leaching pools and for collection of the UST endpoint samples were decontaminated by using the following procedure:

- Soap and water rinse with a laboratory-grade detergent
- Tap water rinse
- Rinse with methanol (Pesticide Grade)
- Rinse with 10% nitric acid (Ultrapure Grade)
- Deionized or distilled water rinse
- Air dry

Equipment was allowed to air dry on plastic sheeting and if not used immediately, wrapped in aluminum foil.

Drilling equipment used for the installation of monitoring wells was decontaminated using a high pressure steam cleaner prior to and between each use. No other decontamination procedures were necessary relative to the well installation as well construction materials were in original factory sealed packages.

Well development and evacuation of purge water was performed using a submersible pump. The pump was decontaminated by placing in a non-phosphate detergent scrub, rinsed with tap water followed by a distilled water rinse.

Decontamination waste liquids were captured and stored on site in a 1,000-gallon aboveground holding tank. The holding tank was also used to contain monitoring well development water and purge water from each round of groundwater sampling. Disposal of the water is discussed in the previous section, 4.3.5.

5.2 QA/QC Samples

In addition to the soil samples and groundwater samples, QA/QC samples, such as blind duplicates and matrix spike/matrix spike duplicates (MS/MSD), were collected. These were collected at a

frequency of one per 20 samples per matrix except for the endpoint samples which is discussed in Section 4.4.2.3. The duplicate and MS/MSD samples were collected at different locations. One laboratory prepared trip blank accompanied the glassware whenever sampling for VOCs and analyzed for the same constituents. Also, field equipment blanks were collected.

Field blanks were collected by pouring laboratory-supplied distilled water over sampling equipment and collecting in laboratory supplied glassware. Field blanks for groundwater sampling were collected by pouring the water into a new bailer and transferred into laboratory-prepared bottles. The rinsate was submitted for the same analyses as the initial samples. This was performed to determine whether decontamination procedures were adequate or other cross-contamination occurred.

Third party data validation was performed to determine validity and usability which will be discussed later in Section 5.4.3, along with duplicate and MS/MSD samples results. Data validation was performed on 100 percent of the ASP category B deliverables. More information regarding QA/QC measures can be found in the RI/FS Quality Assurance Project Plan.

5.2.1 QA/QC Samples & Results: Initial Samples

One field equipment blank sample was collected per day (two total during the initial sampling) and analyzed for VOCs and metals. A trip blank accompanied the glassware each day during this phase and two were analyzed for VOCs only.

One MS/MSD and blind duplicate were collected during this task as well. The MS/MSD was collected at location DW-1. The blind duplicate was collected at SS-4 OF3 and labeled SS-4 OF4.

5.2.2 QA/QC Samples & Results: Endpoint Sample & UST Excavation

This phase of the work was completed November 10 through the 25, 1997, and QA/QC samples (MS/MSD and blind duplicate) were collected at a frequency of one per week. Field equipment blanks were collected at a minimum of one per week. This was in accordance with an agreement with the NYSDEC as stated in correspondence dated November 11, 1997.

During this phase of the project four field blanks, three trip blanks, three MS/MSDs and two blind duplicates were collected. The MS/MSDs were collected at sample locations 550E (UST endpoint sample), SS-1 end, and SS-2. The blind duplicate sample locations were: SS-3 OF3, duplicate labeled SS-3 OF5; and SS-1 OF1, duplicate labeled SS-1 OF3.

5.2.3 QA/QC Samples & Results: Groundwater Samples

One duplicate sample, one MS/MSD, one field blank, and one trip blank were collected and analyzed in accordance with the QAPP. The duplicate samples were assigned identification numbers other than the monitoring wells from which they were collected. For the November 6, 1997 round, the duplicate was collected from MW-2 and labeled as MW-7, and the MS and MSD were collected from MW-6. For the December 28, 1997 sampling round, the duplicate was collected from MW-1 and labeled as MW-7, and the MS and MSD were collected from MW-4.

5.3 Data Validation

Independent third party data validation was conducted for both organic and inorganic analyses to define data quality with respect to project goals as stated in the QAPP. Data validation activities for the NTW project were conducted by Data Validation Services, North Creek, New York, in accordance with current editions of the USEPA CLP National Functional Guidelines for Organic and Inorganic Data Review and the USEPA SOPs HW-2 and HW-6. The data validation report is included in Appendix L.

In general, processing of samples was conducted with compliance to protocol requirements and with adherence to quality criteria.

5.3.1 Data Usability

The analytical data review for the project was generally found to be valid and usable with a few exceptions. Detections of methylene chloride and acetone are considered contamination when reported below the contract required detection limit. Values for these two contaminants should be edited to not detected or a reported values, whichever is higher. In addition, some TICs identified in the initial samples collected in September 1997, as well as during each sampling event for both soil and groundwater matrices.

6.0 EXPOSURE ASSESSMENT

6.1 Exposure Assessment Introduction

As part of the Remedial Investigation (RI) report for the Nassau Tool Works (NTW) site, a Risk Assessment was to be performed. However, since an on-site source of groundwater contamination was not identified by the remedial investigation, the Risk Assessment requirement identified in the RI/FS work plan was reduced to an Exposure Assessment with concurrence from the NYSDEC. The Exposure Assessment was conducted to evaluate the potential risk to human health from exposure to contaminants on the site. In order for a contaminant to pose a threat to human health and safety it must meet the following three criteria.

- 1 Must be present in concentrations detrimental to human health
- 2 Must have an exposure route from the source of contamination to the location of receptors
- 3 Must have receptors who are exposed to the contaminant.

These “exposure pathways” will be identified for the particular contaminants found on the site. Most significant to this Exposure Assessment is the identification of the contaminants of concern and the extent of contamination, both quantitatively and spatially. Additionally, the contaminants detected will be evaluated for their toxicity and their ultimate risk to human health. These issues are addressed in the following sections.

6.2 Identification of Chemicals of Potential Concern

A Remedial Investigation (RI) Work Plan was prepared in response to the NYSDEC Consent Order dated September 6, 1996. In accordance with the NYSDEC approved RI Work Plan, dry well, sanitary leaching pool and groundwater samples were collected. Based upon the sampling results, remedial action was conducted in several dry well and sanitary leaching pools. Additional corrective action performed as part of the RI included the removal of an underground storage tank. As a result of the work performed during the RI, the following three areas of concern (AOCs) were identified on site that will be addressed as part of this exposure assessment.

- dry wells/on-site sanitary systems,
- groundwater, and;
- underground storage tank area.

The locations of the drywells, sanitary leaching systems, monitoring wells and the former underground storage tank are depicted in Figure 5.

6.2.1 Drywell/Sanitary System Leaching Pool Soil Samples

Based upon initial characterization sampling results, interim remedial measure was conducted in eleven of the eighteen dry well and sanitary leaching pool systems sampled on the site. Endpoint samples were collected upon completion of the remedial work to confirm the effectiveness of the remedial effort. The soil samples collected were analyzed for VOCs and metals by a New York State certified laboratory. Analytical results of these soil samples were compared with two

standards; the human health based NYSDEC TAGM guidance levels for soil clean up objectives and the SCDHS SOP criteria. These results indicated that the remediation was successful in reducing the concentrations of VOCs to below NYSDEC TAGM guidance levels. Elevated levels of metals above the NYSDEC TAGM but within the Eastern USA Background criteria are shown in the table below. (Shading indicates that the result exceeds the TAGM guidance).

Metal	Eastern USA	NYSDEC	SS3	SS4OF1	DW3	DW6
Contaminant	Background	TAGM	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Copper	1 - 50	25 or SB	36.6	1.4	2.5	2.4
Iron	2000 - 550000	2000 or SB	3030	2210	2590	2720
Zinc	9 - 50	20 or SB	8	4.1	7.4	23.2

Trace levels of copper and iron were detected in various soil samples above the NYSDEC TAGM, however, within the Eastern USA Background levels. The effects of these contaminants on human health will be discussed in sections 6.3 and 6.4. Since the endpoint sample results were within NYSDEC Eastern Background levels, no additional remediation was warranted at the site.

6.2.2 Groundwater Samples

Six groundwater monitoring wells were installed in the Upper Glacial aquifer to determine the quality of groundwater beneath the site, as well as to confirm the direction of groundwater flow. The wells were positioned with respect to the highest levels of contamination described in the PSA and downgradient of potential source areas.

Groundwater samples were analyzed for VOCs and metals and results compared to NYSDEC groundwater standards. The VOC analysis indicated elevated levels of chloroethane, 1,1 dichloroethane, 1,2 dichloroethene, 1,1,1 trichloroethane, benzene, and toluene. The VOC contaminants identified were determined to be originating from an off site, upgradient source and not the NTW site. For this reason, VOC's in groundwater have not been addressed in this

assessment. The metals analysis performed revealed iron and manganese at concentrations above the allowable NYSDEC standards for groundwater. These compounds have been addressed as part of this assessment since they were detected on site.

The following table shows a summary of the contaminants found during the groundwater sampling events.

Metals	NYSDEC #	MW1		MW2		MW3	
Concentrations in ug/L	STANDARDS	11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97
Iron	300	9880	9210	357	1550	491	546
Manganese	300	339	289	66.3	57.1	75.6	56.1

Metals	NYSDEC #	MW4		MW5		MW6	
Concentrations in ug/L	STANDARDS	11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97
Iron	300	1250	1760	424	135	1120	156
Manganese	300	979	337	279	430	43	19.1

Notes:

NYSDEC Ambient Water Quality Standards & Guidance Values, Division of Water, Oct. 1993

Shading indicates a value greater than the standard.

6.2.3 Underground Storage Tank Soil Samples

As part of the RI, a 550 gallon underground storage tank (UST) formerly used to store waste machine coolant was removed from the site. Visual observation of the tank did not reveal signs of deterioration and the tank appeared to be in fair condition upon removal. Three endpoint samples were collected from the tank excavation. The following table shows a summary of the levels detected and is presented with NYSDEC TAGM criteria.

Metals	Eastern USA	TAGM	550BC	550E	550W	average
	Background		(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Cadmium	.1 - 1	1 or SB	0.03	1.6	0.05B	0.8
Magnesium	100 - 5000	SB	175	3370	13000	5515
Nickel	0.5 - 25	13 or SB	1.6	27.4	10	13.0
Zinc	9 - 50	20 or SB	7.2	93.2	20.6	40.3

Levels of cadmium, magnesium, and nickel exceeded the Eastern Background levels in one of the three samples. Levels of zinc exceeded the Eastern Background levels in two of the three samples. However, when assessing the overall area around the tank, the average concentrations for these metals for the three sample locations were below the Eastern Background levels. Iron concentrations were also detected in excess of the TAGM guidance values, but within the Eastern Background levels.

6.3 Identification of Exposure Pathways

Exposure pathways, or the means by which humans may become potentially exposed to a contaminant, are the predominant issues of concern in this Exposure Assessment. Therefore, identification of the potential transport and transfer mechanisms by which the contaminant reaches a receptor group was conducted. The exposure pathways represent routes of entry into the human body, and for the NTW site the include inhalation, skin absorption, and ingestion.

Metals were identified in both soil and groundwater in concentrations above the guidance levels prompting the evaluation of exposure to receptor groups. Levels of cadmium, iron, magnesium, nickel and zinc exceeding the TAGM guidance values were detected in the endpoint soil samples collected in the vicinity of the underground storage tank. In addition, iron and copper were detected in the dry wells and sanitary systems throughout the site. The exposure pathways for these metals in both soil and groundwater are addressed in the following sections.

6.3.1 Drywell/Sanitary System Leaching Pool Soil Exposure

The contaminated soils associated with the drywells and sanitary systems are located approximately fifteen feet below grade. Therefore, it is unlikely that NTW employees will be exposed to the contaminants identified in the drywells /sanitary systems during normal work activities.

The most probable scenario for exposure would be maintenance/construction workers exposed to fugitive dust and dermal contact during periods of maintenance or excavation in the drywells/sanitary systems.. It is very unlikely that excavation activities would occur in these areas. The use of gloves and protective eye wear will greatly reduce the risk of exposure. In addition, fugitive dust is easily controlled by wetting soil down with water.

Normal maintenance of drywells/sanitary systems takes place when the drywells/sanitary systems fill up with sediment that has to be removed. Since the drywells/sanitary systems were recently cleaned out, sediment that enters the drywell/sanitary system that will require maintenance removal in the future should not be contaminated. Furthermore, normal maintenance of drywells/sanitary systems incorporates the use of a high-powered vacuum system mounted on trucks where there is no direct human contact with the soils. The soils are literally vacuumed out of the drywell/sanitary system and placed directly into a sealed vessel mounted on the back of the truck. The truck would then transport the soils to a disposal facility.

There does not appear to be an exposure pathway for the contaminants within the drywells/sanitary systems to come into contact with receptors. Therefore, NTW workers will not be exposed to these contaminants. It is not likely for construction activities to take place in or around drywells/sanitary systems. If maintenance is needed for the drywells/sanitary systems, it is not likely that workers would come in contact with the contaminants based upon the remote techniques used for maintenance and the depth of the contaminated sediments.

6.3.2 Groundwater Exposure

The most probable pathway for human exposure to groundwater is through potable water supplies at, and downgradient of the NTW site. Exposure would occur through the consumption of groundwater drawn from the Upper Glacial aquifer either through a domestic or municipal supply well. The NTW site as well as the residential areas located downgradient are supplied with potable water by the Suffolk County Water Authority (SCWA). Water supplied by the SCWA is routinely monitored by the New York State Department of Health to ensure compliance New York State's standards for drinking water. Since the NTW property and surrounding area is supplied potable water by the SCWA, the exposure pathway for ingesting contaminated groundwater is limited to residences or commercial facilities that are not connected to the public water supply. Since an on site source of groundwater contamination was not identified by the RI, a Risk Assessment with a detailed well survey was not conducted. Therefore, residences or commercial facilities not connected to the public water supply were not identified, but likely would only represent a very small fraction of the population.

The metal compounds identified in the groundwater samples collected at the site consisted of iron and manganese. The NYSDEC groundwater standards for these compounds are 300 ug/L. New State Drinking Water Standards for these compounds are also 300 ug/L with a combined concentration of iron and manganese that should not exceed 500 ug/L. These standards are primarily set for aesthetic reasons and not toxicity as concentrations above these values can cause staining on fixtures and metallic tasting water. Therefore, it is believed that the aesthetic quality of the water would be degraded to the point where a consumer would be aware of the conditions prior to causing toxic effects.

Additionally, the concentrations detected in the monitoring wells installed on the NTW site are not representative of concentrations that would likely be detected in downgradient private drinking water wells, if they exist (public water supply wells are routinely tested to ensure that these values are not

exceeded in drinking water). Due to their affinity to bind to sediment, elevated metals in groundwater can be attributed to the presence of sediments in the groundwater samples collected from the monitoring wells. This affinity to the sediment also significantly limits their mobility in groundwater, with the most movement resulting from their attachment to colloidal size particles capable of moving with groundwater. Filtering of the groundwater samples was not performed as turbidity readings were within acceptable levels for this sampling program. Filtering would likely have reduced iron and manganese levels by reducing the sediment within the groundwater samples. Since the groundwater samples were collected directly into preserved glassware, iron and manganese bound to the sediment would be dissolved into the groundwater sample and therefore, not representative of the actual groundwater quality. Private drinking water wells operating over a significant period of time would generally be developed to the point where clear turbid free water would be provided and would likely exhibit concentrations much lower than quantified in the groundwater samples collected beneath the site. Therefore, based on the aesthetic standards, limited mobility, and the limited potential for sediment in private drinking water wells, it is believed that a significant health concern does not exist.

6.3.3 Underground Storage Tank Soil Exposure

The potential exposure pathways for metals detected in the soils beneath the former tank are limited to inhalation of fugitive dust, soil ingestion and dermal contact. The NTW employees should not be exposed to these contaminants during their daily activities since the contaminated soils are located eight feet below grade beneath a paved parking area. Workers performing excavation activities in this area represent the only receptor group with a potential for exposure. Good construction practices including use of gloves, eye protection and dust suppression significantly reduce the likelihood of exposure during excavation activities.

Since the average contaminant concentrations (cadmium, magnesium, nickel, zinc) in the former tank area are within the NYSDEC Eastern Background levels, exposure does not appear to be

threatening to human health. One endpoint sample reported cadmium and nickel at concentrations that marginally in excess of the TAGM guidance values. Furthermore, the characteristics of these metal compounds make them stable in the soil. These compounds are not readily mobile in the soil and are not believed to represent a threat to groundwater. The monitoring well data confirms that these metals are not present in groundwater.

6.4 Exposure Characterization

Assuming that an exposure to the contaminated material can occur, an evaluation of the effect of that exposure on human health must be performed. The effect on human health is largely a function of the toxicity of the compound. For risk evaluation, compounds are generally discussed in terms of carcinogens and non carcinogens.

6.4.1 Carcinogens

Review of the United States Environmental Protection Agency (USEPA) Region III Risk Based Concentration Table dated January 1995 reveals that the contaminants of concern identified at NTW and evaluated in this assessment are not listed as carcinogenic for soil ingestion or dermal contact. Cadmium in ambient air was listed as carcinogenic, however, these conditions do not exist at the NTW site.

6.4.2 Non-Carcinogens

The USEPA 's Risk-Based Concentration Table presents the concentrations of contaminants in soil that would pose a threat to human health. The concentrations for the metals of concern at the NTW site are shown as follows:

Contaminant	Industrial Soil Ingestion (mg/kg)	Residential Soil Ingestion (mg/kg)	NTW Maximum Concentrations (mg/kg)
Copper	76,000	2,900	0.0366 (SS3)
Cadmium	1,000	39	0.0016 (550E)
Iron	not listed	not listed	3.03 (SS3)
Magnesium	not listed	not listed	13 (550W)
Nickel	41,000	1,600	0.0274 (550E)
Zinc	610,000	23,000	0.0932 (550E)

It is probable that iron and magnesium were not listed in the table because the risk associated with these metals is very low. As presented, the maximum concentrations of the metal compounds in soil identified during the RI are well below the risk levels defined by the USEPA. Although it is highly unlikely that workers would be exposed to the contaminated soils, if they were it does not appear that the concentrations would pose a threat to human health.

6.5 Exposure Assessment Summary and Conclusions

The three areas of concern identified during the RI included drywell/sanitary systems, groundwater, and former underground storage tank area. Contaminants of concern identified in the RI consisted of metals in soil, and VOCs and metals in groundwater. The VOCs in groundwater were not evaluated as part of the assessment as they were determined not to be originating from the NTW site.

Exposure pathways for contaminated soil are limited to inhalation of fugitive dusts, ingestion and skin absorption. Based upon the location of the contaminated soils (8 to 15 feet below grade) receptors are limited to workers involved in maintenance of the drywell/sanitary leaching pools or excavation in the vicinity of the former underground storage tank. Common good construction and excavation practices performed by these workers will further reduce the likelihood of exposure.

Exposure pathways for contaminated groundwater are limited to ingestion. Since the area surrounding the NTW site is supplied with potable water from the SCWA, which is routinely monitored by the NYSDOH, it is not likely that the consumption of contaminated groundwater would occur. Since the Risk Assessment was downgraded to an Exposure Assessment, a detailed private well survey was not performed as part of the RI. Therefore, the quantity or existence of private wells downgradient from the NTW site was not confirmed. However, based on the development of public water supply in the area, the percentage of private wells still used for drinking water purposes is likely to be very small.

In addition, evaluation of the contaminants of concern reveal that the contaminants identified in the soil are not carcinogenic and exist at concentrations well below what is considered a threat to human health by the USEPA.

The compounds found in groundwater at the NTW facility above NYSDEC groundwater and NYSDOH drinking water standards are primarily regulated for their aesthetic quality rather than toxicity. The consumer of water from a private well would become aware of elevated concentrations of iron and manganese prior to encountering concentrations that would be considered toxic. Based on this and since the groundwater concentrations are not representative of what would likely be detected in a downgradient private water supply wells (as discussed in section 6.3.2), it is believed that a significant health concern with regard to these compounds does not exist.

7.0 SUMMARY & CONCLUSIONS

In summary, 44 soil and groundwater samples were collected around the site. Soil samples were collected from 18 separate leaching structures, 11 of which warranted an appropriate interim remedial measure. Soil samples were also collected from a tank excavation from which a 550-gallon underground storage tank was successfully removed. The third task of the RI included installation

of six shallow groundwater monitoring wells followed by collection of two rounds of groundwater sampling.

Remedial action was warranted in 11 of the 18 leaching structures. The basis for this was the presence of metals contamination. In general, these metals were cadmium, chromium, copper, nickel and zinc. Volatile organic compounds (VOCs) were quantified in two locations. The constituents reported in highest concentrations were: toluene and chloroethane in SS-1; and 1,1, dichloroethane in SS-3.

A total of 108.5 tons of material were removed from the 11 leaching structures and two septic tanks. Endpoint sample results indicate that the remedial action was effective in significantly reducing or eliminating concentrations of metals to within NYSDEC guidance criteria. In addition, endpoint results indicate VOCs were well below NYSDEC guidance criteria and most concentrations were below laboratory detection limits. In addition, the analyses indicate that these leaching structures were not a source of 1,1,1 TCA or contributing to groundwater contamination identified in the PSA at the time of the RI investigation.

The 550-gallon UST was removed successfully and without incident. Based upon visual observations and VOC endpoint sample results it is not believed that a release occurred or that the tank was the source of 1,1,1 TCA contamination identified in the PSA. The metals detected in the UST endpoint sample are most likely were a result of incidental surface contamination and not believed to pose a health risk, as discussed in the exposure assessment.

Six shallow groundwater monitoring wells were installed around the NTW facility to obtain local groundwater flow direction and groundwater quality. Groundwater flow direction trends to the south-southeast with an approximate gradient of 0.0019 feet/foot. The two rounds of groundwater data confirms that higher concentrations of VOCs are present in the upgradient well, MW-1. Based

upon this, the data indicate that the source of contamination identified in the PSA is off site and upgradient of the NTW facility.

Based upon the data collected during the RI, NTW is not a source of 1,1,1 TCA or contributing to groundwater contamination identified in the PSA. The interim remedial measure performed was successful in reducing contaminant concentrations at the site. Therefore, no further action is warranted relative to the NTW facility.

Exposure pathways for contaminated soil are limited to inhalation of fugitive dusts, ingestion and skin absorption. Based upon the location of the contaminated soils potential receptors are limited to workers involved in maintenance of the drywell/sanitary leaching pools or excavation in the vicinity of the former underground storage tank. Common good construction and excavation practices performed by these workers will further reduce the likelihood of exposure. Exposure pathways for contaminated groundwater are limited to ingestion which is not a concern as the surrounding area is supplied with potable water from the SCWA. In addition, evaluation of the contaminants of concern reveal that the contaminants identified in the soil are not carcinogenic and exist at concentrations well below what is considered a threat to human health by the USEPA. The metals found in groundwater at the NTW facility are primarily regulated for aesthetic purposes and have limited mobility in groundwater resulting in an insignificant potential impact to downgradient private drinking water wells. Based upon this information, the results of the exposure assessment conclude metals contamination in soil and groundwater do not pose a significant threat to the on-site worker or general public.

The interim remedial measure taken during the RI have effectively eliminated potential sources of soil and groundwater contamination. As no further investigative or corrective actions are necessary, a Feasibility Study is not warranted.

Based upon the results of the RI and exposure assessment, PWGC requests that the RI/FS requirement of the Consent Order be deemed complete. In addition, PWGC requests that NTW be removed from the NYSDEC's Inactive Hazardous Waste Disposal Sites List (Nassau/Suffolk) by June 30, 1998.

TABLE 1

NASSAU TOOL WORKS

34 LAMAR STREET, WEST BABYLON, NEW YORK

Drywell / Sanitary Leaching Pools: Initial Sediment Sample Descriptions

Location	Depth	Grab	PID Response	Description
DW1	6	A	0.4	Tan sands & gravel
		B	0.4	Bits of sludge orange sands, loose no odor
		C*	0.4	Thin layer sludge, tan sands with orange laminations.
DW2	13	A	8	Thin layer black sludge with coarse gray sands & gravels, odor
		B	7	Thin layer black sludge with coarse gray sands & gravels
		C*	14	Thin layer black sludge w/ coarse gray sands/gravels, shean & odor noted
DW3	~11	A	0	Brown silty sands & gravels
		B	0	Dark brown/black, firm
		C*	0	Brown silty sands & gravels
DW4	5	A	1.1	Loose dark brown sands with tan layer underneath
		B	0.9	Brown silty sands, debris no odor
		C*	1.4	Brown silty sands, debris no odor
DW5		A	1.4	Brown sands with ~ 1 inch sludge
		B	1.1	Dark gray sludge, no odor
		C*	1.5	Tan sands, blackish sludge
DW6	11.5	A	0.5	Tan sands, small quantity sludge
		B*	0.8	Tan w/ orange laminations, gray sludge 1/4-1/2 inch
		C	0.6	Tan sands, less orange, some sludge
DW7	12.5	A*	0.1	Tan sands with 1/2 inch black sludge no odor
		B	0	Tan (lite) sands with 1/2 inch black sludge no odor
		C	0.1	Tan (lite) sands with 1/2 inch black sludge no odor
DW8	14	A*	4	~ 2" black sludge to gray stained sands and gravels
		B	2	~ 2" black sludge to gray stained sands and gravels
		C	1	~ 2" black sludge to gray stained sands and gravels
SS1	9	A*	21	3' soft sludge-12' hard bottom, black sludge w/ gray gravel
		B	19	3' soft sludge-12' hard bottom, black sludge w/ gray gravel
		C	17.5	3' soft sludge-12' hard bottom, black sludge w/ gray gravel
SS2	13	A*	0	Brown loose sludge with small quantity of black-brownish orange sands/gravels
		B	0	Brown loose sludge with small quantity of black-brownish orange sands/gravels
		C	0	Brown loose sludge with small quantity of black-brownish orange sands/gravels
SS3	9	A*	50	Black loose sludge
		B	46	Black loose sludge
		C	46	Black loose sludge
SS4 OF1	11	A	1.1	~ 1' soft sludge, Black sludge w/ gray stained sands/gravel, septic odor
		B	0.9	~ 1' soft sludge, Black sludge w/ gray stained sands/gravel, septic odor
		C*	1.3	~ 1' soft sludge, Black sludge w/ gray stained sands/gravel, septic odor
SS4 OF2	12	A	3.9	Black coarse sands
		B*	6	Black coarse sands
		C	5.2	Black coarse sands
SS4 OF3		A*	0	Black sands and gravels, some sludge
		B	0	Black sands and gravels, some sludge
		C	0	Black sands and gravels, some sludge

Notes: * Indicates sample submitted for VOC analysis. Metals sample analyzed composite of A, B & C grabs.

NASSAU TOOL WORKS
34 LAMAR STREET, WEST BABYLON, NEW YORK
DRYWELL/ SANITARY LEACHING POOLS: VOCs RESULTS OF INITIAL SOIL SAMPLES

Method 8260 TAL + TICs Compounds in ug/kg	TAGM ^a	SS1 9/17/97	SS1 OF 1 11/10/97	SS1 OF 2 11/10/97	SS2 9/18/97	SS3 @ 9/18/97	SS3 OF 1 11/11/97	SS3 OF 2* 11/11/97	SS4 OF 1 9/18/97	SS4 OF 2 9/18/97	SS4 OF 3 9/18/97
Chloromethane	NA	22 U	12 U	12 U	22 U	5 J	11 U	10 U	50 U	13 U	12 U
Bromomethane	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Vinyl Chloride	200	27	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Chloroethane	1900		12 U	12 U	22 U	200 D	11 U	10 U	50 U	13 U	12 U
Methylene Chloride	100	3 JB	6 JB	4 JB	3 JB	26 U	5 JB	5 JB	50 U	2 JB	12 U
Acetone	200		54	36	41 B	120 DB	11 U	10 U	62 B	35 B	7 JB
Carbon Disulfide	2700	64	9 J	12 U	35	18 JD	11 U	10 U	94	6 J	12 U
1,1-Dichloroethane	400	140	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
1,1 Dichloroethane	200		12 U	12 U	22 U		11 U	10 U	50 U	13 U	12 U
1,2 Dichloroethane (Total)	100	42	12 U	12 U	22 U	16 J	11 U	10 U	50 U	13 U	12 U
2-Butanone	300	89	20	18	13 J	10 J	11 U	10 U	15 J	13	12 U
Chloroform	300	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
1,2-Dichloroethane	100	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
1,1,1-Trichloroethane	800	10	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Carbon Tetrachloride	600	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Bromodichloromethane	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
1,2-Dichloropropane	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
cis-1,3-Dichloropropene	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Trichloroethene	700	23	12 U	12 U	22 U	28	11 U	10 U	50 U	13 U	12 U
Benzene	60	4 J	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Dibromochloromethane	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
trans-1,3-Dichloropropene	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
1,1,2-Trichloroethane	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Bromoform	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
4-Methyl-2-Pentanone	1000	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
2-Hexanone	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Tetrachloroethene	1400	22 U	12 U	12 U	22 U	77 JD	11 U	1 J	50 U	13 U	12 U
1,1,2,2-Tetrachloroethane	600	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Toluene	1500	19000 D	2 J	1 J	27 U	1200 D	11 U	10 U	20 U	13 U	12 U
Chlorobenzene	1700	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Ethylbenzene	5500	17 J	12 U	12 U	22 U	42 JD	11 U	10 U	50 U	13 U	12 U
Styrene	NA	22 U	12 U	12 U	22 U	26 U	11 U	10 U	50 U	13 U	12 U
Xylene (total)	1200	1100 JD	12 U	12 U	22 U	290 D	11 U	10 U	50 U	13 U	12 U
Phenol, 2-(1,1-dimethylethyl)-4-m	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
1,4 Dichlorobenzene	8500	2E+05 JN	NI	NI	35000 JN	NI	NI	NI	2800 JN	250 JN	180 JN
Chlorotrifluoromethylbenzene	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Chloromethylbenzene	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

NOTES: @ = listed in lab results as SS3 OF 1 (9/18/97), * = listed in lab results as SS3 OF 3 (11/11/97)
^ NYSDEC Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives & Cleanup Levels, HWR94-4046, 1/24/94

J = Estimated Value
U = undetected
D = Dilution value given when higher than original value presented with E qualifier.
B = found in associated blank
E = exceeded calibration range
NA = not available, NI = Not Identified

TABLE 2

NASSAU TOOL WORKS

34 LAMAR STREET, WEST BABYLON, NEW YORK

DRYWELL/ SANITARY LEACHING POOLS: VOCs RESULTS OF INITIAL SOIL SAMPLES

Method 8260 TAL + TICs Compounds in ug/kg	TAGM ^A	DW1 9/18/97	DW2 9/18/97	DW3 9/18/97	DW4 9/17/97	DW5 9/17/97	DW6 9/17/97	DW7 9/17/97	DW8 9/17/97
Chloromethane	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Bromomethane	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Vinyl Chloride	200	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Chloroethane	1900	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Methylene Chloride	100	1 JB	2 JB	2 JB	3 JB	2 JB	3 JB	13 U	12 U
Acetone	200	4 JB	16 JB	6 JB	7 JB	6 JB	5 JB	6 JB	9 JB
Carbon Disulfide	2700	11 U	4 JB	11 U	12 U	13 U	11 U	13 U	2 J
1,1-Dichloroethane	400	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
1,1 Dichloroethane	200	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
1,2 Dichloroethane (Total)	100	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
2-Butanone	300	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Chloroform	300	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
1,2-Dichloroethane	100	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
1,1,1-Trichloroethane	800	11 U	13 U	13 U	2 J	4 J	3 J	13 U	12 U
Carbon Tetrachloride	600	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Bromodichloromethane	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
1,2-Dichloropropane	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
cis-1,3-Dichloropropene	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Trichloroethane	700	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Benzene	60	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Dibromochloromethane	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
trans-1,3-Dichloropropene	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
1,1,2-Trichloroethane	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Bromoform	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
4-Methyl-2-Pentanone	1000	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
2-Hexanone	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Tetrachloroethene	1400	11 U	13 U	11 U	12 U	4 J	3 J	13 U	12 U
1,1,2,2-Tetrachloroethane	600	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Toluene	1500	11 U	28	11 U	12 U	13 U	11 U	13 U	12 U
Chlorobenzene	1700	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Ethylbenzene	5500	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Styrene	NA	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Xylene	1200	11 U	13 U	11 U	12 U	13 U	11 U	13 U	12 U
Phenol, 2-(1,1-dimethylethyl)-4-m	NA	NI	NI	43 JN	NI	NI	NI	NI	NI
1,4 Dichlorobenzene	8500	NI	NI	NI	NI	NI	NI	NI	NI
Chlorotrifluoromethylbenzene	NA	NI	NI	NI	NI	NI	NI	NI	NI
Chloromethylbenzene	NA	NI	NI	NI	NI	NI	NI	NI	NI

NOTES: @ = listed in lab results as SS3 OF 1 (9/18/97), * = listed in lab results as SS3 OF 3 (11/11/88)

^ NYSDC Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives & Cleanup Levels, HWR94-4046, 1/24/94

J = Estimated Value

U = Undetected

D = Dilution value given when higher than original value presented with E qualifier.

B = found in associated blank

E = exceeded calibration range

NA = not available, NI = Not Identified

TABLE 3

NASSAU TOOL WORKS

34 LAMAR STREET, WEST BABYLON, NEW YORK

Drywell / Sanitary Leaching Pools
Metals Detected in Initial Soil Samples

TAL Metals + CN Units:mg/kg	TAGM Eastern USA ^	NYSDEC TAGM@	SS1 9/17/97	SS-1OF1 11/10/97	SS-1OF2 11/10/97	SS2 9/18/97	SS3 @ 9/18/97	SS3 OF 1 11/10/97	SS3 OF 2* 11/10/98	SS3 OF 5 11/10/98	SS4OF1 9/17/97	SS4OF2 9/17/97
Aluminum	33000	SB	1910	936	840	1210	1890	2770	1810	3110	2270	1820
Antimony	NA	SB	6.9 B	0.67 B	0.9 B	0.66 U	4.6 B	0.32 U	0.31 U	0.31 U	10.7 B	0.56 B
Arsenic	3 - 12	7.5 or SB	7.9	1.1 B	1 B	1.5 B	4	0.6 B	0.66 B	0.4 B	8.2	0.55 B
Barium	15 - 600	300 or SB	85.9	26.8	8 B	91.8	88.1	12.2 B	17.5 B	13.6 B	310	22.2 B
Beryllium	0 - 1.75	0.16 or SB	0.37 B	0.14 B	0.11 B	0.08 B	0.25 B	0.12 B	0.13 B	0.14 B	0.5 B	0.12 B
Cadmium	1 - 1	1 or SB	6.9	5.4	1.1	5.7	44	0.54	0.46 B	0.56	101	2.6
Calcium	130 - 35000	SB	213000	7040	499 B	934 B	50500	286 B	176 B	319 B	69700	573 B
Chromium	1.5 - 40	10 or SB	88	33.2	4.6	51.2	53.7	6.7	4.6	6.2	119	6.7
Cobalt	2.5 - 60	30 or SB	23.9	4.9 B	2.4 B	8.2 B	8.6 B	0.85 B	0.55 B	0.81 B	52.7	4.4 B
Copper	1 - 50	25 or SB	1090	142	74.9	350	1510	62.9	108	62.8	511	22.2
Iron	2000 - 550000	2000 or SB	6030	3200	955	1090	4320	2840	2150	3020	7130	2660
Lead	200 - 500	4 - 61	56.1	10.3	5	31.5	40.1	5	4	5.8	28.9	3
Magnesium	100 - 5000	SB	30900	284 B	169 B	348 B	887	423 B	295 B	411 B	1930 B	301 B
Manganese	50 - 5000	SB	92.1	13.4	6	22.9	55.4	17.9	13	16.7	42.5	13.3
Mercury	0.001 - 0.2	0.1	0.93	0.26	0.17	2.9	0.47	0.05 U	0.05 U	0.04 U	5.2	0.05 U
Nickel	0.5 - 25	13 or SB	88.4	23	4.4 B	95.7	97.4	2.9 B	1.8 B	3 B	187	5.6
Potassium	8500 - 43000	SB	375 B	67.5 B	54.6 B	161 B	171 B	143 B	97.4 B	158 B	216 B	129 B
Selenium	0.1 - 3.9	2 or SB	3	0.9	0.34 U	2	0.96 B	0.29 U	0.29 U	0.33 B	3.1	0.36 U
Silver	NA	SB	3.1	0.44 B	0.14 B	13	3.6	0.09 U	0.09 U	0.09 U	1.8 B	0.11 U
Sodium	6000 - 8000	SB	214 B	33.6 B	20.3 B	111 B	129 B	32.8 B	23.1 B	33.3 B	200 B	42.9 B
Thallium	NA	SB	0.49 U	0.31 U	0.32 U	0.57 U	0.68 U	0.27 U	0.27 U	0.42 B	1.3 U	0.33 U
Vanadium	1 - 300	150 or SB	6.9 B	2.4 B	1.7 B	4.4 B	5.2 B	5.9	2.9 B	6.1	8.5 B	3.4 B
Zinc	9 - 50	20 or SB	518	95.2	32.6	353	380	12.4	9	11.3	743	30.1
Cyanide	NA	NA	0.95 U	0.6 U	0.61 U	1.1 U	1.3 U	0.53 U	0.52 U	0.52 U	2.5 U	0.64 U

NOTES:

@ NYSDEC Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives & Cleanup Levels, HWR94-4046 1/24/94 (TAGM)

^ TAGM Eastern USA (New York State) soil background levels

@= Listed in laboratory results as SS3 OF 1 (9/18/98),

B Entered if reported value is less than the contract required detection limit (CRDL) but greater than the instrument detection limit (IDL)

U Not detected, less than IDL

Indicates exceeds TAGM

Indicates exceeds high range of TAGM eastern USA Background

* = Listed in laboratory results as SS3 OF 3 (9/11/97)

SB = Site Specific Background (not determined for this site)

TABLE 3

NASSAU TOOL WORKS 34 LAMAR STREET, WEST BABYLON, NEW YORK

Drywell / Sanitary Leaching Pools Metals Detected in Initial Soil Samples

TAL Metals + CN Units:ug/kg	TAGM Eastern USA ^	NYSDEC TAGM@	SS4OF3 9/17/97	SS4OF4 9/17/97	DW1 9/18/97	DW2 9/18/97	DW3 9/18/97	DW4 9/17/97	DW5 9/17/97	DW6 9/17/97	DW7 9/17/97	DW8 9/17/97
Aluminum	33000	SB	1130	1590	2300	3450	3570	2970	4830	1740	1410	3840
Antimony	NA	SB	0.36 U	0.37 U	0.32 U	1.7 B	0.76 B	0.72 B	0.94 B	0.32 U	0.4 B	0.76 B
Arsenic	3 - 12	7.5 or SB	0.44 B	0.29 U	0.92 B	1.6	25.9	1.6	1.6	0.45 B	0.31 U	1.1 B
Barium	15 - 600	300 or SB	8.7 B	10.5 B	9.7 B	37.4	17.6 B	17.1 B	24.6 B	9.9 B	7.6 B	27.2
Beryllium	0 - 1.75	0.16 or SB	0.09 B	0.11 B	0.3 B	0.87	0.54 B	0.37 B	0.69	0.16 B	0.14 B	0.33 B
Cadmium	1 - 1	1 or SB	1.1	0.88	0.39 B	6.6	1.7	3.6	12.2	7.4	0.9	5.8
Calcium	130 - 35000	SB	265 B	363 B	627	1460	1430	2440	4460	384 B	326 B	1110
Chromium	1.5 - 40	10 or SB	5	5.8	19	73	39	38.7	199	20.2	9.1	35.4 B
Cobalt	2.5 - 60	30 or SB	3.8 B	2.9 B	2 B	4.7 B	4.3 B	5.6 B	90.5	2.3 B	1.1 B	5.4
Copper	1 - 50	25 or SB	18.1	17	16.6	141	53.3	63.9	115	22.6	9.7	45.3
Iron	2000 - 550000	2000 or SB	1250	1660	5310	7770	11800	9350	11100	3210	3300	4410
Lead	200 - 500	4 - 61	2.4	2.6	15.8	72.6	96.8	50.5	61.2	24.9	16.9	45.1
Magnesium	100 - 5000	SB	244 B	242 B	581	1620	1270	1180	3330	643	398 B	1400
Manganese	50 - 5000	SB	15.1	16	42.1	52	89.7	88.6	64.7	27	18.7	31.1
Mercury	0.001 - 0.2	0.1	0.05 U	0.05 U	0.05 U	0.13	0.18	0.25	0.49	0.07 B	0.06 U	0.4
Nickel	0.5 - 25	13 or SB	2.3 B	2.8 B	18	67.6	37.8	78.4	454	14.5	7.3	43.8
Potassium	8500 - 43000	SB	103 B	110 B	168 B	275 B	302 B	216 B	353 B	162 B	152 B	315 B
Selenium	0.1 - 3.9	2 or SB	0.34 U	0.34 U	0.3 U	0.37 U	0.32 U	0.33 U	0.36 U	0.3 U	0.36 U	0.35 U
Silver	NA	SB	0.11 U	0.11 U	0.1 B	0.58 B	0.36 B	0.18 B	0.045 B	0.2 B	0.15 B	0.38 B
Sodium	6000 - 8000	SB	29.5 B	56.4 B	37.6 B	63 B	68.3 B	54.2 B	67.7 B	73.2 B	46 B	54.6 B
Thallium	NA	SB	0.31 U	0.32 U	0.28 U	0.35 U	0.3 U	0.31 U	0.33 U	0.28 U	0.34 U	0.32 U
Vanadium	1 - 300	150 or SB	2.4 B	2.6 B	6.6	15.4	23.3	10.9	15.5	7.4	6.1 B	12.9
Zinc	9 - 50	20 or SB	18.4	15.2	39.5	237	181	159	241	191	43	270
Cyanide	NA	NA	0.6 U	0.61 U	0.53 U	0.67 U	0.58 U	0.59 U	0.63 U	0.54 U	0.65 U	0.62 U

NOTES:

@ NYSDEC Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives & Cleanup Levels, HWR94-4046 1/24/94 (TAGM)

^ TAGM Eastern USA (New York State) soil background levels

@= Listed in laboratory results as SS3 OF 1 (9/18/98),

B Entered in laboratory results as SS3 OF 3 (9/11/97),

U Not detected, less than IDL

Indicates exceeds TAGM

Indicates exceeds high range of TAGM eastern USA Background

* = Listed in laboratory results as SS3 OF 3 (9/11/97)

SB = Site Specific Background (not determined for this site)

TABLE 4

NASSAU TOOL WORKS 34 LAMAR STREET, WEST BABYLON, NEW YORK

TCLP RESULTS

PARAMETER	Regulatory Level	SS-1	SS-3	SS-4 OF 1	DW-5
1,4-Dichlorobenzene (ug/L)	7500	4.0	NA	NA	NA
Cadmium (mg/L)	1.0	NA	<0.005	0.016	NA
Chromium (mg/L)	5.0	NA	NA	<0.01	<0.01

NOTES:

NA Indicates that the parameter was not analyzed for

TABLE 5

NASSAU TOOL WORKS

34 LAMAR STREET, WEST BABYLON, NEW YORK

SANITARY LEACHING POOLS: VOCs ANALYZED IN INITIAL AND ENDPOINT SOIL SAMPLES

Method 8260 TAL + TICs Compounds in ug/kg	TAGM ^A	SS1		SS1 OF 1		SS2		SS3 @		SS4 OF 1	
		9/17/97	11/18/97	11/10/97	11/25/97	9/18/97	11/24/97	9/18/97	11/25/97	9/18/97	11/25/97
Chloromethane	NA	22 U	10 U	12 U	12 U	22 U	11 U	5 J	10 U	50 U	11 U
Bromomethane	NA	22 U	10 U	12 U	12 U	22	11 U	26 U	10 U	50 U	11 U
Vinyl Chloride	200	27	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Chloroethane	1900		10 U	12 U	12 U	22 U	11 U	200 D	10 U	50 U	11 U
Methylene Chloride	100	3 JB	2 JB	6 JB	4 JB	3 JB	3 JB	26 U	2 JB	50 U	2 JB
Acetone	200		10 U	54	12 JB	41 B	8 JB	120 DB	10 U	62 B	2 JB
Carbon Disulfide	2700	64	10 U	9 J	12 U	35	11 U	18 JD	10 U	94	11 U
1,1-Dichloroethane	400	140	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
1,1,1-Dichloroethane	200		10 U	12 U	2 J	22 U	11 U		10 U	50 U	11 U
1,2-Dichloroethane (Total)	100	42	10 U	12 U	12 U	22 U	11 U	16 J	10 U	50 U	11 U
2-Butanone	300	89	10 U	20	5 J	13 J	11 U	10 J	10 U	15 J	11 U
Chloroform	300	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
1,2-Dichloroethane	100	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
1,1,1-Trichloroethane	800	10	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Carbon Tetrachloride	600	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Bromodichloromethane	NA	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
1,2-Dichloropropane	NA	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
cis-1,3-Dichloropropene	NA	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Trichloroethene	700	23	10 U	12 U	12 U	22 U	11 U	28	10 U	50 U	11 U
Benzene	60	4 J	3 J	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Dibromochloromethane	NA	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
trans-1,3-Dichloropropene	NA	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
1,1,2-Trichloroethane	NA	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Bromoform	NA	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
4-Methyl-2-Pentanone	1000	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
2-Hexanone	NA	22 U	10 U	12 U	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Tetrachloroethene	1400	22 U	10 U	12 U	12 U	22 U	11 U	77 JD	10 U	50 U	11 U
1,1,2,2-Tetrachloroethane	600	22 U	1 JB	12	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Toluene	1500	19000 D	10 U	2 J	12 U	27 U	11 U	1200 D	10 U	20 U	11 U
Chlorobenzene	1700	22 U	10 U	12	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Ethylbenzene	5500	17 J	10 U	12 U	12 U	22 U	11 U	42 JD	10 U	50 U	11 U
Styrene	NA	22 U	10 U	12	12 U	22 U	11 U	26 U	10 U	50 U	11 U
Xylene (total)	1200	1100 JD	10 U	12 U	12 U	22	11 U	290 D	10 U	50 U	11 U
Phenol, 2-(1,1-dimethyl-ethyl)-4-m	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
1,4-Dichlorobenzene	8500	2E+05 JN	NI	NI	NI	35000 JN	NI	NI	NI	2800 JN	NI
Chlorotrifluoromethylbenzene	NA	NI	NI	NI	NI	NI	10 J	NI	23 J	NI	6 J
Chloromethylbenzene	NA	NI	NI	NI	NI	NI	7 J	NI	9 J	NI	NI

NOTES: @ = listed in lab results as SS3 OF 1 (9/18/97), * = listed in lab results as SS3 OF 3 (11/11/98)

^ NYSDCE Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives & Cleanup Levels, HWR94-4046, 1/24/94

J = Estimated Value

Shaded = Value exceeds TAGM

U = undetected

D = Dilution value given when higher than original value presented with E qualifier.

B = found in associated blank

E = exceeded calibration range

NA = not available, NI = Not Identified

TABLE 6

NASSAU TOOL WORKS

34 LAMAR STREET, WEST BABYLON, NEW YORK

Drywell / Sanitary Leaching Pools
Metals Analyzed in Initial and Endpoint Soil Samples

TAL Metals + CN Analyte Units:ug/kg	TAGM Eastern USA ^	NYSDEC TAGM@	SS1		SS-1OF1		SS2		SS3		SS4OF1	
			9/17/97 INITIAL	11/18/97 END	11/10/97 INITIAL	11/25/97 END	9/18/97 INITIAL	11/24/97 END	9/18/97 INITIAL	11/25/97 END	9/17/97 INITIAL	11/25/97 END
Aluminum	33000	SB	1910	744	936	544	1210	513	1890	1920	2270	891
Antimony	NA	SB	6.9	0.31U	0.67B	0.37U	0.66	0.32U	4.6	0.31U	10.7	0.32U
Arsenic	3 - 12	7.5 or SB	7.9	0.53B	1.1B	0.29U	1.5	0.26U	4	0.41B	8.2	0.26U
Barium	15 - 600	300 or SB	85.9	5.9B	26.8	3.1B	91.8	6.1B	88.1	20.4B	310	9.0B
Beryllium	0 - 1.75	0.16 or SB	0.37	0.07B	0.14B	0.03B	0.08	0.05B	0.25	0.10B	0.5	0.04B
Cadmium	1 - 1	1 or SB	5.9	0.03B	5.4	0.04U	5.7	0.04B	44	0.22B	101	0.05B
Calcium	130 - 35000	SB	213000	73.1B	7040	66.1B	934	23.9B	50500	129B	69700	156B
Chromium	1.5 - 40	10 or SB	88	2.7	33.2	2	51.2	3.4	53.7	3.6	119	4
Cobalt	2.5 - 60	30 or SB	23.9	0.44B	4.9B	0.23B	8.2	0.19B	8.6	0.77B	52.7	0.40B
Copper	1 - 50	25 or SB	1090	8.8	142	2.3B	350	2.9	1610	36.6	511	1.4B
Iron	2000 - 550000	2000 or SB	6030	1980	3200	1180	1090	534	4320	3030	7130	2210
Lead	200 - 500	4 - 61	56.1	1.4	10.3	0.79	31.5	1.3	40.1	2	28.9	1.4
Magnesium	100 - 5000	SB	30900	223B	284B	119B	348	123B	887	502B	1930	334B
Manganese	50 - 5000	SB	92.1	9.1	13.4	5.5	22.9	4.6	55.4	16.3	42.5	10.3
Mercury	0.001 - 0.2	0.1	0.93	0.05U	0.26	0.06U	2.9	0.05U	0.47	0.04U	5.2	0.05U
Nickel	0.5 - 25	13 or SB	88.4	0.86B	23	0.62B	95.7	1.1B	97.4	1.4B	187	1.0B
Potassium	8500 - 43000	SB	375	131B	67.5B	79.8B	161	66.7B	171	324B	216	192B
Selenium	0.1 - 3.9	2 or SB	3	0.29U	0.9	0.34U	2	0.30U	0.96	0.29U	3.1	0.30U
Silver	NA	SB	3.1	0.09U	0.44B	0.11U	13	0.10U	3.6	0.09U	1.8	0.010U
Sodium	6000 - 8000	SB	214	9.1B	33.6B	14.8B	111	11.8B	129	13.2B	200	13.5B
Thallium	NA	SB	0.49	0.47B	0.31U	0.32U	0.57	0.28B	0.68	0.27U	1.3	0.28U
Vanadium	1 - 300	150 or SB	6.9	3.0B	2.4B	1.6B	4.4	1.1B	5.2	5.1B	8.5	2.6B
Zinc	9 - 50	20 or SB	518	3	95.2	2.5	353	2.0B	380	8	743	4.1
Cyanide	NA	NA	0.95	0.52U	0.60U	0.61U	1.1	0.54U	1.3	0.52U	2.5	0.53U

NOTES:

@ NYSDEC Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives & Cleanup Levels, HWR94-4046 1/

^ TAGM Eastern USA (New York State) soil background levels

B Entered if reported value is less than the contract required detection limit (CRDL) but greater than the instrument detection limit (IDL)

U Not detected, less than IDL

Indicates exceeds TAGM

Indicates exceeds high range of TAGM eastern USA Background

SB = Site Specific Background (not determined for this site)

TABLE 6

NASSAU TOOL WORKS
34 LAMAR STREET, WEST BABYLON, NEW YORK

Drywell / Sanitary Leaching Pools
Metals Analyzed in Initial and Endpoint Soil Samples

TAL Metals + CN Analyte Units:ug/kg	TAGM Eastern USA ^	NYSDEC TAGM@	DW2		DW3		DW4		DW5		DW6		DW8	
			9/18/97 INITIAL	11/20/97 END	9/18/97 INITIAL	11/11/97 END	9/17/97 INITIAL	11/12/97 END	9/17/97 INITIAL	11/13/97 END	9/17/97 INITIAL	11/19/97 END	9/17/97 INITIAL	11/13/97 END
Aluminum	33000	SB	3450	824	3570	696	2970	758	4830	951	1740	1110	3840	633
Antimony	NA	SB	1.7	0.37U	0.76	0.31U	0.72B	0.35U	0.94B	0.31U	0.32U	0.36U	0.76B	0.33U
Arsenic	3 - 12	7.5 or SB	1.6	0.36B	25.9	0.38B	1.6	0.28U	1.6	0.25U	0.45B	0.49B	1.1B	0.26U
Barium	15 - 600	300 or SB	37.4	4.0B	17.6	4.3B	17.1B	5.0B	24.6B	8.8B	9.9B	5.1B	27.2	3.7B
Beryllium	0 - 1.75	0.16 or SB	0.87	0.09B	0.54	0.09B	0.37	0.05B	0.69	0.07B	0.16B	0.12B	0.33B	0.06B
Cadmium	1 - 1	1 or SB	5.5	0.13B	1.7	0.03U	3.5	0.64	12.2	0.08B	7.4	0.12B	5.5	0.04B
Calcium	130 - 35000	SB	1460	32.2B	1430	49.7B	2440	88.2B	4460	66.9B	384B	50.2B	1110	36.7B
Chromium	1.5 - 40	10 or SB	73	2.8	39	3.1	38.7	1.8	199	2.5	20.2	3.1	35.4	2.4
Cobalt	2.5 - 60	30 or SB	4.7	0.59B	4.3	0.76B	5.6	0.59B	90.5	1.0B	2.3B	0.61B	5.4B	0.55B
Copper	1 - 50	25 or SB	141	2.9B	53.3	2.5B	83.9	2.9	115	2.1B	22.6	2.4B	45.3	1.7B
Iron	2000 - 550000	2000 or SB	7770	1210	11800	2790	9350	1630	11100	1680	3210	2720	4410	1010
Lead	200 - 500	4 - 61	72.6	1.4	96.8	1.7	50.5	1.7	61.2	1.5	24.9	1.9	45.1	1.4
Magnesium	100 - 5000	SB	1620	159B	1270	218B	1180	186B	3330	297B	643	291B	1400	145B
Manganese	50 - 5000	SB	52	9.8	89.7	20.2	88.6	82	64.7	20.5	27	18.9	31.1	7
Mercury	0.001 - 0.2	0.1	0.13	0.06U	0.18	0.05U	0.25	0.06U	0.49	0.05U	0.07B	0.06U	0.4	0.05U
Nickel	0.5 - 25	13 or SB	57.6	1.7B	37.3	1.4B	78.4	5.1	454	1.8B	14.5	1.8B	43.8	1.6B
Potassium	8500 - 43000	SB	275	98.8B	302	106B	216	106B	353B	190B	162B	193B	315B	90.9B
Selenium	0.1 - 3.9	2 or SB	0.37	0.34U	0.32	0.29U	0.33	0.32U	0.36U	0.29U	0.3B	0.33U	0.35U	0.31U
Silver	NA	SB	0.58	0.11U	0.36	0.09U	0.18	0.10U	0.045B	0.09U	0.2B	0.11U	0.38	0.10U
Sodium	6000 - 8000	SB	63	10.2B	68.3	4.7B	54.2	7.1B	67.7B	8.2B	73.2B	13.2B	54.6B	9.4B
Thallium	NA	SB	0.35	0.32U	0.3	0.27U	0.31	0.30U	0.33U	0.27U	0.28U	0.31U	0.32U	0.29U
Vanadium	1 - 300	150 or SB	15.4	2.3B	23.3	2.4B	10.9	1.7B	15.5	2.5B	7.4	3.4B	12.9	1.8B
Zinc	9 - 50	20 or SB	237	9.5	181	7.4	159	8.7	241	9.6	191	23.2	270	5.1
Cyanide	NA	NA	0.67	0.61U	0.58	0.52U	0.59	0.58U	0.63U	0.52U	0.54U	0.60U	0.62	0.55U

NOTES:

@ NYSDEC Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives & Cleanup Levels, HWR94-4046 1/24/94 (TAGM)

^ TAGM Eastern USA (New York State) soil background levels

B Entered if reported value is less than the contract required detection limit (CRDL) but greater than the instrument detection limit (IDL)

U Not detected, less than IDL

Indicates exceeds TAGM

SB = Site Specific Background (not determined for this site)

Indicates exceeds high range of TAGM eastern USA Background

TABLE 7

NASSAU TOOL WORKS
34 LAMAR STREET, WEST BABYLON, NEW YORK

UST Excavation
Metals Analyzed in Endpoint Soil Samples

TAL Metals + CN Analyte Units:ug/kg	Eastern USA^	TAGM	550BC	550E	550W
			11/10/97	11/10/97	11/10/97
Aluminum	33000	SB	742	1780	3380
Antimony	NA	SB	0.31U	0.31U	0.32U
Arsenic	3 - 12	7.5 or SB	0.25U	1.5	2.4
Barium	15 - 600	300 or SB	2.8B	10.4B	8.8B
Beryllium	0 - 1.75	0.16 or SB	0.08B	0.31B	0.16B
Cadmium	.1 - 1	1 or SB	0.03U	1.6	0.05B
Calcium	130 - 35000	SB	77.0B	5960	22600
Chromium	1.5 - 40	10 or SB	2.2	27.5	9.9
Cobalt	2.5 - 60	30 or SB	0.51B	4.1B	2.2B
Copper	1 -50	25 or SB	1.6B	23.6	7.1
Iron	2000 - 550000	2000 or SB	2680	3790	5750
Lead	200 - 500	4 - 61	1.3	12.1	10.9
Magnesium	100 - 5000	SB	175B	3370	13000
Manganese	50 - 5000	SB	28.7	38.4	72.4
Mercury	0.001 - 0.2	0.1	0.05U	0.05U	0.04U
Nickel	0.5 - 25	13 or SB	1.6B	23.4	10
Potassium	8500- 43000	SB	68.8B	148B	167B
Selenium	0.1 - 3.9	2 or SB	0.29U	0.29U	0.30U
Silver	NA	SB	0.09U	0.16B	0.10U
Sodium	6000 - 8000	SB	16.8B	29.7B	39.0B
Thallium	NA	SB	0.27U	0.56B	0.28U
Vanadium	1 - 300	150 or SB	2.4B	5.8	7.6
Zinc	9 - 50	20 or SB	7.2	93.2	20.6
Cyanide	NA	NA	0.51U	0.52U	0.53U

NOTES:

^ TAGM Eastern USA (New York State) soil background levels

SB = Site Specific Background (not determined for this site)

B Entered if reported value is less than the contract required detection limit (CRDL) but greater than the instrument detection limit (IDL)

U Not detected , less than IDL

Indicates exceeds TAGM**Indicates exceeds high range of TAGM eastern USA background**

TABLE 8

NASSAU TOOL WORKS

34 LAMAR STREET, WEST BABYLON, NEW YORK

GROUNDWATER ELEVATIONS FIELD PARAMETERS

	MW1				MW2				MW3			
	11/6/97		12/28/97		11/6/97		12/28/97		11/6/97		12/28/97	
WELL ELEVATION (ft)	58.25		58.25		56.55		56.55		56.51		56.51	
DEPTH TO WATER (ft)	16.28		16.49		14.82		15.02		15.07		15.25	
GROUNDWATER ELEVATION (ft)	41.97		41.76		41.73		41.53		41.44		41.26	
DEPTH TO BOTTOM (ft)	29.78		29.78		29.67		29.67		30.05		30.05	
VOLUME TO BE REMOVED (gal)	25.5		25.1		28.1		27.7		28.3		28.0	
VOLUME EVACUATED (gal)	35		30		35		30		40		37	
Field Parameters	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING
pH	6.4	6.4	6.3	6.3	6.4	6.2	6.2	6.1	6.5	6	6	5.8
TEMPERATURE (Celcius)	16.9	17.5	13.5	13.5	17.5	16.8	13.5	13.5	16.2	17	12.5	13
CONDUCTIVITY (uS)	170	180	180	NA	20	220	30	30	110	120	40	30
TURBIDITY (NTU)	83.3	9.6	37	4.22	408	9.58	100	6.45	NM	15.8	433	10.3

	MW4				MW5				MW6			
	11/6/97		12/28/97		11/6/97		12/28/97		11/6/97		12/28/97	
WELL ELEVATION (ft)	55.96		55.96		56.12		56.12		59.8		59.8	
DEPTH TO WATER (ft)	14.78		14.97		14.77		14.99		17.78		18.01	
GROUNDWATER ELEVATION (ft)	41.18		40.99		41.35		41.13		42.02		41.79	
DEPTH TO BOTTOM (ft)	30.03		30.03		29.98		29.98		29.99		29.99	
VOLUME TO BE REMOVED (gal)	28.8		28.5		28.7		28.3		23.1		22.6	
VOLUME EVACUATED (gal)	30		35		35		35		35		35	
Field Parameters	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING	INITIAL	AFTER PURGING
pH	8.2	6.2	6.4	5.8	5.8	5.8	5.5	5.5	6	6	5.8	5.9
TEMPERATURE (Celcius)	14.8	16.5	13	13	15.3	15.6	12.5	12.5	16.8	16.5	13	13.5
CONDUCTIVITY (uS)	200	180	150	130	200	220	120	100	250	240	80	170
TURBIDITY (NTU)	NM	47.6	35	10.5	84.1	37	39.9	3.61	11.3	2.57	66	3.47

NOTES:

IM Indicates that the turbidity was out of the range of the instrument

NA Indicates that a value is not available

Nassau Tool Works

34 Lamar Street, West Babylon, NY

Monitoring Wells: VOCs Analyzed in Groundwater

Method 8260 TAL + TICs Concentrations in ug/L	NYSDEC # STANDARDS	MW1		MW2		MW3		MW4		MW5		MW6	
		11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97
Chloromethane	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Bromomethane	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl Chloride	2	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Chloroethane	5	64	130	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Methylene Chloride	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Acetone	50*	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Carbon Disulfide	NA	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethene	5	1J	3J	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5	180	460	2J	2J	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichloroethene (total)	5	3J	8J	10U	1J	2J	2J	10U	1J	10U	10U	10U	10U
2-Butanone	NA	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	7	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichloroethane	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1-Trichloroethane	5	220E	320E	12	8J	10U	10U	10U	10U	10U	10U	10U	10U
Carbon Tetrachloride	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Bromodichloromethane	50*	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichloropropane	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
cis-1,3-Dichloropropene	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Trichloroethene	5	2J	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	0.7	10U	2J	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Dibromochloromethane	50*	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
trans-1,3-Dichloropropene	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,1,2-Trichloroethane	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Bromoform	50*	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-Pentanone	NA	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
2-Hexanone	50*	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Tetrachloroethene	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,1,2,2-Tetrachloroethane	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Toluene	5	10U	5J	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Chlorobenzene	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Ethylbenzene	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Styrene	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Xylene (total)	5	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U

NOTES:

E = concentration exceeded the calibration range

J = estimated Value.

NYSDEC ambient water quality standards & guidance values, Division of Water, Oct 1993.

* Guidance value supplied where no standard exists.

Shading indicates a value greater than the standard

D = analysis at a secondary dilution factor.

TABLE 10

NASSAU TOOL WORKS

34 LAMAR STREET, WEST BABYLON, NY

Monitoring Wells:
Metals Analyzed in Groundwater

TAL Metals + CN Concentrations in ug/L	NYSDEC #	MW1		MW2		MW3		MW4		MW5		MW6	
		11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97	11/6/97	12/29/97
Aluminum	NA	125 B	537	123 B	338	307	314	177 B	761	289	78.6 B	856	115 B
Antimony	3*	3.0U	2.5 U	3.0U	2.5 U	3.0U	2.5 U	3.0U	2.5 U	3.0U	2.5 U	3.0U	2.5 U
Arsenic	25	2.4U	1.1 U	2.4U	1.5 B	2.4U	1.1 U	2.5 B	3.5 B	2.4U	1.1 U	2.4U	1.1 U
Barium	1000	34.4B	36.9 B	35.3 B	36.1 B	24.7 B	18.1 B	36.6 B	45.0 B	68.8 B	83.9 B	54.2 B	53.0 B
Beryllium	3*	0.10 B	0.1 B	0.10 B	0.1 B	0.10U	0.1 U	0.10U	0.73 B	0.10 B	0.1 U	0.77 B	0.1 U
Cadmium	10	0.3U	0.2 U	0.30U	0.2 U	0.30 B	0.2 U	0.30U	0.57 B	0.80 B	0.7 B	1.2 B	0.5 B
Calcium	NA	9680	9130	9670	9310	13000	11400	11100	14300	16000	16500	18400	21100
Chromium	50	0.40U	0.7 U	0.40U	0.7 U	0.40U	0.7 U	0.40U	0.93 B	1.9 B	0.7 U	2.0 B	0.7 U
Cobalt	NA	3.2B	2.4 B	1.1 B	1.3 U	1.1U	1.3 U	6.8B	2.8 B	1.1U	1.3 U	1.7 B	1.3 U
Copper	200	0.70U	1.5 B	0.70U	2 B	0.70U	1.6 B	10.2 B	14.9 B	0.97 B	0.9 U	4.1 B	0.9 U
Iron	300	9880	9210	357	1550	491	545	1250	1760	171	135	171	156
Lead	25	1.0U	1.7 B	1.0U	1.1 B	1.0U	0.89 B	1.0U	1.1 B	1.0U	0.7 U	1.8 B	1.2 B
Magnesium	35,000*	1930 B	1920 B	1980 B	1930 B	1830 B	1640 B	987 B	2240 B	3380 B	3580	3450 B	3790 B
Manganese	300	339	289	66.3	57.1	75.6	56.1	979	537	279	240	43	19.1
Mercury	2	0.10U	0.1 U	0.10U	0.1 U	0.10U	0.1 U	0.10U	0.1 U	0.10U	0.1 U	0.10U	0.1 U
Nickel	NA	1.3B	1.6 U	1.9 B	1.6 U	2.0 B	1.6 U	5.7 B	1.9 B	1.5 B	1.6 U	1.8 B	1.6 U
Potassium	NA	2270B	2070 B	1970 B	2060 B	1960 B	1640 B	2730 B	2970	2580 B	2920B	2090 B	2190 B
Selenium	10	2.8U	2.4 U	2.8U	2.4 U	2.8U	2.4 U	2.8U	2.4 U	2.8U	2.4 U	2.8U	2.4 U
Silver	50	0.90U	0.8 U	0.90U	0.8 U	0.90U	0.8 U	0.90U	0.8 U	0.90U	0.8 UU	0.90U	0.8 U
Sodium	20,000	6370	5770	10100	9980	5500	4650 B	8360	9200	14700	17000	15200	14100
Thallium	4*	2.6U	1.9 U	2.6U	1.9 U	2.6U	1.9 U	2.6U	1.9 U	2.6U	1.9 U	2.6U	1.9 U
Vanadium	NA	1.2U	1.0 U	1.2U	1. U	1.2U	1.0 U	1.2U	1.4 B	1.2U	1.0 U	2.4 B	1.0 U
Zinc	300	11.5B	15.1 B	11.0 B	16.5 B	8.9 B	14.9 B	11.2 B	14.5 B	10.6 B	11.0 B	12.9 B	15.5 B
Cyanide	100	10.0U	10.0 U	10.0U	10. U	10.0U	10.0 U	10.0U	10. U	10.0U	10.0 U	10.0U	10.0 U

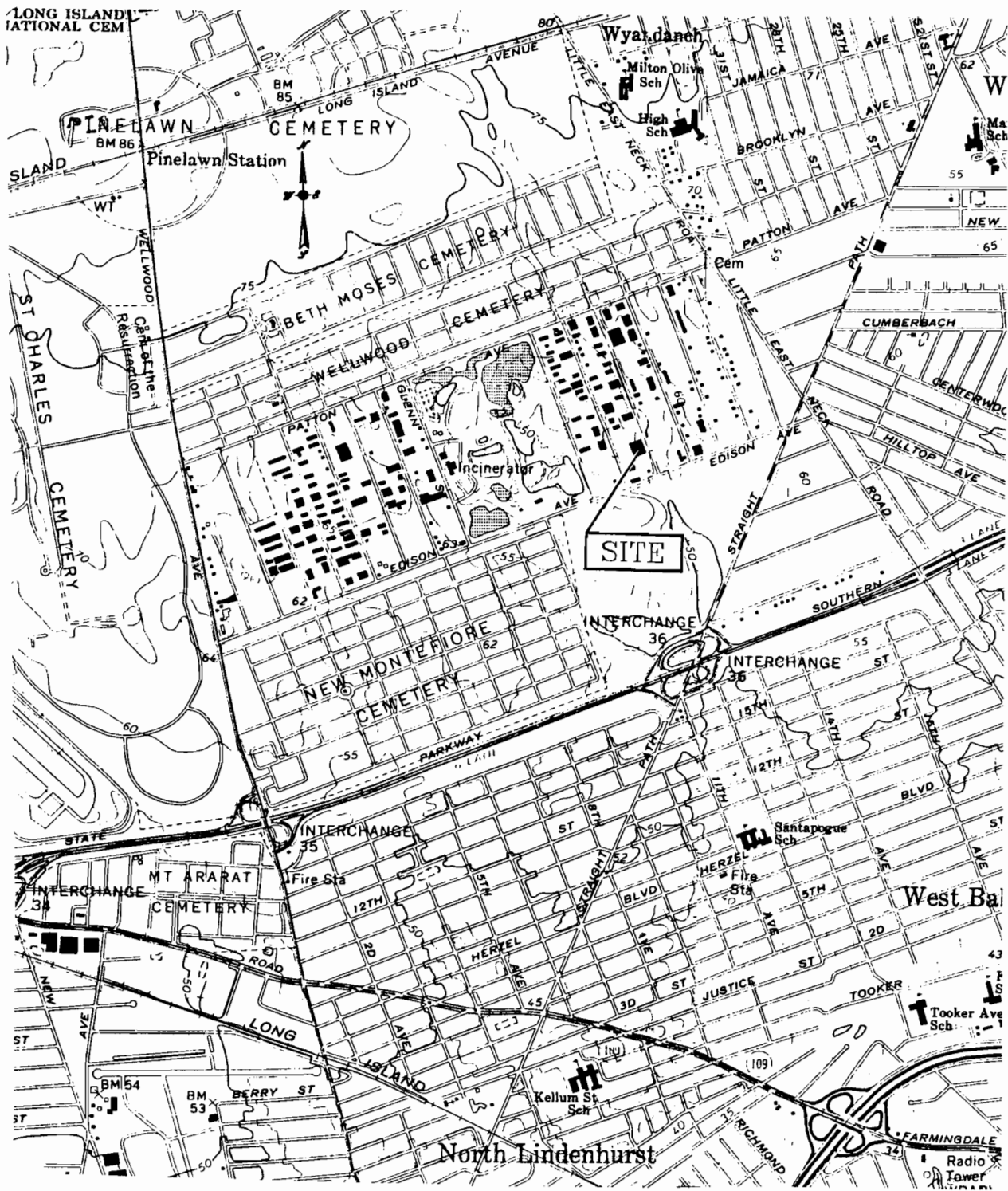
NOTES:

B Entered if the reported value is less than the Contract Required Detection Limit but greater than the Instrument Detection Limit.

NYSDC Ambient Water Quality Standards & Guidance Values, Division of Water, October 1993.

* Guidance value supplied where no standard exists.

Shading indicates a value greater than the standard.



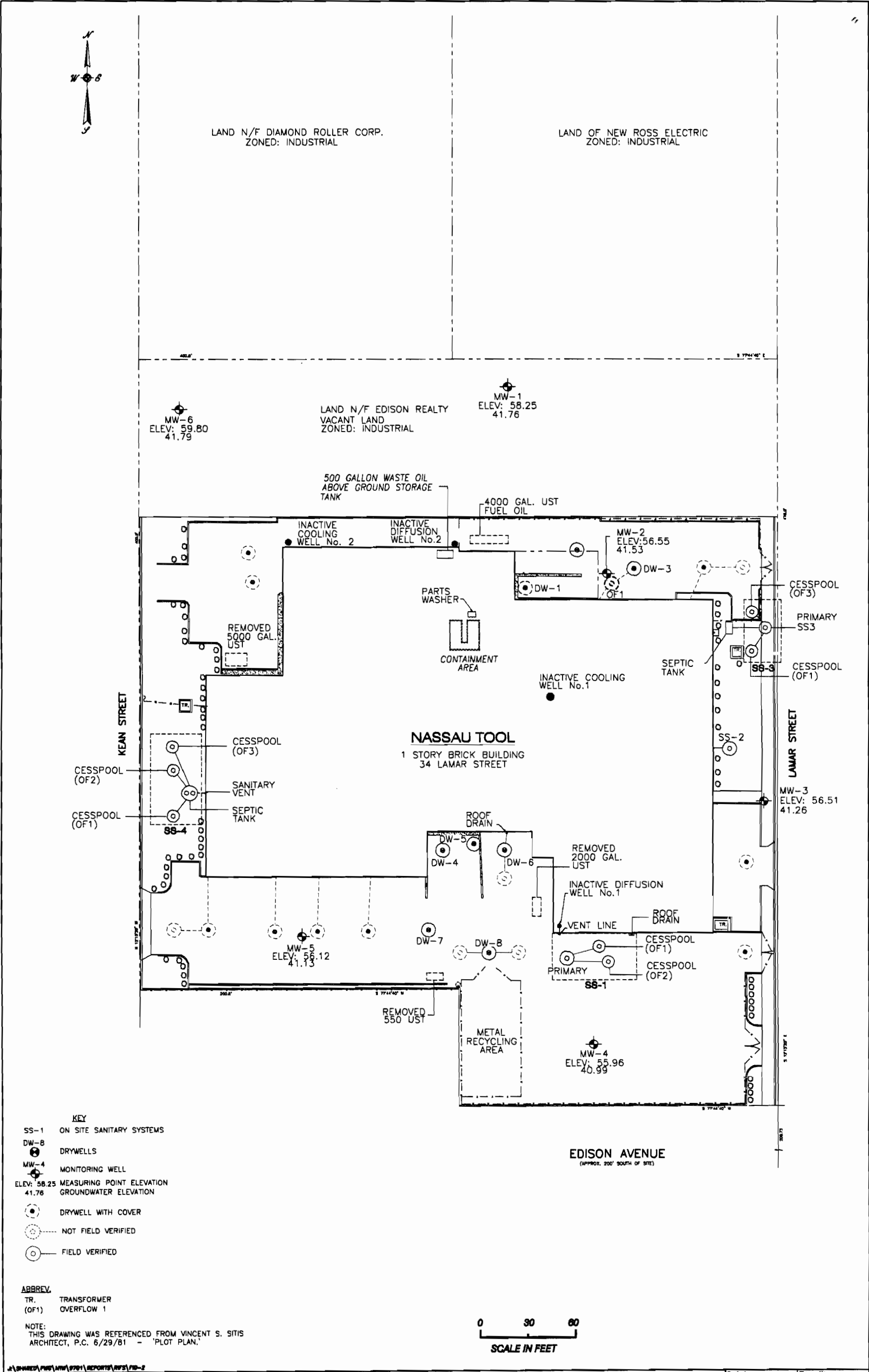
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SITE PLAN
NASSAU TOOL WORKS
34 LAMAR ST.
WEST BABYLON N.Y.

Project	NTW9701	Figure No.	1
Drawn by	PHG		
Approved by	LS		
Date	6/16/98		



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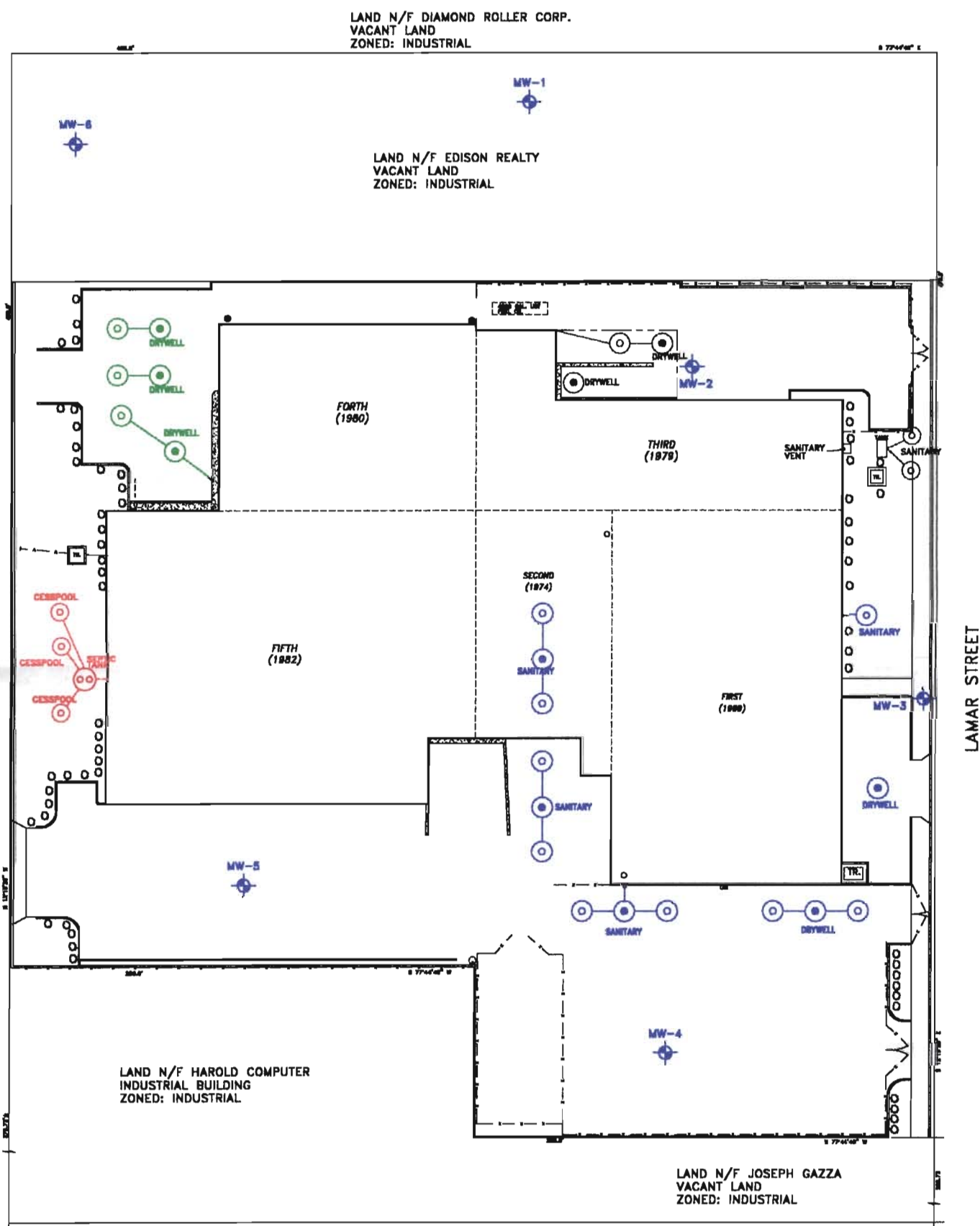


SITE PLAN
NASSAU TOOL WORKS
34 LAMAR ST.
WEST BABYLON N.Y.

Project: **NTW0701**
Designed By: **DLM**
Date: **6/17/98**
Approved By: **LS**

Figure No:

2



- ☐ APPLIED IN FIRST EXPANSION
- ☒ APPLIED IN THIRD EXPANSION
- ☐ APPLIED IN FORTH EXPANSION
- ☐ APPLIED IN FIFTH EXPANSION

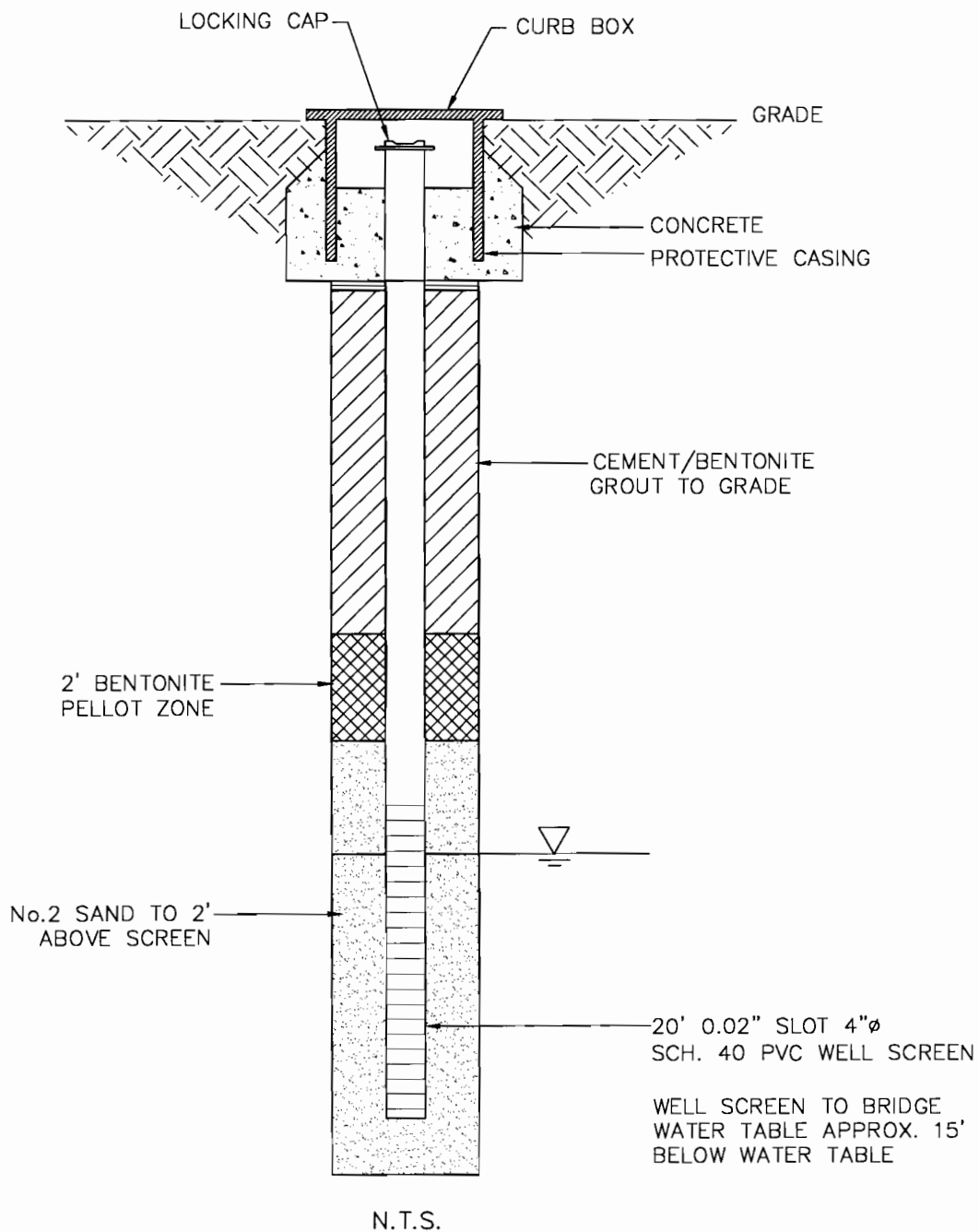
A horizontal scale bar with vertical end caps. Below the bar, the text "SCALE IN FEET" is centered. Above the bar, the numbers "0", "30", and "60" are positioned at the left end, the midpoint, and the right end, respectively.

BUILDING LAYOUT MAP
NASSAU TOOL WORKS
34 LAMAR ST.
WEST BABYLON N.Y.

Project:	NTW9701
Designed By:	DLM
Date:	6/26/98
Approved By:	LS

Figure No:

3



NOTE: DEPTH OF WELL MAY VARY
BASED ON FIELD OBSERVATIONS

GENERALIZED WATER TABLE MONITORING WELL CONSTRUCTION DETAIL

NASSAU TOOL WORKS
WEST BABYLON, NY

Figure No:

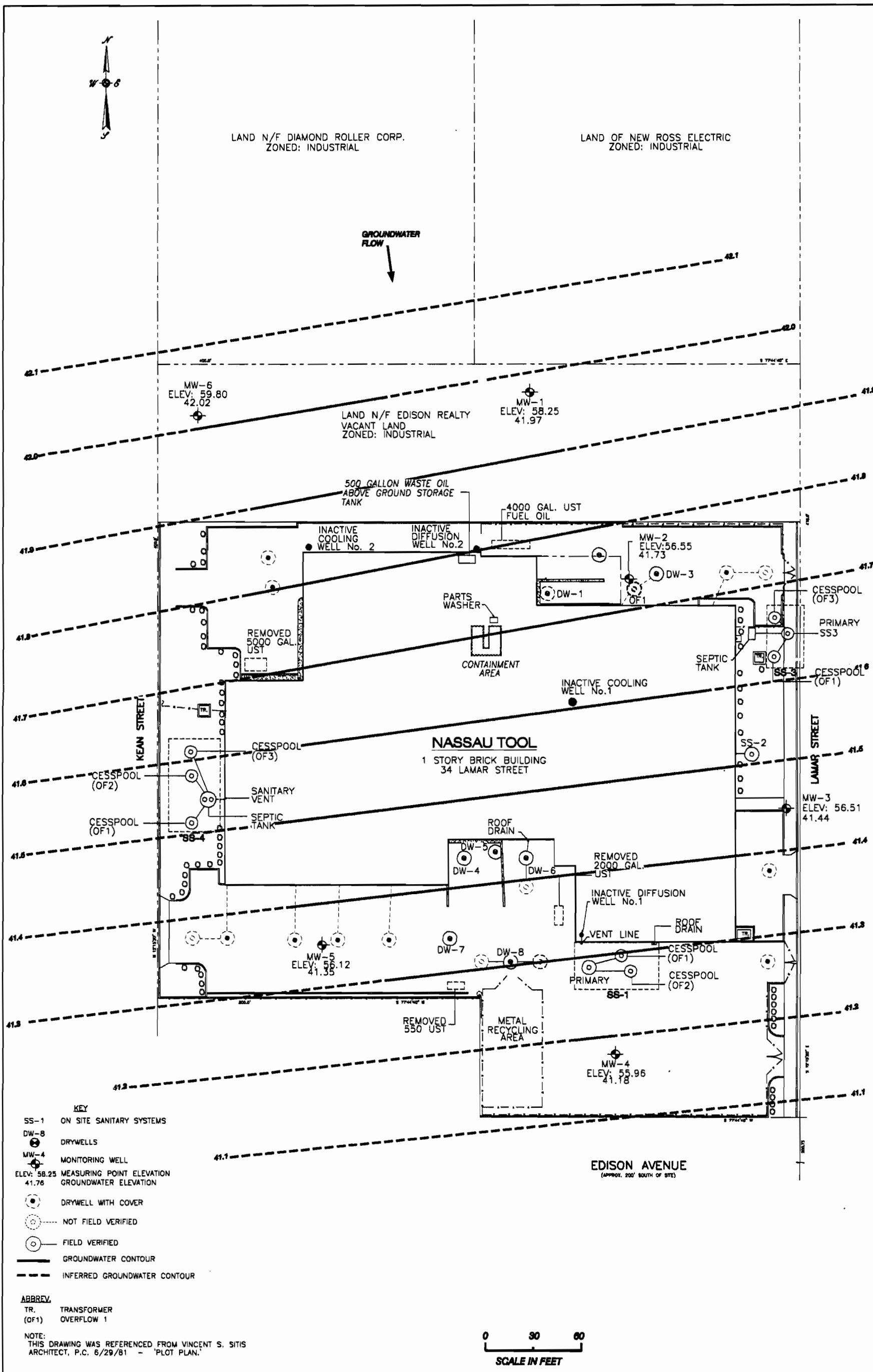
6

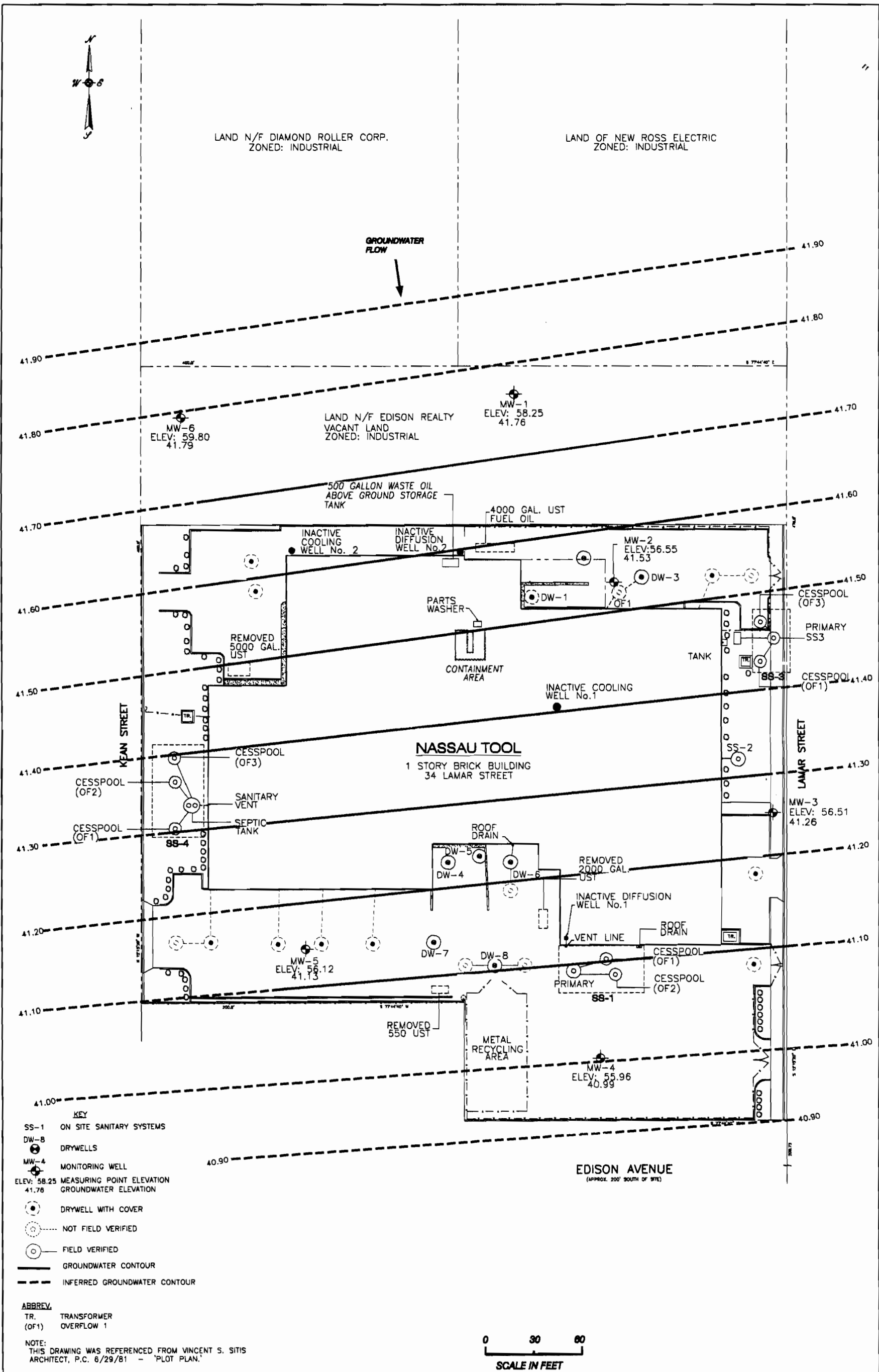
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Prepared for: NASSAU TOOL WORKS

Project No: NTW9701 Date: 6/25/98





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GROUNDWATER ELEVATION MAP

DECEMBER 23, 1987
NASSAU TOOL WORKS

34 LAMAR ST.
WEST BABYLON N.Y.

Project: **NTW9701**

Designed By: **DLM**

Date: **6/26/98**

Approved By: **LS**

Figure No:

8

*****FACILITY FIELD INSPECTION FORM***** Page 1
04/02/98

Facility-----				Owner-----			
NASSAU TOOL WORKS				NASSAU TOOL WORKS			
34 LAMAR ST				34 LAMAR ST			
WEST BABYLON NY 11704 (516) 643-5000				WEST BABYLON NY 11704			
100	75.0	2	23.004	Reg No 1-0754 File Ref No 1-2013 Fac Op Issued 08/01/97 for 12 Months			

TNK No	LOCATION	VOLUME	CONTENTS	TANK MATRL	OFF USE	P ISSUE DATE	DATE RMVD	INSPECTION CODE / DATE
1	UNDER OUT	2000	#2 FUEL OIL	PLNSTL	92REM		05/01/92	P1 06/30/97
2	UNDER OUT	4000	#2 FUEL OIL	PLNSTL	02HO			P1 06/30/97
3	UNDER OUT	5000	#2 FUEL OIL	PLNSTL	92REM		05/13/92	P1 06/30/97
4	ABOVE IN	3850	DRUM STORAGE		92P			P1 06/30/97
5	UNDER OUT	55	WASTE OIL		97REM		11/10/97	P1 11/10/97
6	ABOVE IN	500	WASTE OIL	LUBSCUBE	03P	01/13/98		P1 01/13/98

***** ADD UNREGISTERED TANKS HERE - CONTINUE ON BACK *****

Date of Insp: 11-10-97

Name of Insp/Eng James M. Greenleaf

Facility Rep: _____

Title: _____

* REVED ON _____ BY _____ *

APPENDIX B

Form I Data Sheets: Drywell/Sanitary System Leaching Pools

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW1

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9727098

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14883.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 6 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	11	U	U
74-83-9	Bromomethane	11	U	U
75-01-4	Vinyl Chloride	11	U	U
75-00-3	Chloroethane	11	U	U
75-09-2	Methylene Chloride	1	JB	JB
67-64-1	Acetone	4	JB	JB
75-15-0	Carbon Disulfide	11	U	U
75-35-4	1,1-Dichloroethene	11	U	U
75-34-4	1,1-Dichloroethane	11	U	U
540-59-0	1,2-Dichloroethene (total)	11	U	U
78-93-3	2-Butanone	11	U	U
67-66-3	Chloroform	11	U	U
107-06-2	1,2-Dichloroethane	11	U	U
71-55-6	1,1,1-Trichloroethane	11	U	U
56-23-5	Carbon Tetrachloride	11	U	U
75-27-4	Bromodichloromethane	11	U	U
78-87-5	1,2-Dichloropropane	11	U	U
10061-01-5	cis-1,3-Dichloropropene	11	U	U
79-01-6	Trichloroethene	11	U	U
71-43-2	Benzene	11	U	U
124-48-1	Dibromochloromethane	11	U	U
10061-02-6	trans-1,3-Dichloropropene	11	U	U
79-00-5	1,1,2-Trichloroethane	11	U	U
75-25-2	Bromoform	11	U	U
108-10-1	4-Methyl-2-Pentanone	11	U	U
591-78-6	2-Hexanone	11	U	U
127-18-4	Tetrachloroethene	11	U	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U	U
108-88-3	Toluene	11	U	U
108-90-7	Chlorobenzene	11	U	U
100-41-4	Ethylbenzene	11	U	U
100-42-5	Styrene	11	U	U
1330-20-7	Xylene (total)	11	U	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW1

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
Matrix: (soil/water) SOIL Lab Sample ID: 9727098
Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14883.D
Level: (low/med) LOW Date Received: 09/18/97
% Moisture: not dec. 6 Date Analyzed: 09/22/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: X (uL) Soil Aliquot Volume: X (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 2

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	16.24	10	J
2.	unknown hydrocarbon	18.11	5	J

gmd H2M 10/10/97

APPENDIX A
SCDHS Updated storage Tank Listing

INORGANIC ANALYSIS DATA SHEET

XXXXDW1

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9727098

Level (low/med): LOW

Date Received: 09/18/97

% Solids: 94.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2300			P
7440-36-0	Antimony	0.32	U	N	P
7440-38-2	Arsenic	0.92	B		P
7440-39-3	Barium	9.7	B		P
7440-41-7	Beryllium	0.30	B		P
7440-43-9	Cadmium	0.39	B		P
7440-70-2	Calcium	627			P
7440-47-3	Chromium	19.0		N*	P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	16.6			P
7439-89-6	Iron	5310			P
7439-92-1	Lead	15.8		*	P
7439-95-4	Magnesium	581			P
7439-96-5	Manganese	42.1		*	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	18.0		*	P
7440-09-7	Potassium	168	B		P
7782-49-2	Selenium	0.30	U		P
7440-22-4	Silver	0.10	B		P
7440-23-5	Sodium	37.6	B	E	P
7440-28-0	Thallium	0.28	U		P
7440-62-2	Vanadium	6.6			P
7440-66-6	Zinc	39.5			P
	Cyanide	0.53	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

DW-1

DATE REPORTED: OCTOBER 8, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW2

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9727099

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14884.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 25 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	13	U	
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	2	JB	
67-64-1	Acetone	16	B	
75-15-0	Carbon Disulfide	4	J	
75-35-4	1,1-Dichloroethene	13	U	
75-34-4	1,1-Dichloroethane	13	U	
540-59-0	1,2-Dichloroethene (total)	13	U	
78-93-3	2-Butanone	13	U	
67-66-3	Chloroform	13	U	
107-06-2	1,2-Dichloroethane	13	U	
71-55-6	1,1,1-Trichloroethane	13	U	
56-23-5	Carbon Tetrachloride	13	U	
75-27-4	Bromodichloromethane	13	U	
78-87-5	1,2-Dichloropropane	13	U	
10061-01-5	cis-1,3-Dichloropropene	13	U	
79-01-6	Trichloroethene	13	U	
71-43-2	Benzene	13	U	
124-48-1	Dibromochloromethane	13	U	
10061-02-6	trans-1,3-Dichloropropene	13	U	
79-00-5	1,1,2-Trichloroethane	13	U	
75-25-2	Bromoform	13	U	
108-10-1	4-Methyl-2-Pentanone	13	U	
591-78-6	2-Hexanone	13	U	
127-18-4	Tetrachloroethene	13	U	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	
108-88-3	Toluene	28		
108-90-7	Chlorobenzene	13	U	
100-41-4	Ethylbenzene	13	U	
100-42-5	Styrene	13	U	
1330-20-7	Xylene (total)	13	U	

S 0031

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW2

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
Matrix: (soil/water) SOIL Lab Sample ID: 9727099
Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14884.D
Level: (low/med) LOW Date Received: 09/18/97
% Moisture: not dec. 25 Date Analyzed: 09/22/97
GC Column: RTX502. ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: ✓ (uL) Soil Aliquot Volume: ✓ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 9

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	15.21	14	J
2.	unknown hydrocarbon	16.28	17	J
3.	unknown hydrocarbon	16.78	13	J
4.	unknown hydrocarbon	17.25	82	J
5.	unknown hydrocarbon	17.41	30	J
6.	unknown hydrocarbon	17.68	43	J
7.	unknown hydrocarbon	17.87	21	J
8.	unknown hydrocarbon	18.05	50	J
9.	unknown hydrocarbon	18.26	73	J

gms H2M 10/10/97

S 0032

1 INORGANIC ANALYSIS DATA SHEET

XXXXDW2

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9727099

Level (low/med): LOW

Date Received: 09/18/97

% Solids: 75.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3450	-		P
7440-36-0	Antimony	1.7	B	N	P
7440-38-2	Arsenic	1.6	-		P
7440-39-3	Barium	37.4	-		P
7440-41-7	Beryllium	0.87	-		P
7440-43-9	Cadmium	6.6	-		P
7440-70-2	Calcium	1460	-		P
7440-47-3	Chromium	73.0	-	N*	P
7440-48-4	Cobalt	4.7	B		P
7440-50-8	Copper	141	-		P
7439-89-6	Iron	7770	-		P
7439-92-1	Lead	72.6	-	*	P
7439-95-4	Magnesium	1620	-		P
7439-96-5	Manganese	52.0	-	*	P
7439-97-6	Mercury	0.13	-		CV
7440-02-0	Nickel	67.6	-	*	P
7440-09-7	Potassium	275	B		P
7782-49-2	Selenium	0.37	U		P
7440-22-4	Silver	0.58	B		P
7440-23-5	Sodium	63.0	B	E	P
7440-28-0	Thallium	0.35	U		P
7440-62-2	Vanadium	15.4	-		P
7440-66-6	Zinc	237	-		P
	Cyanide	0.67	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

DW-2

DATE REPORTED: OCTOBER 8, 1997

S 0033

1
INORGANIC ANALYSIS DATA SHEET

DW2END

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG014

Matrix (soil/water): SOIL

Lab Sample ID: 9734658

Level (low/med): LOW

Date Received: 11/21/97

% Solids: 82.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	824	-		P
7440-36-0	Antimony	0.37	U		P
7440-38-2	Arsenic	0.36	B		P
7440-39-3	Barium	4.0	B		P
7440-41-7	Beryllium	0.09	B		P
7440-43-9	Cadmium	0.13	B		P
7440-70-2	Calcium	32.2	B		P
7440-47-3	Chromium	2.8		E	P
7440-48-4	Cobalt	0.59	B		P
7440-50-8	Copper	2.9	B		P
7439-89-6	Iron	1210	-		P
7439-92-1	Lead	1.4		*	P
7439-95-4	Magnesium	159	B		P
7439-96-5	Manganese	9.8			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	1.7	B		P
7440-09-7	Potassium	98.8	B	E	P
7782-49-2	Selenium	0.34	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	10.2	B		P
7440-28-0	Thallium	0.32	U		P
7440-62-2	Vanadium	2.3	B		P
7440-66-6	Zinc	9.5	-		P
	Cyanide	0.61	U		CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: LGHT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 21, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW3

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9727100

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14885.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 13 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	11	U	U
74-83-9	Bromomethane	11	U	U
75-01-4	Vinyl Chloride	11	U	U
75-00-3	Chloroethane	11	U	U
75-09-2	Methylene Chloride	2	JB	JB
67-64-1	Acetone	6	JB	JB
75-15-0	Carbon Disulfide	11	U	U
75-35-4	1,1-Dichloroethene	11	U	U
75-34-4	1,1-Dichloroethane	11	U	U
540-59-0	1,2-Dichloroethene (total)	11	U	U
78-93-3	2-Butanone	11	U	U
67-66-3	Chloroform	11	U	U
107-06-2	1,2-Dichloroethane	11	U	U
71-55-6	1,1,1-Trichloroethane	13		
56-23-5	Carbon Tetrachloride	11	U	U
75-27-4	Bromodichloromethane	11	U	U
78-87-5	1,2-Dichloropropane	11	U	U
10061-01-5	cis-1,3-Dichloropropene	11	U	U
79-01-6	Trichloroethene	11	U	U
71-43-2	Benzene	11	U	U
124-48-1	Dibromochloromethane	11	U	U
10061-02-6	trans-1,3-Dichloropropene	11	U	U
79-00-5	1,1,2-Trichloroethane	11	U	U
75-25-2	Bromoform	11	U	U
108-10-1	4-Methyl-2-Pentanone	11	U	U
591-78-6	2-Hexanone	11	U	U
127-18-4	Tetrachloroethene	11	U	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U	U
108-88-3	Toluene	11	U	U
108-90-7	Chlorobenzene	11	U	U
100-41-4	Ethylbenzene	11	U	U
100-42-5	Styrene	11	U	U
1330-20-7	Xylene (total)	11	U	U

S 0034

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW3

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
Matrix: (soil/water) SOIL Lab Sample ID: 9727100
Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14885.D
Level: (low/med) LOW Date Received: 09/18/97
% Moisture: not dec. 13 Date Analyzed: 09/22/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

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

Number TICs found: 4

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1. 002409-55-4	Phenol, 2-(1,1-dimethylethyl)-4-m	7.70	43	JN
2.	unknown	15.79	200	J
3.	unknown	17.09	64	J
4.	unknown(sus.col.bleed)	17.27	61	J

*gms H2M
10/10/97*

S 0035

INORGANIC ANALYSIS DATA SHEET

XXXXW3

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9727100

Level (low/med): LOW

Date Received: 09/18/97

% Solids: 86.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3570	-		P
7440-36-0	Antimony	0.76	B	N	P
7440-38-2	Arsenic	25.9	-		P
7440-39-3	Barium	17.6	B		P
7440-41-7	Beryllium	0.54	B		P
7440-43-9	Cadmium	1.7	-		P
7440-70-2	Calcium	1430	-		P
7440-47-3	Chromium	39.0	-	N*	P
7440-48-4	Cobalt	4.3	B		P
7440-50-8	Copper	53.3	-		P
7439-89-6	Iron	11800	-		P
7439-92-1	Lead	96.8	-	*	P
7439-95-4	Magnesium	1270	-		P
7439-96-5	Manganese	89.7	-	*	P
7439-97-6	Mercury	0.18	-		CV
7440-02-0	Nickel	37.8	-	*	P
7440-09-7	Potassium	302	B		P
7782-49-2	Selenium	0.32	U		P
7440-22-4	Silver	0.36	B		P
7440-23-5	Sodium	68.3	B	E	P
7440-28-0	Thallium	0.30	U		P
7440-62-2	Vanadium	23.3	-		P
7440-66-6	Zinc	181	-		P
	Cyanide	0.58	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

DW-3

DATE REPORTED: OCTOBER 8, 1997

S 0036

H2M LABS, INC. VIROFORMS/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

DW3END

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG013

Matrix (soil/water): SOIL

Lab Sample ID: 9733592

Level (low/med): LOW

Date Received: 11/12/97

% Solids: 96.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	696	-		P
7440-36-0	Antimony	0.31	U		P
7440-38-2	Arsenic	0.38	B		P
7440-39-3	Barium	4.3	B		P
7440-41-7	Beryllium	0.09	B		P
7440-43-9	Cadmium	0.03	U		P
7440-70-2	Calcium	49.7	B		P
7440-47-3	Chromium	3.1	-		P
7440-48-4	Cobalt	0.76	B		P
7440-50-8	Copper	2.5	B		P
7439-89-6	Iron	2790	-		P
7439-92-1	Lead	1.7	-		P
7439-95-4	Magnesium	218	B		P
7439-96-5	Manganese	20.2	-		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.4	B		P
7440-09-7	Potassium	106	B		P
7782-49-2	Selenium	0.29	U		P
7440-22-4	Silver	0.09	U		P
7440-23-5	Sodium	4.7	B		P
7440-28-0	Thallium	0.27	U		P
7440-62-2	Vanadium	2.4	B		P
7440-66-6	Zinc	7.4	-		P
	Cyanide	0.52	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LGT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 12, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW4I

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9726953

Sample wt/vol: 4.9 (g/ml) G Lab File ID: A14874.D

Level: (low/med) LOW Date Received: 09/17/97

% Moisture: not dec. 15 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	3	JB	
67-64-1	Acetone	7	JB	
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	12	U	
75-34-4	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
78-93-3	2-Butanone	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
71-55-6	1,1,1-Trichloroethane	2	J	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-01-5	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
71-43-2	Benzene	12	U	
124-48-1	Dibromochloromethane	12	U	
10061-02-6	trans-1,3-Dichloropropene	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	12		
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW4I

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
Matrix: (soil/water) SOIL Lab Sample ID: 9726953
Sample wt/vol: 4.9 (g/ml) G Lab File ID: A14874.D
Level: (low/med) LOW Date Received: 09/17/97
% Moisture: not dec. 15 Date Analyzed: 09/22/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown(sus.col.bleed)	17.29	11	J

INORGANIC ANALYSIS DATA SHEET

XXDW4I

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9726953

Level (low/med): LOW

Date Received: 09/17/97

% Solids: 85.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2970	—	—	P
7440-36-0	Antimony	0.72	B	N	P
7440-38-2	Arsenic	1.6	—	—	P
7440-39-3	Barium	17.1	B	—	P
7440-41-7	Beryllium	0.37	B	—	P
7440-43-9	Cadmium	3.6	—	—	P
7440-70-2	Calcium	2440	—	—	P
7440-47-3	Chromium	38.7	—	N*	P
7440-48-4	Cobalt	5.6	B	—	P
7440-50-8	Copper	83.9	—	—	P
7439-89-6	Iron	9350	—	—	P
7439-92-1	Lead	50.5	—	*	P
7439-95-4	Magnesium	1180	—	—	P
7439-96-5	Manganese	88.6	—	*	P
7439-97-6	Mercury	0.25	—	—	CV
7440-02-0	Nickel	78.4	—	*	P
7440-09-7	Potassium	216	B	—	P
7782-49-2	Selenium	0.33	U	—	P
7440-22-4	Silver	0.18	B	—	P
7440-23-5	Sodium	54.2	B	E	P
7440-28-0	Thallium	0.31	U	—	P
7440-62-2	Vanadium	10.9	—	—	P
7440-66-6	Zinc	159	—	—	P
	Cyanide	0.59	U	—	CA

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

DW4I

DATE REPORTED: OCTOBER 8, 1997

S 0039

H2M LABS, INC. MICROFORMS/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

DW4END

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG013

Matrix (soil/water): SOIL

Lab Sample ID: 9733593

Level (low/med): LOW

Date Received: 11/12/97

% Solids: 86.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	758	-		P
7440-36-0	Antimony	0.35	U		P
7440-38-2	Arsenic	0.28	U		P
7440-39-3	Barium	5.0	B		P
7440-41-7	Beryllium	0.05	B		P
7440-43-9	Cadmium	0.64	-		P
7440-70-2	Calcium	88.2	B		P
7440-47-3	Chromium	1.8	-		P
7440-48-4	Cobalt	0.59	B		P
7440-50-8	Copper	2.9	-		P
7439-89-6	Iron	1630	-		P
7439-92-1	Lead	1.7	-		P
7439-95-4	Magnesium	186	B		P
7439-96-5	Manganese	82.0	-		P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	5.1	-		P
7440-09-7	Potassium	106	B		P
7782-49-2	Selenium	0.32	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	7.1	B		P
7440-28-0	Thallium	0.30	U		P
7440-62-2	Vanadium	1.7	B		P
7440-66-6	Zinc	8.7	-		P
	Cyanide	0.58	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LGT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 12, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW5I

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9726954

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14875.D

Level: (low/med) LOW Date Received: 09/17/97

% Moisture: not dec. 21 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	13	U	
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	2	JB	✓
67-64-1	Acetone	6	JB	✓
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	13	U	
75-34-4	1,1-Dichloroethane	13	U	
540-59-0	1,2-Dichloroethene (total)	13	U	
78-93-3	2-Butanone	13	U	
67-66-3	Chloroform	13	U	
107-06-2	1,2-Dichloroethane	13	U	
71-55-6	1,1,1-Trichloroethane	4	J	✓
56-23-5	Carbon Tetrachloride	13	U	
75-27-4	Bromodichloromethane	13	U	
78-87-5	1,2-Dichloropropane	13	U	
10061-01-5	cis-1,3-Dichloropropene	13	U	
79-01-6	Trichloroethene	13	U	
71-43-2	Benzene	13	U	
124-48-1	Dibromochloromethane	13	U	
10061-02-6	trans-1,3-Dichloropropene	13	U	
79-00-5	1,1,2-Trichloroethane	13	U	
75-25-2	Bromoform	13	U	
108-10-1	4-Methyl-2-Pentanone	13	U	
591-78-6	2-Hexanone	13	U	
127-18-4	Tetrachloroethene	4	J	✓
79-34-5	1,1,2,2-Tetrachloroethane	13	U	
108-88-3	Toluene	13	U	
108-90-7	Chlorobenzene	13	U	
100-41-4	Ethylbenzene	13	U	
100-42-5	Styrene	13	U	
1330-20-7	Xylene (total)	13	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW5I

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
Matrix: (soil/water) SOIL Lab Sample ID: 9726954
Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14875.D
Level: (low/med) LOW Date Received: 09/17/97
% Moisture: not dec. 21 Date Analyzed: 09/22/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown(sus.col.bleed)	17.28	6	J

S 0041

INORGANIC ANALYSIS DATA SHEET

XXDW5I

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9726954

Level (low/med): LOW

Date Received: 09/17/97

% Solids: 78.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4830			P
7440-36-0	Antimony	0.94	B	N	P
7440-38-2	Arsenic	1.6			P
7440-39-3	Barium	24.6	B		P
7440-41-7	Beryllium	0.69			P
7440-43-9	Cadmium	12.2			P
7440-70-2	Calcium	4460			P
7440-47-3	Chromium	199		N*	P
7440-48-4	Cobalt	90.5			P
7440-50-8	Copper	115			P
7439-89-6	Iron	11100			P
7439-92-1	Lead	61.2		*	P
7439-95-4	Magnesium	3330			P
7439-96-5	Manganese	64.7		*	P
7439-97-6	Mercury	0.49			CV
7440-02-0	Nickel	454		*	P
7440-09-7	Potassium	353	B		P
7782-49-2	Selenium	0.36	U		P
7440-22-4	Silver	0.45	B		P
7440-23-5	Sodium	67.7	B	E	P
7440-28-0	Thallium	0.33	U		P
7440-62-2	Vanadium	15.5			P
7440-66-6	Zinc	241			P
	Cyanide	0.63	U		CA

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

DW5I

DATE REPORTED: OCTOBER 8, 1997

S 0042

H2M LABS, INC. ENVIRONMENTAL/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

DW5END

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG013

Matrix (soil/water): SOIL

Lab Sample ID: 9733784

Level (low/med): LOW

Date Received: 11/14/97

% Solids: 96.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	951	-		P
7440-36-0	Antimony	0.31	U		P
7440-38-2	Arsenic	0.25	U		P
7440-39-3	Barium	8.8	B		P
7440-41-7	Beryllium	0.07	B		P
7440-43-9	Cadmium	0.08	B		P
7440-70-2	Calcium	66.9	B		P
7440-47-3	Chromium	2.5	-		P
7440-48-4	Cobalt	1.0	B		P
7440-50-8	Copper	2.1	B		P
7439-89-6	Iron	1680	-		P
7439-92-1	Lead	1.5	-		P
7439-95-4	Magnesium	297	B		P
7439-96-5	Manganese	20.5	-		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.8	B		P
7440-09-7	Potassium	190	B		P
7782-49-2	Selenium	0.29	U		P
7440-22-4	Silver	0.09	U		P
7440-23-5	Sodium	8.2	B		P
7440-28-0	Thallium	0.27	U		P
7440-62-2	Vanadium	2.5	B		P
7440-66-6	Zinc	9.6	-		P
	Cyanide	0.52	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LGT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 12, 1997

S 0042

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW61

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9726955

Sample wt/vol: 5.1 (g/ml) G Lab File ID: A14876.D

Level: (low/med) LOW Date Received: 09/17/97

% Moisture: not dec. 7 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	11	U	U
74-83-9	Bromomethane	11	U	U
75-01-4	Vinyl Chloride	11	U	U
75-00-3	Chloroethane	11	U	U
75-09-2	Methylene Chloride	3	JB	JB
67-64-1	Acetone	5	JB	JB
75-15-0	Carbon Disulfide	11	U	U
75-35-4	1,1-Dichloroethene	11	U	U
75-34-4	1,1-Dichloroethane	11	U	U
540-59-0	1,2-Dichloroethene (total)	11	U	U
78-93-3	2-Butanone	11	U	U
67-66-3	Chloroform	11	U	U
107-06-2	1,2-Dichloroethane	11	U	U
71-55-6	1,1,1-Trichloroethane	3	J	J
56-23-5	Carbon Tetrachloride	11	U	U
75-27-4	Bromodichloromethane	11	U	U
78-87-5	1,2-Dichloropropane	11	U	U
10061-01-5	cis-1,3-Dichloropropene	11	U	U
79-01-6	Trichloroethene	11	U	U
71-43-2	Benzene	11	U	U
124-48-1	Dibromochloromethane	11	U	U
10061-02-6	trans-1,3-Dichloropropene	11	U	U
79-00-5	1,1,2-Trichloroethane	11	U	U
75-25-2	Bromoform	11	U	U
108-10-1	4-Methyl-2-Pentanone	11	U	U
591-78-6	2-Hexanone	11	U	U
127-18-4	Tetrachloroethene	3	J	J
79-34-5	1,1,2,2-Tetrachloroethane	11	U	U
108-88-3	Toluene	11	U	U
108-90-7	Chlorobenzene	11	U	U
100-41-4	Ethylbenzene	11	U	U
100-42-5	Styrene	11	U	U
1330-20-7	Xylene (total)	11	U	U

S 0043

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW6I

Lab Name: H2M LABS, INC Contract: _____
 Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
 Matrix: (soil/water) SOIL Lab Sample ID: 9726955
 Sample wt/vol: 5.1 (g/ml) G Lab File ID: A14876.D
 Level: (low/med) LOW Date Received: 09/17/97
 % Moisture: not dec. 7 Date Analyzed: 09/22/97
 GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

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

Handwritten: gms H2M 10/10/97

Number TICs found: 5

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	3.83	8	J
2.	unknown	12.21	9	J
3.	unknown	12.27	7	J
4.	unknown	17.13	8	J
5.	unknown(sus.col.bleed)	17.29	16	J

S 0044

H2M LABS, INC.

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

XXDW6I

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9726955

Level (low/med): LOW

Date Received: 09/17/97

% Solids: 93.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1740	-		P
7440-36-0	Antimony	0.32	U	N	P
7440-38-2	Arsenic	0.45	B		P
7440-39-3	Barium	9.9	B		P
7440-41-7	Beryllium	0.16	B		P
7440-43-9	Cadmium	7.4	-		P
7440-70-2	Calcium	384	B		P
7440-47-3	Chromium	20.2	-	N*	P
7440-48-4	Cobalt	2.3	B		P
7440-50-8	Copper	22.6	-		P
7439-89-6	Iron	3210	-		P
7439-92-1	Lead	24.9	-	*	P
7439-95-4	Magnesium	643	-		P
7439-96-5	Manganese	27.0	-	*	P
7439-97-6	Mercury	0.07	B		CV
7440-02-0	Nickel	14.5	-	*	P
7440-09-7	Potassium	162	B		P
7782-49-2	Selenium	0.30	U		P
7440-22-4	Silver	0.20	B		P
7440-23-5	Sodium	73.2	B	E	P
7440-28-0	Thallium	0.28	U		P
7440-62-2	Vanadium	7.4	-		P
7440-66-6	Zinc	191	-		P
	Cyanide	0.54	U		CA

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

DW6I

DATE REPORTED: OCTOBER 8, 1997

S 0945

SAMPLE NO.

1
INORGANIC ANALYSIS DATA SHEET

DW6EPX

END

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG014

Matrix (soil/water): SOIL

Lab Sample ID: 9734659

Level (low/med): LOW

Date Received: 11/21/97

% Solids: 83.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1110	—	—	P
7440-36-0	Antimony	0.36	U	—	P
7440-38-2	Arsenic	0.49	B	—	P
7440-39-3	Barium	5.1	B	—	P
7440-41-7	Beryllium	0.12	B	—	P
7440-43-9	Cadmium	0.12	B	—	P
7440-70-2	Calcium	50.2	B	—	P
7440-47-3	Chromium	3.1	—	E	P
7440-48-4	Cobalt	0.61	B	—	P
7440-50-8	Copper	2.4	B	—	P
7439-89-6	Iron	2720	—	—	P
7439-92-1	Lead	1.9	—	*	P
7439-95-4	Magnesium	291	B	—	P
7439-96-5	Manganese	18.9	—	—	P
7439-97-6	Mercury	0.06	U	—	CV
7440-02-0	Nickel	1.8	B	—	P
7440-09-7	Potassium	193	B	E	P
7782-49-2	Selenium	0.33	U	—	P
7440-22-4	Silver	0.11	U	—	P
7440-23-5	Sodium	13.2	B	—	P
7440-28-0	Thallium	0.31	U	—	P
7440-62-2	Vanadium	3.4	B	—	P
7440-66-6	Zinc	23.2	—	—	P
	Cyanide	0.60	U	—	CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: LGHT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 21, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW7I

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9726956

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14877.D

Level: (low/med) LOW Date Received: 09/17/97

% Moisture: not dec. 23 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	13	U	
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	13	U	/
67-64-1	Acetone	6	JB	/
75-15-0	Carbon Disulfide	13	U	/
75-35-4	1,1-Dichloroethene	13	U	
75-34-4	1,1-Dichloroethane	13	U	
540-59-0	1,2-Dichloroethene (total)	13	U	
78-93-3	2-Butanone	13	U	
67-66-3	Chloroform	13	U	
107-06-2	1,2-Dichloroethane	13	U	
71-55-6	1,1,1-Trichloroethane	13	U	/
56-23-5	Carbon Tetrachloride	13	U	
75-27-4	Bromodichloromethane	13	U	
78-87-5	1,2-Dichloropropane	13	U	
10061-01-5	cis-1,3-Dichloropropene	13	U	
79-01-6	Trichloroethene	13	U	
71-43-2	Benzene	13	U	
124-48-1	Dibromochloromethane	13	U	
10061-02-6	trans-1,3-Dichloropropene	13	U	
79-00-5	1,1,2-Trichloroethane	13	U	
75-25-2	Bromoform	13	U	
108-10-1	4-Methyl-2-Pentanone	13	U	
591-78-6	2-Hexanone	13	U	
127-18-4	Tetrachloroethene	13	U	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	
108-88-3	Toluene	13	U	
108-90-7	Chlorobenzene	13	U	
100-41-4	Ethylbenzene	13	U	
100-42-5	Styrene	13	U	
1330-20-7	Xylene (total)	13	U	

S 0046

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW71

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
Matrix: (soil/water) SOIL Lab Sample ID: 9726956
Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14877.D
Level: (low/med) LOW Date Received: 09/17/97
% Moisture: not dec. 23 Date Analyzed: 09/22/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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S 0047

1
INORGANIC ANALYSIS DATA SHEET

XXDW7I

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9726956

Level (low/med): LOW

Date Received: 09/17/97

% Solids: 77.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1410	-		P
7440-36-0	Antimony	0.40	B	N	P
7440-38-2	Arsenic	0.31	U		P
7440-39-3	Barium	7.6	B		P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.90	-		P
7440-70-2	Calcium	326	B		P
7440-47-3	Chromium	9.1	-	N*	P
7440-48-4	Cobalt	1.1	B		P
7440-50-8	Copper	9.7	-		P
7439-89-6	Iron	3300	-		P
7439-92-1	Lead	16.9	-	*	P
7439-95-4	Magnesium	398	B		P
7439-96-5	Manganese	18.7	-	*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	7.3	-	*	P
7440-09-7	Potassium	152	B		P
7782-49-2	Selenium	0.36	U		P
7440-22-4	Silver	0.15	B		P
7440-23-5	Sodium	46.0	B	E	P
7440-28-0	Thallium	0.34	U		P
7440-62-2	Vanadium	6.1	B		P
7440-66-6	Zinc	43.0	-		P
	Cyanide	0.65	U		CA

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

DW7I

DATE REPORTED: OCTOBER 8, 1997

S 0048

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DW81

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9726057

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14878.D

Level: (low/med) LOW Date Received: 09/17/97

% Moisture: not dec. 19 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	12	U	✓
67-64-1	Acetone	9	JB	✓
75-15-0	Carbon Disulfide	2	J	✓
75-35-4	1,1-Dichloroethene	12	U	
75-34-4	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
78-93-3	2-Butanone	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	✓
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-01-5	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
71-43-2	Benzene	12	U	
124-48-1	Dibromochloromethane	12	U	
10061-02-6	trans-1,3-Dichloropropene	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	12	U	✓
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	4	J	✓
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

S 0049

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DW81

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
Matrix: (soil/water) SOIL Lab Sample ID: 9726957
Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14878.D
Level: (low/med) LOW Date Received: 09/17/97
% Moisture: not dec. 19 Date Analyzed: 09/22/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

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

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	3.80	17	J
2.	unknown hydrocarbon	15.50	23	J
3.	unknown hydrocarbon	16.36	25	J
4.	unknown hydrocarbon	16.90	52	J
5.	unknown hydrocarbon	17.35	36	J
6.	unknown hydrocarbon	17.51	30	J
7.	unknown hydrocarbon	17.67	29	J
8.	unknown hydrocarbon	18.48	29	J
9.	unknown hydrocarbon	18.60	51	J
10.	unknown hydrocarbon	19.17	21	J

S 0050

INORGANIC ANALYSIS DATA SHEET

XXDW8I

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9726957

Level (low/med): LOW

Date Received: 09/17/97

% Solids: 80.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3840			P
7440-36-0	Antimony	0.76	B	N	P
7440-38-2	Arsenic	1.1	B		P
7440-39-3	Barium	27.2			P
7440-41-7	Beryllium	0.33	B		P
7440-43-9	Cadmium	5.8			P
7440-70-2	Calcium	1110			P
7440-47-3	Chromium	35.4		N*	P
7440-48-4	Cobalt	5.4	B		P
7440-50-8	Copper	45.3			P
7439-89-6	Iron	4410			P
7439-92-1	Lead	45.1		*	P
7439-95-4	Magnesium	1400			P
7439-96-5	Manganese	31.1		*	P
7439-97-6	Mercury	0.40			CV
7440-02-0	Nickel	43.8		*	P
7440-09-7	Potassium	315	B		P
7782-49-2	Selenium	0.35	U		P
7440-22-4	Silver	0.38	B		P
7440-23-5	Sodium	54.6	B	E	P
7440-28-0	Thallium	0.32	U		P
7440-62-2	Vanadium	12.9			P
7440-66-6	Zinc	270			P
	Cyanide	0.62	U		CA

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

DW8I

DATE REPORTED: OCTOBER 8, 1997

S 0051

H2M LABS, INC. ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

DW8END

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG013

Matrix (soil/water): SOIL

Lab Sample ID: 9733785

Level (low/med): LOW

Date Received: 11/14/97

% Solids: 91.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	633	—		P
7440-36-0	Antimony	0.33	U		P
7440-38-2	Arsenic	0.26	U		P
7440-39-3	Barium	3.7	B		P
7440-41-7	Beryllium	0.06	B		P
7440-43-9	Cadmium	0.04	B		P
7440-70-2	Calcium	36.7	B		P
7440-47-3	Chromium	2.4	—		P
7440-48-4	Cobalt	0.55	B		P
7440-50-8	Copper	1.7	B		P
7439-89-6	Iron	1010	—		P
7439-92-1	Lead	1.4	—		P
7439-95-4	Magnesium	145	B		P
7439-96-5	Manganese	7.0	—		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.6	B		P
7440-09-7	Potassium	90.9	B		P
7782-49-2	Selenium	0.31	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	9.4	B		P
7440-28-0	Thallium	0.29	U		P
7440-62-2	Vanadium	1.8	B		P
7440-66-6	Zinc	5.1	—		P
	Cyanide	0.55	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LGT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 12, 1997

S 0043

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS11

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9726958

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14879.D

Level: (low/med) LOW Date Received: 09/17/97

% Moisture: not dec. 55 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	22	U	
74-83-9	Bromomethane	22	U	
75-01-4	Vinyl Chloride	27		
75-00-3	Chloroethane	12000	E	
75-09-2	Methylene Chloride	3	JB	
67-64-1	Acetone	200	B	
75-15-0	Carbon Disulfide	64		
75-35-4	1,1-Dichloroethene	140		
75-34-4	1,1-Dichloroethane	550	E	
540-59-0	1,2-Dichloroethene (total)	42		
78-93-3	2-Butanone	89		
67-66-3	Chloroform	22	U	
107-06-2	1,2-Dichloroethane	22	U	
71-55-6	1,1,1-Trichloroethane	10	J	
56-23-5	Carbon Tetrachloride	22	U	
75-27-4	Bromodichloromethane	22	U	
78-87-5	1,2-Dichloropropane	22	U	
10061-01-5	cis-1,3-Dichloropropene	22	U	
79-01-6	Trichloroethene	23		
71-43-2	Benzene	4	J	
124-48-1	Dibromochloromethane	22	U	
10061-02-6	trans-1,3-Dichloropropene	22	U	
79-00-5	1,1,2-Trichloroethane	22	U	
75-25-2	Bromoform	22	U	
108-10-1	4-Methyl-2-Pentanone	22	U	
591-78-6	2-Hexanone	22	U	
127-18-4	Tetrachloroethene	22	U	
79-34-5	1,1,2,2-Tetrachloroethane	22	U	
108-88-3	Toluene	5200	E	
108-90-7	Chlorobenzene	22	U	
100-41-4	Ethylbenzene	17	J	
100-42-5	Styrene	22	U	
1330-20-7	Xylene (total)	72		

S 0052

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS11

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9726958

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14879.D

Level: (low/med) LOW Date Received: 09/17/97

% Moisture: not dec. 55 Date Analyzed: 09/22/97

GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1. 000352-93-2	Diethyl sulfide	10.10	2400	JN
2.	unknown hydrocarbon	11.32	1000	J
3.	unknown	12.83	2000	J
4.	unknown hydrocarbon	13.06	780	J
5.	unknown hydrocarbon	13.86	1200	J
6.	unknown hydrocarbon	14.35	870	J
7. 000106-46-7	Benzene, 1,4-dichloro-	17.39	13000	JN
8.	unknown hydrocarbon	18.05	910	J
9.	unknown hydrocarbon	18.48	1700	J
10.	unknown hydrocarbon	18.59	1400	J

Handwritten: gms H2M
10/10/92

S 0053

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS1IDL

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9726958D

Sample wt/vol: 4.0 (g/ml) G Lab File ID: A14942.D

Level: (low/med) MED Date Received: 09/17/97

% Moisture: not dec. 55 Date Analyzed: 09/26/97

GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane	2800		U
74-83-9	Bromomethane	2800		U
75-01-4	Vinyl Chloride	2800		U
75-00-3	Chloroethane	1200		J
75-09-2	Methylene Chloride	2800		U
67-64-1	Acetone	1800		J
75-15-0	Carbon Disulfide	2800		U
75-35-4	1,1-Dichloroethene	2800		U
75-34-3	1,1-Dichloroethane	960		J
540-59-0	1,2-Dichloroethene (total)	2800		U
78-93-3	2-Butanone	2800		U
67-66-3	Chloroform	2800		U
107-06-2	1,2-Dichloroethane	2800		U
71-55-6	1,1,1-Trichloroethane	2800		U
56-23-5	Carbon Tetrachloride	2800		U
75-27-4	Bromodichloromethane	2800		U
78-87-5	1,2-Dichloropropane	2800		U
10061-01-5	cis-1,3-Dichloropropene	2800		U
79-01-6	Trichloroethene	2800		U
71-43-2	Benzene	2800		U
124-48-1	Dibromochloromethane	2800		U
10061-02-6	trans-1,3-Dichloropropene	2800		U
79-00-5	1,1,2-Trichloroethane	2800		U
75-25-2	Bromoform	2800		U
108-10-1	4-Methyl-2-Pentanone	2800		U
591-78-6	2-Hexanone	2800		U
127-18-4	Tetrachloroethene	2800		U
79-34-5	1,1,2,2-Tetrachloroethane	2800		U
108-88-3	Toluene	19000		U
108-90-7	Chlorobenzene	2800		U
100-41-4	Ethylbenzene	2800		U
100-42-5	Styrene	2800		U
1330-20-7	Xylene (total)	1100		J

S 0054

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS1IDL

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9726958DL

Sample wt/vol: 4.0 (g/ml) G Lab File ID: A14942.D

Level: (low/med) MED Date Received: 09/17/97

% Moisture: not dec. 55 Date Analyzed: 09/26/97

GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 9

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown(sus.column bleed)	8.22	10000	J
2.	unknown hydrocarbon	13.86	8000	J
3.	unknown hydrocarbon	15.49	13000	J
4.	unknown hydrocarbon	16.35	12000	J
5. 000106-46-7	Benzene, 1,4-dichloro-	17.39	220000	JN
6.	unknown	17.67	14000	J
7.	unknown hydrocarbon	18.19	6900	J
8.	unknown hydrocarbon	18.48	6900	J
9.	unknown	19.42	17000	J

S 0055

H2M LABS, INC.

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

XXSS1I

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9726958

Level (low/med): LOW

Date Received: 09/17/97

% Solids: 52.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1910	-		P
7440-36-0	Antimony	6.9	B	N	P
7440-38-2	Arsenic	7.9	-		P
7440-39-3	Barium	85.9	-		P
7440-41-7	Beryllium	0.37	B		P
7440-43-9	Cadmium	6.9	-		P
7440-70-2	Calcium	213000	-		P
7440-47-3	Chromium	88.0	-	N*	P
7440-48-4	Cobalt	23.9	-		P
7440-50-8	Copper	1090	-		P
7439-89-6	Iron	6030	-		P
7439-92-1	Lead	56.1	-	*	P
7439-95-4	Magnesium	30900	-		P
7439-96-5	Manganese	92.1	-	*	P
7439-97-6	Mercury	0.93	-		CV
7440-02-0	Nickel	88.4	-	*	P
7440-09-7	Potassium	375	B		P
7782-49-2	Selenium	3.0	-		P
7440-22-4	Silver	3.1	-		P
7440-23-5	Sodium	214	B	E	P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	6.9	B		P
7440-66-6	Zinc	518	U		P
	Cyanide	0.95	U		CA

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS-1I

DATE REPORTED: OCTOBER 8, 1997

S 0056

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-1END

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG013

Matrix: (soil/water) SOIL Lab Sample ID: 9734173

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07513.D

Level: (low/med) LOW Date Received: 11/18/97

% Moisture: not dec. 4 Date Analyzed: 11/28/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	2	JB	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	3	J	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	1	JB	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-1END

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG013
Matrix: (soil/water) SOIL Lab Sample ID: 9734173
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07513.D
Level: (low/med) LOW Date Received: 11/18/97
% Moisture: not dec. 4 Date Analyzed: 11/28/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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S 0036

H2M LABS, INC. VIROFORMS/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

SS1END

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG013

Matrix (soil/water): SOIL

Lab Sample ID: 9734173

Level (low/med): LOW

Date Received: 11/18/97

% Solids: 95.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	744	-		P
7440-36-0	Antimony	0.31	U		P
7440-38-2	Arsenic	0.53	B		P
7440-39-3	Barium	5.9	B		P
7440-41-7	Beryllium	0.07	B		P
7440-43-9	Cadmium	0.03	B		P
7440-70-2	Calcium	73.1	B		P
7440-47-3	Chromium	2.7	-		P
7440-48-4	Cobalt	0.44	B		P
7440-50-8	Copper	8.8	-		P
7439-89-6	Iron	1980	-		P
7439-92-1	Lead	1.4	-		P
7439-95-4	Magnesium	223	B		P
7439-96-5	Manganese	9.1	-		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	0.86	B		P
7440-09-7	Potassium	131	B		P
7782-49-2	Selenium	0.29	U		P
7440-22-4	Silver	0.09	U		P
7440-23-5	Sodium	9.1	B		P
7440-28-0	Thallium	0.47	B		P
7440-62-2	Vanadium	3.0	B		P
7440-66-6	Zinc	3.0	-		P
	Cyanide	0.52	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LGHT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 12, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-1 OF 1

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733340

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07302.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 17 Date Analyzed: 11/12/97

GC Column: RTX502 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/KG Q

74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	JB
67-64-1	Acetone	54	
75-15-0	Carbon Disulfide	9	J
75-35-4	1,1-Dichloroethene	12	U
75-34-4	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
78-93-3	2-Butanone	20	
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
71-43-2	Benzene	12	U
124-48-1	Dibromochloromethane	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-1 OF 1

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733340
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07302.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 17 Date Analyzed: 11/12/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown alkane	15.48	52	J
2.	unknown alkane	16.13	96	J
3.	unknown	16.56	89	J
4.	unknown	17.35	41	J
5.	unknown alkane	17.83	180	J
6.	unknown	18.18	120	J
7.	unknown	18.31	43	J
8.	unknown	18.53	140	J
9.	unknown alkane	18.95	91	J
10.	unknown alkane	19.13	60	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-1 OF 1

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733340

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07302.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 17 Date Analyzed: 11/12/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane		12	U
74-83-9	Bromomethane		12	U
75-01-4	Vinyl Chloride		12	U
75-00-3	Chloroethane		12	U
75-09-2	Methylene Chloride		6	JB
67-64-1	Acetone		54	
75-15-0	Carbon Disulfide		9	J
75-35-4	1,1-Dichloroethene		12	U
75-34-4	1,1-Dichloroethane		12	U
540-59-0	1,2-Dichloroethene (total)		12	U
78-93-3	2-Butanone		20	
67-66-3	Chloroform		12	U
107-06-2	1,2-Dichloroethane		12	U
71-55-6	1,1,1-Trichloroethane		12	U
56-23-5	Carbon Tetrachloride		12	U
75-27-4	Bromodichloromethane		12	U
78-87-5	1,2-Dichloropropane		12	U
10061-01-5	cis-1,3-Dichloropropene		12	U
79-01-6	Trichloroethene		12	U
71-43-2	Benzene		12	U
124-48-1	Dibromochloromethane		12	U
10061-02-6	trans-1,3-Dichloropropene		12	U
79-00-5	1,1,2-Trichloroethane		12	U
75-25-2	Bromoform		12	U
108-10-1	4-Methyl-2-Pentanone		12	U
591-78-6	2-Hexanone		12	U
127-18-4	Tetrachloroethene		12	U
79-34-5	1,1,2,2-Tetrachloroethane		12	U
108-88-3	Toluene		2	J
108-90-7	Chlorobenzene		12	U
100-41-4	Ethylbenzene		12	U
100-42-5	Styrene		12	U
1330-20-7	Xylene (total)		12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-1 OF 1

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733340
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07302.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 17 Date Analyzed: 11/12/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume X (uL) Soil Aliquot Volume: X (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown alkane	15.48	52	J
2.	unknown alkane	16.13	96	J
3.	unknown	16.56	89	J
4.	unknown	17.35	41	J
5.	unknown alkane	17.83	180	J
6.	unknown	18.18	120	J
7.	unknown	18.31	43	J
8.	unknown	18.53	140	J
9.	unknown alkane	18.95	91	J
10.	unknown alkane	19.13	60	J

Handwritten:
C9 out
H2M
11/24/97

1
INORGANIC ANALYSIS DATA SHEET

SS10F1

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG012

Matrix (soil/water): SOIL

Lab Sample ID: 9733340

Level (low/med): LOW

Date Received: 11/11/97

% Solids: 83.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	936	-		P
7440-36-0	Antimony	0.67	B	N	P
7440-38-2	Arsenic	1.1	B		P
7440-39-3	Barium	26.8	-		P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	5.4	-	*	P
7440-70-2	Calcium	7040	-	*	P
7440-47-3	Chromium	33.2	-	N*	P
7440-48-4	Cobalt	4.9	B		P
7440-50-8	Copper	142	-		P
7439-89-6	Iron	3200	-		P
7439-92-1	Lead	10.3	-		P
7439-95-4	Magnesium	284	B	*	P
7439-96-5	Manganese	13.4	-		P
7439-97-6	Mercury	0.26	-		CV
7440-02-0	Nickel	23.0	-		P
7440-09-7	Potassium	67.5	B		P
7782-49-2	Selenium	0.90	-		P
7440-22-4	Silver	0.44	B		P
7440-23-5	Sodium	33.6	B	E	P
7440-28-0	Thallium	0.31	U		P
7440-62-2	Vanadium	2.4	B		P
7440-66-6	Zinc	95.2	-		P
	Cyanide	0.60	U		CA

Color Before: BLACK

Clarity Before:

Texture: COARSE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS1 OF 1

DATE REPORTED: NOVEMBER 20, 1997

WET MUD PRESENT

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS10F1END

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014

Matrix: (soil/water) SOIL Lab Sample ID: 9735091

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07555.D

Level: (low/med) LOW Date Received: 11/25/97

% Moisture: not dec. 17.9 Date Analyzed: 12/04/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	4	JB	✓
67-64-1	Acetone	12	JB	✓
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	12	U	
75-34-4	1,1-Dichloroethane	2	J	✓
540-59-0	1,2-Dichloroethene (total)	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
78-93-3	2-Butanone	5	J	✓
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-01-5	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
71-43-2	Benzene	12	U	
124-48-1	Dibromochloromethane	12	U	
10061-02-6	trans-1,3-Dichloropropene	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	12	U	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS10F1END

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014
Matrix: (soil/water) SOIL Lab Sample ID: 9735091
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07555.D
Level: (low/med) LOW Date Received: 11/25/97
% Moisture: not dec. 17.9 Date Analyzed: 12/04/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
---------	----------	----	------------	---

Handwritten:
Found
12/11/97

H2M LABS, INC. ENVIRONMENTAL/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SS10F1

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG014

Matrix (soil/water): SOIL

Lab Sample ID: 9735091

Level (low/med): LOW

Date Received: 11/25/97

% Solids: 82.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	544	-		P
7440-36-0	Antimony	0.37	U		P
7440-38-2	Arsenic	0.29	U		P
7440-39-3	Barium	3.1	B		P
7440-41-7	Beryllium	0.03	B		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	66.1	B		P
7440-47-3	Chromium	2.0	-	E	P
7440-48-4	Cobalt	0.23	B		P
7440-50-8	Copper	2.3	B		P
7439-89-6	Iron	1180	-		P
7439-92-1	Lead	0.79	-	*	P
7439-95-4	Magnesium	119	B		P
7439-96-5	Manganese	5.5	-		P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	0.62	B		P
7440-09-7	Potassium	79.8	B	E	P
7782-49-2	Selenium	0.34	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	14.8	B		P
7440-28-0	Thallium	0.32	U		P
7440-62-2	Vanadium	1.6	B		P
7440-66-6	Zinc	2.5	-		P
	Cyanide	0.61	U		CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: LGHT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 21, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-1 OF 2

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733341

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07303.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 18.2 Date Analyzed: 11/12/97

GC Column: RTX502 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/KG Q

74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	4	JB
67-64-1	Acetone	36	
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-4	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
78-93-3	2-Butanone	18	
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
71-43-2	Benzene	12	U
124-48-1	Dibromochloromethane	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	1	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-1 OF 2

Lab Name: H2M LABS INC Contract: _____
 Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
 Matrix: (soil/water) SOIL Lab Sample ID: 9733341
 Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07303.D
 Level: (low/med) LOW Date Received: 11/11/97
 % Moisture: not dec. 18.2 Date Analyzed: 11/12/97
 GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown alkane	15.24	16	J
2.	unknown alkane	15.49	32	J
3.	unknown alkane	16.14	41	J
4.	unknown alkane	16.47	39	J
5.	unknown alkane	17.18	15	J
6.	unknown alkane	17.34	47	J
7.	unknown alkane	17.84	69	J
8.	unknown	18.16	56	J
9.	unknown alkane	18.56	50	J
10.	unknown alkane	18.98	22	J

S 0023

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-1 OF 2

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733341

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07303.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 18.2 Date Analyzed: 11/12/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	4	JB	
67-64-1	Acetone	36		
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	12	U	
75-34-4	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
78-93-3	2-Butanone	18		
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-01-5	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
71-43-2	Benzene	12	U	
124-48-1	Dibromochloromethane	12	U	
10061-02-6	trans-1,3-Dichloropropene	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	12	U	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	1	J	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-1 OF 2

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733341
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07303.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 18.2 Date Analyzed: 11/12/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume X (uL) Soil Aliquot Volume: X (uL)

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

Handwritten: Qm H2M
11/24/97

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown alkane	15.24	16	J
2.	unknown alkane	15.49	32	J
3.	unknown alkane	16.14	41	J
4.	unknown alkane	16.47	39	J
5.	unknown alkane	17.18	15	J
6.	unknown alkane	17.34	47	J
7.	unknown alkane	17.84	69	J
8.	unknown	18.16	56	J
9.	unknown alkane	18.56	50	J
10.	unknown alkane	18.98	22	J

V 0051

1
INORGANIC ANALYSIS DATA SHEET

SS10F2

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG012

Matrix (soil/water): SOIL

Lab Sample ID: 9733341

Level (low/med): LOW

Date Received: 11/11/97

% Solids: 81.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	840	-		P
7440-36-0	Antimony	0.90	B	N	P
7440-38-2	Arsenic	1.0	B		P
7440-39-3	Barium	8.0	B		P
7440-41-7	Beryllium	0.11	B		P
7440-43-9	Cadmium	1.1		*	P
7440-70-2	Calcium	499	B	*	P
7440-47-3	Chromium	4.6		N*	P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	74.9			P
7439-89-6	Iron	955	-		P
7439-92-1	Lead	5.0	-		P
7439-95-4	Magnesium	169	B	*	P
7439-96-5	Manganese	6.0			P
7439-97-6	Mercury	0.17			CV
7440-02-0	Nickel	4.4	B		P
7440-09-7	Potassium	54.6	B		P
7782-49-2	Selenium	0.34	U		P
7440-22-4	Silver	0.14	B		P
7440-23-5	Sodium	20.3	B	E	P
7440-28-0	Thallium	0.32	U		P
7440-62-2	Vanadium	1.7	B		P
7440-66-6	Zinc	32.6			P
	Cyanide	0.61	U		CA

Color Before: BLACK

Clarity Before:

Texture: COARSE

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS1 OF 2

DATE REPORTED: NOVEMBER 20, 1997

WET MUD PRESENT

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS10F3END

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014

Matrix: (soil/water) SOIL Lab Sample ID: 9735092

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07556.D

Level: (low/med) LOW Date Received: 11/25/97

% Moisture: not dec. 17.3 Date Analyzed: 12/04/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	3	JB	
67-64-1	Acetone	9	JB	
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	12	U	
75-34-4	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
78-93-3	2-Butanone	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-01-5	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
71-43-2	Benzene	12	U	
124-48-1	Dibromochloromethane	12	U	
10061-02-6	trans-1,3-Dichloropropene	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	12	U	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS10F3END

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014
Matrix: (soil/water) SOIL Lab Sample ID: 9735092
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07556.D
Level: (low/med) LOW Date Received: 11/25/97
% Moisture: not dec. 17.3 Date Analyzed: 12/04/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

Number TICs found: 1 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	16.55	7	J

Handwritten:
H2M
12/14/97

1
INORGANIC ANALYSIS DATA SHEET

SS10F3

Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG014

Matrix (soil/water): SOIL

Lab Sample ID: 9735092

Level (low/med): LOW

Date Received: 11/25/97

% Solids: 82.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	771	-		P
7440-36-0	Antimony	0.36	U		P
7440-38-2	Arsenic	0.29	U		P
7440-39-3	Barium	4.9	B		P
7440-41-7	Beryllium	0.04	B		P
7440-43-9	Cadmium	0.04	B		P
7440-70-2	Calcium	49.6	B		P
7440-47-3	Chromium	2.5	-	E	P
7440-48-4	Cobalt	0.46	B		P
7440-50-8	Copper	4.1	-		P
7439-89-6	Iron	1690	-		P
7439-92-1	Lead	1.3	-	*	P
7439-95-4	Magnesium	199	B		P
7439-96-5	Manganese	9.5	-		P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	0.92	B		P
7440-09-7	Potassium	82.6	B	E	P
7782-49-2	Selenium	0.34	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	13.7	B		P
7440-28-0	Thallium	0.31	U		P
7440-62-2	Vanadium	2.1	B		P
7440-66-6	Zinc	3.5	-		P
	Cyanide	0.60	U		CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: LGHT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 21, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS2

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 97271^1

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14886.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 54 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	22	U	
74-83-9	Bromomethane	22	U	
75-01-4	Vinyl Chloride	22	U	
75-00-3	Chloroethane	22	U	
75-09-2	Methylene Chloride	3	JB	
67-64-1	Acetone	41	B	
75-15-0	Carbon Disulfide	35		
75-35-4	1,1-Dichloroethene	22	U	
75-34-4	1,1-Dichloroethane	22	U	
540-59-0	1,2-Dichloroethene (total)	22	U	
78-93-3	2-Butanone	13	J	
67-66-3	Chloroform	22	U	
107-06-2	1,2-Dichloroethane	22	U	
71-55-6	1,1,1-Trichloroethane	22	U	
56-23-5	Carbon Tetrachloride	22	U	
75-27-4	Bromodichloromethane	22	U	
78-87-5	1,2-Dichloropropane	22	U	
10061-01-5	cis-1,3-Dichloropropene	22	U	
79-01-6	Trichloroethene	22	U	
71-43-2	Benzene	22	U	
124-48-1	Dibromochloromethane	22	U	
10061-02-6	trans-1,3-Dichloropropene	22	U	
79-00-5	1,1,2-Trichloroethane	22	U	
75-25-2	Bromoform	22	U	
108-10-1	4-Methyl-2-Pentanone	22	U	
591-78-6	2-Hexanone	22	U	
127-18-4	Tetrachloroethene	22	U	
79-34-5	1,1,2,2-Tetrachloroethane	22	U	
108-88-3	Toluene	27		
108-90-7	Chlorobenzene	22	U	
100-41-4	Ethylbenzene	22	U	
100-42-5	Styrene	22	U	
1330-20-7	Xylene (total)	22	U	

S 0057

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS2

Lab Name: H2M LABS, INC Contract: _____
 Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
 Matrix: (soil/water) SOIL Lab Sample ID: 9727101
 Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14886.D
 Level: (low/med) LOW Date Received: 09/18/97
 % Moisture: not dec. 54 Date Analyzed: 09/22/97
 GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	13.32	2600	J
2.	unknown hydrocarbon	13.84	2600	J
3.	unknown hydrocarbon	14.38	5700	J
4.	unknown hydrocarbon	15.48	12000	J
5.	unknown hydrocarbon	15.64	1700	J
6.	unknown hydrocarbon	15.76	5000	J
7.	unknown hydrocarbon	15.91	1500	J
8.	unknown hydrocarbon	16.32	3000	J
9.	c4 subs.benzene	17.17	1700	J
10. 000106-46-7	Benzene, 1,4-dichloro-	17.47	35000	JN

S 0058

INORGANIC ANALYSIS DATA SHEET

XXXSS2

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9727101

Level (low/med): LOW

Date Received: 09/18/97

% Solids: 45.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1210	—		P
7440-36-0	Antimony	0.66	U	N	P
7440-38-2	Arsenic	1.5	B		P
7440-39-3	Barium	91.8			P
7440-41-7	Beryllium	0.08	B		P
7440-43-9	Cadmium	5.7			P
7440-70-2	Calcium	934	B		P
7440-47-3	Chromium	51.2		N*	P
7440-48-4	Cobalt	8.2	B		P
7440-50-8	Copper	350			P
7439-89-6	Iron	1090			P
7439-92-1	Lead	31.5		*	P
7439-95-4	Magnesium	348	B		P
7439-96-5	Manganese	22.9		*	P
7439-97-6	Mercury	2.9			CV
7440-02-0	Nickel	95.7		*	P
7440-09-7	Potassium	161	B		P
7782-49-2	Selenium	2.0			P
7440-22-4	Silver	13.0			P
7440-23-5	Sodium	111	B	E	P
7440-28-0	Thallium	0.57	U		P
7440-62-2	Vanadium	4.4	B		P
7440-66-6	Zinc	353			P
	Cyanide	1.1	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS-2

DATE REPORTED: OCTOBER 8, 1997

S 0059

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS2END

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014

Matrix: (soil/water) SOIL Lab Sample ID: 9735093

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07557.D

Level: (low/med) LOW Date Received: 11/25/97

% Moisture: not dec. 6.6 Date Analyzed: 12/04/97

GC Column: RTX502 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/KG Q

74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	3	JB
67-64-1	Acetone	8	JB
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-4	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
71-43-2	Benzene	11	U
124-48-1	Dibromochloromethane	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS2END

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014
Matrix: (soil/water) SOIL Lab Sample ID: 9735093
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07557.D
Level: (low/med) LOW Date Received: 11/25/97
% Moisture: not dec. 6.6 Date Analyzed: 12/04/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	Chlorotrifluoromethylbenzene iso <i>ref</i>	14.27	10	J
2.	Chloromethylbenzene isomer	16.81	7	J

Handwritten:
PWG
12/4
2/10/97

1
INORGANIC ANALYSIS DATA SHEET

SS2END

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG014

Matrix (soil/water): SOIL

Lab Sample ID: 9735093

Level (low/med): LOW

Date Received: 11/25/97

% Solids: 93.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	513	-		P
7440-36-0	Antimony	0.32	U		P
7440-38-2	Arsenic	0.26	U		P
7440-39-3	Barium	6.1	B		P
7440-41-7	Beryllium	0.05	B		P
7440-43-9	Cadmium	0.04	B		P
7440-70-2	Calcium	23.9	B		P
7440-47-3	Chromium	3.4	-	E	P
7440-48-4	Cobalt	0.19	B		P
7440-50-8	Copper	2.9	-		P
7439-89-6	Iron	534	-		P
7439-92-1	Lead	1.3	-	*	P
7439-95-4	Magnesium	123	B		P
7439-96-5	Manganese	4.6	-		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.1	B		P
7440-09-7	Potassium	66.7	B	E	P
7782-49-2	Selenium	0.30	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	11.8	B		P
7440-28-0	Thallium	0.28	B		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	2.0	B		P
	Cyanide	0.54	U		CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: LGHT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 21, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS3 OF 1

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9727102

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14887.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 62 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	5	J	/
74-83-9	Bromomethane	26	U	/
75-01-4	Vinyl Chloride	26	U	/
75-00-3	Chloroethane	110		/
75-09-2	Methylene Chloride	26	U	/
67-64-1	Acetone	34	B	/
75-15-0	Carbon Disulfide	6	J	/
75-35-4	1,1-Dichloroethene	26	U	/
75-34-4	1,1-Dichloroethane	290		/
540-59-0	1,2-Dichloroethene (total)	16	J	/
78-93-3	2-Butanone	10	J	/
67-66-3	Chloroform	26	U	/
107-06-2	1,2-Dichloroethane	26	U	/
71-55-6	1,1,1-Trichloroethane	26	U	/
56-23-5	Carbon Tetrachloride	26	U	/
75-27-4	Bromodichloromethane	26	U	/
78-87-5	1,2-Dichloropropane	26	U	/
10061-01-5	cis-1,3-Dichloropropene	26	U	/
79-01-6	Trichloroethene	28		/
71-43-2	Benzene	26	U	/
124-48-1	Dibromochloromethane	26	U	/
10061-02-6	trans-1,3-Dichloropropene	26	U	/
79-00-5	1,1,2-Trichloroethane	26	U	/
75-25-2	Bromoform	26	U	/
108-10-1	4-Methyl-2-Pentanone	26	U	/
591-78-6	2-Hexanone	26	U	/
127-18-4	Tetrachloroethene	74		/
79-34-5	1,1,2,2-Tetrachloroethane	26	U	/
108-88-3	Toluene	1000	E	/
108-90-7	Chlorobenzene	26	U	/
100-41-4	Ethylbenzene	37		/
100-42-5	Styrene	26	U	/
1330-20-7	Xylene (total)	250		/

S 0060

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS3 OF 1

Lab Name: H2M LABS, INC Contract: _____
 Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
 Matrix: (soil/water) SOIL Lab Sample ID: 9727102
 Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14887.D
 Level: (low/med) LOW Date Received: 09/18/97
 % Moisture: not dec. 62 Date Analyzed: 09/22/97
 GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

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

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	10.59	630	J
2.	unknown hydrocarbon	10.79	630	J
3.	unknown hydrocarbon	11.30	1600	J
4.	unknown	11.86	520	J
5.	unknown hydrocarbon	12.80	4100	J
6.	unknown hydrocarbon	13.85	3400	J
7.	unknown hydrocarbon	15.49	6000	J
8.	unknown hydrocarbon	16.35	5400	J
9.	c3 subs.benzene	17.35	14000	J
10.	unknown hydrocarbon	18.47	6800	J

gms H2M 10/10/97

S 0061

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS3 OF 1DL

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9727102D!

Sample wt/vol: 1.2 (g/ml) G Lab File ID: A14899.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 62 Date Analyzed: 09/24/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	110	U	
74-83-9	Bromomethane	110	U	
75-01-4	Vinyl Chloride	110	U	
75-00-3	Chloroethane	200		
75-09-2	Methylene Chloride	110	U	
67-64-1	Acetone	120	B	
75-15-0	Carbon Disulfide	18	J	
75-35-4	1,1-Dichloroethene	110	U	
75-34-4	1,1-Dichloroethane	640		
540-59-0	1,2-Dichloroethene (total)	37	J	
78-93-3	2-Butanone	48	J	
67-66-3	Chloroform	110	U	
107-06-2	1,2-Dichloroethane	110	U	
71-55-6	1,1,1-Trichloroethane	110	U	
56-23-5	Carbon Tetrachloride	110	U	
75-27-4	Bromodichloromethane	110	U	
78-87-5	1,2-Dichloropropane	110	U	
10061-01-5	cis-1,3-Dichloropropene	110	U	
79-01-6	Trichloroethene	39	J	
71-43-2	Benzene	110	U	
124-48-1	Dibromochloromethane	110	U	
10061-02-6	trans-1,3-Dichloropropene	110	U	
79-00-5	1,1,2-Trichloroethane	110	U	
75-25-2	Bromoform	110	U	
108-10-1	4-Methyl-2-Pentanone	110	U	
591-78-6	2-Hexanone	110	U	
127-18-4	Tetrachloroethene	77	J	
79-34-5	1,1,2,2-Tetrachloroethane	110	U	
108-88-3	Toluene	1200		
108-90-7	Chlorobenzene	110	U	
100-41-4	Ethylbenzene	42	J	
100-42-5	Styrene	110	U	
1330-20-7	Xylene (total)	290		

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS3 OF 1DL

Lab Name: H2M LABS, INC Contract: _____
 Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
 Matrix: (soil/water) SOIL Lab Sample ID: 9727102DL
 Sample wt/vol: 1.2 (g/ml) G Lab File ID: A14899.D
 Level: (low/med) LOW Date Received: 09/18/97
 % Moisture: not dec. 62 Date Analyzed: 09/24/97
 GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 7 (uL) Soil Aliquot Volume: 7 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	15.48	5100	J
2.	unknown hydrocarbon	16.36	6900	J
3.	unknown hydrocarbon	16.90	13000	J
4.	unknown hydrocarbon	17.36	13000	J
5.	unknown hydrocarbon	17.50	13000	J
6.	unknown	17.67	10000	J
7.	unknown hydrocarbon	18.05	8400	J
8.	unknown hydrocarbon	18.20	6300	J
9.	unknown hydrocarbon	18.48	8200	J
10.	unknown hydrocarbon	18.58	6800	J

S 0063

INORGANIC ANALYSIS DATA SHEET

SS30F1

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9727102

Level (low/med): LOW

Date Received: 09/18/97

% Solids: 38.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1890	-		P
7440-36-0	Antimony	4.6	B	N	P
7440-38-2	Arsenic	4.0	-		P
7440-39-3	Barium	88.1	-		P
7440-41-7	Beryllium	0.25	B		P
7440-43-9	Cadmium	44.0	-		P
7440-70-2	Calcium	50500	-		P
7440-47-3	Chromium	53.7	-	N*	P
7440-48-4	Cobalt	8.6	B		P
7440-50-8	Copper	1610	-		P
7439-89-6	Iron	4320	-		P
7439-92-1	Lead	40.1	-	*	P
7439-95-4	Magnesium	887	B		P
7439-96-5	Manganese	55.4	-	*	P
7439-97-6	Mercury	0.47	-		CV
7440-02-0	Nickel	97.4	-	*	P
7440-09-7	Potassium	171	B		P
7782-49-2	Selenium	0.96	B		P
7440-22-4	Silver	3.6	-		P
7440-23-5	Sodium	129	B	E	P
7440-28-0	Thallium	0.68	U		P
7440-62-2	Vanadium	5.2	B		P
7440-66-6	Zinc	380	-		P
	Cyanide	1.3	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS3 OF1

DATE REPORTED: OCTOBER 8, 1997

S 0064

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS3END

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014

Matrix: (soil/water) SOIL Lab Sample ID: 9735094

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07560.D

Level: (low/med) LOW Date Received: 11/25/97

% Moisture: not dec. 4.7 Date Analyzed: 12/04/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	2	JB	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS3END

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014
Matrix: (soil/water) SOIL Lab Sample ID: 9735094
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07560.D
Level: (low/med) LOW Date Received: 11/25/97
% Moisture: not dec. 4.7 Date Analyzed: 12/04/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

Number TICs found: 4 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	Chlorotrifluoromethylbenzene isomer	14.28	23	J
2.	C3 subs. benzene	16.59	12	J
3.	Chloromethylbenzene isomer	16.80	17	J
4.	C3 subs. benzene	17.25	9	J

*gaw
H2M
12/14/97*

SAMPLE NO.

1
INORGANIC ANALYSIS DATA SHEET

SS3END

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG014

Matrix (soil/water): SOIL

Lab Sample ID: 9735094

Level (low/med): LOW

Date Received: 11/25/97

% Solids: 95.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1920	-		P
7440-36-0	Antimony	0.31	U		P
7440-38-2	Arsenic	0.41	B		P
7440-39-3	Barium	20.4	B		P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.22	B		P
7440-70-2	Calcium	129	B		P
7440-47-3	Chromium	3.6		E	P
7440-48-4	Cobalt	0.77	B		P
7440-50-8	Copper	36.6			P
7439-89-6	Iron	3030			P
7439-92-1	Lead	2.0		*	P
7439-95-4	Magnesium	502	B		P
7439-96-5	Manganese	16.3			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	1.4	B		P
7440-09-7	Potassium	324	B	E	P
7782-49-2	Selenium	0.29	U		P
7440-22-4	Silver	0.09	U		P
7440-23-5	Sodium	13.2	B		P
7440-28-0	Thallium	0.27	U		P
7440-62-2	Vanadium	5.1	B		P
7440-66-6	Zinc	8.0			P
	Cyanide	0.52	U		CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: LGHT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 21, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-3 OF-1

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733342

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07304.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 5 Date Analyzed: 11/12/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	11	U	
74-83-9	Bromomethane	11	U	
75-01-4	Vinyl Chloride	11	U	
75-00-3	Chloroethane	11	U	
75-09-2	Methylene Chloride	5	JB	
67-64-1	Acetone	11	U	
75-15-0	Carbon Disulfide	11	U	
75-35-4	1,1-Dichloroethene	11	U	
75-34-4	1,1-Dichloroethane	11	U	
540-59-0	1,2-Dichloroethene (total)	11	U	
78-93-3	2-Butanone	11	U	
67-66-3	Chloroform	11	U	
107-06-2	1,2-Dichloroethane	11	U	
71-55-6	1,1,1-Trichloroethane	11	U	
56-23-5	Carbon Tetrachloride	11	U	
75-27-4	Bromodichloromethane	11	U	
78-87-5	1,2-Dichloropropane	11	U	
10061-01-5	cis-1,3-Dichloropropene	11	U	
79-01-6	Trichloroethene	11	U	
71-43-2	Benzene	11	U	
124-48-1	Dibromochloromethane	11	U	
10061-02-6	trans-1,3-Dichloropropene	11	U	
79-00-5	1,1,2-Trichloroethane	11	U	
75-25-2	Bromoform	11	U	
108-10-1	4-Methyl-2-Pentanone	11	U	
591-78-6	2-Hexanone	11	U	
127-18-4	Tetrachloroethene	11	U	
79-34-5	1,1,2,2-Tetrachloroethane	11	U	
108-88-3	Toluene	11	U	
108-90-7	Chlorobenzene	11	U	
100-41-4	Ethylbenzene	11	U	
100-42-5	Styrene	11	U	
1330-20-7	Xylene (total)	11	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-3 OF-1

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733342
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07304.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 5 Date Analyzed: 11/12/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	14.00	33	J

S 0026

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-3 OF-1

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733342

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07304.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 5 Date Analyzed: 11/12/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	11	U	U
74-83-9	Bromomethane	11	U	U
75-01-4	Vinyl Chloride	11	U	U
75-00-3	Chloroethane	11	U	U
75-09-2	Methylene Chloride	5	JB	JB
67-64-1	Acetone	11	U	U
75-15-0	Carbon Disulfide	11	U	U
75-35-4	1,1-Dichloroethene	11	U	U
75-34-4	1,1-Dichloroethane	11	U	U
540-59-0	1,2-Dichloroethene (total)	11	U	U
78-93-3	2-Butanone	11	U	U
67-66-3	Chloroform	11	U	U
107-06-2	1,2-Dichloroethane	11	U	U
71-55-6	1,1,1-Trichloroethane	11	U	U
56-23-5	Carbon Tetrachloride	11	U	U
75-27-4	Bromodichloromethane	11	U	U
78-87-5	1,2-Dichloropropane	11	U	U
10061-01-5	cis-1,3-Dichloropropene	11	U	U
79-01-6	Trichloroethene	11	U	U
71-43-2	Benzene	11	U	U
124-48-1	Dibromochloromethane	11	U	U
10061-02-6	trans-1,3-Dichloropropene	11	U	U
79-00-5	1,1,2-Trichloroethane	11	U	U
75-25-2	Bromoform	11	U	U
108-10-1	4-Methyl-2-Pentanone	11	U	U
591-78-6	2-Hexanone	11	U	U
127-18-4	Tetrachloroethene	11	U	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U	U
108-88-3	Toluene	11	U	U
108-90-7	Chlorobenzene	11	U	U
100-41-4	Ethylbenzene	11	U	U
100-42-5	Styrene	11	U	U
1330-20-7	Xylene (total)	11	U	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-3 OF-1

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733342
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07304.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 5 Date Analyzed: 11/12/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	14.00	33	J

V 0070

1
INORGANIC ANALYSIS DATA SHEET

SS30F1

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG012

Matrix (soil/water): SOIL

Lab Sample ID: 9733342

Level (low/med): LOW

Date Received: 11/11/97

% Solids: 95.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2770	-		P
7440-36-0	Antimony	0.32	U	N	P
7440-38-2	Arsenic	0.60	B		P
7440-39-3	Barium	12.2	B		P
7440-41-7	Beryllium	0.12	B		P
7440-43-9	Cadmium	0.54	-	*	P
7440-70-2	Calcium	286	B	*	P
7440-47-3	Chromium	6.7	-	N*	P
7440-48-4	Cobalt	0.85	B		P
7440-50-8	Copper	62.9	-		P
7439-89-6	Iron	2840	-		P
7439-92-1	Lead	5.0	-		P
7439-95-4	Magnesium	423	B	*	P
7439-96-5	Manganese	17.9	-		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	2.9	B		P
7440-09-7	Potassium	143	B		P
7782-49-2	Selenium	0.29	U		P
7440-22-4	Silver	0.09	U		P
7440-23-5	Sodium	32.8	B	E	P
7440-28-0	Thallium	0.27	U		P
7440-62-2	Vanadium	5.9	-		P
7440-66-6	Zinc	12.4	-		P
	Cyanide	0.53	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After: CLEAR

Artifacts:

Comments:

SS3 OF 1

DATE REPORTED: NOVEMBER 20, 1997

S 0027

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-3 OF 3

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733343

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07316.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 4.4 Date Analyzed: 11/13/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	5	JB ✓	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	1	J ✓	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-3 OF 3

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733343
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07316.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 4.4 Date Analyzed: 11/13/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 2

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	14.28	20	J
2.	unknown siloxane	17.59	18	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-3 OF 3

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733343

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07316.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 4.4 Date Analyzed: 11/13/97

GC Column: RTX502 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/KG Q

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	JB
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-4	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
71-43-2	Benzene	10	U
124-48-1	Dibromochloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

V 0077

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-3 OF 3

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733343
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07316.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 4.4 Date Analyzed: 11/13/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

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

Number TICs found: 2

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	14.28	20	J
2.	unknown siloxane	17.59	18	J

gmo
H2M
11/29/97

1
INORGANIC ANALYSIS DATA SHEET

SS30F3

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG012

Matrix (soil/water): SOIL

Lab Sample ID: 9733343

Level (low/med): LOW

Date Received: 11/11/97

% Solids: 95.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1810	-		P
7440-36-0	Antimony	0.31	U	N	P
7440-38-2	Arsenic	0.66	B		P
7440-39-3	Barium	17.5	B		P
7440-41-7	Beryllium	0.13	B		P
7440-43-9	Cadmium	0.46	B	*	P
7440-70-2	Calcium	176	B	*	P
7440-47-3	Chromium	4.6	-	N*	P
7440-48-4	Cobalt	0.55	B		P
7440-50-8	Copper	108	-		P
7439-89-6	Iron	2150	-		P
7439-92-1	Lead	4.0	-		P
7439-95-4	Magnesium	295	B	*	P
7439-96-5	Manganese	13.0	-		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.8	B		P
7440-09-7	Potassium	97.4	B		P
7782-49-2	Selenium	0.29	U		P
7440-22-4	Silver	0.09	U		P
7440-23-5	Sodium	23.1	B	E	P
7440-28-0	Thallium	0.27	U		P
7440-62-2	Vanadium	2.9	B		P
7440-66-6	Zinc	9.0	-		P
	Cyanide	0.52	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS3 OF 3

DATE REPORTED: NOVEMBER 20, 1997

S 0030

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-3 OF 5

*Blind
Duplicate
SS-3 OF 5*

Lab Name: H2M LABS INC Contract: _____
 Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
 Matrix: (soil/water) SOIL Lab Sample ID: 9733344
 Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07309.D
 Level: (low/med) LOW Date Received: 11/11/97
 % Moisture: not dec. 4.7 Date Analyzed: 11/12/97
 GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	6	JB	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	2	J	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-3 OF 5

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733344
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07309.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 4.7 Date Analyzed: 11/12/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

Number TICs found: 0

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-3 OF 5

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733344

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07309.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 4.7 Date Analyzed: 11/12/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	6	JB	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	2	J	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-3 OF 5

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733344
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07309.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 4.7 Date Analyzed: 11/12/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
---------	----------	----	------------	---

gms H2M 11/24/97

1
INORGANIC ANALYSIS DATA SHEET

SS30F5

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG012

Matrix (soil/water): SOIL

Lab Sample ID: 9733344

Level (low/med): LOW

Date Received: 11/11/97

% Solids: 95.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3110	-		P
7440-36-0	Antimony	0.31	U	N	P
7440-38-2	Arsenic	0.40	B		P
7440-39-3	Barium	13.6	B		P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.56		*	P
7440-70-2	Calcium	319	B	*	P
7440-47-3	Chromium	6.2		N*	P
7440-48-4	Cobalt	0.81	B		P
7440-50-8	Copper	52.8			P
7439-89-6	Iron	3020	-		P
7439-92-1	Lead	5.8	-		P
7439-95-4	Magnesium	411	B	*	P
7439-96-5	Manganese	16.7			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	3.0	B		P
7440-09-7	Potassium	158	B		P
7782-49-2	Selenium	0.33	B		P
7440-22-4	Silver	0.09	U		P
7440-23-5	Sodium	33.3	B	E	P
7440-28-0	Thallium	0.42	B		P
7440-62-2	Vanadium	6.1	-		P
7440-66-6	Zinc	11.3	-		P
	Cyanide	0.52	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After: CLEAR

Artifacts:

Comments:

SS3 OF 5

DATE REPORTED: NOVEMBER 20, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS4 OF 1

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9727103

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14888.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 80 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	50	U	
74-83-9	Bromomethane	50	U	
75-01-4	Vinyl Chloride	50	U	
75-00-3	Chloroethane	50	U	
75-09-2	Methylene Chloride	50	U	
67-64-1	Acetone	62	B	
75-15-0	Carbon Disulfide	94		
75-35-4	1,1-Dichloroethene	50	U	
75-34-4	1,1-Dichloroethane	50	U	
540-59-0	1,2-Dichloroethene (total)	50	U	
78-93-3	2-Butanone	15	J	
67-66-3	Chloroform	50	U	
107-06-2	1,2-Dichloroethane	50	U	
71-55-6	1,1,1-Trichloroethane	50	U	
56-23-5	Carbon Tetrachloride	50	U	
75-27-4	Bromodichloromethane	50	U	
78-87-5	1,2-Dichloropropane	50	U	
10061-01-5	cis-1,3-Dichloropropene	50	U	
79-01-6	Trichloroethene	50	U	
71-43-2	Benzene	50	U	
124-48-1	Dibromochloromethane	50	U	
10061-02-6	trans-1,3-Dichloropropene	50	U	
79-00-5	1,1,2-Trichloroethane	50	U	
75-25-2	Bromoform	50	U	
108-10-1	4-Methyl-2-Pentanone	50	U	
591-78-6	2-Hexanone	50	U	
127-18-4	Tetrachloroethene	50	U	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	
108-88-3	Toluene	20	J	
108-90-7	Chlorobenzene	50	U	
100-41-4	Ethylbenzene	50	U	
100-42-5	Styrene	50	U	
1330-20-7	Xylene (total)	50	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS4 OF 1

Lab Name: H2M LABS, INC Contract: _____
 Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
 Matrix: (soil/water) SOIL Lab Sample ID: 9727103
 Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14888.D
 Level: (low/med) LOW Date Received: 09/18/97
 % Moisture: not dec. 80 Date Analyzed: 09/22/97
 GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	15.47	180	J
2.	unknown hydrocarbon	16.32	210	J
3.	unknown hydrocarbon	16.64	120	J
4.	unknown hydrocarbon	16.81	120	J
5.	unknown hydrocarbon	16.91	460	J
6. 000106-46-7	Benzene, 1,4-dichloro-	17.35	2800	JN
7.	unknown hydrocarbon	18.02	280	J
8.	unknown hydrocarbon	18.45	580	J
9.	unknown hydrocarbon	18.56	580	J
10.	unknown hydrocarbon	19.02	160	J

INORGANIC ANALYSIS DATA SHEET

SS4OF1

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9727103

Level (low/med): LOW

Date Received: 09/18/97

% Solids: 19.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2270	-		P
7440-36-0	Antimony	10.7	B	N	P
7440-38-2	Arsenic	8.2	-		P
7440-39-3	Barium	310	-		P
7440-41-7	Beryllium	0.50	B		P
7440-43-9	Cadmium	101	-		P
7440-70-2	Calcium	69700	-		P
7440-47-3	Chromium	119	-	N*	P
7440-48-4	Cobalt	52.7	-		P
7440-50-8	Copper	511	-		P
7439-89-6	Iron	7130	-		P
7439-92-1	Lead	28.9	-	*	P
7439-95-4	Magnesium	1930	B		P
7439-96-5	Manganese	42.5	-	*	P
7439-97-6	Mercury	5.2	-		CV
7440-02-0	Nickel	187	-	*	P
7440-09-7	Potassium	216	B		P
7782-49-2	Selenium	3.1	-		P
7440-22-4	Silver	1.8	B		P
7440-23-5	Sodium	200	B	E	P
7440-28-0	Thallium	1.3	U		P
7440-62-2	Vanadium	8.5	B		P
7440-66-6	Zinc	743	-		P
	Cyanide	2.5	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS4 OF1

DATE REPORTED: OCTOBER 8, 1997

S 0067

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS4OF1END

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014

Matrix: (soil/water) SOIL Lab Sample ID: 9735095

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07561.D

Level: (low/med) LOW Date Received: 11/25/97

% Moisture: not dec. 6.1 Date Analyzed: 12/04/97

GC Column: RTX502 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/KG Q

74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	2	JB
67-64-1	Acetone	2	JB
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-4	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
71-43-2	Benzene	11	U
124-48-1	Dibromochloromethane	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS4OF1END

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG014
Matrix: (soil/water) SOIL Lab Sample ID: 9735095
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07561.D
Level: (low/med) LOW Date Received: 11/25/97
% Moisture: rot dec. 3.1 Date Analyzed: 12/04/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

Number TICs found: 2

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	Chlorotrifluoromethylbenzene iso m.c.	14.27	6	J
2.	C3 subs. benzene	16.59	6	J

*gross
11/14/97
12/10/97*

1
INORGANIC ANALYSIS DATA SHEET

SS40F1

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG014

Matrix (soil/water): SOIL

Lab Sample ID: 9735095

Level (low/med): LOW

Date Received: 11/25/97

% Solids: 93.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	891			P
7440-36-0	Antimony	0.32	U		P
7440-38-2	Arsenic	0.26	U		P
7440-39-3	Barium	9.0	B		P
7440-41-7	Beryllium	0.04	B		P
7440-43-9	Cadmium	0.05	B		P
7440-70-2	Calcium	156	B		P
7440-47-3	Chromium	4.0		E	P
7440-48-4	Cobalt	0.40	B		P
7440-50-8	Copper	1.4	B		P
7439-89-6	Iron	2210			P
7439-92-1	Lead	1.4		*	P
7439-95-4	Magnesium	334	B		P
7439-96-5	Manganese	10.3			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.0	B		P
7440-09-7	Potassium	192	B	E	P
7782-49-2	Selenium	0.30	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	13.5	B		P
7440-28-0	Thallium	0.28	U		P
7440-62-2	Vanadium	2.6	B		P
7440-66-6	Zinc	4.1			P
	Cyanide	0.53	U		CA

Color Before: BROWN

Clarity Before:

Texture: COARSE

Color After: LGHT YELL

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 21, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS4 OF 2

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9727104

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14889.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 21 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	13	U	
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	2	JB	
67-64-1	Acetone	35	B	
75-15-0	Carbon Disulfide	6	J	
75-35-4	1,1-Dichloroethene	13	U	
75-34-4	1,1-Dichloroethane	13	U	
540-59-0	1,2-Dichloroethene (total)	13	U	
78-93-3	2-Butanone	13		
67-66-3	Chloroform	13	U	
107-06-2	1,2-Dichloroethane	13	U	
71-55-6	1,1,1-Trichloroethane	13	U	
56-23-5	Carbon Tetrachloride	13	U	
75-27-4	Bromodichloromethane	13	U	
78-87-5	1,2-Dichloropropane	13	U	
10061-01-5	cis-1,3-Dichloropropene	13	U	
79-01-6	Trichloroethene	13	U	
71-43-2	Benzene	13	U	
124-48-1	Dibromochloromethane	13	U	
10061-02-6	trans-1,3-Dichloropropene	13	U	
79-00-5	1,1,2-Trichloroethane	13	U	
75-25-2	Bromoform	13	U	
108-10-1	4-Methyl-2-Pentanone	13	U	
591-78-6	2-Hexanone	13	U	
127-18-4	Tetrachloroethene	13	U	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	
108-88-3	Toluene	13	U	
108-90-7	Chlorobenzene	13	U	
100-41-4	Ethylbenzene	13	U	
100-42-5	Styrene	13	U	
1330-20-7	Xylene (total)	13	U	

S 0063

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS4 OF 2

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
Matrix: (soil/water) SOIL Lab Sample ID: 9727104
Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14889.D
Level: (low/med) LOW Date Received: 09/18/97
% Moisture: not dec. 21 Date Analyzed: 09/22/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	15.16	35	J
2.	unknown hydrocarbon	15.47	91	J
3.	unknown	15.62	37	J
4.	unknown hydrocarbon	15.73	68	J
5.	unknown hydrocarbon	16.20	69	J
6.	unknown hydrocarbon	16.32	78	J
7.	unknown	16.47	41	J
8.	unknown hydrocarbon	16.64	72	J
9.	unknown hydrocarbon	16.91	160	J
10. 000106-46-7	Benzene, 1,4-dichloro-	17.35	250	JN

gms H2M 10/10/97

H2M LABS, INC.

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

SS4OF2

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9727104

Level (low/med): LOW

Date Received: 09/18/97

% Solids: 78.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1820			P
7440-36-0	Antimony	0.56	B	N	P
7440-38-2	Arsenic	0.55	B		P
7440-39-3	Barium	22.2	B		P
7440-41-7	Beryllium	0.12	B		P
7440-43-9	Cadmium	2.6			P
7440-70-2	Calcium	573	B		P
7440-47-3	Chromium	6.7		N*	P
7440-48-4	Cobalt	4.4	B		P
7440-50-8	Copper	22.2			P
7439-89-6	Iron	2660			P
7439-92-1	Lead	3.0		*	P
7439-95-4	Magnesium	301	B		P
7439-96-5	Manganese	13.3		*	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	5.6		*	P
7440-09-7	Potassium	129	B		P
7782-49-2	Selenium	0.36	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	42.9	B	E	P
7440-28-0	Thallium	0.33	U		P
7440-62-2	Vanadium	3.4	B		P
7440-66-6	Zinc	30.1			P
	Cyanide	0.64	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIU

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS4 OF2

DATE REPORTED: OCTOBER 8, 1997

S 0070

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS4 OF 3

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9727105

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14890.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 17 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	12	U	
67-64-1	Acetone	7	JB	
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	12	U	
75-34-4	1,1-Dichloroethane	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
78-93-3	2-Butanone	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
75-27-4	Bromodichloromethane	12	U	
78-87-5	1,2-Dichloropropane	12	U	
10061-01-5	cis-1,3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
71-43-2	Benzene	12	U	
124-48-1	Dibromochloromethane	12	U	
10061-02-6	trans-1,3-Dichloropropene	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	12	U	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	
1330-20-7	Xylene (total)	12	U	

S 0071

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS4 OF 3

Lab Name: H2M LABS, INC Contract: _____
 Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
 Matrix: (soil/water) SOIL Lab Sample ID: 9727105
 Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14890.D
 Level: (low/med) LOW Date Received: 09/18/97
 % Moisture: not dec. 17 Date Analyzed: 09/22/97
 GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: X (uL) Soil Aliquot Volume: X (uL)

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

Number TICs found: 10

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	15.47	26	J
2.	unknown hydrocarbon	16.19	44	J
3.	unknown hydrocarbon	16.31	32	J
4.	unknown hydrocarbon	16.64	33	J
5.	unknown hydrocarbon	16.91	69	J
6.	unknown(sus.column bleed)	17.24	19	J
7. 000106-46-7	Benzene, 1,4-dichloro-	17.35	180	JN
8.	unknown aromatic	17.63	17	J
9.	unknown hydrocarbon	18.03	17	J
10.	unknown hydrocarbon	18.55	21	J

S 0072

H2M LABS, INC.

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1
INORGANIC ANALYSIS DATA SHEET

SS4OF3

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9727105

Level (low/med): LOW

Date Received: 09/18/97

% Solids: 83.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1130	-		P
7440-36-0	Antimony	0.36	U	N	P
7440-38-2	Arsenic	0.44	B		P
7440-39-3	Barium	8.7	B		P
7440-41-7	Beryllium	0.09	B		P
7440-43-9	Cadmium	1.1			P
7440-70-2	Calcium	265	B		P
7440-47-3	Chromium	5.0		N*	P
7440-48-4	Cobalt	3.8	B		P
7440-50-8	Copper	18.1			P
7439-89-6	Iron	1250	-		P
7439-92-1	Lead	2.4		*	P
7439-95-4	Magnesium	244	B		P
7439-96-5	Manganese	15.1		*	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	2.3	B	*	P
7440-09-7	Potassium	103	B		P
7782-49-2	Selenium	0.34	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	29.5	B	E	P
7440-28-0	Thallium	0.31	U		P
7440-62-2	Vanadium	2.4	B		P
7440-66-6	Zinc	18.4			P
	Cyanide	0.60	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS4 OF3

DATE REPORTED: OCTOBER 8, 1997

S 0073

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS4 OF4

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010

Matrix: (soil/water) SOIL Lab Sample ID: 9727106

Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14891.D

Level: (low/med) LOW Date Received: 09/18/97

% Moisture: not dec. 18 Date Analyzed: 09/22/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	12	U	U
74-83-9	Bromomethane	12	U	U
75-01-4	Vinyl Chloride	12	U	U
75-00-3	Chloroethane	12	U	U
75-09-2	Methylene Chloride	12	U	U
67-64-1	Acetone	5	JB	JB
75-15-0	Carbon Disulfide	12	U	U
75-35-4	1,1-Dichloroethene	12	U	U
75-34-4	1,1-Dichloroethane	12	U	U
540-59-0	1,2-Dichloroethene (total)	12	U	U
78-93-3	2-Butanone	12	U	U
67-66-3	Chloroform	12	U	U
107-06-2	1,2-Dichloroethane	12	U	U
71-55-6	1,1,1-Trichloroethane	12	U	U
56-23-5	Carbon Tetrachloride	12	U	U
75-27-4	Bromodichloromethane	12	U	U
78-87-5	1,2-Dichloropropane	12	U	U
10061-01-5	cis-1,3-Dichloropropene	12	U	U
79-01-6	Trichloroethene	12	U	U
71-43-2	Benzene	12	U	U
124-48-1	Dibromochloromethane	12	U	U
10061-02-6	trans-1,3-Dichloropropene	12	U	U
79-00-5	1,1,2-Trichloroethane	12	U	U
75-25-2	Bromoform	12	U	U
108-10-1	4-Methyl-2-Pentanone	12	U	U
591-78-6	2-Hexanone	12	U	U
127-18-4	Tetrachloroethene	12	U	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U	U
108-88-3	Toluene	12	U	U
108-90-7	Chlorobenzene	12	U	U
100-41-4	Ethylbenzene	12	U	U
100-42-5	Styrene	12	U	U
1330-20-7	Xylene (total)	12	U	U

S 0074

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS4 OF4

Lab Name: H2M LABS, INC Contract: _____
 Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 010
 Matrix: (soil/water) SOIL Lab Sample ID: 9727106
 Sample wt/vol: 5.0 (g/ml) G Lab File ID: A14891.D
 Level: (low/med) LOW Date Received: 09/18/97
 % Moisture: not dec. 18 Date Analyzed: 09/22/97
 GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: ✓ (uL) Soil Aliquot Volume: ✓ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 9

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	15.47	14	J
2.	unknown hydrocarbon	16.18	20	J
3.	unknown hydrocarbon	16.31	20	J
4.	unknown hydrocarbon	16.63	18	J
5.	unknown hydrocarbon	16.91	28	J
6. 000106-46-7	Benzene, 1,4-dichloro-	17.35	130	JN
7.	unknown hydrocarbon	18.03	21	J
8.	unknown hydrocarbon	18.44	13	J
9.	unknown hydrocarbon	18.54	19	J

done H2M 10/10/92

S 0075

H2M LABS, INC.

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1
INORGANIC ANALYSIS DATA SHEET

SS4OF4

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG010

Matrix (soil/water): SOIL

Lab Sample ID: 9727106

Level (low/med): LOW

Date Received: 09/18/97

% Solids: 82.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1590	-		P
7440-36-0	Antimony	0.37	U	N	P
7440-38-2	Arsenic	0.29	U		P
7440-39-3	Barium	10.5	B		P
7440-41-7	Beryllium	0.11	B		P
7440-43-9	Cadmium	0.88	-		P
7440-70-2	Calcium	363	B		P
7440-47-3	Chromium	5.8	-	N*	P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	17.0	-		P
7439-89-6	Iron	1660	-		P
7439-92-1	Lead	2.6	-	*	P
7439-95-4	Magnesium	242	B		P
7439-96-5	Manganese	16.0	-	*	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	2.8	B	*	P
7440-09-7	Potassium	110	B		P
7782-49-2	Selenium	0.34	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	56.4	B	E	P
7440-28-0	Thallium	0.32	U		P
7440-62-2	Vanadium	2.6	B		P
7440-66-6	Zinc	15.2	-		P
	Cyanide	0.61	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

SS4 OF4

DATE REPORTED: OCTOBER 8, 1997

S 0076

APPENDIX C

Correspondence: Chronological Order

RECEIVED JV 0 7 1997

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010



October 30, 1997

John P. Cahill
Commissioner

Ms. Lisa Santoro
Environmental Scientist
P.W. Grosser Consulting Engineer
& Hydrogeologist, P.C.
100 South Main Street, Suite 202
Sayville, New York 11782-3150

Re: Nassau Tool Works, Inc.
Site ID No. 152142
Preliminary RI/FS Data

Dear Ms. Santoro:

I have reviewed the preliminary sampling results gathered as part of the remedial investigation at the Nassau Tool Works, Inc. site. The data represents the results from the initial sampling of the sanitary systems and dry wells, conducted on September 17 and 18, 1997. Subsequent to my review and our telephone conference of October 22, 1997, this letter will serve to document the agreed upon next phase of remedial activity at the site as follows:

- 1.) Sanitary system one (SS-1) was found to consist of a main leaching pool structure, which was sampled, with two overflow pools to the east and a possible third overflow pool to the west. Due to the elevated levels of volatile organic compounds (VOC's) chloroethane and toluene, and inorganic compounds copper and zinc, the main leaching pool structure at SS-1 will be cleaned out followed by appropriate confirmatory sampling. In addition, all overflow pools associated with SS-1 will be sampled.
- 2.) Sanitary system two (SS-2) was found to consist of one leaching pool with no overflows. Given the high levels of unknown hydrocarbons and inorganic compounds copper, mercury and zinc, SS-2 will be cleaned out followed by confirmatory sampling.
- 3.) Sanitary system three (SS-3) was found to consist of a septic tank connected to a primary leaching pool, which was sampled, and two secondary leaching pools, one to the north and one to the south. The primary leaching pool will be cleaned out due to elevated levels of VOC toluene, unknown hydrocarbons, and inorganic compounds cadmium, copper, and zinc. A confirmatory sample will also be obtained along with samples from the two overflow leaching pools.
- 4.) Sanitary system four (SS-4) consists of a septic tank connected directly to three leaching pools. Only leaching pool OF1 requires clean out, with confirmatory sampling, due to elevated levels of inorganic compounds cadmium, copper, mercury, and zinc.

Prior to NYSDEC requiring and the potentially responsible party committing to soil sampling around the immediate vicinity of those leaching pools requiring remedial action, both parties will review information and data from the confirmatory sampling program at the sanitary systems in conjunction with the first round of groundwater sampling results from monitoring wells MW-1 through MW-6.

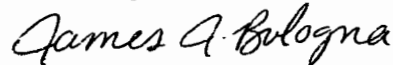
With respect to the eight dry wells sampled, save for DW1 and DW7, all will be cleaned out followed by confirmatory sampling. The clean out is required due to elevated concentrations of various inorganic compounds, including arsenic, cadmium, chromium, copper, mercury, nickel and zinc. The field sampling program determined that a pipe from the south connects to DW3. It was unclear if the pipe was an overflow connection or an inlet for roof runoff. Also, it was documented that DW6 has an overflow which runs due south and DW8 has two overflows, one towards the east and one due west.

The same approach used for additional soil sampling at the sanitary systems will be used for additional dry well sampling. That being, no other dry wells will be sampled at this time, including the overflows at DW3, DW6, and DW8, pending analysis of the data from confirmatory samples and groundwater monitoring wells.

It is my understanding that clean out and confirmatory sampling, along with removal of the underground 55 gallon drum will commence the week of November 10, 1997.

If you have any questions, please contact me at (518) 457-7924.

Sincerely,



James J. Bologna, P.E.
Bureau of Eastern Remedial Action
Division of Environmental Remediation

cc: P. W. Grosser

COUNTY OF SUFFOLK



ROBERT J. GAFFNEY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF PUBLIC WORKS

STEPHEN G. HAYDUK, P.E.
COMMISSIONER

November 5, 1997

Lisa Santoro
P.W. Grosser
100 S. Main St. Suite 202
Sayville, NY 11782-3148

Re: Nassau Tool Works - Lamar Street, W. Babylon
Acceptability of Waste

Dear Ms. Santoro:

This is written in response to your request to dispose of various leaching systems servicing the above referenced at the County's Bergen Point facility.

Based on data submitted and the analysis of samples collected at the time of our inspection the following has been determined:

- (1) The clear liquid portions of the sanitary systems on the East, South, and West sides of the building are acceptable for disposal. Bottom sludge will have to be handled separately.
- (2) All clear liquids contained in any of the facility's storm drains are acceptable for disposal. Bottom sludges will have to be handled separately.
- (3) The sanitary system located at the North-East corner of the building is Not Acceptable for disposal.

Lisa Santoro
November 5
Page 2

Please notify this office at least 3 days prior to any work so that a representative may be present and feel free to call sooner if you have any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read "R. N. Falk", with a stylized flourish extending from the end.

Robert N. Falk
Permit Administrator

RNF:fc

cc: R. Strzepek
D. Krol
P. Schramel

P. W. GROSSER

CONSULTING

ENGINEER &

HYDROGEOLOGIST, P.C.

**KALOGERAS &
GROSSER**

CONSULTING

ENGINEERS, P.C.

VIA FACSIMILE: 518-457-4198

November 11, 1997

Mr. Jim Bologna
NYSDEC
Bureau of Eastern Remedial Action
Department of Environmental Remediation
50 Wolf Road
Albany, New York 12233-7010

RE: NYSDEC Site # 1-52-142
Nassau Tool Works, Inc.
34 Lamar Street, W. Babylon, New York

Dear Mr. Bologna:

Per our recent conversations of October 17 and November 7, 1997, two modifications to the RI/FS Work Plan for the above referenced site have been instituted. Details regarding the modifications are discussed in the following paragraphs.

The RI/FS Work Plan states drill cuttings from the monitoring well installations will be placed in drums. As per our conversation, the drill cuttings have been stockpiled on-site. The soils were placed on and covered with plastic sheeting. Drill cuttings from monitoring wells MW-1, MW-2 and MW-6 are stored as individual piles. Cuttings from monitoring wells MW-3, MW-4 and MW-5 were collected to form one stockpile. Therefore, there are four separate stockpiles of soils on-site each placed on and covered with plastic. PWGC anticipates that the drill cuttings will be spread on site based upon the lack of PID responses while screening the cuttings at the time of installation. Final determination for the ultimate placement of the soils will be evaluated by review of groundwater data.

The second area pertains to the number of field duplicates and MS/MSDs. Based upon the approximate time of completion for cleanout of the sanitary pools and dry wells (10 total), it was decided that one field duplicate and MS/MSD would be collected per week. Field equipment blanks will be collected at a minimum of one per week. This change was implemented since only one to two endpoint (confirmatory) samples will be collected per day. The RI/FS Work Plan originally stated one field blank would be collected per day. If endpoint samples include analysis for volatile organic compounds trip blanks will be analyzed.

If you have any questions or comments, please do not hesitate to contact me.

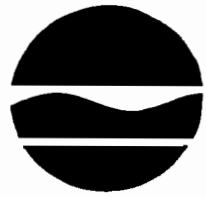
Very truly yours.

P. W. GROSSER CONSULTING
ENGINEER & HYDROGEOLOGIST, P. C.

Lisa Santoro
Lisa Santoro
Environmental Scientist

cc: Edward J. Hennessey, Esq.
Lynn McClain, Nassau Tool Works
Donald J Middleton, MKA, Ltd.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010



December 16, 1997

John P. Cahill
Commissioner

Mr. James P. Rhodes
Sr. Hydrogeologist
P.W. Grosser Consulting Engineer
& Hydrogeologist, P.C.
100 South Main Street, Suite 202
Sayville, New York 11782-3148

Re: Nassau Tool Works, Inc.
Site ID No. 152142
Preliminary RI/FS Data

Dear Mr. Rhodes:

I am in receipt of your December 9, 1997 letter transmitting the results of the first round of groundwater sampling collected as part of the remedial investigation at the Nassau Tool Works, Inc. site. Your letter also requests approval for disposal of both purge water and drill cuttings resultant from installation and sampling of the groundwater monitoring wells.

The groundwater data indicates that, at this time, the site is not contributing to contamination in the upper glacial aquifer beneath the site. Given the results, all purge water and drill cuttings from monitoring wells MW2 - MW6 may be disposed of on site.

Regarding my directive to clean out and obtain confirmatory samples of overflow pool OF-1, associated with sanitary system SS-1, it is my understanding that this was completed on November 26, 1997.

If you have any questions, please contact me at (518) 457-7924.

Sincerely,

James J. Bologna

James J. Bologna, P.E.
Bureau of Eastern Remedial Action
Division of Environmental Remediation

cc: P. W. Grosser

RECEIVED DEC 22 1997

COUNTY OF SUFFOLK



ROBERT J. GAFFNEY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF PUBLIC WORKS

CHARLES J. BARTHA, P.E.
COMMISSIONER

January 9, 1997

Lisa Santoro
P.W. Grosser, P.C.
100 S. Main Street
Suite 202
Sayville, NY 11782-3148

Re: Nassau Tool Works-W. Babylon
Acceptability of Waste

Dear Ms. Santoro:

This is written in response to your request to dispose of approximately 1,000 gallons of monitoring well development water generated by the above referenced, at the County's Bergen Point facility.

Based on data submitted and an inspection by this office it has been determined the water is acceptable for disposal.

Please notify this office prior to any work and feel free to call if you have any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read "R. N. Falk", is written over a horizontal line.

Robert N. Falk
Permit Administrator

RNF:cs

cc: R. Strzepek
D. Krol
P. Schramel

RECEIVED JAN 13 1998

SUFFOLK COUNTY IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

APPENDIX D

Non-ASP-B Data Sheets: Liquid Sample Results and TCLP

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C974338/1

10/29/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782
ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW 9701
COLLECTED BY: Client DATE COL'D: 10/16/97 RECEIVED: 10/16/97

SAMPLE: Water sample, SS1, 1300

ANALYTICAL PARAMETERS

Chloromethane	ug/L	<1
Vinyl Chloride	ug/L	<1
Bromomethane	ug/L	<1
Chloroethane	ug/L	<1
Trichlorofluomethane	ug/L	<1
1,1 Dichloroethene	ug/L	<1
Methylene Chloride	ug/L	<1
t-1,2-Dichloroethene	ug/L	<1
1,1 Dichloroethane	ug/L	<1
Chloroform	ug/L	<1
111 Trichloroethane	ug/L	<1
Carbon Tetrachloride	ug/L	<1
Benzene	ug/L	<1
1,2 Dichloroethane	ug/L	<1
Trichloroethene	ug/L	<1
1,2 Dichloropropane	ug/L	<1
Bromodichloromethane	ug/L	<1
t-1,3Dichloropropene	ug/L	<1
Toluene	ug/L	2
c-1,3Dichloropropene	ug/L	<1
112 Trichloroethane	ug/L	<1
Tetrachloroethene	ug/L	<1
Chlorodibromomethane	ug/L	<1
Chlorobenzene	ug/L	<1
Ethyl Benzene	ug/L	<1

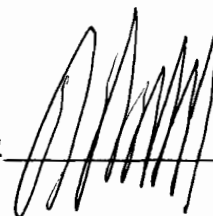
ANALYTICAL PARAMETERS

m + p Xylene	ug/L	<2
o Xylene	ug/L	<1
Xylene	ug/L	<3
Bromoform	ug/L	<1
1122Tetrachloroethan	ug/L	<1
1,2 Dichlorobenzene	ug/L	<1
1,3 Dichlorobenzene	ug/L	<1
1,4 Dichlorobenzene	ug/L	2
Styrene	ug/L	<1
Bromobenzene	ug/L	<1
Chlorotoluene	ug/L	<2
p-Ethyltoluene	ug/L	<1
135-Trimethylbenzene	ug/L	<1
124-Trimethylbenzene	ug/L	<1
Freon 113	ug/L	<1
Dichlorodifluomethane	ug/L	<1
1245 Tetramethylbenz	ug/L!	<1
124-Trichlorobenzene	ug/L	<1
c-1,2-Dichloroethene	ug/L	<1
Dibromochloropropane	ug/L	<1
Bromochloromethane	ug/L	<1
2,2-Dichloropropane	ug/L	<1
1,1-Dichloropropene	ug/L	<1

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 1 of 2.

DIRECTOR



377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974338/1

10/29/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782
ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW 9701
COLLECTED BY: Client DATE COL'D:10/16/97 RECEIVED:10/16/97

SAMPLE: Water sample, SS1, 1300

ANALYTICAL PARAMETERS

Dibromomethane	ug/L	<1
Naphthalene	ug/L	<1
1,3-Dichloropropane	ug/L	<1
1,2 Dibromoethane	ug/L	<1
1112Tetrachloroethan	ug/L	<1
123-Trichloropropane	ug/L	<1
Hexachlorobutadiene	ug/L	<1
Acetone	ug/L	<10
Methyl Ethyl Ketone	ug/L	<10
Methylisobutylketone	ug/L	<10
Isopropylbenzene	ug/L	<1
p-Isopropyltoluene	ug/L	<1
n-Butylbenzene	ug/L	<1
Chlorodifluoromethan	ug/L	<1
n-Propylbenzene	ug/L	<1
tert-Butylbenzene	ug/L	<1
sec-Butylbenzene	ug/L	<1
p Diethylbenzene	ug/L	<1
123-Trichlorobenzene	ug/L	<1
ter. ButylMethylEther	ug/L	<1

ANALYTICAL PARAMETERS

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR 

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974338/1

10/29/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782
ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW 9701
COLLECTED BY: Client DATE COL'D:10/16/97 RECEIVED:10/16/97

SAMPLE: Water sample, SS1, 1300

ANALYTICAL PARAMETERS

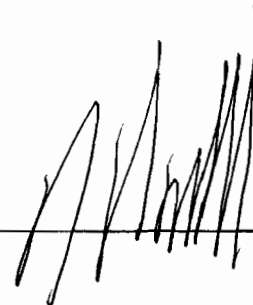
Arsenic as As	mg/L	<0.005
Barium as Ba	mg/L	<0.05
Cadmium as Cd	mg/L	<0.002
Chromium as Cr	mg/L	<0.02
Lead as Pb	mg/L	0.016
Mercury as Hg	mg/L	<0.001
Selenium as Se	mg/L	<0.005
Silver as Ag	mg/L	<0.02
Zinc as Zn	mg/L	<0.04

ANALYTICAL PARAMETERS

cc:

REMARKS:

DIRECTOR



ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974338/2

10/29/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782
ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW 9701
COLLECTED BY: Client DATE COL'D:10/16/97 RECEIVED:10/16/97

SAMPLE: Water sample, SS2, 1310

ANALYTICAL PARAMETERS

Petrol. Hydrocarbons	mg/L	28
Lead as Pb	mg/L	1.1
Zinc as Zn	mg/L	8.2

ANALYTICAL PARAMETERS

cc:

REMARKS:

DIRECTOR



ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974338/3

10/29/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782

ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW 9701
COLLECTED BY: Client DATE COL'D:10/16/97 RECEIVED:10/16/97

SAMPLE: Water sample, SS4, 1340

ANALYTICAL PARAMETERS

Petrol. Hydrocarbons	mg/L	19
Lead as Pb	mg/L	0.022
Zinc as Zn	mg/L	0.27

ANALYTICAL PARAMETERS

cc:

REMARKS:

DIRECTOR



ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C974338/4

10/29/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782

ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW 9701
COLLECTED BY: Client DATE COL'D: 10/16/97 RECEIVED: 10/16/97

SAMPLE: Water sample, DW8, 1330

ANALYTICAL PARAMETERS

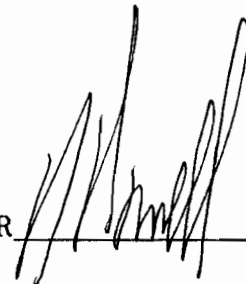
Petrol. Hydrocarbons	mg/L	5.2
Barium as Ba	mg/L	<0.05
Cadmium as Cd	mg/L	<0.002
Chromium as Cr	mg/L	<0.02
Lead as Pb	mg/L	<0.005
Mercury as Hg	mg/L	<0.001
Selenium as Se	mg/L	<0.005
Silver as Ag	mg/L	<0.02
Zinc as Zn	mg/L	0.04
Arsenic as As	mg/L	<0.005

ANALYTICAL PARAMETERS

cc:

REMARKS:

DIRECTOR



H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)420-8436 NYSDOH ID# 10478

LAB NO: 9733041

P.W. GROSSER CONSULTING
PAUL W. GROSSER
P.O. BOX 39
SAYVILLE, NY 11782

TYPE..... SOIL
SPECIAL
METHOD.... GRAB

DATE COLLECTED. 11/06/97
TIME COLLECTED. 1800 HRS.
DATE RECEIVED.. 11/07/97
COLLECTED BY... CL99
PROJECT NO..... NTW9701

POINT NO:
LOCATION: SS-1
REMARKS: NASSAU TOOL
TCLP PREP.

1,4-DICHLOROBENZENE - (ug/l)

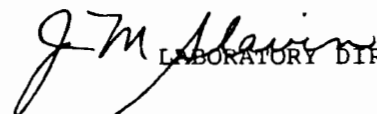
<u>PARAMETER (S)</u>	<u>RESULT</u>	<u>PARAMETER (S)</u>	<u>RESULT</u>
1,4-DICHLOROBENZENE	<10		

COPIES TO:

DATE ISSUED 11/13/97

DATE RUN..... 11/12/97
DATE REPORTED.. 11/13/97

ORIGINAL


LABORATORY DIRECTOR

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)420-8436 NYSDOH ID# 10478

LAB NO: 9733041

P.W. GROSSER CONSULTING
PAUL W. GROSSER
100 S. MAIN ST-SUITE 202
SAYVILLE, NY 11782

TYPE..... SOIL
SPECIAL
METHOD.... GRAB

DATE COLLECTED. 11/06/97
TIME COLLECTED. 1800 HRS.
DATE RECEIVED.. 11/07/97
COLLECTED BY... CL99
PROJECT NO..... NTW9701

POINT NO:
LOCATION: SS-1
REMARKS: NASSAU TOOL
TCLP PREP.

1,4-DICHLOROBENZENE - (ug/l)

<u>PARAMETER (S)</u>	<u>RESULT</u>	<u>PARAMETER (S)</u>	<u>RESULT</u>
1,4-DICHLOROBENZENE	4		

RECEIVED NOV 21 1997

COPIES TO:

DATE ISSUED 11/13/97

DATE RUN..... 11/12/97
DATE REPORTED.. 11/13/97

ORIGINAL

J. M. Alavine
LABORATORY DIRECTOR

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)420-8436 NYSDOH ID# 10478

LAB NO: 9732373

P.W. GROSSER CONSULTING
PAUL W. GROSSER
P.O. BOX 39
SAYVILLE, NY 11782

TYPE..... SOIL
SPECIAL
METHOD.... GRAB

DATE COLLECTED. 09/17/97
DATE RECEIVED.. 09/17/97
COLLECTED BY... CL99

POINT NO:
LOCATION: SS3 OF 1

REMARKS: TCLP PREP.

PARAMETER (S)

RESULTS UNITS

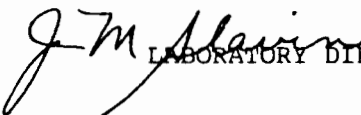
CADMIUM

<0.005 mg/l

COPIES TO:

DATE ISSUED 11/12/97

ORIGINAL


LABORATORY DIRECTOR

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)420-8436 NYSDOH ID# 10478

LAB NO: 9732374

P.W. GROSSER CONSULTING
PAUL W. GROSSER
P.O. BOX 39
SAYVILLE, NY 11782

TYPE..... SOIL
SPECIAL
METHOD.... GRAB

DATE COLLECTED. 09/17/97
DATE RECEIVED.. 09/17/97
COLLECTED BY... CL99

POINT NO:
LOCATION: SS4 OF 1

REMARKS: TCLP PREP.

<u>PARAMETER (S)</u>	<u>RESULTS</u>	<u>UNITS</u>
CADMIUM	0.016	mg/l
CHROMIUM	<0.01	mg/l

COPIES TO:

DATE ISSUED 11/12/97

ORIGINAL


LABORATORY DIRECTOR

H2M LABS, INC.

575 Broad Hollow Road, Melville, N.Y. 11747
(516)694-3040 FAX:(516)420-8436 NYSDOH ID# 10478

LAB NO: 9732372

P.W. GROSSER CONSULTING
PAUL W. GROSSER
P.O. BOX 39
SAYVILLE, NY 11782

TYPE..... SOIL
SPECIAL
METHOD.... GRAB

DATE COLLECTED. 09/17/97
DATE RECEIVED.. 09/17/97
COLLECTED BY... CL99

POINT NO:
LOCATION: DW5I

REMARKS: TCLP PREP.

<u>PARAMETER (S)</u>	<u>RESULTS</u>	<u>UNITS</u>
----------------------	----------------	--------------

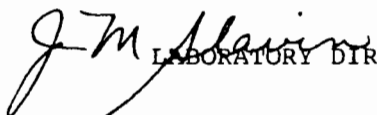
CHROMIUM	<0.01	mg/l
----------	-------	------

RECEIVED NOV 21 1997

COPIES TO:

DATE ISSUED 11/12/97

ORIGINAL


LABORATORY DIRECTOR

APPENDIX E
Waste Manifests for Soil Disposal



technologies

Manifest No.: _____

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847

NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: N/A

Company Name: (Print or Type) Nassau Tools

Pick-up Address: 35 Lamar Street West Babylon NY
(No.) (Street) (City) (State)

Telephone Number: 516-755-4000 Fax Number: _____

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: 13 Cubic Yards: 15 Other: (Specify) _____

Waste Type: Dry wells contaminated with lubricating oils.

Special Handling Instructions, if any: _____

PROFILE / WASTE STREAM I.D. NUMBER:

INO971201OLO

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12/9/97 Signature: [Signature]
(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: NJD054126164
(if applicable)

COMPANY NAME: Freehold Cartage, Inc.

ADDRESS: Route 33 East, Freehold NJ 07728

Pick-up Date: 12-10-97 Truck No.: 4189 Vehicle Lic. No.: NJ HA 2196

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**
7 Steel Road East
Morrisville, PA 19067-0847
Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: [Signature] 12/10/97

(Signature of authorized agent and title)

REGULATORY AGENCY



technologies

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847

Manifest No.: _____

NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: N/A

Company Name: (Print or Type) Nassau Tool

Pick-up Address: 34 Lamar Street West Babylon, NY
(No.) (Street) (City) (State)

Telephone Number: 516-683-5000 Fax Number: _____

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: _____ Cubic Yards: 15 Other: (Specify) _____

Waste Type: Dry well material contaminated with Lubricating oil

Special Handling Instructions, if any: _____

PROFILE / WASTE STREAM I.D. NUMBER:

IN09712010LO

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12-12-97 Signature: [Signature]
(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: NJD054126164
(if applicable)

COMPANY NAME: Freehold Cartage, Inc.

ADDRESS: Route 33 East, Freehold, NJ 07728

Pick-up Date: 12-12-97 Truck No.: 90 Vehicle Lic. No.: AA 411E / NJ

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

[Signature] Harold Jordan Driver
(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**
7 Steel Road East
Morrisville, PA 19067-0847
Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 12/12/97

[Signature]
(Signature of authorized agent and title)

REGULATORY AGENCY



Manifest No.: _____

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847

NON-HAZARDOUS WASTE MANIFESTEPA I.D. No., Generator of Waste: N/ACompany Name: (Print or Type) Nassau ToolPick-up Address: 34 Lamar Street West Babylon NY
(No.) (Street) (City) (State)Telephone Number: 516-543-5000 Fax Number: _____Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.Tons: _____ Cubic Yards: 15 Other: (Specify) _____Waste Type: Dry well material contaminated with lubricating oil

Special Handling Instructions, if any: _____

PROFILE / WASTE STREAM I.D. NUMBER: Ino9712010LO

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12/13/97 Signature: [Signature]
(Name and Title)Hauler of Waste (must be filled in by hauler) EPA I.D. No.: NJD054126164
(if applicable)COMPANY NAME: Freehold Cartage, Inc.ADDRESS: Route 33 East, Freehold, NJ 07728Pick-up Date: 12/13/97 Truck No.: 607 Vehicle Lic. No.: NJ AA394E

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

[Signature]
(Signature of authorized agent and title)Processing Facility: **R3 Technologies, Inc.**
7 Steel Road East
Morrisville, PA 19067-0847
Permit #301254Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 12/29/97[Signature]
(Signature of authorized agent and title)

REGULATORY AGENCY



technologies

Manifest No.: _____

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847

NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: N/A

Company Name: (Print or Type) Nassau Tool

Pick-up Address: 34 Lamar Street West Babylon, NY
(No.) (Street) (City) (State)

Telephone Number: 516-643-5000 Fax Number: _____

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: _____ Cubic Yards: 15 Other: (Specify) _____

Waste Type: DRY Well material contaminated with lubricating oil

Special Handling Instructions, if any: _____

PROFILE / WASTE STREAM I.D. NUMBER:

IN09712010LO

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12-13-97 Signature: [Signature]
(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: NJD054126164
(if applicable)

COMPANY NAME: Freehold Cartage, Inc.

ADDRESS: Route 33 East, Freehold, NJ 07728

Pick-up Date: 12-13-97 Truck No.: #90 Vehicle Lic. No.: AA411E/NJ

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

Processing Facility: **R3 Technologies, Inc.**
7 Steel Road East
Morrisville, PA 19067-0847
Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date:

(Signature of authorized agent and title)

REGULATORY AGENCY



technologies

Manifest No.: 17200

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

NON-HAZARDOUS WASTE MANIFEST

EPA I.D. No., Generator of Waste: N/A

Company Name: (Print or Type) Nassau Tool

Pick-up Address: 34 Lamar Street West Babylon, NY
(No.) (Street) (City) (State)

Telephone Number: 516-543-5000

Fax Number: _____

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: _____ Cubic Yards: 15 Other: (Specify) _____

Waste Type: Dry well material contaminated with lubricating oil

Special Handling Instructions, if any: _____

PROFILE / WASTE STREAM I.D. NUMBER:

IN097120LO

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12-13-97

Signature: _____

(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: _____

NJD054126164

(if applicable)

COMPANY NAME: Freehold Cartage

ADDRESS: Route 33 East, Freehold, NJ 07728

Pick-up Date: 12-13-97

Truck No.: 85

Vehicle Lic. No.: AA-2186/NJ

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

Processing Facility: R3 Technologies, Inc.

7 Steel Road East

Morrisville, PA 19067-0847

Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 12/18/97

(Signature of authorized agent and title)

REGULATORY AGENCY



technologies

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847

Manifest No.: _____

NON-HAZARDOUS WASTE MANIFEST

1. EPA I.D. No., Generator of Waste: N/A
- Company Name: (Print or Type) Nassau Tools
- Pick-up Address: 36 Lamar Street West Babylon NY
(No.) (Street) (City) (State)
- Telephone Number: (516) 755-4000 Fax Number: _____
- Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.
- Tons: _____ Cubic Yards: 15 Other: (Specify) _____
- Waste Type: Dry wells contaminated with lubricating oils.
- Special Handling Instructions, if any: Ex 9748

PROFILE / WASTE STREAM I.D. NUMBER:

IN09712010LO

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12/19/97

Signature: [Signature]

(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: NJD054126164

(if applicable)

COMPANY NAME: Freehold Cartage, Inc.

ADDRESS: Route 33 East, Freehold, NJ 07728

Pick-up Date: 12-10-97 Truck No.: #90 Vehicle Lic. No.: AA411E

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

[Signature]
(Signature of authorized agent and title)

3. Processing Facility: **R3 Technologies, Inc.**
7 Steel Road East
Morrisville, PA 19067-0847
Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 12/19/97

[Signature]
(Signature of authorized agent and title)

REGULATORY AGENCY



technologies

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847

Manifest No.: _____

NON-HAZARDOUS WASTE MANIFEST

EPA I.D. No., Generator of Waste: N/A

Company Name: (Print or Type) Nassau Tool

Pick-up Address: 34 Lamar Street Wes Babylon, NY
(No.) (Street) (City) (State)

Telephone Number: 516-643-5000 Fax Number: _____

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: _____ Cubic Yards: 15 Other: (Specify) _____

Waste Type: Dry well material contaminated with Lubricating Oil

Special Handling Instructions, if any: _____

PROFILE / WASTE STREAM I.D. NUMBER: IN09712010LO

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 13 Dec 97 Signature: [Signature]
(Name and Title)

Hauler of Waste (must be filled in by hauler) EPA I.D. No.: NJD054126164
(if applicable)

COMPANY NAME: Freehold cartage, Inc.

ADDRESS: Route 33 East, Freehold, NJ 07728

Pick-up Date: 13 Dec 97 Truck No.: 85 Vehicle Lic. No.: AA-2186/15

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

Processing Facility: **R3 Technologies, Inc.**
7 Steel Road East
Morrisville, PA 19067-0847
Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 12/18/97

(Signature of authorized agent and title)

REGULATORY AGENCY

Manifest No.: 17199

technologies

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847 • Phone: (215) 428-1700

NON-HAZARDOUS WASTE MANIFEST1. EPA I.D. No., Generator of Waste: N/ACompany Name: (Print or Type) Nassau ToolPick-up Address: 34 Lamar Street West Babylon NY
(No.) (Street) (City) (State)Telephone Number: 516-642-5000

Fax Number: _____

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.Tons: _____ Cubic Yards: 15 Other: (Specify) _____Waste Type: Dry well material contaminated with lubricating oil

Special Handling Instructions, if any: _____

PROFILE / WASTE STREAM I.D. NUMBER:

INO97120LO

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12/19/97

Signature: _____

(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No.: _____

NJD054126164

(if applicable)

COMPANY NAME: Freehold Cartage, Inc.ADDRESS: Route 33 East, Freehold, NJ 07728Pick-up Date: 12/13/97 Truck No.: 585 Vehicle Lic. No.: NJ AA105L

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

(Signature of authorized agent and title)

3. Processing Facility: R3 Technologies, Inc.7 Steel Road EastMorrisville, PA 19067-0847Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 12/19/97

(Signature of authorized agent and title)

REGULATORY AGENCY

Manifest No.: NT001



technologies

R3 Technologies, Inc. • 7 Steel Road East • P.O. Box 847 • Morrisville, PA 19067-0847

NON-HAZARDOUS WASTE MANIFEST

EPA I.D. No., Generator of Waste: N/A

Company Name: (Print or Type) Nassau Tools

Pick-up Address: 36 Lamar Street West Babylon NY
(No.) (Street) (City) (State)

Telephone Number: 516-755-4000 Fax Number: _____

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.P. regulations.

Tons: _____ Cubic Yards: 15 Other: (Specify) _____

Waste Type: Dry wells contaminated with lubricating oils.

Special Handling Instructions, if any: _____

PROFILE / WASTE STREAM I.D. NUMBER:

IN09712010LO

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 12-09-97 Signature: [Signature]
(Name and Title)

Hauler of Waste (must be filled in by hauler) EPA I.D. No.: NJD054126164
(if applicable)

COMPANY NAME: Freehold Cartage, Inc.

ADDRESS: Route 33 East, Freehold, NJ 07728

Pick-up Date: 12-09-97 Truck No.: 85 Vehicle Lic. No.: AA218 G

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

[Signature]
(Signature of authorized agent and title)

Processing Facility: **R3 Technologies, Inc.**
7 Steel Road East
Morrisville, PA 19067-0847
Permit #301254

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on this date: 12/9/97

[Signature]
(Signature of authorized agent and title)

GENERATOR

APPENDIX F

**Waste Manifest & Certificate of Destruction For Drum Disposal
& UST Tank Recycling Receipt**

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N/A	Manifest Document No. 127526	2. Page 1 of 11
3. Generator's Name and Mailing Address Nassau County, NY				
4. Generator's Location Nassau County, NY				
5. Transporter 1 Company Name Trade Winds Environmental Restoration		6. US EPA ID Number N10 000936385	7. PA-385	
8. Transporter 2 Company Name ETZ Transportation		9. US EPA ID Number PA0987271020	10. PA-94-0413	
9. Designated Facility Name and Site Address United Environmental Group 241 McAlister Road Sewickley PA		10. US EPA ID Number PA0987283140	A. Transporter's Phone 516-755-4000 B. Transporter's Phone 800-851-7156 C. Facility's Phone 412-367-0515	
11. Waste Shipping Name and Description		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol
a. #2 oil contaminated soil		2 DM	110	G
b. TANK BOTTOMS (#2 oil) (m.c.)		0.01 DM	0.0055	G
c.				
d.				
D. Additional Descriptions for Materials Listed Above		E. Handling Codes for Wastes Listed Above A12		
15. Special Handling Instructions and Additional Information In case of emergency call 516-755-4000 24hrs. Job # 97-1311E				
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.				
Printed/Typed Name ALBERT C. EPPERS		Signature Albert C. Eppers		Month Day Year 01/16/98
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name Aston Coding		Signature Aston Coding		Month Day Year 01/16/98
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name DANIEL E. HOGAN		Signature Daniel E. Hogan		Month Day Year 02/25/98
19. Discrepancy Indication Space				
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.				
Printed/Typed Name ROBERT E. LUCIAN JR		Signature Robert E. Lucian Jr.		Month Day Year 02/26/98

ORIGINAL - RETURN TO GENERATOR

12-BLS-C6 Rev. 494



No. 120569

**GERSHOW RECYCLING
OF NEW HYDE PARK**

WHOLESALE DEALERS IN SCRAP IRON
24 DENISON AVENUE, NEW HYDE PARK, NY 11040
PHONE (516) 748-1081

NAME Trade - Winds DATE 11/11 1997

GROSS

Tare

Net

1 CUT & cleaned Steel Tank
550 gallon

COMMODITY

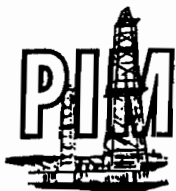
1/Steel Tank

NASSAU Tools

\$3.25

MAN ON ☐

MAN OFF ☐



412-367-0515
Petroleum Industry
Maintenance

Certificate

OF THERMAL DESTRUCTION

UNITED ENVIRONMENTAL GROUP INC.

241 McALEER ROAD
SEWICKLEY, PA 15143



412-367-8265
Penn Tank
Disposal

EPA #PAD987283140

UEG does hereby certify that Three 55-gallon drums of non-hazardous petroleum contaminated soil have been received from:

Generator: Nassau Tool Works

Address: 35 Lamar St., West Babylon, NY

Job Site: Nassau Tool Works

Address: 35 Lamar St., West Babylon, NY

Soils have been thermally treated and are considered "clean fill". All parties are released from liability for these soils.

Name and Title: [Signature]

Operations Mgr.

Date: March 4, 1998

APPENDIX G

Form I Data Sheets: UST Endpoint Sample Results

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

550BC

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733345

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07317.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 2.5 Date Analyzed: 11/13/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	5	JB	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

550BC

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733345
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07317.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 2.5 Date Analyzed: 11/13/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	14.27	13	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

550BC

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733345

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07317.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 2.5 Date Analyzed: 11/13/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	10		U
74-83-9	Bromomethane	10		U
75-01-4	Vinyl Chloride	10		U
75-00-3	Chloroethane	10		U
75-09-2	Methylene Chloride	5		JB
67-64-1	Acetone	10		U
75-15-0	Carbon Disulfide	10		U
75-35-4	1,1-Dichloroethene	10		U
75-34-4	1,1-Dichloroethane	10		U
540-59-0	1,2-Dichloroethene (total)	10		U
78-93-3	2-Butanone	10		U
67-66-3	Chloroform	10		U
107-06-2	1,2-Dichloroethane	10		U
71-55-6	1,1,1-Trichloroethane	10		U
56-23-5	Carbon Tetrachloride	10		U
75-27-4	Bromodichloromethane	10		U
78-87-5	1,2-Dichloropropane	10		U
10061-01-5	cis-1,3-Dichloropropene	10		U
79-01-6	Trichloroethene	10		U
71-43-2	Benzene	10		U
124-48-1	Dibromochloromethane	10		U
10061-02-6	trans-1,3-Dichloropropene	10		U
79-00-5	1,1,2-Trichloroethane	10		U
75-25-2	Bromoform	10		U
108-10-1	4-Methyl-2-Pentanone	10		U
591-78-6	2-Hexanone	10		U
127-18-4	Tetrachloroethene	10		U
79-34-5	1,1,2,2-Tetrachloroethane	10		U
108-88-3	Toluene	10		U
108-90-7	Chlorobenzene	10		U
100-41-4	Ethylbenzene	10		U
100-42-5	Styrene	10		U
1330-20-7	Xylene (total)	10		U

V 0093

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

550BC

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733345
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07317.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 2.5 Date Analyzed: 11/13/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	14.27	13	J

V 0094

1
INORGANIC ANALYSIS DATA SHEET

X550BC

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG012

Matrix (soil/water): SOIL

Lab Sample ID: 9733345

Level (low/med): LOW

Date Received: 11/11/97

% Solids: 97.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	742			P
7440-36-0	Antimony	0.31	U	N	P
7440-38-2	Arsenic	0.25	U		P
7440-39-3	Barium	2.8	B		P
7440-41-7	Beryllium	0.08	B		P
7440-43-9	Cadmium	0.03	U	*	P
7440-70-2	Calcium	77.0	B	*	P
7440-47-3	Chromium	2.2		N*	P
7440-48-4	Cobalt	0.51	B		P
7440-50-8	Copper	1.6	B		P
7439-89-6	Iron	2680			P
7439-92-1	Lead	1.3			P
7439-95-4	Magnesium	175	B	*	P
7439-96-5	Manganese	28.7			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	1.6	B		P
7440-09-7	Potassium	68.8	B		P
7782-49-2	Selenium	0.29	U		P
7440-22-4	Silver	0.09	U		P
7440-23-5	Sodium	16.8	B	E	P
7440-28-0	Thallium	0.27	U		P
7440-62-2	Vanadium	2.4	B		P
7440-66-6	Zinc	7.2			P
	Cyanide	0.51	U		CA

Color Before: LT.BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After: CLEAR

Artifacts:

Comments:

550BC

DATE REPORTED: NOVEMBER 20, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

550E

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733346

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07305.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 4.6 Date Analyzed: 11/12/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	5	JB	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	1	J	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

V 0101

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

550E

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733346
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07305.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 4.6 Date Analyzed: 11/12/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume ✓ (uL) Soil Aliquot Volume: ✓ (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown siloxane	17.59	6	J

V 0102

1
INORGANIC ANALYSIS DATA SHEET

XX550E

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG012

Matrix (soil/water): SOIL

Lab Sample ID: 9733346

Level (low/med): LOW

Date Received: 11/11/97

% Solids: 95.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1780	-		P
7440-36-0	Antimony	0.31	U	N	P
7440-38-2	Arsenic	1.5	-		P
7440-39-3	Barium	10.4	B		P
7440-41-7	Beryllium	0.31	B		P
7440-43-9	Cadmium	1.6	-	*	P
7440-70-2	Calcium	5960	-	*	P
7440-47-3	Chromium	27.5	-	N*	P
7440-48-4	Cobalt	4.1	B		P
7440-50-8	Copper	23.6	-		P
7439-89-6	Iron	3790	-		P
7439-92-1	Lead	12.1	-		P
7439-95-4	Magnesium	3370	-	*	P
7439-96-5	Manganese	38.4	-		P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	27.4	-		P
7440-09-7	Potassium	148	B		P
7782-49-2	Selenium	0.29	U		P
7440-22-4	Silver	0.16	B		P
7440-23-5	Sodium	29.7	B	E	P
7440-28-0	Thallium	0.56	B		P
7440-62-2	Vanadium	5.8	-		P
7440-66-6	Zinc	93.2	-		P
	Cyanide	0.52	U		CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: BROWN

Clarity After: CLEAR

Artifacts:

Comments:

550E

DATE REPORTED: NOVEMBER 20, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

550W

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733347

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07320.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 5.6 Date Analyzed: 11/13/97

GC Column: RTX502 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/KG Q

74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	3	JB
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-4	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
71-43-2	Benzene	11	U
124-48-1	Dibromochloromethane	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

550W

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733347
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07320.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 5.6 Date Analyzed: 11/13/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 2

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	14.28	8	J
2.	unknown siloxane	17.61	8	J

S 0041

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

550W

Lab Name: H2M LABS INC Contract: _____

Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012

Matrix: (soil/water) SOIL Lab Sample ID: 9733347

Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07320.D

Level: (low/med) LOW Date Received: 11/11/97

% Moisture: not dec. 5.6 Date Analyzed: 11/13/97

GC Column: RTX502 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/KG	Q
74-87-3	Chloromethane	11	U	U
74-83-9	Bromomethane	11	U	U
75-01-4	Vinyl Chloride	11	U	U
75-00-3	Chloroethane	11	U	U
75-09-2	Methylene Chloride	3	JB	JB
67-64-1	Acetone	11	U	U
75-15-0	Carbon Disulfide	11	U	U
75-35-4	1,1-Dichloroethene	11	U	U
75-34-4	1,1-Dichloroethane	11	U	U
540-59-0	1,2-Dichloroethene (total)	11	U	U
78-93-3	2-Butanone	11	U	U
67-66-3	Chloroform	11	U	U
107-06-2	1,2-Dichloroethane	11	U	U
71-55-6	1,1,1-Trichloroethane	11	U	U
56-23-5	Carbon Tetrachloride	11	U	U
75-27-4	Bromodichloromethane	11	U	U
78-87-5	1,2-Dichloropropane	11	U	U
10061-01-5	cis-1,3-Dichloropropene	11	U	U
79-01-6	Trichloroethene	11	U	U
71-43-2	Benzene	11	U	U
124-48-1	Dibromochloromethane	11	U	U
10061-02-6	trans-1,3-Dichloropropene	11	U	U
79-00-5	1,1,2-Trichloroethane	11	U	U
75-25-2	Bromoform	11	U	U
108-10-1	4-Methyl-2-Pentanone	11	U	U
591-78-6	2-Hexanone	11	U	U
127-18-4	Tetrachloroethene	11	U	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U	U
108-88-3	Toluene	11	U	U
108-90-7	Chlorobenzene	11	U	U
100-41-4	Ethylbenzene	11	U	U
100-42-5	Styrene	11	U	U
1330-20-7	Xylene (total)	11	U	U

V 0109

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

550W

Lab Name: H2M LABS INC Contract: _____
Lab Code: 10478 Case No.: PWG SAS No.: _____ SDG No.: PWG012
Matrix: (soil/water) SOIL Lab Sample ID: 9733347
Sample wt/vol: 5.0 (g/ml) G Lab File ID: P07320.D
Level: (low/med) LOW Date Received: 11/11/97
% Moisture: not dec. 5.6 Date Analyzed: 11/13/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume ✓ (uL) Soil Aliquot Volume: ✓ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 2

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown	14.28	8	J
2.	unknown siloxane	17.61	8	J

INORGANIC ANALYSIS DATA SHEET

XX550W

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG012

Matrix (soil/water): SOIL

Lab Sample ID: 9733347

Level (low/med): LOW

Date Received: 11/11/97

% Solids: 94.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3380			P
7440-36-0	Antimony	0.32	U	N	P
7440-38-2	Arsenic	2.4			P
7440-39-3	Barium	8.8	B		P
7440-41-7	Beryllium	0.16	B		P
7440-43-9	Cadmium	0.05	B	*	P
7440-70-2	Calcium	22600		*	P
7440-47-3	Chromium	9.9		N*	P
7440-48-4	Cobalt	2.2	B		P
7440-50-8	Copper	7.1			P
7439-89-6	Iron	5750			P
7439-92-1	Lead	10.9			P
7439-95-4	Magnesium	13000		*	P
7439-96-5	Manganese	72.4			P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	10.0			P
7440-09-7	Potassium	167	B		P
7782-49-2	Selenium	0.30	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	39.0	B	E	P
7440-28-0	Thallium	0.28	U		P
7440-62-2	Vanadium	7.6			P
7440-66-6	Zinc	20.6			P
	Cyanide	0.53	U		CA

Color Before: LT.BROWN

Clarity Before:

Texture: COARSE

Color After: BROWN

Clarity After: CLEAR

Artifacts:

Comments:

550W

DATE REPORTED: NOVEMBER 20, 1997

WET APPEARANCE

APPENDIX H
Driller's Logs

LAND, AIR, WATER ENVIRONMENTAL SERVICES, INC.

DRILLER'S LOGS

Boring B-1

Page# 1 of 1

DATE: October 21, 1997

SITE: Nassau Tool
W. Babylon, New York

CLIENT: P.W. Grosser Consulting
Sayville, New York

DEPTH DRILLED: 16 feet

DEPTH TO WATER: 15 feet

DRILLING METHOD: Hollow Stem Auger 6 5/8"

BORING GROUTED: No

CORING DEVISE: 2" X 24"

DRILLING FLUID: None

HAMMER DROP: 30 inches

HAMMER WEIGHT: 140 lb.

DRILLER: C Pedersen

HELPER: T. Colacicco

DEPTH FROM	TO	RECOVERY	BLOWS / 6 INCHES	SAMPLE DESCRIPTION
0 ft	2 ft	14 inches	5-8-9-12	Dark brown/tan sand, coarse/medium/fine, 5% gravel, (SP)
2 ft	4 ft	18 inches	4-6-8-8	Tan sand, coarse/medium, 10% gravel, (SP)
4 ft	6 ft	11 inches	4-7-10-12	Tan/white sand, coarse/medium, trace gravel, (SP)
6 ft	8 ft	13 inches	5-8-10-14	Tan/white sand, coarse/medium, 5% gravel, (SP)
8 ft	10 ft	15 inches	9-13-14-12	Tan sand, coarse/medium, 20% gravel, (SP)
10 ft	12 ft	9 inches	10-14-15-15	Tan sand, coarse/medium, 40% gravel, (SP)
12 ft	14 ft		9-10-12-10	No Recovery
14 ft	16 ft	4 inches	5-9-9-12	Tan sand, coarse/medium, 25% gravel, wet, (SP)

LAND, AIR, WATER ENVIRONMENTAL SERVICES, INC.

DRILLER'S LOGS

Well MW-1

Page# 1 of 1

DATE: October 21, 1997

SITE: Nassau Tool
W. Babylon, New York

CLIENT: P.W. Grosser Consulting
Sayville, New York

DEPTH DRILLED: 32 feet

DEPTH TO WATER: 16' 2"

CASING INSTALLED: 10 feet PVC

SCREEN INSTALLED: 20 feet PVC

CASING DIAMETER: 4 inches

SLOT SIZE: 0.02 inches

DRILLING METHOD: Hollow Stem Auger 6 5/8"

WELL GROUTED: Yes

CORING DEVISE: 2" X 24"

DRILLING FLUID: None

HAMMER DROP: 30 inches

HAMMER WEIGHT: 140 lb.

DRILLER: C Pedersen

HELPER: T. Colacicco

DEPTH FROM TO		RECOVERY	BLOWS / 6 INCHES	SAMPLE DESCRIPTION
0 ft	5 ft		Hand	Brown sand, medium/fine, 25% gravel
5 ft	14 ft		Auger Cuttings	Brown/tan sand, coarse/medium, 20% gravel
14 ft	24 ft		Auger Cuttings	Tan sand, coarse/medium, 20% gravel
24 ft	26 ft	6 inches	8-10-11-14	Tan sand, coarse/medium, 20% gravel, wet, (SP)
26 ft	32 ft		Auger Cuttings	Tan sand, coarse/medium, 10% gravel, wet

LAND, AIR, WATER ENVIRONMENTAL SERVICES, INC.

DRILLER'S LOGS

Well MW-2

Page# 1 of 1

DATE: October 21, 1997

SITE: Nassau Tool
W. Babylon, New York

CLIENT: P.W. Grosser Consulting
Sayville, New York

DEPTH DRILLED: 32 feet

DEPTH TO WATER: 15' 4"

CASING INSTALLED: 10 feet PVC

SCREEN INSTALLED: 20 feet PVC

CASING DIAMETER: 4 inches

SLOT SIZE: 0.02 inches

DRILLING METHOD: Hollow Stem Auger 6 5/8"

WELL GROUTED: Yes

CORING DEVICE: 2" X 24"

DRILLING FLUID: None

HAMMER DROP: 30 inches

HAMMER WEIGHT: 140 lb.

DRILLER: C Pedersen

HELPER: T. Colacicco

DEPTH FROM TO		RECOVERY	BLOWS / 6 INCHES	SAMPLE DESCRIPTION
0 ft	3 ft		Hand	Dark brown sand, medium/fine, 20% gravel
3 ft	12 ft		Auger Cuttings	Tan sand, coarse/medium, 25% gravel
12 ft	24 ft		Auger Cuttings	Brown/tan sand, coarse/medium, 25% gravel, wet, strong odor, 120ppm
24 ft	26 ft	12 inches	3-5-6-10	Light tan sand, coarse/medium, 20% gravel, wet, (SP)
26 ft	32 ft		Auger Cuttings	Light tan sand, coarse/medium, 20% gravel, wet

LAND, AIR, WATER ENVIRONMENTAL SERVICES, INC.

DRILLER'S LOGS

Well MW-3

Page# 1 of 1

DATE: October 20, 1997

SITE: Nassau Tool
W. Babylon, New York

CLIENT: P.W. Grosser Consulting
Sayville, New York

DEPTH DRILLED: 32 feet

DEPTH TO WATER: 15 feet

CASING INSTALLED: 10 feet PVC

SCREEN INSTALLED: 20 feet PVC

CASING DIAMETER: 4 inches

SLOT SIZE: 0.02 inches

DRILLING METHOD: Hollow Stem Auger 6 5/8"

WELL GROUTED: Yes

CORING DEVICE: 2" X 24"

DRILLING FLUID: None

HAMMER DROP: 30 inches

HAMMER WEIGHT: 140 lb.

DRILLER: C Pedersen

HELPER: T. Colacicco

DEPTH FROM TO		RECOVERY	BLOWS / 6 INCHES	SAMPLE DESCRIPTION
0 ft	5 ft		Hand	Brown silty sand, medium/fine, 40% gravel
5 ft	15 ft		Auger Cuttings	Light brown/tan sand, coarse/medium, 25% gravel
15 ft	25 ft		Auger Cuttings	Tan sand, coarse/medium, 20% gravel
25 ft	27 ft	6 inches	4-8-9-12	Tan sand, coarse/medium, 20% gravel, wet, (SP)
27 ft	32 ft		Auger Cuttings	Tan sand, coarse/medium, 40% gravel, wet

LAND, AIR, WATER ENVIRONMENTAL SERVICES, INC.

DRILLER'S LOGS

Well MW-4

Page# 1 of 1

DATE: October 20, 1997

SITE: Nassau Tool
W. Babylon, New York

CLIENT: P.W. Grosser Consulting
Sayville, New York

DEPTH DRILLED: 32 feet

DEPTH TO WATER: 14' 7"

CASING INSTALLED: 10 feet PVC

SCREEN INSTALLED: 20 feet PVC

CASING DIAMETER: 4 inches

SLOT SIZE: 0.02 inches

DRILLING METHOD: Hollow Stem Auger 6 5/8"

WELL GROUTED: Yes

CORING DEVICE: 2" X 24"

DRILLING FLUID: None

HAMMER DROP: 30 inches

HAMMER WEIGHT: 140 lb.

DRILLER: C Pedersen

HELPER: T. Colacicco

DEPTH FROM TO		RECOVERY	BLOWS / 6 INCHES	SAMPLE DESCRIPTION
0 ft	5 ft		Hand	Brown/tan sand, coarse/medium, 20% gravel
5 ft	15 ft		Auger Cuttings	Tan sand, coarse/medium, 25% gravel
15 ft	24 ft		Auger Cuttings	Tan sand, coarse/medium, 20% gravel, wet
24 ft	26 ft	8 inches	5-8-10-14	Tan sand, coarse/medium, 10% gravel, wet, (SP)
26 ft	32 ft		Auger Cuttings	Tan sand, coarse/medium, 40% gravel, wet

LAND, AIR, WATER ENVIRONMENTAL SERVICES, INC.

DRILLER'S LOGS

Well MW-5

Page# 1 of 1

DATE: October 20, 1997

SITE: Nassau Tool
W. Babylon, New York

CLIENT: P.W. Grosser Consulting
Sayville, New York

DEPTH DRILLED: 32 feet

DEPTH TO WATER: 14' 8"

CASING INSTALLED: 10 feet PVC

SCREEN INSTALLED: 20 feet PVC

CASING DIAMETER: 4 inches

SLOT SIZE: 0.02 inches

DRILLING METHOD: Hollow Stem Auger 6 5/8"

WELL GROUTED: Yes

CORING DEVISE: 2" X 24"

DRILLING FLUID: None

HAMMER DROP: 30 inches

HAMMER WEIGHT: 140 lb.

DRILLER: C Pedersen

HELPER: T. Colacicco

DEPTH FROM TO		RECOVERY	BLOWS / 6 INCHES	SAMPLE DESCRIPTION
0 ft	5 ft		Hand	Brown/tan sand, medium/fine, 40% gravel
5 ft	15 ft		Auger Cuttings	Tan sand, coarse/medium, 25% gravel
15 ft	24 ft		Auger Cuttings	Tan sand, coarse/medium, 25% gravel
24 ft	26 ft	10 inches	5-7-7-9	Tan sand, coarse/medium, 40% gravel, wet, (SP)
26 ft	32 ft		Auger Cuttings	Tan sand, coarse/medium, 40% gravel, wet

LAND, AIR, WATER ENVIRONMENTAL SERVICES, INC.

DRILLER'S LOGS

Well MW-6

Page# 1 of 1

DATE: October 21, 1997

SITE: Nassau Tool
W. Babylon, New York

CLIENT: P.W. Grosser Consulting
Sayville, New York

DEPTH DRILLED: 32 feet

DEPTH TO WATER: 15' 6"

CASING INSTALLED: 10 feet PVC

SCREEN INSTALLED: 20 feet PVC

CASING DIAMETER: 4 inches

SLOT SIZE: 0.02 inches

DRILLING METHOD: Hollow Stem Auger 6 5/8"

WELL GROUTED: Yes

CORING DEVICE: 2" X 24"

DRILLING FLUID: None

HAMMER DROP: 30 inches

HAMMER WEIGHT: 140 lb.

DRILLER: C Pedersen

HELPER: T. Colacicco

DEPTH FROM TO		RECOVERY	BLOWS / 6 INCHES	SAMPLE DESCRIPTION
0 ft	5 ft		Hand	Brown sand, medium/fine, 20% gravel
5 ft	15 ft		Auger Cuttings	Brown/tan sand, coarse/medium, 10% gravel
15 ft	24 ft		Auger Cuttings	Tan sand, coarse/medium, 20% gravel, dry/wet
24 ft	26 ft	8 inches	4-7-9-10	Light tan sand, coarse/medium, 20% gravel, wet, (SP)
26 ft	32 ft		Auger Cuttings	Tan sand, coarse/medium, 25% gravel, wet

APPENDIX I

Waste Manifests & Certificate of Destruction For Drill Cuttings Disposal

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No. 27526		2. Page 1 of 1	
3. Generator Name and Mailing Address Nassau County Water				4. Generator's Phone			
5. Generator's Emergency Contact Name Trade Waste Environmental Restoration				6. US EPA ID Number N/A 000936385		7. RA-385	
7. Transporter 1 Company Name EVE Transportation				8. US EPA ID Number PAD987271020		9. PA-BH-0413	
9. Designated Facility Name and Site Address United Environmental Group 241 Fletcher Road Sewickley PA				10. US EPA ID Number PAD987283140		A. Transporter's Phone 516-755-4000 B. Transporter's Phone 800-851-7156 C. Facility's Phone 412-367-0515	
11. Waste Shipping Name and Description				12. Containers		13. Total Quantity	
				No. Type		Unit	
a. #2 oil contaminated soil				(m.c.) 2 DM		110 00.55 G	
b. TANK BOTTOMS (#2 oil) (m.c.)				0.01 DM		0.0055 G	
c.							
d.							
D. Additional Descriptions for Materials Listed Above				E. Handling Codes for Wastes Listed Above A22			
15. Special Handling Instructions and Additional Information In case of emergency call 516-755-4000 24hrs. Job # 97-1311E							
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.							
Printed/Typed Name ALBERT C. EPPERS				Signature Albert C. Eppers		Month Day Year 01 16 98	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Aston Coding				Signature Aston Coding		Month Day Year 01 16 98	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name DANIEL E. HOGAN				Signature Daniel E. Hogan		Month Day Year 02 25 98	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name ROBERT E. LUCKAW JR				Signature Robert E. Luckaw Jr.		Month Day Year 02 26 98	

ORIGINAL - RETURN TO GENERATOR

12-BES-C6 Rev 4/94



412-367-0515
Petroleum Industry
Maintenance

Certificate

OF THERMAL DESTRUCTION

UNITED ENVIRONMENTAL GROUP INC.

241 McALEER ROAD
SEWICKLEY, PA 15143



412-367-8265
Penn Tank
Disposal

EPA #PAD987283140

UEG does hereby certify that Three 55-gallon drums of non-hazardous petroleum contaminated soil have been received from:

Generator: Nassau Tool Works
Address: 35 Lamar St., West Babylon, NY
Job Site: Nassau Tool Works
Address: 35 Lamar St., West Babylon, NY

Soils have been thermally treated and are considered "clean fill". All parties are released from liability for these soils.

Name and Title: [Signature] Operations Mgr. Date: March 4, 1998

APPENDIX J

Non ASP-B Data Sheets: Soil Boring Sample Results

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C974434/1

10/30/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782

ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW
COLLECTED BY: Client DATE COL'D: 10/21/97 RECEIVED: 10/22/97

SAMPLE: Soil sample, B-1F

ANALYTICAL PARAMETERS

Chloromethane	ug/Kg	<1
Vinyl Chloride	ug/Kg	<1
Bromomethane	ug/Kg	<1
Chloroethane	ug/Kg	<1
Trichlorofluomethane	ug/Kg	<1
1,1 Dichloroethene	ug/Kg	<1
Methylene Chloride	ug/Kg	<1
t-1,2-Dichloroethene	ug/Kg	<1
1,1 Dichloroethane	ug/Kg	<1
Chloroform	ug/Kg	<1
111 Trichloroethane	ug/Kg	<1
Carbon Tetrachloride	ug/Kg	<1
Benzene	ug/Kg	<1
1,2 Dichloroethane	ug/Kg	<1
Trichloroethene	ug/Kg	<1
1,2 Dichloropropane	ug/Kg	<1
Bromodichloromethane	ug/Kg	<1
t-1,3Dichloropropene	ug/Kg	<1
Toluene	ug/Kg	<1
c-1,3Dichloropropene	ug/Kg	<1
112 Trichloroethane	ug/Kg	<1
Tetrachloroethene	ug/Kg	<1
Chlorodibromomethane	ug/Kg	<1
Chlorobenzene	ug/Kg	<1
Ethyl Benzene	ug/Kg	<1

ANALYTICAL PARAMETERS

m + p Xylene	ug/Kg	<2
o Xylene	ug/Kg	<1
Xylene	ug/Kg	<3
Bromoform	ug/Kg	<1
1122Tetrachloroethan	ug/Kg	<1
1,2 Dichlorobenzene	ug/Kg	<1
1,3 Dichlorobenzene	ug/Kg	<1
1,4 Dichlorobenzene	ug/Kg	<1
Styrene	ug/Kg	<1
Bromobenzene	ug/Kg	<1
Chlorotoluene	ug/Kg	<2
p-Ethyltoluene	ug/Kg	<1
135-Trimethylbenzene	ug/Kg	<1
124-Trimethylbenzene	ug/Kg	<1
Freon 113	ug/Kg	<1
Dichlorodifluomethane	ug/Kg	<1
1245 Tetramethylbenz	ug/Kg!	<1
124-Trichlorobenzene	ug/Kg	<1
c-1,2-Dichloroethene	ug/Kg	<1
Dibromochloropropane	ug/Kg	<1
Bromochloromethane	ug/Kg	<1
2,2-Dichloropropane	ug/Kg	<1
1,1-Dichloropropene	ug/Kg	<1

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 1 of 2.

DIRECTOR



ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974434/1

10/30/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782
ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW
COLLECTED BY: Client DATE COL'D:10/21/97 RECEIVED:10/22/97

SAMPLE: Soil sample, B-1F

ANALYTICAL PARAMETERS

Dibromomethane	ug/Kg	<1
Naphthalene	ug/Kg	<1
1,3-Dichloropropane	ug/Kg	<1
1,2 Dibromoethane	ug/Kg	<1
1112Tetrachloroethan	ug/Kg	<1
123-Trichloropropane	ug/Kg	<1
Hexachlorobutadiene	ug/Kg	<1
Acetone	ug/Kg	<10
Methyl Ethyl Ketone	ug/Kg	<10
Methylisobutylketone	ug/Kg	<10
Isopropylbenzene	ug/Kg	<1
p-Isopropyltoluene	ug/Kg	<1
n-Butylbenzene	ug/Kg	<1
Chlorodifluoromethan	ug/Kg	<1
n-Propylbenzene	ug/Kg	<1
tert-Butylbenzene	ug/Kg	<1
sec-Butylbenzene	ug/Kg	<1
p Diethylbenzene	ug/Kg	<1
123-Trichlorobenzene	ug/Kg	<1
ter. ButylMethylEther	ug/Kg	<1

ANALYTICAL PARAMETERS

% Solids 98

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR



377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.C974434/2

10/30/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782
ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW
COLLECTED BY: Client DATE COL'D:10/21/97 RECEIVED:10/22/97

SAMPLE: Soil sample, MW-2, 15' cuttings

ANALYTICAL PARAMETERS

Chloromethane	ug/Kg	<1
Vinyl Chloride	ug/Kg	<1
Bromomethane	ug/Kg	<1
Chloroethane	ug/Kg	<1
Trichlorofluomethane	ug/Kg	<1
1,1 Dichloroethene	ug/Kg	<1
Methylene Chloride	ug/Kg	<1
t-1,2-Dichloroethene	ug/Kg	<1
1,1 Dichloroethane	ug/Kg	<1
Chloroform	ug/Kg	<1
111 Trichloroethane	ug/Kg	<1
Carbon Tetrachloride	ug/Kg	<1
Benzene	ug/Kg	<1
1,2 Dichloroethane	ug/Kg	<1
Trichloroethene	ug/Kg	<1
1,2 Dichloropropane	ug/Kg	<1
Bromodichloromethane	ug/Kg	<1
t-1,3Dichloropropene	ug/Kg	<1
Toluene	ug/Kg	<1
c-1,3Dichloropropene	ug/Kg	<1
112 Trichloroethane	ug/Kg	<1
Tetrachloroethene	ug/Kg	<1
Chlorodibromomethane	ug/Kg	<1
Chlorobenzene	ug/Kg	<1
Ethyl Benzene	ug/Kg	<1

ANALYTICAL PARAMETERS

m + p Xylene	ug/Kg	<2
o Xylene	ug/Kg	<1
Xylene	ug/Kg	<3
Bromoform	ug/Kg	<1
1122Tetrachloroethan	ug/Kg	<1
1,2 Dichlorobenzene	ug/Kg	<1
1,3 Dichlorobenzene	ug/Kg	<1
1,4 Dichlorobenzene	ug/Kg	<1
Styrene	ug/Kg	<1
Bromobenzene	ug/Kg	<1
Chlorotoluene	ug/Kg	<2
p-Ethyltoluene	ug/Kg	<1
135-Trimethylbenzene	ug/Kg	<1
124-Trimethylbenzene	ug/Kg	<1
Freon 113	ug/Kg	<1
Dichlorodifluomethane	ug/Kg	<1
1245 Tetramethylbenz	ug/Kg!	<1
124-Trichlorobenzene	ug/Kg	<1
c-1,2-Dichloroethene	ug/Kg	<1
Dibromochloropropane	ug/Kg	<1
Bromochloromethane	ug/Kg	<1
2,2-Dichloropropane	ug/Kg	<1
1,1-Dichloropropene	ug/Kg	<1

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 1 of 2.

DIRECTOR 

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C974434/2

10/30/97

P.W. Grosser Consulting
100 South Main Street, Suite 202
Sayville, NY 11782
ATTN: Lisa Santoro

SOURCE OF SAMPLE: 34 Lamar Street, West Babylon, NTW
COLLECTED BY: Client DATE COL'D: 10/21/97 RECEIVED: 10/22/97

SAMPLE: Soil sample, MW-2, 15' cuttings

ANALYTICAL PARAMETERS

Dibromomethane	ug/Kg	<1
Naphthalene	ug/Kg	<1
1,3-Dichloropropane	ug/Kg	<1
1,2 Dibromoethane	ug/Kg	<1
1112Tetrachloroethane	ug/Kg	<1
123-Trichloropropane	ug/Kg	<1
Hexachlorobutadiene	ug/Kg	<1
Acetone	ug/Kg	<10
Methyl Ethyl Ketone	ug/Kg	<10
Methylisobutylketone	ug/Kg	<10
Isopropylbenzene	ug/Kg	<1
p-Isopropyltoluene	ug/Kg	<1
n-Butylbenzene	ug/Kg	<1
Chlorodifluoromethane	ug/Kg	<1
n-Propylbenzene	ug/Kg	<1
tert-Butylbenzene	ug/Kg	<1
sec-Butylbenzene	ug/Kg	<1
p Diethylbenzene	ug/Kg	<1
123-Trichlorobenzene	ug/Kg	<1
ter. ButylMethylEther	ug/Kg	<1

ANALYTICAL PARAMETERS

% Solids 97

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR



APPENDIX K

Form I Data Sheets: Groundwater Monitoring Wells

H2M LABS, INC.

QUALIFIERS FOR REPORTING ORGANICS DATA

Value - If the result is a value greater than or equal to the quantification limit, report the value.

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

$$\frac{(330 \text{ U})}{D} \times df \text{ where } D = \frac{100 - \% \text{ moisture}}{100}$$

and df = dilution factor

For example, at 24% moisture, $D = \frac{100 - 24}{100} = 0.76$

$$\frac{(330 \text{ U})}{0.76} \times 10 = 4300 \text{ U rounded to the appropriate number of significant figures}$$

For semivolatile soil samples, the extract must be concentrated to 0.5 mL, and the sensitivity of the analysis is not compromised by the cleanup procedures. Similarly, pesticide samples subjected to GPC are concentrated to 5.0 mL. Therefore, the CRQL values in Exhibit C will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume (see Exhibit C), this fact must be accounted for in reporting the sample quantitation limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero. (e.g.: If limit of quantification is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.) The sample quantitation limit must be adjusted for dilution as discussed for the U flag.

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 a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a Laboratory-defined flag, discussed below.

H2M LABS, INC.

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 must be used for a TIC as well as for a positively identified target compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the 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 shall be reported on separate copies of Form I. The Form I for the diluted sample shall 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 should be considered separately, e.g., a diluted analysis is not required for total xylenes unless the concentration of the peak representing the single isomer exceeds 200 ug/l or the peak representing the two coeluting isomers on that GC column exceeds 400 ug/l. Similarly, if the two 1,2-Dichloroethene isomers coelute, a diluted analysis is not required unless the concentration exceeds 400 ug/l.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed 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. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

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 must be fully described, and such description attached to the Sample Data Summary Package and the SDG narrative. Begin by using "X". If more than one flag is required, use "Y" and "Z" as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags as needed. For instance, the "X" flag might combine "A", "B", and "D" flags for some samples. The Laboratory defined flags limited to the letters "X", "Y" and "Z".

The combination of flags "BU" or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are detected in the sample.

H2M LABS, INC.

QUALIFIERS FOR METALS ANALYSIS

Q Qualifiers

- E - The reported value is estimated because of the presence of interference. An explanatory note is included in the SDG narrative.
- M - Duplicate injection precision not met.
- N - Matrix spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- + - Correlation coefficient for the MSA is less than 0.995.
- W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.

C (Concentration) Qualifiers

- B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).
- U - Entered if the analyte was analyzed for but not detected, i.e., less than the IDL.

M (Method) Qualifiers

- P - Analyzed by ICP.
- A - Analyzed by Flame AA.
- F - Analyzed by Furnace AA.
- CV - Analyzed by Manual Cold Vapor Techniques.
- AV - Analyzed by Automated Cold Vapor Techniques.
- C - Analyzed by Manual Spectrophotometric Method.
- CA - Analyzed by Midi-distillation Spectrophotometric Method.
- NR - Analyte is Not Required.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011

Matrix: (soil/water) WATER Lab Sample ID: 9733032

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15590.D

Level: (low/med) LOW Date Received: 11/07/97

% Moisture: not dec. _____ Date Analyzed: 11/10/97

GC Column: RTX502 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		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		64	
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		1	J
75-34-4	1,1-Dichloroethane		180	
540-59-0	1,2-Dichloroethene (total)		3	J
78-93-3	2-Butanone		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane		10	U
71-55-6	1,1,1-Trichloroethane		220	E
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		2	J
71-43-2	Benzene		10	U
124-48-1	Dibromochloromethane		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U
108-88-3	Toluene		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
100-42-5	Styrene		10	U
1330-20-7	Xylene (total)		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW1DL

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011
Matrix: (soil/water) WATER Lab Sample ID: 9733032DL
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15610.D
Level: (low/med) LOW Date Received: 11/07/97
% Moisture: not dec. _____ Date Analyzed: 11/11/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 2.5
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738256

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16212.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502 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	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	130		
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	3	J	
75-34-4	1,1-Dichloroethane	460	E	
540-59-0	1,2-Dichloroethene (total)	8	J	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	320	E	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	2	J	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	5	J	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW1

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738256

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16212.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	c3 subs.benzene	16.37	10	J
2.	c3 subs.benzene	16.85	10	J

1
INORGANIC ANALYSIS DATA SHEET

XXXXMW1

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG011

Matrix (soil/water): WATER

Lab Sample ID: 9733032

Level (low/med): LOW

Date Received: 11/07/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	125	B	*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	2.4	U		P
7440-39-3	Barium	34.4	B		P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	9680			P
7440-47-3	Chromium	0.40	U		P
7440-48-4	Cobalt	3.2	B		P
7440-50-8	Copper	0.70	U		P
7439-89-6	Iron	9880		*	P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	1930	B		P
7439-96-5	Manganese	339			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.3	B		P
7440-09-7	Potassium	2270	B		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	6370			P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	1.2	U		P
7440-66-6	Zinc	11.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 5, 1997

H2M LABS, INC. MICROFORMS/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

XXXMW1

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG015

Matrix (soil/water): WATER

Lab Sample ID: 9738256

Level (low/med): LOW

Date Received: 12/29/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	537	-		P
7440-36-0	Antimony	2.5	U		P
7440-38-2	Arsenic	1.1	U		P
7440-39-3	Barium	36.9	B		P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	9130	-		P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	1.5	B		P
7439-89-6	Iron	9210	-		P
7439-92-1	Lead	1.7	B		P
7439-95-4	Magnesium	1920	B		P
7439-96-5	Manganese	289	-		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	2070	B		P
7782-49-2	Selenium	2.4	U		P
7440-22-4	Silver	0.80	U		P
7440-23-5	Sodium	5770	-		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	15.1	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: JANUARY 22, 1998

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1DL

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011

Matrix: (soil/water) WATER Lab Sample ID: 9733032DL

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15610.D

Level: (low/med) LOW Date Received: 11/07/97

% Moisture: not dec. _____ Date Analyzed: 11/11/97

GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 2.5

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	25	U	
74-83-9	Bromomethane	25	U	
75-01-4	Vinyl Chloride	25	U	
75-00-3	Chloroethane	68	D	
75-09-2	Methylene Chloride	25	U	
67-64-1	Acetone	25	U	
75-15-0	Carbon Disulfide	25	U	
75-35-4	1,1-Dichloroethene	25	U	
75-34-4	1,1-Dichloroethane	170	D	
540-59-0	1,2-Dichloroethene (total)	4	JD	
78-93-3	2-Butanone	25	U	
67-66-3	Chloroform	25	U	
107-06-2	1,2-Dichloroethane	25	U	
71-55-6	1,1,1-Trichloroethane	200	D	
56-23-5	Carbon Tetrachloride	25	U	
75-27-4	Bromodichloromethane	25	U	
78-87-5	1,2-Dichloropropane	25	U	
10061-01-5	cis-1,3-Dichloropropene	25	U	
79-01-6	Trichloroethene	25	U	
71-43-2	Benzene	25	U	
124-48-1	Dibromochloromethane	25	U	
10061-02-6	trans-1,3-Dichloropropene	25	U	
79-00-5	1,1,2-Trichloroethane	25	U	
75-25-2	Bromoform	25	U	
108-10-1	4-Methyl-2-Pentanone	25	U	
591-78-6	2-Hexanone	25	U	
127-18-4	Tetrachloroethene	25	U	
79-34-5	1,1,2,2-Tetrachloroethane	25	U	
108-88-3	Toluene	25	U	
108-90-7	Chlorobenzene	25	U	
100-41-4	Ethylbenzene	25	U	
100-42-5	Styrene	25	U	
1330-20-7	Xylene (total)	25	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1DL

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738256DL

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16229.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/05/98

GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 5.0

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	50	U	
74-83-9	Bromomethane	50	U	
75-01-4	Vinyl Chloride	50	U	
75-00-3	Chloroethane	110	D	
75-09-2	Methylene Chloride	50	U	
67-64-1	Acetone	50	U	
75-15-0	Carbon Disulfide	50	U	
75-35-4	1,1-Dichloroethene	50	U	
75-34-4	1,1-Dichloroethane	410	D	
540-59-0	1,2-Dichloroethene (total)	7	JD	
78-93-3	2-Butanone	50	U	
67-66-3	Chloroform	50	U	
107-06-2	1,2-Dichloroethane	50	U	
71-55-6	1,1,1-Trichloroethane	290	D	
56-23-5	Carbon Tetrachloride	50	U	
75-27-4	Bromodichloromethane	50	U	
78-87-5	1,2-Dichloropropane	50	U	
10061-01-5	cis-1,3-Dichloropropene	50	U	
79-01-6	Trichloroethene	50	U	
71-43-2	Benzene	50	U	
124-48-1	Dibromochloromethane	50	U	
10061-02-6	trans-1,3-Dichloropropene	50	U	
79-00-5	1,1,2-Trichloroethane	50	U	
75-25-2	Bromoform	50	U	
108-10-1	4-Methyl-2-Pentanone	50	U	
591-78-6	2-Hexanone	50	U	
127-18-4	Tetrachloroethene	50	U	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	
108-88-3	Toluene	7	JD	
108-90-7	Chlorobenzene	50	U	
100-41-4	Ethylbenzene	50	U	
100-42-5	Styrene	50	U	
1330-20-7	Xylene (total)	50	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW1DL

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015
Matrix: (soil/water) WATER Lab Sample ID: 9738256DL
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16229.D
Level: (low/med) LOW Date Received: 12/29/97
% Moisture: not dec. _____ Date Analyzed: 01/05/98
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 5.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011 11/16/97

Matrix: (soil/water) WATER Lab Sample ID: 9733033

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15591.D

Level: (low/med) LOW Date Received: 11/07/97

% Moisture: not dec. _____ Date Analyzed: 11/10/97

GC Column: RTX502 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	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	2	J	
540-59-0	1,2-Dichloroethene (total)	10	U	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	12		
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW12

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011
Matrix: (soil/water) WATER Lab Sample ID: 9733033
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15591.D
Level: (low/med) LOW Date Received: 11/07/97
% Moisture: not dec. _____ Date Analyzed: 11/10/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738257

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16213.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502 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	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	2	J	
540-59-0	1,2-Dichloroethene (total)	1	J	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	8	J	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	3	J	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW2

Lab Name: H2M LABS, INC

Contract: _____

Lab Code: H2M

Case No.: _____

SAS No.: _____

SDG No.: PWG015

Matrix: (soil/water) WATER

Lab Sample ID: 9738257

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

Lab File ID: A16213.D

Level: (low/med) LOW

Date Received: 12/29/97

% Moisture: not dec. _____

Date Analyzed: 01/02/98

GC Column: RTX502 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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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H2M LABS, INC. BIOFORMS/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

XXXMW2

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG011

Matrix (soil/water): WATER

Lab Sample ID: 9733033

Level (low/med): LOW

Date Received: 11/07/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	123	B	*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	2.4	U		P
7440-39-3	Barium	35.3	B		P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	9670			P
7440-47-3	Chromium	0.40	U		P
7440-48-4	Cobalt	1.1	B		P
7440-50-8	Copper	0.70	U		P
7439-89-6	Iron	357		*	P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	1980	B		P
7439-96-5	Manganese	66.3			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.9	B		P
7440-09-7	Potassium	1970	B		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	10100			P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	1.2	U		P
7440-66-6	Zinc	11.0	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 5, 1997

H2M LABS, INC. ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

XXXXMW2

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG015

Matrix (soil/water): WATER

Lab Sample ID: 9738257

Level (low/med): LOW

Date Received: 12/29/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	338	—		P
7440-36-0	Antimony	2.5	U		P
7440-38-2	Arsenic	1.5	B		P
7440-39-3	Barium	36.1	B		P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	9310	—		P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	2.0	B		P
7439-89-6	Iron	1550	—		P
7439-92-1	Lead	1.1	B		P
7439-95-4	Magnesium	1930	B		P
7439-96-5	Manganese	57.1	—		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	2060	B		P
7782-49-2	Selenium	2.4	U		P
7440-22-4	Silver	0.80	U		P
7440-23-5	Sodium	9980	—		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	16.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: JANUARY 22, 1998

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011

Matrix: (soil/water) WATER Lab Sample ID: 9733034

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15592.D

Level: (low/med) LOW Date Received: 11/07/97

% Moisture: not dec. _____ Date Analyzed: 11/10/97

GC Column: RTX502 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		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-4	1,1-Dichloroethane		10	U
540-59-0	1,2-Dichloroethene (total)		2	J
78-93-3	2-Butanone		10	U
67-66-3	Chloroform		3	J
107-06-2	1,2-Dichloroethane		10	U
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
71-43-2	Benzene		10	U
124-48-1	Dibromochloromethane		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		1	J
79-34-5	1,1,2,2-Tetrachloroethane		10	U
108-88-3	Toluene		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
100-42-5	Styrene		10	U
1330-20-7	Xylene (total)		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW3

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011
Matrix: (soil/water) WATER Lab Sample ID: 9733034
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15592.D
Level: (low/med) LOW Date Received: 11/07/97
% Moisture: not dec. _____ Date Analyzed: 11/10/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738258

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16214.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502 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		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-4	1,1-Dichloroethane		10	U
540-59-0	1,2-Dichloroethene (total)		2	J
78-93-3	2-Butanone		10	U
67-66-3	Chloroform		2	J
107-06-2	1,2-Dichloroethane		10	U
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		1	J
71-43-2	Benzene		10	U
124-48-1	Dibromochloromethane		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		2	J
79-34-5	1,1,2,2-Tetrachloroethane		10	U
108-88-3	Toluene		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
100-42-5	Styrene		10	U
1330-20-7	Xylene (total)		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW3

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015
Matrix: (soil/water) WATER Lab Sample ID: 9738258
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16214.D
Level: (low/med) LOW Date Received: 12/29/97
% Moisture: not dec. _____ Date Analyzed: 01/02/98
GC Column: RTX502 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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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H2M LABS, INC. ENVIRONMENTAL/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

XXXMW3

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG011

Matrix (soil/water): WATER

Lab Sample ID: 9733034

Level (low/med): LOW

Date Received: 11/07/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	307		*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	2.4	U		P
7440-39-3	Barium	24.7	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	B		P
7440-70-2	Calcium	13000			P
7440-47-3	Chromium	0.40	U		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	0.70	U		P
7439-89-6	Iron	491		*	P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	1830	B		P
7439-96-5	Manganese	75.6			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	B		P
7440-09-7	Potassium	1960	B		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	5500			P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	1.2	U		P
7440-66-6	Zinc	8.9	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 5, 1997

H2M LABS, INC. ENVIRONMENTAL/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

XXXXMW3

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG015

Matrix (soil/water): WATER

Lab Sample ID: 9738258

Level (low/med): LOW

Date Received: 12/29/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	314	-		P
7440-36-0	Antimony	2.5	U		P
7440-38-2	Arsenic	1.1	U		P
7440-39-3	Barium	18.1	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	11400	-		P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	1.6	B		P
7439-89-6	Iron	546	-		P
7439-92-1	Lead	0.89	B		P
7439-95-4	Magnesium	1640	B		P
7439-96-5	Manganese	56.1	-		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	1640	B		P
7782-49-2	Selenium	2.4	U		P
7440-22-4	Silver	0.80	U		P
7440-23-5	Sodium	4650	B		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	14.9	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: JANUARY 22, 1998

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011

Matrix: (soil/water) WATER Lab Sample ID: 9733035

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15596.D

Level: (low/med) LOW Date Received: 11/07/97

% Moisture: not dec. _____ Date Analyzed: 11/10/97

GC Column: RTX502 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		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-4	1,1-Dichloroethane		22	
540-59-0	1,2-Dichloroethene (total)		10	U
78-93-3	2-Butanone		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane		10	U
71-55-6	1,1,1-Trichloroethane		6	J
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
71-43-2	Benzene		10	U
124-48-1	Dibromochloromethane		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U
108-88-3	Toluene		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
100-42-5	Styrene		10	U
1330-20-7	Xylene (total)		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW4

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011

Matrix: (soil/water) WATER Lab Sample ID: 9733035

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15596.D

Level: (low/med) LOW Date Received: 11/07/97

% Moisture: not dec. _____ Date Analyzed: 11/10/97

GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738259

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16211.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502 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	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	70		
540-59-0	1,2-Dichloroethene (total)	1	J	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	6	J	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW4

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738259

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16211.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1
INORGANIC ANALYSIS DATA SHEET

XXXXMW4

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG011

Matrix (soil/water): WATER

Lab Sample ID: 9733035

Level (low/med): LOW

Date Received: 11/07/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	177	B	*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	2.5	B		P
7440-39-3	Barium	36.6	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	11100			P
7440-47-3	Chromium	0.40	U		P
7440-48-4	Cobalt	6.8	B		P
7440-50-8	Copper	10.2	B		P
7439-89-6	Iron	1250		*	P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	987	B		P
7439-96-5	Manganese	979			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	B		P
7440-09-7	Potassium	2730	B		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	8360			P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	1.2	U		P
7440-66-6	Zinc	11.2	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 5, 1997

1
INORGANIC ANALYSIS DATA SHEET

XXXXMW4

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG015

Matrix (soil/water): WATER

Lab Sample ID: 9738259

Level (low/med): LOW

Date Received: 12/29/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	761	--		P
7440-36-0	Antimony	2.5	U		P
7440-38-2	Arsenic	3.5	B		P
7440-39-3	Barium	45.0	B		P
7440-41-7	Beryllium	0.73	B		P
7440-43-9	Cadmium	0.57	B		P
7440-70-2	Calcium	14300	--		P
7440-47-3	Chromium	0.93	B		P
7440-48-4	Cobalt	2.8	B		P
7440-50-8	Copper	14.9	B		P
7439-89-6	Iron	1760	--		P
7439-92-1	Lead	1.1	B		P
7439-95-4	Magnesium	2240	B		P
7439-96-5	Manganese	337	--		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.9	B		P
7440-09-7	Potassium	2970	B		P
7782-49-2	Selenium	2.4	U		P
7440-22-4	Silver	0.80	U		P
7440-23-5	Sodium	9200	--		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	1.4	B		P
7440-66-6	Zinc	14.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: JANUARY 22, 1998

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011

Matrix: (soil/water) WATER Lab Sample ID: 9733036

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15607.D

Level: (low/med) LOW Date Received: 11/07/97

% Moisture: not dec. _____ Date Analyzed: 11/11/97

GC Column: RTX502 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	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-4	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW5

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011
Matrix: (soil/water) WATER Lab Sample ID: 9733036
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15607.D
Level: (low/med) LOW Date Received: 11/07/97
% Moisture: not dec. _____ Date Analyzed: 11/11/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738260

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16215.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502. 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		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-4	1,1-Dichloroethane		10	U
540-59-0	1,2-Dichloroethene (total)		10	U
78-93-3	2-Butanone		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane		10	U
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
71-43-2	Benzene		10	U
124-48-1	Dibromochloromethane		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U
108-88-3	Toluene		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
100-42-5	Styrene		10	U
1330-20-7	Xylene (total)		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO:

MW5

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738260

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16215.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1
INORGANIC ANALYSIS DATA SHEET

XXXXMW5

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG011

Matrix (soil/water): WATER

Lab Sample ID: 9733036

Level (low/med): LOW

Date Received: 11/07/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	289	-	*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	2.4	U		P
7440-39-3	Barium	68.8	B		P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.80	B		P
7440-70-2	Calcium	16000	-		P
7440-47-3	Chromium	1.9	B		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	0.97	B		P
7439-89-6	Iron	421	-	*	P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	3380	B		P
7439-96-5	Manganese	279			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.5	B		P
7440-09-7	Potassium	2580	B		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	14700	-		P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	1.2	U		P
7440-66-6	Zinc	10.6	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 5, 1997

H2M LABS, INC. MICROFORMS/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

XXXXMW5

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG015

Matrix (soil/water): WATER

Lab Sample ID: 9738260

Level (low/med): LOW

Date Received: 12/29/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	78.6	B		P
7440-36-0	Antimony	2.5	U		P
7440-38-2	Arsenic	1.1	U		P
7440-39-3	Barium	83.9	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.70	B		P
7440-70-2	Calcium	16500			P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	0.90	U		P
7439-89-6	Iron	135			P
7439-92-1	Lead	0.70	U		P
7439-95-4	Magnesium	3580	B		P
7439-96-5	Manganese	440			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	2920	B		P
7782-49-2	Selenium	2.4	U		P
7440-22-4	Silver	0.80	U		P
7440-23-5	Sodium	17000			P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	11.0	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: JANUARY 22, 1998

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No. _____ SDG No.: 011

Matrix: (soil/water) WATER Lab Sample ID: 9733037

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15593.D

Level: (low/med) LOW Date Received: 11/07/97

% Moisture: not dec. _____ Date Analyzed: 11/10/97

GC Column: RTX502 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		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-4	1,1-Dichloroethane		10	U
540-59-0	1,2-Dichloroethene (total)		10	U
78-93-3	2-Butanone		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane		10	U
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
71-43-2	Benzene		10	U
124-48-1	Dibromochloromethane		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U
108-88-3	Toluene		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
100-42-5	Styrene		10	U
1330-20-7	Xylene (total)		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW6

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011
Matrix: (soil/water) WATER Lab Sample ID: 9733037
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15593.D
Level: (low/med) LOW Date Received: 11/07/97
% Moisture: not dec. _____ Date Analyzed: 11/10/97
GC Column: R1X502 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

Number TICs found: 0

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738261

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16216.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502 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		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-4	1,1-Dichloroethane		10	U
540-59-0	1,2-Dichloroethene (total)		10	U
78-93-3	2-Butanone		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane		10	U
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
71-43-2	Benzene		10	U
124-48-1	Dibromochloromethane		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U
108-88-3	Toluene		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
100-42-5	Styrene		10	U
1330-20-7	Xylene (total)		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW6

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015
Matrix: (soil/water) WATER Lab Sample ID: 9738261
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16216.D
Level: (low/med) LOW Date Received: 12/29/97
% Moisture: not dec. _____ Date Analyzed: 01/02/98
GC Column: RTX502 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

Number TICs found: 1

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1. 001634-04-4	Propane, 2-methoxy-2-methyl-	7.36	5	JN

1
INORGANIC ANALYSIS DATA SHEET

XXXXMW6

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG011

Matrix (soil/water): WATER

Lab Sample ID: 9733037

Level (low/med): LOW

Date Received: 11/07/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	856	-	*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	2.4	U		P
7440-39-3	Barium	54.2	B		P
7440-41-7	Beryllium	0.77	B		P
7440-43-9	Cadmium	1.2	B		P
7440-70-2	Calcium	18400	-		P
7440-47-3	Chromium	2.0	B		P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	4.1	B		P
7439-89-6	Iron	1120	-	*	P
7439-92-1	Lead	1.8	B		P
7439-95-4	Magnesium	3450	B		P
7439-96-5	Manganese	43.0	-		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.8	B		P
7440-09-7	Potassium	2090	B		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	15200	-		P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	2.4	B		P
7440-66-6	Zinc	12.9	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 5, 1997

H2M LABS, INC. MICROFORMS/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

XXXXMW6

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG015

Matrix (soil/water): WATER

Lab Sample ID: 9738261

Level (low/med): LOW

Date Received: 12/29/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	115	B		P
7440-36-0	Antimony	2.5	U		P
7440-38-2	Arsenic	1.1	U		P
7440-39-3	Barium	53.0	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	B		P
7440-70-2	Calcium	21100			P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	1.3	U		P
7440-50-8	Copper	0.90	U		P
7439-89-6	Iron	156			P
7439-92-1	Lead	1.2	B		P
7439-95-4	Magnesium	3790	B		P
7439-96-5	Manganese	19.1			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	2190	B		P
7782-49-2	Selenium	2.4	U		P
7440-22-4	Silver	0.80	U		P
7440-23-5	Sodium	14100			P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	15.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: JANUARY 22, 1998

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011

Matrix: (soil/water) WATER Lab Sample ID: 9733038

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15608.D

Level: (low/med) LOW Date Received: 11/07/97

% Moisture: not dec. _____ Date Analyzed: 11/11/97

GC Column: RTX502 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		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-4	1,1-Dichloroethane		2	J
540-59-0	1,2-Dichloroethene (total)		10	U
78-93-3	2-Butanone		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane		10	U
71-55-6	1,1,1-Trichloroethane		14	
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
71-43-2	Benzene		10	U
124-48-1	Dibromochloromethane		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U
108-88-3	Toluene		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
100-42-5	Styrene		10	U
1330-20-7	Xylene (total)		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW7

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: PWG SAS No.: _____ SDG No.: 011
Matrix: (soil/water) WATER Lab Sample ID: 9733038
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A15608.D
Level: (low/med) LOW Date Received: 11/07/97
% Moisture: not dec. _____ Date Analyzed: 11/11/97
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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S 6646

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW7DL

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015
Matrix: (soil/water) WATER Lab Sample ID: 9738262DL
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16222.D
Level: (low/med) LOW Date Received: 12/29/97
% Moisture: not dec. _____ Date Analyzed: 01/05/98
GC Column: RTX502 ID: 0.53 (mm) Dilution Factor: 5.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

Number TICs found: 0

(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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1
INORGANIC ANALYSIS DATA SHEET

XXXXMW7

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG011

Matrix (soil/water): WATER

Lab Sample ID: 9733038

Level (low/med): LOW

Date Received: 11/07/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	130	B	*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	2.4	U		P
7440-39-3	Barium	36.1	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	9500			P
7440-47-3	Chromium	0.40	U		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	0.70	U		P
7439-89-6	Iron	419		*	P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	1970	B		P
7439-96-5	Manganese	57.1			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.4	B		P
7440-09-7	Potassium	2010	B		P
7782-49-2	Selenium	2.8	U		P
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	10800			P
7440-28-0	Thallium	2.6	U		P
7440-62-2	Vanadium	1.2	U		P
7440-66-6	Zinc	11.7	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: DECEMBER 5, 1997

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7

Lab Name: H2M LABS, INC Contract: _____

Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015

Matrix: (soil/water) WATER Lab Sample ID: 9738262

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16217.D

Level: (low/med) LOW Date Received: 12/29/97

% Moisture: not dec. _____ Date Analyzed: 01/02/98

GC Column: RTX502 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	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	120		
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	3	J	
75-34-4	1,1-Dichloroethane	440	E	
540-59-0	1,2-Dichloroethene (total)	8	J	
78-93-3	2-Butanone	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
71-55-6	1,1,1-Trichloroethane	300	E	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	2	J	
71-43-2	Benzene	10	U	
124-48-1	Dibromochloromethane	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	5	J	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW7

Lab Name: H2M LABS, INC Contract: _____
Lab Code: H2M Case No.: _____ SAS No.: _____ SDG No.: PWG015
Matrix: (soil/water) WATER Lab Sample ID: 9738262
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: A16217.D
Level: (low/med) LOW Date Received: 12/29/97
% Moisture: not dec. _____ Date Analyzed: 01/02/98
GC Column: RTX502 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

Number TICs found: 2

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	c3 subs.benzene	16.38	9	J
2.	c3 subs.benzene	16.85	10	J

H2M LABS, INC. ENVIRONMENTAL/INORGANIC CLP

SAMPLE NO.

1 INORGANIC ANALYSIS DATA SHEET

XXXXMW7

Lab Name: H2M LABS, INC.

Contract:

Lab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: PWG015

Matrix (soil/water): WATER

Lab Sample ID: 9738262

Level (low/med): LOW

Date Received: 12/29/97

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	853	-		P
7440-36-0	Antimony	2.5	U		P
7440-38-2	Arsenic	1.1	U		P
7440-39-3	Barium	42.7	B		P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	10300	-		P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	2.2	B		P
7439-89-6	Iron	9710	-		P
7439-92-1	Lead	1.6	B		P
7439-95-4	Magnesium	2230	B		P
7439-96-5	Manganese	308	-		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	2490	B		P
7782-49-2	Selenium	2.4	U		P
7440-22-4	Silver	0.80	U		P
7440-23-5	Sodium	6910	-		P
7440-28-0	Thallium	1.9	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	19.4	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

DATE REPORTED: JANUARY 22, 1998

APPENDIX L
Data Validation Report

Data Validation Services

120 Cobble Creek Road P. O. Box 208

North Creek, N. Y. 12853

Phone 518-251-4429

April 27, 1998

Lisa Santoro
P. W. Grosser Consulting
630 Johnson Ave. Suite 7
Bohemia, NY 11716

RE: Validation of Nassau Tool Site Data Packages
H2M Labs SDG Nos. PWG010 through PWG015

Dear Ms. Santoro:

Review has been completed for the data packages generated by H2M Laboratories, pertaining to samples collected 9/17/97 through 12/29/97 at the Nassau Tool Site. Thirty two soil and fourteen aqueous samples were analysed for volatiles and TAL metals/cyanide. Six additional soil samples were processed for TAL metals/cyanide. Field and trip blanks, and matrix spikes/duplicates were also processed. Methodologies utilized are those of the 1995 NYSDEC ASP/SW846.

Data validation was performed with guidance from the most current editions of the USEPA CLP National Functional Guidelines for Organic and Inorganic Data Review and the USEPA SOPs HW-2 and HW-6. The following items were reviewed:

- * Data Completeness
- * Custody Documentation
- * Holding Times
- * Surrogate and Internal Standard Recoveries
- * Matrix Spike Recoveries/Duplicate Correlations
- * Preparation/Calibration Blanks
- * Control Spike/Laboratory Control Samples
- * Instrumental Tunes
- * Calibration Standards
- * Instrument IDLs
- * Method Compliance
- * Sample Result Verification

Those items showing deficiencies are discussed in the following sections of this report. All others were found to be acceptable as outlined in the above-mentioned validation procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results are substantiated by the raw data, and generated in compliance with protocol requirements.

In summary, sample processing was primarily conducted with compliance to protocol requirements and with adherence to quality criteria, and most reported results are usable with minor qualification. Certain edits to, and qualification of, reported results are indicated. These issues are discussed in the following analytical sections.

Copies of laboratory case narratives are attached to this narrative, and should be reviewed in conjunction with this narrative. A compliancy chart and laboratory NYSDEC Sample Preparation and Analysis Summary Forms are also included with this report.

Data Completeness

Resubmission communications are attached, and include previously omitted raw data items.

External custodies associated with SDG PWG010 were initially signed in the wrong section, but were later corrected and initialed.

Volatile Analyses

Samples SS1I, SS3-OF-1, and SS4-OF-1 had low solids content below 50% (45%, 38% and 20%, respectively). All results for the samples should be considered estimated ("J" qualifier) due to possible nonhomogeneity in the field collection and/or laboratory processing.

SS3-OF-1 exhibited outlying surrogate recoveries (one is elevated, and one is low) in the initial analysis. Results are already estimated due to low solids content.

Volatile results for SS-1I should be derived from the "-DL" analysis, with the exception of those analytes which were detected in the initial, and not detected in the "-DL" (for which the initial should be used). Results for the sample are estimated due to low solids content.

Due to poor spectral quality, the chloromethane in SS3-OF-1 should be considered tentative in identification ("N" qualifier).

The low level toluene detection in SS4-OF-1 may be a result of carryover from the previous sample, and should be edited to nondetection at 50 ug/L (i.e. "50U"). The low level detections of 1,1-dichloroethane and 1,1,1-trichloroethane in MW-2 (2nd round) may also be a result of carryover from the previous sample, and should be edited to nondetection (i.e. "10 U").

Methylene chloride and acetone were detected in certain of the method and/or trip blanks at concentrations similar to those of the samples. The sample reported methylene chloride and acetone results should therefore be edited to reflect nondetection at either the analyte CRDLs, or at the originally reported values, whichever are greater.

1,1,2,2-tetrachloroethane detections which are flagged as "B" should also be disregarded as sample components due to copresence in the associated blank. Results should be edited to nondetection at the sample CRDL.

Volatile sample values reported with the "E" flag should be derived from the dilution ("-DL") analysis values. The initial results for the samples can be used for all other analytes unless noted specifically within this text.

The following calibration standard analytes exhibited either depressed recoveries exceeding 25%D, or elevated recoveries exceeding 25%D with associated sample detections, and these parameter values should be considered estimated in associated samples (no corrective action was required):

Standard	Analyte	%D	Affected Samples
09/22/97	bromomethane	30	Soils in SDG PWG010
11/12/97 and 11/13/97	chloromethane	41, 43	Soils in SDG PWG012
	4-methyl-2-pentanone	43, 39	Soils in SDG PWG012
11/28/97	chloromethane	39	Field and trip blanks of SDG PWG013
1/02/98	chloromethane	48	Aqueous in SDG PWG015
	vinyl chloride	31	
	acetone	48	
	2-butanone	37	
	4-methyl-2-pentanone	30	
	2-hexanone	31	

Tentatively Identified Compounds (TICs) which are named siloxanes or column bleed are usually artifacts of the analytical system, and should not be considered sample components.

The TIC at 7.7' in DW-3 should be rejected. It was inadvertently reported after the analyst rejected it as an analysis artifact.

The TIC#1 at 3.83' in DW6I should be rejected; it is an analysis artifact (carbon dioxide).

All TICs reported with the "B" laboratory flag should be disregarded as sample components due to copresence in associated blanks.

Aqueous matrix spikes of MW-6 (1st round) and MW-4 (2nd round), and soil matrix spikes of 550E, showed acceptable accuracy and precision values.

Soil matrix spikes of SS-1END and SS-2END showed acceptable values, with the exception of one elevated duplicate correlation (SS-1END), and one slightly low recovery (SS-2END), for analyte 1,1-dichloroethene. Sample reported results, which involved no detection of that analyte, are unaffected.

Matrix spikes of DW-1 showed acceptable recoveries in the matrix spike, but three of the matrix spike duplicate (MSD) recoveries were low. Duplicate correlations were all above the recommended limit due to lower recoveries in the MSD. This difference is not reflected in the surrogate recoveries of the two spikes, and is therefore likely due to spiking variance, and does not affect sample reported results.

Metals/CN Analyses

Results for antimony and chromium in the soil samples in SDGs PWG010 and PWG012 should be considered estimated ("J") due to low matrix spike recoveries (64% to 68%%) in DW1 and 550E.

The duplicate correlation for 550E indicates that the cadmium results for the soil samples in SDG PWG012 should be considered estimated (variance exceeded $\pm 2XCRDL$); three other elements (calcium, chromium, and magnesium) showed outlying correlations which do not impact sample reported results.

Duplicate correlations for DW1 showed four outliers (chromium, lead, manganese, and nickel) which were not of magnitude to warrant qualification of the samples.

Results for iron and aluminum in the samples in SDG PWG011 should be considered estimated due to outlying duplicate correlations (102%RPD and 101%RPD) for MW-6; recoveries for this matrix spike were acceptable.

Matrix spike recoveries and duplicate correlations for SS-1END, SS-2END, and MW-4 (2nd round) were acceptable, with the exception of an elevated precision value for lead in SS-2END, which was not of degree (26%RPD) to indicate qualification of associated samples.

The lead standard at 6 ug/L (CRIF) in the analytical sequence of SDG PWG013 produced elevated recovery (132%); no corrective action was required. However, the lead results for samples DW3END, DW4END, DW5END, DW8END, and FLDBLK should be considered estimated, possibly biased high.

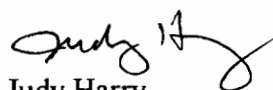
Serial dilution determinations for MW-6, SS-1END, and MW-4 produced acceptable correlation. The serial dilution evaluations for DW1 and 550E showed elevated values for sodium (21%D and 11%D), but the dilutions produced lower values, matrix effect is not indicated, and no qualification is recommended. Similarly, the serial dilution outliers for SS-2END (chromium 11%D and potassium 12%D) do not indicate qualification of associated sample results.

Field Duplicates

Field duplicates were performed: SS4-OF-3 and SS4-OF-4 (received 9/18/97), SS3-OF-5 and SS3-OF-1 (received 11-11-97), MW-2 and MW-7 (received 11-07-97), and MW-1 and MW-7 (received 12-29-97). All correlations were acceptable.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,


Judy Harry

COMPLIANCE CHART

Project: P. W. Grosser--Nassau Tool Works Site

SDG Nos. H2M Labs SDG Nos. PWG010 through PWG015

Protocol: NYSDEC 1995 ASP/SW846

Rec. Date	Sample ID	Matrix	VOA	Metals/CN	Noncompliance
09-18-97	DW-1	Soil	OK	OK	
09-18-97	DW-2	Soil	OK	OK	
09-18-97	DW-3	Soil	OK	OK	
09-17-97	DW-4I	Soil	OK	OK	
09-17-97	DW-5I	Soil	OK	OK	
09-17-97	DW-6I	Soil	OK	OK	
09-17-97	DW-7I	Soil	OK	OK	
09-17-97	DW-8I	Soil	OK	OK	
09-17-97	SS-1I	Soil	OK	OK	
09-18-97	SS-2	Soil	OK	OK	
09-18-97	SS-3 OF1	Soil	OK	OK	
09-18-97	SS-4 OF1	Soil	NO	OK	1
09-18-97	SS-4 OF2	Soil	OK	OK	
09-18-97	SS-4 OF3	Soil	OK	OK	
09-18-97	SS-4 OF4	Soil	OK	OK	
09-17-97	FIELD BLANK 9/17	Aqueous	OK	OK	
09-18-97	FIELD BLANK 9/18	Aqueous	OK	OK	
09-17-97	TRIP BLANK 9/17	Aqueous	OK	NR	
09-18-97	TRIP BLANK 9/18	Aqueous	OK	NR	
11-07-97	MW-1	Aqueous	OK	OK	
11-07-97	MW-2	Aqueous	OK	OK	
11-07-97	MW-3	Aqueous	OK	OK	
11-07-97	MW-4	Aqueous	OK	OK	
11-07-97	MW-5	Aqueous	OK	OK	
11-07-97	MW-6	Aqueous	OK	OK	
11-07-97	MW-7	Aqueous	OK	OK	
11-07-97	FLDBLK	Aqueous	OK	OK	
11-07-97	TRPBLK	Aqueous	OK	NR	
11-11-97	SS-1 of 1	Soil	OK	OK	
11-11-97	SS-1 of 2	Soil	OK	OK	
11-11-97	SS-3 of 1	Soil	OK	OK	
11-11-97	SS-3 of 3	Soil	OK	OK	
11-11-97	SS-3 of 5	Soil	OK	OK	
11-11-97	550 BC	Soil	OK	OK	
11-11-97	550 E	Soil	OK	OK	
11-11-97	550 W	Soil	OK	OK	
11-11-97	FLDBLK	Aqueous	OK	OK	
11-11-97	TRPBLK	Aqueous	OK	NR	
11-12-97	DW-3END	Soil	NR	OK	
11-12-97	DW-4END	Soil	NR	OK	
11-14-97	DW-5END	Soil	NR	OK	
11-14-97	DW-8END	Soil	NR	OK	
11-18-97	SS-1END	Soil	OK	OK	
11-12-97	FLDBLK2	Aqueous	NR	OK	
11-18-97	FLDBLK	Aqueous	OK	OK	
11-18-97	TRPBLK	Aqueous	OK	NR	

Rec. Date	Sample ID	Matrix	VOA	Metals/CN	Noncompliance
11-21-97	DW-2END	Soil	NR	OK	
11-21-97	DW-6EP	Soil	NR	OK	
11-25-97	SS-1 of 1END	Soil	OK	OK	
11-25-97	SS-1 of 3END	Soil	OK	OK	
11-25-97	SS-4 of 1END	Soil	OK	OK	
11-25-97	SS-2 END	Soil	OK	OK	
11-25-97	SS-3 END	Soil	OK	OK	
11-25-97	FLDBLK	Aqueous	OK	OK	
11-25-97	TRPBLK	Aqueous	OK	NR	
12-29-97	MW-1	Aqueous	OK	OK	
12-29-97	MW-2	Aqueous	NO	OK	1
12-29-97	MW-3	Aqueous	OK	OK	
12-29-97	MW-4	Aqueous	OK	OK	
12-29-97	MW-5	Aqueous	OK	OK	
12-29-97	MW-6	Aqueous	OK	OK	
12-29-97	MW-7	Aqueous	OK	OK	
12-29-97	FLDBLK	Aqueous	OK	OK	
12-29-97	TRPBLK	Aqueous	OK	NR	

1. Analysis followed sample with excessive concentration. Method blank should have been processed between.

Data Validation Services

Cobble Creek Road P. O. Box 208
North Creek, NY 12853
Phone and Fax (518) 251-4429

December 29, 1997

Joanne Duignan
H2M Labs
575 Broad Hollow Rd.
Melville, NY 11747

RE: P. W. Grosser Nassau Tool Site SDGs PWG010, PWG011, and PWG012

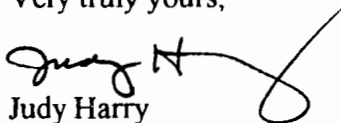
Dear Joanne:

Review of the above-mentioned data packages is in progress. The following information is required to complete the validation:

1. The volatile reported results for SS1I are based on a solids level of 45%. However, the raw solids data show a level of 53% for the sample. Please verify, and produce corrected forms (-DL also) for the sample, if required.
2. Please provide the standard data for the volatile CCS of 9/26/97 on H5971. It was omitted from the package.

Please also send copies of all communications to Jim Rhodes at PW Grosser. Thank you.

Very truly yours,


Judy Harry

H2M LABS, INC.**FAX**

575 Broad Hollow Road
Melville, New York 11747
PHONE: (516) 694-3040
FAX: (516) 420-8436

TO: Judy HARRYFROM: Joanne DalgarnoCOMPANY: Data Val. SERV.RE: Response to Val. of PWGDATE: 12/31/97# OF PAGES (incl. cover sheet): 6TIME: 9:40 AMNOTE: PLEASE CALL IMMEDIATELY IF YOU
DO NOT RECEIVE ALL PAGESFAX: 1-518-251-4429**COMMENTS:**

Hi, Judy! The raw data for CCS of 9/26/97
is attached.

For item #1, regarding the total solid, no
change was necessary. As a rule, when a total
solid value is less than 65%, an additional analysis
is done on the individual bottles of each presmeter
in this case, the volatile bottle was analyzed and
a TS of 43.5% was determined. I've included
that raw data for your review. (any further ques
please call) Have the best of New Year's!!

Joanne

FOR OFFICE USE ONLY:

Time Faxed: _____

Sender (initial): _____

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS SAMPLES RECEIVED: 9/17/97 & 9/18/97 SDG #: PWG010

For Samples:

DW-1 MS/MSD	SS-2
DW-2	SS-3 OF1
DW-3	SS-4 OF2
DW-4I	SS-4 OF3
DW-5I	SS-4 OF4
DW-6I	FIELD BLANK 9/17
DW-7I	FIELD BLANK 9/18
DW-8I	TRIP BLANK 9/17
SS-1I	TRIP BLANK 9/18

The above samples were analyzed according to the requirements of NYSDEC ASP method 8260 for the TCL volatile organic analytes plus TIC's.

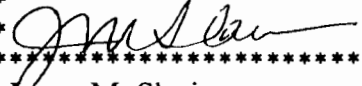
Sample DW-1 was analyzed as the matrix spike/matrix spike duplicate. The matrix spike duplicate had slightly low recoveries, causing high RPD's.

Sample SS-1I was reanalyzed at a medium level due to levels of targeted analytes above the calibration range. Both sets of data are submitted.

Sample SS-3 OF1 was reanalyzed at a lesser sample volume. The initial analysis, as well as the reanalysis, had surrogate recoveries outside the QC limits. Both sets of data are submitted.

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

Date Reported: October 10, 1997

*
*  *
*

Joann M. Slavin
Quality Assurance Manager

H2M LABS, INC.

SDG NARRATIVE FOR METALS SAMPLES RECEIVED: 9/17/97 & 9/18/97 SDG NO.: PWG010

Page 1 of 2

FOR SAMPLES:

<u>Client ID</u>	<u>Software Code</u>	<u>Client ID</u>	<u>Software Code</u>
DW-1 MS/MSD	XXXDW1 MS/MSD	SS-2	XXXSS2
DW-2	XXXDW2	SS-30F1	SS30F1
DW-3	XXXDW3	SS-4 0F1	SS40F1
DW-4I	XXDW4I	SS-4 0F2	SS40F2
DW-5I	XXDW5I	SS-4 0F3	SS40F3
DW-6I	XXDW6I	SS-4 0F4	SS40F4
DW-7I	XXDW7I	FIELD BLANK 9/17	FLDBLK
DW-8I	XXDW8I	918FB	X918FB
SS-1I	XXSS1I		

ICP analysis was performed on a TJA61E Trace Analyzer and a TJA61 using method 6010A. Mercury was analyzed on a Leeman PS200 using method 7470A and 7471A. Cyanides were performed via the manual spectrophotometric method using midi distillation, and read on a Sequoia Turner Model 340 spectrophotometer (method 335.2).

The antimony and chromium matrix spike recoveries for sample XXXDW1 (9727098) were not within 75-125%. All antimony and chromium soil results are reported flagged with an "N" on Forms 1.

The chromium, lead, manganese and nickel duplicate results for sample XXXDW1 (9727098) were not within the required control limits. All chromium, lead, manganese and nickel soil results are reported flagged with an "*" on Forms 1.

The sodium ICP serial dilution result for sample XXXDW1 (9727098) was not within the required control limit (10% difference). All sodium soil results are reported flagged with an "E" on Forms 1.

Sample XXSS1I (9726958) required a 1:2 dilution for calcium to bring the result within the linear range of the instrument.

Two wavelengths were used for iron and sodium analysis on the TJA61E Trace Analyzer. The two lines allow for a greater sensitivity across a broad concentration range. A second ICV and CCV (ICVL, CCVL) were analyzed for the low level iron and sodium analysis.

All other quality control requirements were met.

H2M LABS, INC.

SDG NARRATIVE FOR METALS
SAMPLES RECEIVED: 9/17/97 & 9/18/97
SDG NO.: PWG010

Page 2 of 2

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

Date Reported: October 9, 1997

*  *
*

Maureen Martin
Metals Supervisor

s:\labshare\bep\pwg010m.doc

S 0923

**SDG NARRATIVE FOR VOLATILES
SAMPLES RECEIVED: 11/7/97
SDG NO.: PWG011**

FOR SAMPLES:	FIELD BLANK	MW5
	MW1	MW6 MS/MSD
	MW2	MW7
	MW3	TRIP BLANK
	MW4	

The above samples were analyzed according to the requirements of the NYS DEC ASP 10/95 method 8260 for the TCL volatile organic analytes.

Sample MW6 was analyzed as the matrix spike/matrix spike duplicate.

All quality control and calibration requirements were met.

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

Date Reported: December 2, 1997

*
* *J. M. Slavin* *
*

Joann M. Slavin
Quality Assurance Manager

**SDG NARRATIVE FOR METALS
SAMPLES RECEIVED: 11/7/97
SDG NO.: PWG011**

FOR SAMPLES:	MW-1	MW-5
	MW-2	MW-6 MS/MSD
	MW-3	MW-7
	MW-4	FIELD BLANK

ICP analysis was performed on a TJA61E Trace Analyzer and a TJA61 using method 6010A. Mercury was analyzed on a Leeman PS200 using method 7470A. Cyanides were performed via the manual spectrophotometric method, using midi distillation and read on a Sequoia Turner model 340 spectrophotometer (method 335.2).

The matrix spike recoveries for sample XXXMW6 (9733037) were within 75-125%.

The aluminum and iron duplicate results for sample XXXMW6 (9733037) were not within the required control limits. All aluminum and iron results are reported flagged with an "*" on Forms I.

All ICP serial dilution results for sample XXXMW6 (9733037) were within the required control limit (10% difference).

Redigestion and reanalysis was required for all samples for zinc. The zinc prep blank result of the original digestate exceeded the CRDL.

Two wavelengths were used for iron analysis on the TJA61E Trace Analyzer. The two lines allow for a greater sensitivity across a broad concentration range. A second ICV and CCV (ICVL, CCVL) were analyzed for the low level iron analysis.

All other quality control requirements were met.

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

Date Reported: December 9, 1997

*  *

Maureen Martin
Metals Supervisor

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS SAMPLES RECEIVED: 11/11/97 SDG #: PWG012

For Samples:

550BC
550E MS/MSD
550W
SS1 OF 1
SS1 OF 2
SS3 OF 1
SS3 OF 3
SS3 OF 5
FIELD BLANK
TRIP BLANK

The above samples were analyzed according to the requirements of the NYSDEC ASP 10/95 method 8260 for the TCL volatile organic analytes. Sample 550E was analyzed as the matrix spike/matrix spike duplicate sample.

All quality control and calibration requirements were met.

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

Date Reported: December 3, 1997

* Joann M. Slavin *
* 12/3/97 *

Joann M. Slavin
Quality Assurance Manager

H2M LABS, INC.

SDG NARRATIVE FOR METALS ANALYSIS

SAMPLES RECEIVED: 11/11/97

SDG #: PWG012

FOR SAMPLES:

<u>CLIENT ID</u>	<u>SOFTWARE CODE</u>	<u>CLIENT ID</u>	<u>SOFTWARE CODE</u>
550BC	X550BC	SS3 OF 1	SS3OF1
550E MS/MSD	XX550E MS/MSD	SS3 OF 3	SS3OF3
550W	XX550W	SS3 OF 5	SS3OF5
SS1 OF 1	SS1OF1	FIELD BLANK	FLDBLK
SS1 OF 2	SS1OF2		

ICP analysis was performed on a TJA61E Trace Analyzer using method 6010A. Mercury was analyzed on a Leeman PS200 using methods 7470A and 7471A. Cyanides were performed via the manual spectrophotometric method, using midi distillation and read on a Sequoia Turner model 340 spectrophotometer (method 335.2).

The antimony and chromium matrix spike recoveries for sample XX550E (9733346) were not within 75-125%. All antimony and chromium soil results are reported flagged with an "N" of Forms 1.

The cadmium, calcium, chromium and magnesium duplicate results for sample XX550E (9733346) were not within the required control limits. All the above soil results are reported flagged with an "*" on Forms 1.

The sodium ICP serial dilution result for sample XX550E (9733346) was not within the required control limit (10% difference). All soil sodium results are reported flagged with an "E" on Forms 1.

Sample SS3OF3 (9733343) was reanalyzed for selenium due to a poor RSD.

Two wavelengths were used for iron and sodium analysis on the TJA61E Trace Analyzer. The two lines allow for a greater sensitivity across a broad concentration range. A second ICV and CCV (ICVL, CCVL) were analyzed for the low level iron and sodium analysis.

All other quality control requirements were met.

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

Date Reported: December 2, 1997

*  *

Maureen Martin
Metals Supervisor

**SDG NARRATIVE FOR VOLATILES
SAMPLES RECEIVED: 11/18/97
SDG NO.: PWG013**

FOR SAMPLES: SS-1 END MS/MSD
 FIELD BLANK
 TRIP BLANK

The above samples were analyzed according to the requirements of the NYS DEC ASP method 8260 for the TCL volatile organic analytes.

Sample SS-1 END was analyzed as the matrix spike/matrix spike duplicate sample.

All percent recovery and RPD criteria were met except for the RPD of 1,1-dichloroethene at 32% (limit 22%).

All quality control and calibration requirements were met.

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

Date Reported: December 10, 1997

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*

Joann M. Slavin
Quality Assurance Manager

H2M LABS, INC.

SDG NARRATIVE FOR METALS
SAMPLES RECEIVED: 11/12, 11/14 and 11/18/97
SDG NO.: PWG013

FOR SAMPLES:	DW-3 END	DW-8 EWD
	DW-4 END	SS-1 END MS/MSD
	FIELD BLANK	FIELD BLANK 2
	DW-5 EWD	

Five soil and two water field blanks were received by H2M Labs, Inc. On November 12, 1997, November 14, 1997 and November 18, 1997.

Samples were prepared and analyzed using the following methods:

ICP analysis was performed on a TJA61E Trace Analyzer using method 6010. Mercury was analyzed on a Leeman PS200 using method 7470. Cyanides were performed via the manual spectrophotometric method, using midi distillation, and read on a Sequoia Turner model 340 spectrophotometer (method 335.2).

No problems were noted during the analysis of this sample group.

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

Date Reported: December 15, 1997

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*

Vincent Stancampiano
Vice President

H2M LABS, INC.

SDG NARRATIVE SUMMARY FOR VOLATILES

SAMPLES RECEIVED: 11/25/97

SDG #: PWG014

For Samples:

TRIP BLANK
FIELD BLANK
SS- 1 OF - 1 END
SS- 1 OF - 3 END
SS- 2 END MS/MSD
SS- 3 END
SS- 4 OF - 1 END

The above samples were analyzed according to the requirements of NYSDEC ASP 10/95 method 8260 for the TCL volatile organic analytes.


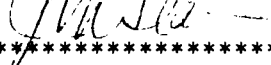
Sample SS- 2 was analyzed as the matrix spike/ matrix spike duplicate.

All percent recovery and RPD criteria were met except for the percent recovery of 1,1-dichloroethane in the matrix spike duplicate sample at 57% (lower limit 59%).

All quality control and calibration requirements were met.

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

Date Reported: December 29, 1997

*  *
*  *

Joann M. Slavin
Quality Assurance Manager

5 0020

SDG NARRATIVE FOR METALS
SAMPLES RECEIVED: 11/21 and 11/25/97
SDG NO.: PWG014

FOR SAMPLES:	DW2END	SS1OF3
	DW6EPX	SS2END MS/MSD
	FIELD BLANK	SS3END
	SS1OF1	SS4OF1

ICP analysis was performed on a TJA61E Trace Analyzer using method 6010A. Mercury was analyzed on a Leeman PS200 using methods 7470A and 7471A. Cyanides were performed via the manual spectrophotometric method using midi distillation and read on a Sequoia Turner model 340 spectrophotometer (method 335.2).

All matrix spike recoveries for sample SS2END (9735093) were within 75-125%.

The lead duplicate result for sample SS2END (9735093) was not within the required control limit. All lead soil results are reported flagged with an "*" on Forms I.

The chromium and potassium ICP serial dilution results for sample SS2END (9735093) were not within the required control limit (10% difference). All chromium and potassium soil results are reported flagged with an "E" on Forms I.

Two wavelengths were used for iron and sodium analysis on the TJA61E Trace Analyzer. The two lines allow for a greater sensitivity across a broad concentration range. A second ICV and CCV (ICVL, CCVL) were analyzed for the low level iron and sodium analysis.

All other quality control requirements were met.

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

Date Reported: December 30, 1997

*  *

Maureen Martin
Metals Supervisor

**SDG NARRATIVE FOR VOLATILES
SAMPLES RECEIVED: 12/29/97
SDG NO.: PWG015**

FOR SAMPLES:	FIELD BLANK	MW 5
	MW 1	MW 6
	MW 2	MW 7
	MW 3	TRIP BLANK
	MW 4 MS/MSD	

The above samples were analyzed according to the requirements of the NYS DEC ASP 10/95 method 8260 for the TCL volatile organic analytes.

Sample MW 4 was analyzed as the matrix spike/matrix spike duplicate.

All quality control and calibration requirements were met.

Due to concentration levels of targeted analytes above the calibration range, samples MW 1 and MW 7 required reanalysis at dilutions. Both sets of data are submitted.

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

Date Reported: January 21, 1997

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*

Joann M. Slavin
Quality Assurance Manager

**SDG NARRATIVE FOR METALS
SAMPLES RECEIVED: 12/29/97
SDG NO.: PWG015**

FOR SAMPLES:	MW-1	MW-5
	MW-2	MW-6
	MW-3	MW-7
	NW-4 MS/MSD	FIELD BLANK

Eight water samples were received by H2M Labs, Inc., on December 29, 1997. Samples were prepared and analyzed using the following methods:

ICP analysis was performed on a TJA61E Trace Analyzer using method 6010A. Mercury was analyzed on a Leeman PS200 using method 7470A. Cyanides were performed via the manual spectrophotometric method, using midi distillation, and read on a Sequoia Turner model 340 spectrophotometer (method 335.2).

Sample MW-4 (9738259) was utilized for spike and duplicate analysis.

No problems were encountered during the analysis of this sample group.

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

Date Reported: January 22, 1998

*
*

Vincent Stancampiano
Vice President

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY
SAMPLES RECEIVED 9/17/97 & 9/18/97
P.W. GROSSER CONSULTANTS
NASSAU TOOLS WORKS SITE
SDG NO.: PWG010

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST/ PCB	*METALS	OTHER
DW-1 MS/MSD	9727098	X				X	
DW-2	9727099	X				X	
DW-3	9727100	X				X	
DW-4I	9726953	X				X	
DW-5I	9726954	X				X	
DW-6I	9726955	X				X	
DW-7I	9726956	X				X	
DW-8I	9726957	X				X	
SS-1I	9726958	X				X	
SS-2	9727101	X				X	
SS-3 OF1	9727102	X				X	
SS-4 OF1	9727103	X				X	
SS-4 OF2	9727104	X				X	
SS-4 OF3	9727105	X				X	
SS-4 OF4	9727106	X				X	
FIELD BLANK 9/17	9726959	X				X	
FIELD BLANK 9/18	9727107	X				X	
TRIP BLANK 9/17	9726960	X					
TRIP BLANK 9/18	9727108	X					

* Check Appropriate Boxes

* ~~CLP~~ Non-CLP (Please indicate year of protocol) ASD B 10/97

* ~~TCL/TAI~~, HSL, Priority Pollutant

+ = Dissolved metals and wet chemistry analysis.

Sample Analysis Summary

Sample ID	Matrix	Date Collected	Date Received	Level	Date Analyzed
DW1	soil	9/18/97	9/18/97	LOW	9/22/97
DW1MS	soil	9/17/97	9/17/97	LOW	9/24/97
DW1MSD	soil	9/17/97	9/17/97	LOW	9/24/97
DW2	soil	9/18/97	9/18/97	LOW	9/22/97
DW3	soil	9/18/97	9/18/97	LOW	9/22/97
DW4I	soil	9/17/97	9/17/97	LOW	9/22/97
DW5I	soil	9/17/97	9/17/97	LOW	9/22/97
DW6I	soil	9/17/97	9/17/97	LOW	9/22/97
DW7I	soil	9/17/97	9/17/97	LOW	9/22/97
DW8I	soil	9/17/97	9/17/97	LOW	9/22/97
FIELD BLANK 9/17	water	9/17/97	9/17/97	LOW	9/22/97
SS1I	soil	9/17/97	9/17/97	LOW	9/22/97
SS1IDL	soil	9/17/97	9/17/97	MED	9/26/97
SS2	soil	9/18/97	9/18/97	LOW	9/22/97
SS3 OF 1	soil	9/18/97	9/18/97	LOW	9/22/97
SS3 OF 1DL	soil	9/18/97	9/18/97	LOW	9/24/97
SS4 OF 1	soil	9/18/97	9/18/97	LOW	9/22/97
SS4 OF 2	soil	9/18/97	9/18/97	LOW	9/22/97
SS4 OF 3	soil	9/18/97	9/18/97	LOW	9/22/97
SS4 OF 4	soil	9/18/97	9/18/97	LOW	9/22/97
TRIP BLANK 9/17	water	9/17/97	9/17/97	LOW	9/22/97
TB	water	9/18/97	9/18/97	LOW	9/22/97
9/18FB	water	9/18/97	9/18/97	LOW	9/22/97

*gms
112 M
10/10/97*

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLES RECEIVED 9/17/97 & 9/18/97

P.W. GROSSER CONSULTANTS

NASSAU TOOLS WORKS SITE

SDG NO.: PWG010

[illegible]

* SEE INDIVIDUAL RUN SHEETS FOR EXACT DATES.

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

P.W. GROSSER, CONSULTING

NASSAU TOOLS

SAMPLES RECEIVED: 11/7/97

SDG NO: PWG011

[illegible]

* Check Appropriate Boxes

* CLP, Non-CLP (Please indicate year of protocol)

* ~~TCL/TAL~~ HCL, Cyanide ✓

Sample Analysis Summary

Sample ID	Matrix	Date Collected	Date Received	Level	Date Analyzed
FIELDBLANK	water	11/6/97	11/7/97	LOW	11/11/97
MW1	water	11/6/97	11/7/97	LOW	11/10/97
MW2	water	11/6/97	11/7/97	LOW	11/10/97
MW1DL	water	11/6/97	11/7/97	LOW	11/11/97
MW3	water	11/6/97	11/7/97	LOW	11/10/97
MW4	water	11/6/97	11/7/97	LOW	11/10/97
MW5	water	11/6/97	11/7/97	LOW	11/11/97
MW6	water	11/6/97	11/7/97	LOW	11/10/97
MW6MS	water	11/6/97	11/7/97	LOW	11/10/97
MW6MSD	water	11/6/97	11/7/97	LOW	11/10/97
MW7	water	11/6/97	11/7/97	LOW	11/11/97
TRIPELANK	water	11/6/97	11/7/97	LOW	11/11/97

James
11/11
11/12

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

P.W. GROSSER, CONSULTING

NASSAU TOOLS

SAMPLES RECEIVED: 11/7/97

SDG: PWG011

[illegible]

* SEE INDIVIDUAL RUN SHEETS FOR EXACT DATES.

Sample Analysis Summary

Sample ID	Matrix	Date Collected	Date Received	Level	Date Analyzed
FIELDBLANK	water	11/10/97	11/11/97	LOW	11/14/97
SS-1 OF 1	soil	11/10/97	11/11/97	LOW	11/12/97
SS-1 OF 2	soil	11/10/97	11/11/97	LOW	11/12/97
SS-3 OF 1	soil	11/11/97	11/11/97	LOW	11/12/97
SS-3 OF 3	soil	11/11/97	11/11/97	LOW	11/13/97
SS-3 OF 5	soil	11/11/97	11/11/97	LOW	11/12/97
550BC	soil	11/10/97	11/11/97	LOW	11/13/97
550E	soil	11/10/97	11/11/97	LOW	11/12/97
550EMS	soil	11/10/97	11/11/97	LOW	11/13/97
550EMSD	soil	11/10/97	11/11/97	LOW	11/13/97
550W	soil	11/10/97	11/11/97	LOW	11/13/97
TRIPBLANK	water	11/10/97	11/11/97	LOW	11/14/97

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
SAMPLES RECEIVED 11/11/97
P.W. GROSSER CONSULTING
34 LAMAR STREET SITE
SDG: PWG012

[illegible]

* SEE INDIVIDUAL RUN SHEETS FOR EXACT DATES.

[illegible][illegible][illegible][illegible]

Figure 6

Figure 6

[illegible]

Figure 6

Figure 6

Figure 6

VOLATILE SAMPLE ANALYSIS SUMMARY

SDG:PW013

SAMPLE ID	MATRIX	PROT- OCOL	LEVEL	DIL. FACT.	DATE COLLECTED	DATE RECEIVED	DATE ANALYZED
SS-1 END	SOIL	CLP	LOW	1	11/18/97	11/18/97	11/28/97
SS-1 ENDMS	SOIL	CLP	LOW	1	11/18/97	11/18/97	11/28/97
SS-1 ENDMSD	SOIL	CLP	LOW	1	11/18/97	11/18/97	11/28/97
FIELD BLANK	WATER	CLP	LOW	1	11/18/97	11/18/97	11/28/97
TRIP BLANK	WATER	CLP	LOW	1	11/14/97	11/18/97	11/28/97

S 0004

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY
P.W. GROSSER, CONSULTING

NASSAU TOOLS

SAMPLES RECEIVED: 11/12, 11/14 & 11/18/97

SDG: PWG013

[illegible]

* SEE INDIVIDUAL RUN SHEETS FOR EXACT DATES.

H2M LABS, INC.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY
P. W. GROSSER CONSULTING, INC.**

NASSAU TOOL

SAMPLES RECEIVED: 11/21 AND 11/25/97

SDG NO: PWG014

[illegible]

* Check ~~Appropriate~~ Boxes

* CLP (Non-CLP (Please indicate year of protocol) 10/2012

* ~~TCL/TAL HCL~~

SUMMARY

SDG:PWG014					
Sample ID	Matrix	Date Collected	Date Received	Level	Date Analyzed
SS10F1END	soil	25-Nov-97	25-Nov-97	LOW	04-Dec-97
SS10F3END	soil	25-Nov-97	25-Nov-97	LOW	04-Dec-97
SS2END	soil	24-Nov-97	25-Nov-97	LOW	04-Dec-97
SS2ENDMS	soil	24-Nov-97	25-Nov-97	LOW	04-Dec-97
SS2ENDMSD	soil	24-Nov-97	25-Nov-97	LOW	04-Dec-97
SS3END	soil	24-Nov-97	25-Nov-97	LOW	04-Dec-97
SS40F1END	soil	25-Nov-97	25-Nov-97	LOW	04-Dec-97
F.B	water	25-Nov-97	25-Nov-97	LOW	05-Dec-97
T.B	water	25-Nov-97	25-Nov-97	LOW	05-Dec-97

Sample Analysis Summary

1/12/98
1/12/98

Sample ID	Matrix	Date Collected	Date Received	Level	Date Analyzed
FIELD BLANK	water	12/29/97	12/29/97	LOW	1/5/98
MW1	water	12/29/97	12/29/97	LOW	1/2/98
MW1DL	water	12/29/97	12/29/97	LOW	1/5/98
MW2	water	12/29/97	12/29/97	LOW	1/2/98
MW3	water	12/29/97	12/29/97	LOW	1/2/98
MW4	water	12/29/97	12/29/97	LOW	1/2/98
MW4MS	water	12/29/97	12/29/97	LOW	1/5/98
MW4MSD	water	12/29/97	12/29/97	LOW	1/5/98
MW5	water	12/29/97	12/29/97	LOW	1/2/98
MW6	water	12/29/97	12/29/97	LOW	1/2/98
MW7	water	12/29/97	12/29/97	LOW	1/2/98
MW7DL	water	12/29/97	12/29/97	LOW	1/5/98
TRIE BLANK	water	12/29/97	12/29/97	LOW	1/5/98