

# AMERICAN ENVIRONMENTAL ASSOCIATES, INC.

## UNDERGROUND STORAGE TANK FACILITY INTERIM SITE CHARACTERIZATION REPORT

Leo's 3 Car Wash  
PADEP Facility I.D. #25-90615  
2938 West 26th Street  
Erie, Pennsylvania 16506

**May 23rd, 2003**

Prepared for:

Leo's 3 Car Wash  
2938 West 26th Street  
Erie, Pennsylvania 16506  
Attn: James Doleski

Prepared by:

American Environmental Associates, Inc.

James Sturm, P.G.  
Sr. Hydrogeologist

5946 Southland Drive • Erie, PA 16509  
Phone: (814) 866-7489 • Fax: (814) 866-5693

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# INTERIM SITE CHARACTERIZATION REPORT

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2938 West 26<sup>th</sup> Street  
Erie, Pennsylvania 16506

## 1.0 INTRODUCTION

American Environmental Associates, Inc. (AEA) has been contracted by Leo's 3 Car Wash to provide environmental services pursuant to Underground Storage Tank (UST) corrective action and Land Recycling and Environmental Remediation Standards Act (Act 2) regulations at the subject site. The site is a retail gasoline filling station, oil change service and automated car wash located at 2938 West 26<sup>th</sup> Street, Millcreek Township, Erie County, Pennsylvania. The site location is illustrated on a U.S.G.S. Topographic Map attached as Figure 1; the Geographic Location Map attached as Figure 2 and Figure 3 is the Site Groundwater Contour Map.

Corrective actions were installed in response to a release that was discovered during construction of a new canopy on January 23, 2002. The release was eventually found to be associated with a loose swing joint in the regular unleaded line for the middle dispenser. A minor amount of contaminated soil was removed; approximately five tons, and then the new canopy footers were poured. The swing joint leak was repaired at this time. Clean soil conditions were never obtained, and over excavation was not performed at this time due to site constraints. A Notification of Contamination was submitted to the PADEP's Meadville Office on January 23, 2002.

On August 6, 2002, a Geoprobe investigation was conducted by AEA to assess the extent of subsurface soil contamination. Confirmatory soil analysis of samples from the unleaded gasoline UST system area exhibited concentrations in excess of Act 2 Statewide Health Standards (SHS). Corrective actions pursuant to 25 PA Code 245,

administered by the Pennsylvania Department of Environmental Protection (PADEP) were implemented.

The following reports were prepared to document Site Characterization activities performed at the site:

- Initial Site Characterization Report, November 27, 2002; this report documents the installation and soil / groundwater sampling of monitoring wells MW#1 through MW#6. These wells were installed to delineate subsurface impacts.
- Interim Site Characterization Report, February 13, 2003; this report documents the installation and soil / groundwater sampling of monitoring wells MW#7 through MW#9. These wells were installed to delineate subsurface impacts.

The following report outlines the work that has been performed to delineate the extent of subsurface contamination at the subject site during April of 2003.

## 2.0 SCOPE OF WORK

On April 8, 2003, AEA mobilized to the site to install three additional four-inch monitoring wells (MW#'s 10, 11 & 12) on the subject site utilizing a hollow-stem auger drill rig. Split spoon sampling at 3-foot intervals was performed during soil boring advancement. The split spoon samplers were decontaminated between sampling intervals with a non-phosphatic soap (Alconox) solution and thoroughly rinsed with deionized water. The collected samples were utilized for lithologic description, headspace screening and subsequent laboratory analysis, as applicable.

Each sample was divided into two portions. One sample was placed in a sealable plastic bag to be used for field headspace screening. The other was set aside for potential laboratory analysis. The samples were field screened with a RAE Industries Mini-RAE 2000 photoionization detector (PID) to determine if Volatile Organic Compounds (VOC's) are present. Prior to the initiation of drilling, the

instrument was calibrated using an appropriate span gas. The tip of the instrument was placed into the sample container and the highest reading was recorded. The results are summarized on the soil boring and well completion logs included as Appendix A. Also, refer to Site Geology, section 3.0, for more detailed information of the subsurface geology of the site. The sample from each boring exhibiting the highest PID response was submitted to Environmental Laboratory Services, Inc. (ELS), New Castle, PA for analysis.

The soil samples were analyzed for benzene, toluene, ethyl benzene, xylenes (BTEX), methyl-t-butyl (MTBE), cumene and naphthalene via EPA Method 5035 / 8260B. These analytes are indicator parameters for unleaded gasoline as referenced in PADEP's Technical Document: Closure Requirements for Underground Storage Tank Systems, April 1998. Soil analytical results are summarized in Table 1 and the lab sheets are included as Appendix B. The analytical results show that no new soil samples from MW#10, MW#11 or MW#12 exceed any of the PADEP's Statewide Health Standards for Used Aquifers in Soil.

The resultant soil borings were completed as 4-inch diameter PVC monitoring wells. The annular space was backfilled with well gravel and sealed with bentonite pellets. The remaining portion above the bentonite was sealed with concrete to prevent surface water infiltration. The wells were completed with eight-inch diameter, bolt-down manholes and set in two feet square concrete pads. The monitoring wells were secured with watertight locking cap assemblies and keyed-alike padlocks. Soil boring and well completion logs are included as Appendix A.

A brief site reconnaissance of the nearby surroundings shows that residential and commercial dwellings rely on municipal water. Utilities running through the site exist no deeper than four feet below grade. With the shallowest static water level at the site being nearly 8 feet below grade, no potential human receptors exist at the site. Due to the detected constituents being associated with light petroleum products, no ecological screening is required.

### **3.0 SITE GEOLOGY**

The regional geology underlying the project site is the Devonian aged Northeast Shale Formation. The Northeast Shale Formation chiefly consists of variegated shale and then-bedded sandstone. Sandstone generally yields small supplies of water. Site-specific depth to bedrock is unknown since it was not encountered during the total drilling depth of twenty-five feet. Unconsolidated materials, mainly silts, sands and clays, exist from grade to the total drilling depth of 25 feet. Refer to the Geologic Logs in Appendix A for further geologic information.

### **4.0 GROUNDWATER MONITORING**

On April 23, 2003, all site-monitoring wells (MW#'s 1-12) were gauged utilizing a Solinst Model 122 electronic interface meter to measure the depth to water and to determine the potential presence of separate phase hydrocarbons (SPH's). Depth to groundwater was measured between 6.10 (MW#10) and 12.45 (MW#9) feet below ground surface. Free product or SPH's was encountered during the gauging of monitoring wells MW#3 and MW#4. Monitoring wells MW#3 and MW#4 were not sampled due to the presence of free product. Groundwater elevation data is presented in Table 2, and Figure 3 is a Site Groundwater Contour Map, which has been generated from this data.

Each monitoring well was developed by purging at least five well volumes. The wells were then allowed to recover. Samples were collected utilizing dedicated disposable polyethylene bailers and placed in laboratory provided glassware containing an appropriate preservative. Samples were immediately placed in ice filled coolers and shipped to ELS in New Castle, PA under chain-of-custody protocol. The groundwater samples were analyzed for BTEX, MTBE, cumene, and naphthalene, via U.S. EPA Methods 8260. These analytes are indicator parameters for unleaded gasoline as referenced in PADEP's Technical Document: Closure

Requirements for Underground Storage Tank Systems, April 1998. The analytical results are summarized in Table 3 and the lab sheets are in Appendix C.

The analytical results indicate that monitoring wells MW#1, MW#2, MW#5, MW#6, MW#8, MW#9, MW#10 and MW#12 exceed Statewide Health Standards for Used Aquifers for one or more of the required parameters for unleaded gasoline in groundwater. Monitoring wells MW#3 and MW#4 were not sampled due to the presence of free product. The results are summarized in Table 3, and the groundwater sample lab sheets are attached in Appendix C.

## 5.0 SUMMARY AND RECOMMENDATIONS

American Environmental Associates, Inc. (AEA) has been contracted by Leo's 3 Car Wash to provide environmental services pursuant to Underground Storage Tank (UST) corrective action and Land Recycling and Environmental Remediation Standards Act (Act 2) regulations at the subject site. The site is a retail gasoline filling station, oil change service and automated car wash located at 2938 West 26<sup>th</sup> Street, Millcreek Township, Erie County, Pennsylvania. The site location is illustrated on a U.S.G.S. Topographic Map attached as Figure 1; the Geographic Location Map attached as Figure 2 and Figure 3 is the Site Groundwater Contour Map.

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of Contamination was submitted to the PADEP's Meadville Office on January 23, 2002.

On August 6, 2002, a Geoprobe investigation was conducted by AEA to assess the extent of subsurface soil contamination. Confirmatory soil analysis of samples from the unleaded gasoline UST system area exhibited concentrations in excess of Act 2 Statewide Health Standards (SHS). Corrective actions pursuant to 25 PA Code 245, administered by the Pennsylvania Department of Environmental Protection (PADEP), were implemented.

Activities conducted during this reporting period include the installation and soil sampling of three additional monitoring wells (MW#10, MW#11 and MW#12), and the gauging and groundwater sampling of the site monitoring wells. The analytical results show that no new soil samples from MW#10, MW#11 or MW#12 exceed any of the PADEP's Statewide Health Standards for Used Aquifers in Soil. The analytical results indicate that monitoring wells MW#1, MW#2, MW#5, MW#6, MW#8, MW#9, MW#10 and MW#12 exceed Statewide Health Standard of Used Aquifers for one or more of the required parameters for unleaded gasoline in groundwater. Monitoring wells MW#3 and MW#4 were not sampled due to the presence of free product.

The Site Characterization work is being compared to Pennsylvania Statewide Health Standards for soil and groundwater. Leo's 3 Car Wash is choosing this standard at this time.

Since the full extent of groundwater contamination has not yet been determined, additional site characterization work is recommended.





Figure 1: TOPOGRAPHIC MAP

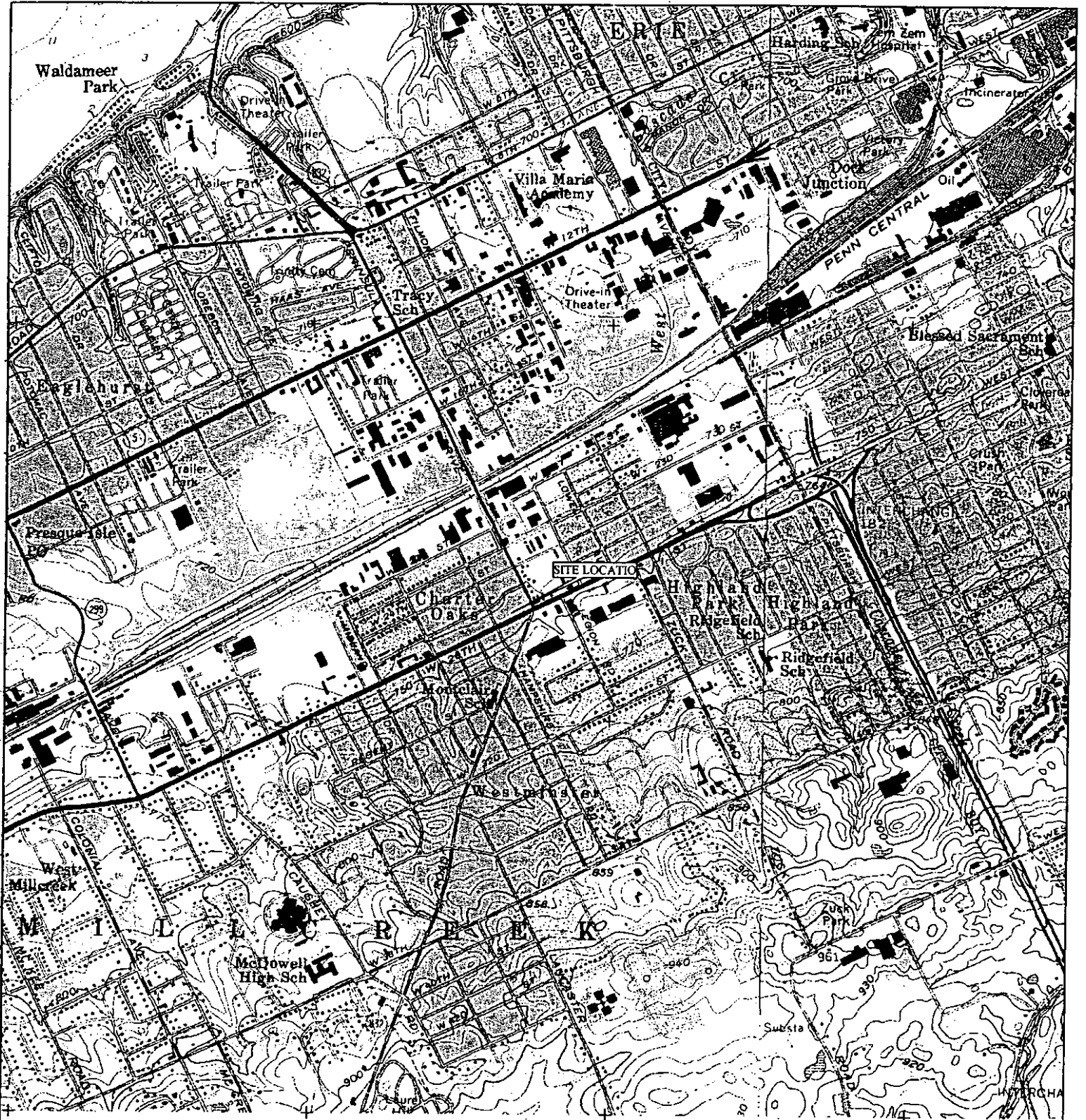
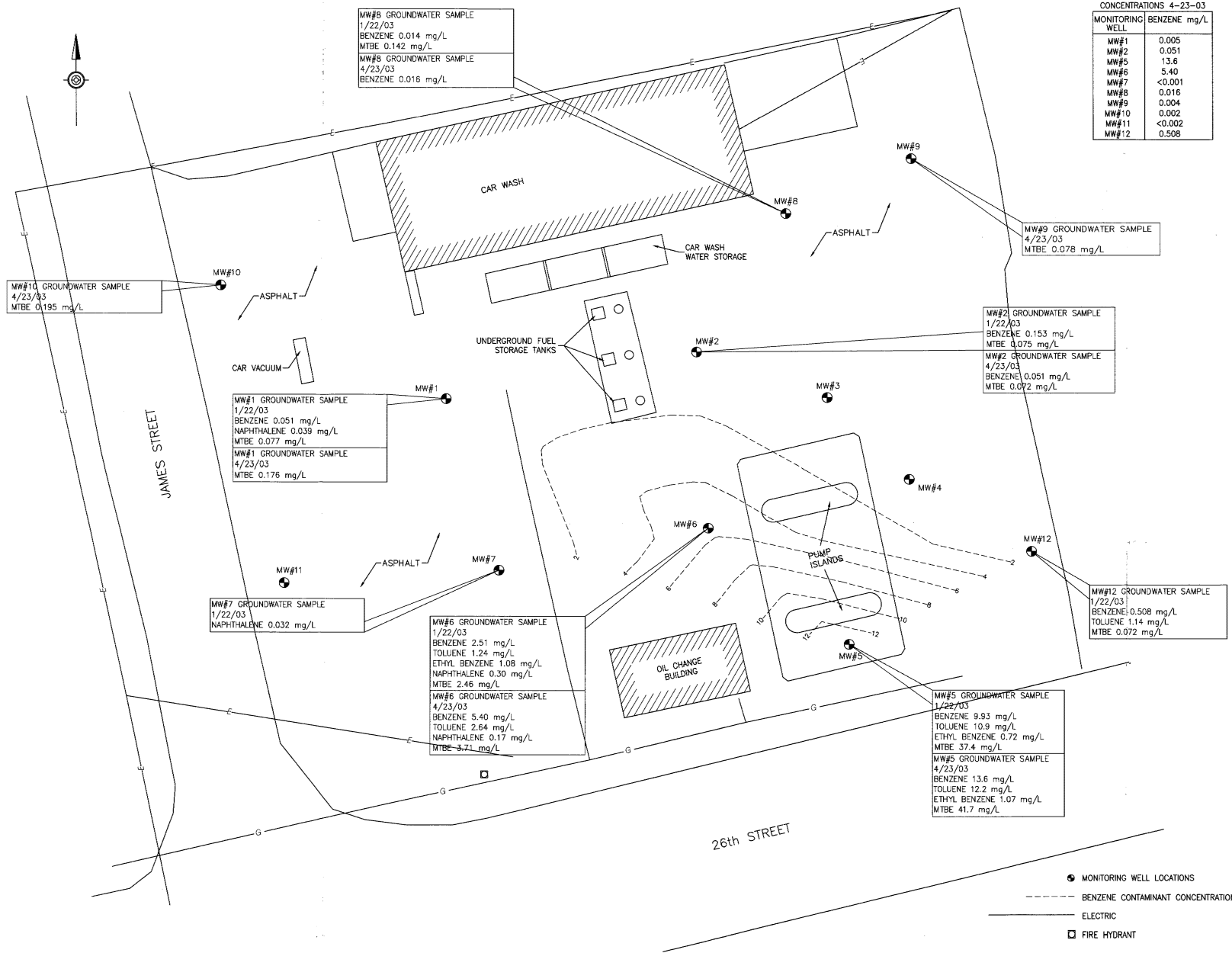


FIGURE 2

MW#8 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 0.014 mg/L  
MTBE 0.142 mg/L  
MW#8 GROUNDWATER SAMPLE  
4/23/03  
BENZENE 0.016 mg/L

BENZENE CONTAMINANT CONCENTRATIONS 4-23-03

MONITORING WELL	BENZENE mg/L
MW#1	0.005
MW#2	0.051
MW#5	13.6
MW#6	5.40
MW#7	<0.001
MW#8	0.016
MW#9	0.004
MW#10	0.002
MW#11	<0.002
MW#12	0.508



MW#9 GROUNDWATER SAMPLE  
4/23/03  
MTBE 0.078 mg/L

MW#2 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 0.153 mg/L  
MTBE 0.075 mg/L  
MW#2 GROUNDWATER SAMPLE  
4/23/03  
BENZENE 0.051 mg/L  
MTBE 0.072 mg/L

MW#1 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 0.051 mg/L  
NAPHTHALENE 0.039 mg/L  
MTBE 0.077 mg/L  
MW#1 GROUNDWATER SAMPLE  
4/23/03  
MTBE 0.176 mg/L

MW#10 GROUNDWATER SAMPLE  
4/23/03  
MTBE 0.195 mg/L

MW#7 GROUNDWATER SAMPLE  
1/22/03  
NAPHTHALENE 0.032 mg/L

MW#6 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 2.51 mg/L  
TOLUENE 1.24 mg/L  
ETHYL BENZENE 1.08 mg/L  
NAPHTHALENE 0.30 mg/L  
MTBE 2.46 mg/L  
MW#6 GROUNDWATER SAMPLE  
4/23/03  
BENZENE 5.40 mg/L  
TOLUENE 2.64 mg/L  
NAPHTHALENE 0.17 mg/L  
MTBE 3.71 mg/L

MW#12 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 0.508 mg/L  
TOLUENE 1.14 mg/L  
MTBE 0.072 mg/L

MW#5 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 9.93 mg/L  
TOLUENE 10.9 mg/L  
ETHYL BENZENE 0.72 mg/L  
MTBE 37.4 mg/L  
MW#5 GROUNDWATER SAMPLE  
4/23/03  
BENZENE 13.6 mg/L  
TOLUENE 12.2 mg/L  
ETHYL BENZENE 1.07 mg/L  
MTBE 41.7 mg/L

NO.	DATE	REVISIONS DESCRIPTION

DESIGNED BY	DATE	7/2003
DRAWN BY	DATE	7/2003
CHECKED BY	DATE	
APPROVED	DATE	
SCALE	DATE	1"=10'
DRAWING NO.	DATE	

DRAWING TITLE: LEO'S #3 CAR WASH ERIE, PA  
FIGURE 5: BENZENE CONTAMINANT CONCENTRATION MAP

**RAR engineering group, inc.**  
1135 Boulder Avenue, New Castle, Pennsylvania, 16101  
Telephone: 724.652.1000 Fax: 724.652.3814  
email: rarerengr@rarengineering.com

SEAL  
SIGNATURE

1 of 1  
SHEET NUMBER

- MONITORING WELL LOCATIONS
- BENZENE CONTAMINANT CONCENTRATION CONTOUR (mg/L)(4-23-03)
- \_\_\_\_\_ ELECTRIC
- FIRE HYDRANT

Figure 2: GEOGRAPHIC LOCATION MAP

**Figure 2. Geographic Location Map**  
**Leo's 3 Car Wash**



Streets98

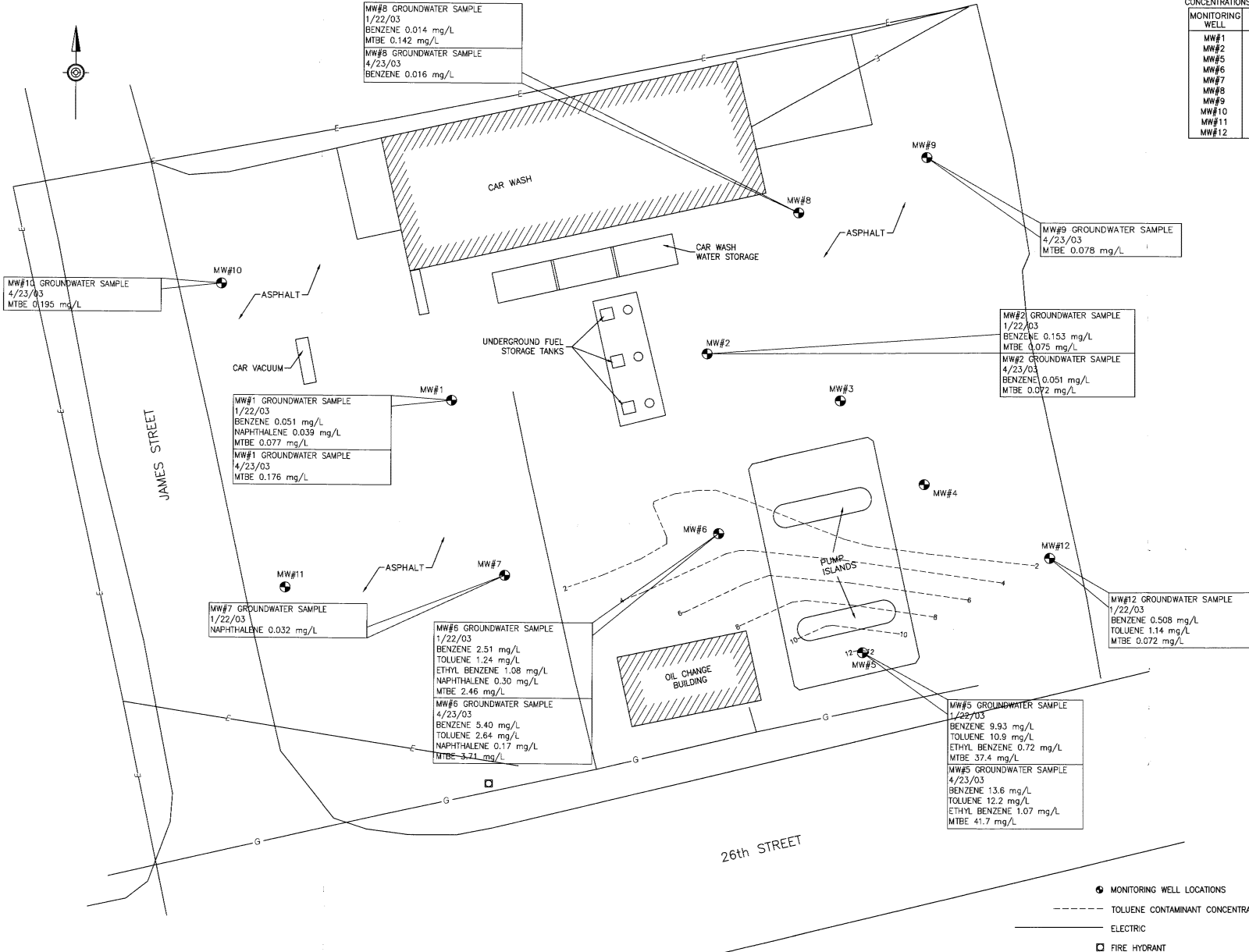
FIGURE 3



MW#8 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 0.014 mg/L  
MTBE 0.142 mg/L  
MW#8 GROUNDWATER SAMPLE  
4/23/03  
BENZENE 0.016 mg/L

TOLUENE CONTAMINANT CONCENTRATIONS 4-23-03

MONITORING WELL	TOLUENE mg/L
MW#1	<0.002
MW#2	<0.002
MW#5	12.2
MW#6	2.64
MW#7	<0.002
MW#8	0.005
MW#9	<0.002
MW#10	<0.002
MW#11	<0.002
MW#12	1.14



MW#10 GROUNDWATER SAMPLE  
4/23/03  
MTBE 0.195 mg/L

MW#10

MW#1 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 0.051 mg/L  
NAPHTHALENE 0.039 mg/L  
MTBE 0.077 mg/L  
MW#1 GROUNDWATER SAMPLE  
4/23/03  
MTBE 0.176 mg/L

MW#1

MW#7 GROUNDWATER SAMPLE  
1/22/03  
NAPHTHALENE 0.032 mg/L

MW#11

MW#6 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 2.51 mg/L  
TOLUENE 1.24 mg/L  
ETHYL BENZENE 1.08 mg/L  
NAPHTHALENE 0.30 mg/L  
MTBE 2.46 mg/L  
MW#6 GROUNDWATER SAMPLE  
4/23/03  
BENZENE 5.40 mg/L  
TOLUENE 2.64 mg/L  
NAPHTHALENE 0.17 mg/L  
MTBE 3.21 mg/L

MW#7

MW#6

MW#5 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 9.93 mg/L  
TOLUENE 10.9 mg/L  
ETHYL BENZENE 0.72 mg/L  
MTBE 37.4 mg/L  
MW#5 GROUNDWATER SAMPLE  
4/23/03  
BENZENE 13.6 mg/L  
TOLUENE 12.2 mg/L  
ETHYL BENZENE 1.07 mg/L  
MTBE 41.7 mg/L

MW#3

MW#4

MW#2 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 0.153 mg/L  
MTBE 0.075 mg/L  
MW#2 GROUNDWATER SAMPLE  
4/23/03  
BENZENE 0.051 mg/L  
MTBE 0.072 mg/L

MW#2

MW#12

MW#12 GROUNDWATER SAMPLE  
1/22/03  
BENZENE 0.508 mg/L  
TOLUENE 1.14 mg/L  
MTBE 0.072 mg/L

MW#9 GROUNDWATER SAMPLE  
4/23/03  
MTBE 0.078 mg/L

MW#9

- MONITORING WELL LOCATIONS
- TOLUENE CONTAMINANT CONCENTRATION CONTOUR (mg/L)(4-23-03)
- \_\_\_\_\_ ELECTRIC
- FIRE HYDRANT

NO.	DATE	REVISIONS DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED	DATE	DATE	DATE	DATE

SCALE 1"=10'  
DRAWING NO.  

DRAWING TITLE:  
LEO'S #3 CAR WASH  
ERIE, PA  
FIGURE 6:  
TOLUENE CONTAMINANT  
CONCENTRATION MAP

**RAR engineering group, inc.**  
1133 Butler Avenue, New Castle, Pennsylvania 16101  
Telephone 724.652.1004 Fax 724.652.3814  
email rarengineering@rarengineering.com

DATE  
SEAL  
SIGNATURE

1 of 1  
SHEET NUMBER

Figure 3: SITE GROUNDWATER CONTOUR MAP

TABLE 1

Table 1: ANALYTICAL RESULTS - SOIL

Table 1. Summary of Analytical Results – Soil Samples  
 Leo's Car Wash  
 Erie, PA

Parameter	MW#1	MW#2	MW#3	MW#4	MW#5	MW#6	MW#7	MW#8	MW#9	**SHS
Benzene	<0.1	0.26	0.10	7.26	0.59	1.33	<0.1	<0.1	<0.1	0.5
Toluene	<0.2	<0.2	1.23	61.8	0.31	0.58	<0.2	<0.2	<0.2	100
Ethyl Benzene	0.90	3.39	3.45	17.6	0.38	14.9	<0.2	<0.2	<0.2	70
Xylenes	1.56	2.03	11.5	98.8	1.33	65.5	<0.2	<0.2	<0.2	1000
Cumene	<0.2	0.50	1.07	4.81	<0.2	0.55	<0.2	<0.2	<0.2	18
Naphthalene	0.29	0.82	1.71	3.42	<0.2	0.57	<0.2	<0.2	<0.2	10
MTBE	<0.2	<0.2	0.25	8.14	<0.2	<0.2	<0.2	<0.2	<0.2	2

Parameter	MW#10	MW#11	MW#12	**SHS
Benzene	<0.1	<0.1	<0.1	0.5
Toluene	<0.2	<0.2	<0.2	100
Ethyl Benzene	<0.2	<0.2	<0.2	70
Xylenes	<0.2	<0.2	<0.2	1000
Cumene	<0.2	<0.2	<0.2	18
Naphthalene	<0.2	<0.2	<0.2	10
MTBE	<0.2	<0.2	<0.2	2

Note: All results are in mg/l or ppm.  
**Bolded numbers** exceed allowable limits.  
 \*\*SHS = Statewide Health Standard for Soil

TABLE 2

Table 2: GROUNDWATER / SEPARATE PHASE  
HYDROCARBON GAUGING DATA

**Table 2. Groundwater / SPH Gauging Data**

Leo's 3 Car Wash  
 Erie, PA  
 April 23, 2003

Monitoring Well	Depth-to-SPH	Depth to Groundwater
MW#1	None	11.35'
MW#2	None	10.40'
MW#3	10.20'	10.7'
MW#4	9.40'	9.9'
MW#5	None	8.55'
MW#6	None	11.15'
MW#7	None	7.90'
MW#8	None	12.35'
MW#9	None	12.45'
MW#10	None	6.10'
MW#11	None	9.35'
MW#12	None	9.45'

**Note:** SPH = Separate Phase Hydrocarbons



TABLE 3

Table 3: GROUNDWATER ANALYTICAL RESULTS

Table 3. Summary of Analytical Results – Monitoring Well Samples

Leo's Car Wash  
Erie, PA  
April 23, 2003

Parameter	MW#1	MW#2	MW#3	MW#4	MW#5	MW#6	MW#7	MW#8	MW#9	**SHS
Benzene	0.005	<b>0.051</b>	NS	NS	<b>13.6</b>	<b>5.40</b>	<0.001	<b>0.016</b>	0.004	0.005
Toluene	<0.002	<0.002	---	---	<b>12.2</b>	<b>2.64</b>	<0.002	0.005	<0.002	1.0
Ethyl Benzene	0.136	0.011	---	---	<b>1.07</b>	0.50	<0.002	<0.002	<0.002	0.70
Xylenes	0.213	0.005	---	---	4.76	4.87	<0.002	<0.002	0.002	10.0
Cumene	0.009	<0.002	---	---	<0.1	<0.1	<0.002	<0.002	<0.002	0.025
Naphthalene	0.038	0.002	---	---	<0.1	<b>0.17</b>	<0.002	<0.002	<0.002	0.10
MTBE	<b>0.176</b>	<b>0.072</b>	---	---	<b>41.7</b>	<b>3.71</b>	<0.002	<b>0.077</b>	<b>0.078</b>	<b>0.020</b>

Parameter	MW#10	MW#11	MW#12	**SHS
Benzene	0.002	<0.002	<b>0.508</b>	0.005
Toluene	<0.002	<0.002	<b>1.14</b>	1.0
Ethyl Benzene	<0.002	<0.002	0.090	0.70
Xylenes	<0.002	0.002	0.87	10.0
Cumene	<0.002	<0.002	0.017	0.025
Naphthalene	<0.002	<0.002	0.017	0.10
MTBE	<b>0.195</b>	<0.002	<b>0.072</b>	<b>0.020</b>

Note: All results are in mg/l or ppm.

Bolded numbers exceed allowable limits.

\*NS = No Sample This MW was not sampled due to the presence of Free Product.

\*\*SHS = Statewide Health Standard for Groundwater.

APPENDIX A

Appendix A: SOIL BORING / WELL COMPLETION LOGS



MONITORING WELL LOG

MW#2

Surface Elevation (MSL): 100.85 (ARBITRARY DATUM) Drilling Method: HOLLOW-STEM AUGER  
 Casing Stickup: N/A Date Drilled: 10/29/02  
 Borehole Diameter: 8 inches, From 0 To 25' Drilled By: CHATFIELD DRILLING  
\_\_\_\_\_ inches, From \_\_\_\_\_ To \_\_\_\_\_ Logged By: CHET ELEWSKI  
 Total Depth: 25' County: ERIE  
 Depth of Ground Water: 10.40'/90.45' Township or Municipality: MILLCREEK TWP  
 Date Measured: 4/23/03 Project Name: LEO'S CARWASH

Depth (Ft.)	Lithologic Discription	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	6" ASPHALT 6"-3' SAND & DARK BROWN SILTY SOIL, HEAVY PRODUCT ODOR	[Pattern]			1158		0
5	DARK BROWN SANDY SILT, HEAVY PRODUCT ODOR	[Pattern]		14"	2871		5
	DARK BROWN SANDY SILT	[Pattern]					
10	BROWN DENSE SILTY CLAY	[Pattern]		16"	427		10
	BROWN DENSE SILTY CLAY	[Pattern]					
15	BROWN GRAY SILTY SAND, WET	[Pattern]		10"	10		15
20	GRAY SILT & CLAY W/SHALE LAYERS	[Pattern]				20	
25						25	
30						30	
35						35	
40						40	

MONITORING WELL LOG

MW#3

Surface Elevation (MSL): 101.48 (ARBITRARY DATUM) Drilling Method: HOLLOW-STEM AUGER  
 Casing Stickup: N/A. Date Drilled: 10/30/02  
 Borehole Diameter: 9 inches, From 0 To 24'9" Drilled By: CHATFIELD DRILLING  
 \_\_\_\_\_ inches, From \_\_\_\_\_ To \_\_\_\_\_ Logged By: JEREMY HOUK  
 Total Depth: 24'9" County: ERIE  
 Depth of Ground Water: 10.20'/91.28' Township or Municipality: MILLCREEK TWP  
 Date Measured: 4/23/03 Project Name: N/A

Depth (Ft.)	Lithologic Discription	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	2" ASPHALT DARK GRAY FINE SAND & ROCK FRAGMENTS				142		0
5	GRAY SAND & ROCK FRAGMENTS			8"	166		5
	GRAY SILT & SAND W/ROCK FRAGMENTS						
10	DENSE GRAY SILT			14"	22		10
	DENSE GRAY SILT						
15	0-7" DENSE GRAY SILT 7-14" BROWN SAND & ROCK FRAGMENTS, WET			14"	8		15
20	GRAY SHALE						20
25							25
30							30
35							35
40						40	



MONITORING WELL LOG

MW#4

Surface Elevation (MSL): 102.0 (ARBITRARY DATUM)

Casing Stickup: N/A

Borehole Diameter: 9 inches, From 0 To 24'8"  
       inches, From        To       

Total Depth: 24'8"

Depth of Ground Water: 9.40' / 92.60'

Date Measured: 4/23/03

Drilling Method: HOLLOW-STEM AUGER

Date Drilled: 10/30/02

Drilled By: CHATFIELD DRILLING

Logged By: JEREMY HOUK

County: ERIE

Township or Municipality: MILLCREEK TWP

Project Name: LEO'S CARWASH

Depth (Ft.)	Lithologic Discription	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	4" ASPHALT FINE DARK GRAY SAND & ROCK FRAGMENTS				136		0
5	BROWN & GRAY SAND, STRONG ODOR			15"	192		5
	GREENISH GRAY SILT						
10	BROWN & GRAY SILT W/ ROCK FRAGMENTS			10"	210		10
	GRAY SILT & SAND, WET ⊕12'						
15	0-8" DENSE GRAY SILT 8-15" BROWN SAND 15-17" DENSE GRAY SILT			17"	120		15
20	GRAY SILT & SHALE						20
25						25	
30						30	
35						35	
40						40	

MONITORING WELL LOG

MW#5

Surface Elevation (MSL): 102.19 (ARBITRARY DATUM) Drilling Method: HOLLOW-STEM AUGER  
 Casing Stickup: N/A Date Drilled: 10/30/02  
 Borehole Diameter: 9 inches, From 0 To 19.5' Drilled By: CHATFIELD DRILLING  
       inches, From        To        Logged By: JEREMY HOUK  
 Total Depth: 19.5' County: ERIE  
 Depth of Ground Water: 8.55'/93.64' Township or Municipality: MILLCREEK TWP  
 Date Measured: 4/23/03 Project Name: LEO'S CARWASH

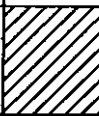
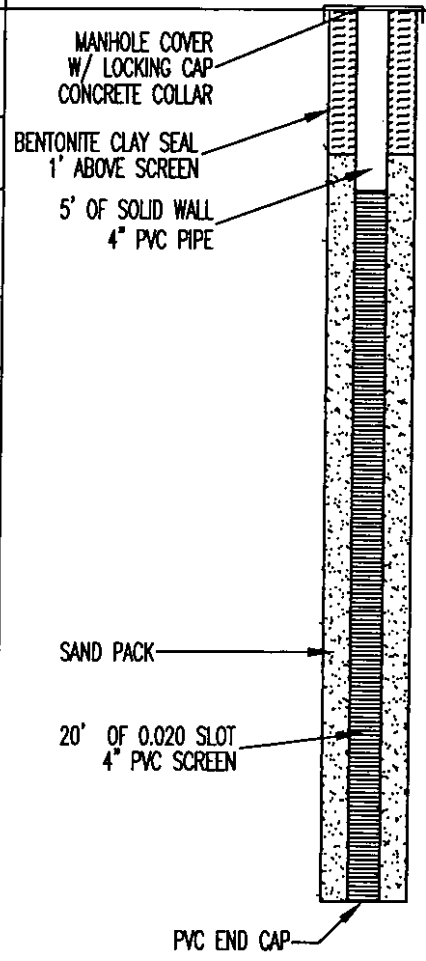








Depth (Ft.)	Lithologic Discription	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	6" CONCRETE BROWN SAND & ROCK FRAGMENTS						0
5	BROWN SAND & ROCK FRAGMENTS			12"	42		5
	BROWN & GRAY SAND AND ROCK FRAGMENTS						
10	DENSE GRAY SILT & ROCK FRAGMENTS			12"	24		10
	DENSE GRAY SILT						
15	0-14" DENSE GRAY SILT, WET ① 15'; 14-20" BROWN SAND & ROCK FRAGMENTS			20"	5.4		15
	GRAY SHALE						
20	AUGER REFUSAL ① 19.5'					20	
25						25	
30						30	
35						35	
40						40	



MONITORING WELL LOG

MW#7

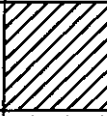
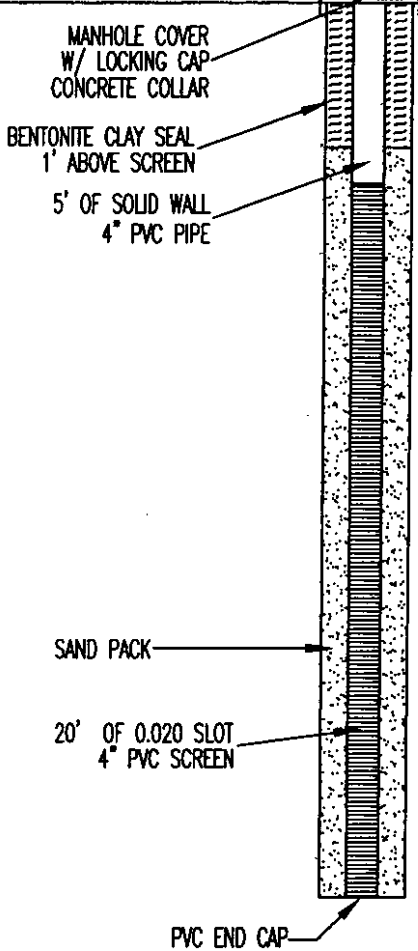
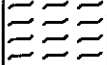
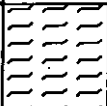


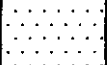
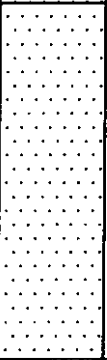
Surface Elevation (MSL): 100.94 (ARBITRARY DATUM) Drilling Method: HOLLOW-STEM AUGER  
 Casing Stickup: N/A Date Drilled: 1/17/03  
 Borehole Diameter: 8 inches, From 0 To 25' Drilled By: CHATFIELD DRILLING  
 \_\_\_\_\_ inches, From \_\_\_\_\_ To \_\_\_\_\_ Logged By: CHET ELEWSKI  
 Total Depth: 25' County: ERIE  
 Depth of Ground Water: 7.90'/93.04 Township or Municipality: MILLCREEK TWP  
 Date Measured: 4/23/03 Project Name: LEO'S CARWASH

Depth (Ft.)	Lithologic Discription	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	ASPHALT, CONCRETE, SAND & GRAVEL			-	-	 <p>MANHOLE COVER W/ LOCKING CAP CONCRETE COLLAR</p> <p>BENTONITE CLAY SEAL 1' ABOVE SCREEN</p> <p>5' OF SOLID WALL 4" PVC PIPE</p> <p>SAND PACK</p> <p>20' OF 0.020 SLOT 4" PVC SCREEN</p> <p>PVC END CAP</p>	0
5	BROWN GRAY SANDY SILTY CLAY			16"	20		5
	BROWN GRAY SANDY SILTY CLAY						
10	BROWN SILTY SAND & GRAVEL			16"	NMR		10
	BROWN SILTY SAND & GRAVEL						
15	GRAY SILT & SHALE CHIPS			-	-		15
	GRAY SILT & SHALE CHIPS						
20	GRAY SILT & SHALE CHIPS						20
	GRAY SILT & SHALE CHIPS						
25							25
30							30
35							35
40							40

MONITORING WELL LOG

MW#8

Surface Elevation (MSL): 100.33 (ARBITRARY DATUM) Drilling Method: HOLLOW-STEM AUGER  
 Casing Stickup: N/A Date Drilled: 1/17/03  
 Borehole Diameter: 8 inches, From 0 To 25' Drilled By: CHATFIELD DRILLING  
inches, From \_\_\_\_\_ To \_\_\_\_\_ Logged By: CHET ELEWSKI  
 Total Depth: 25' County: ERIE  
 Depth of Ground Water: 13.05/87.28 Township or Municipality: MILLCREEK TWP  
 Date Measured: 1/22/03 Project Name: LEO'S CARWASH

Depth (Ft.)	Lithologic Description	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	ASPHALT, CONCRETE, SAND & GRAVEL			-	-		0
5	BROWN GRAY SANDY SILTY CLAY			4"	15		5
	BROWN GRAY SANDY SILTY CLAY			-	-		
10	BROWN SILTY SAND & GRAVEL			16"	20		10
	BROWN SILTY SAND & GRAVEL			-	-		
15	GRAY SILT & SHALE CHIPS			-	-		15
20	GRAY SILT & SHALE CHIPS						20
25							25
30							30
35							35
40						40	

MONITORING WELL LOG

MW#9

Surface Elevation (MSL): 100.48 (ARBITRARY DATUM) Drilling Method: HOLLOW-STEM AUGER

Casing Stickup: N/A Date Drilled: 1/17/03

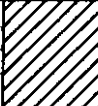
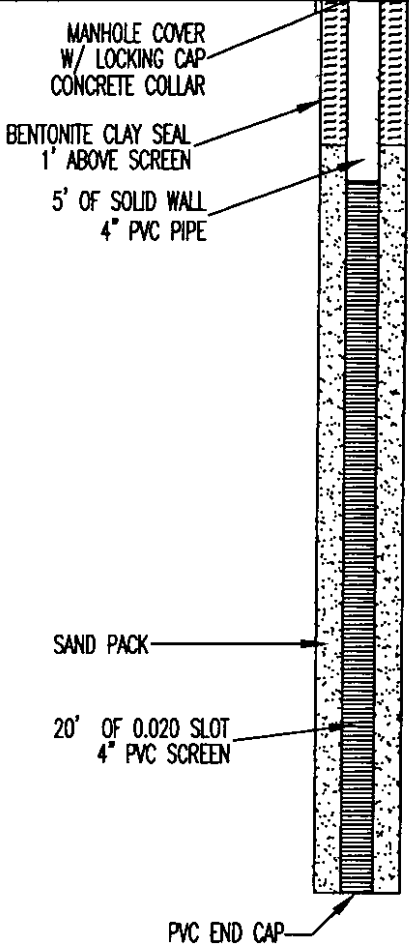

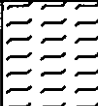



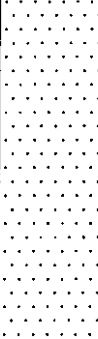
Borehole Diameter: 8 inches, From 0 To 25' Drilled By: CHATFIELD DRILLING

       inches, From        To        Logged By: CHET ELEWSKI

Total Depth: 25' County: ERIE

Depth of Ground Water: 12.45'/88.03' Township or Municipality: MILLCREEK TWP

Date Measured: 4/23/03 Project Name: LEO'S CARWASH

Depth (Ft.)	Lithologic Discription	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	ASPHALT, CONCRETE, SAND & GRAVEL			-	-	 <p>MANHOLE COVER W/ LOCKING CAP CONCRETE COLLAR</p> <p>BENTONITE CLAY SEAL 1' ABOVE SCREEN</p> <p>5' OF SOLID WALL 4" PVC PIPE</p> <p>SAND PACK</p> <p>20' OF 0.020 SLOT 4" PVC SCREEN</p> <p>PVC END CAP</p>	0
5	BROWN SANDY SILTY CLAY & GRAVEL			14"	3		5
	BROWN SANDY SILTY CLAY & GRAVEL			-	-		
10	BROWN SANDY SILTY CLAY & GRAVEL			12"	3		
	BROWN SANDY SILTY CLAY & GRAVEL			-	-		
15	GRAY SILT & SHALE			-	-		
20	GRAY SILT & SHALE			-	-		
25							
30							
35							
40							

MONITORING WELL LOG

MW#10

Surface Elevation (MSL): 97.47'(arbitrary datum)

Casing Stickup: N/A

Borehole Diameter: 8 inches, From 0 To 25'  
       inches, From        To       

Total Depth: 25'

Depth of Ground Water: 6.10'/91.37'

Date Measured: 4/23/03

Drilling Method: HOLLOW-STEM AUGER

Date Drilled: 4/8/03

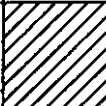
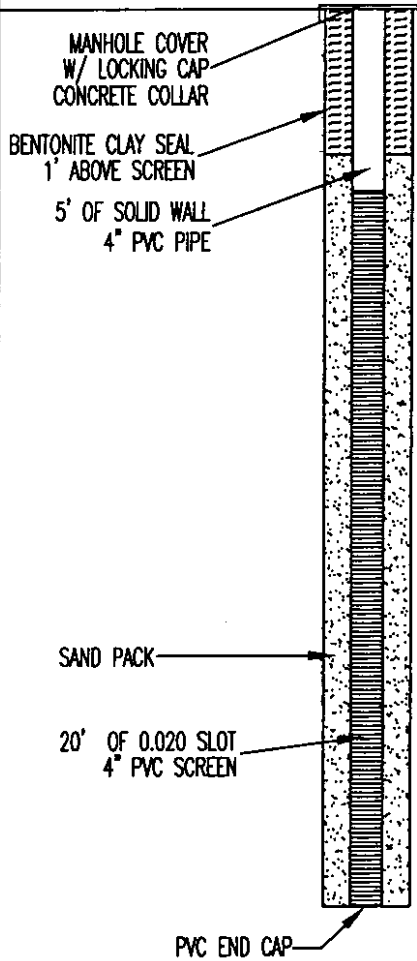
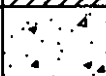
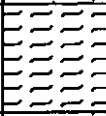

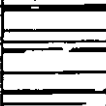
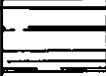

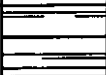

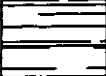
Drilled By: CHATFIELD DRILLING

Logged By: PATRICK E. PRUENT

County: ERIE

Township or Municipality: MILLCREEK TWP

Project Name: LEO'S CARWASH

Depth (Ft.)	Lithologic Discription	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	ASPHALT, CONCRETE, SAND & GRAVEL			-	-		0
5	BROWN SAND & GRAVEL			18"	NMR		5
	BROWN SANDY SILTY CLAY & GRAVEL			-	-		10
10	0-9" BROWN SAND & GRAVEL 9-16" GRAY SAND (WET)			16"	2.1		15
	GRAY SAND TURNING TO GRAY SHALE			-	-		20
15	SOFT GRAY SHALE			21"	NMR		25
	GRAY SHALE			-	-		30
20	GRAY SHALE			12"	NMR		35
	GRAY SHALE			-	-	40	
25	GRAY SHALE, HARD			4"	NMR		

MONITORING WELL LOG

MW#11

Surface Elevation (MSL): 99.06'(arbitrary datum)

Drilling Method: HOLLOW-STEM AUGER

Casing Stickup: N/A

Date Drilled: 4/8/03

Borehole Diameter: 8 inches, From 0 To 25'  
       inches, From        To       

Drilled By: CHATFIELD DRILLING

Logged By: PATRICK E. PRUENT

Total Depth: 25'

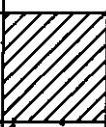
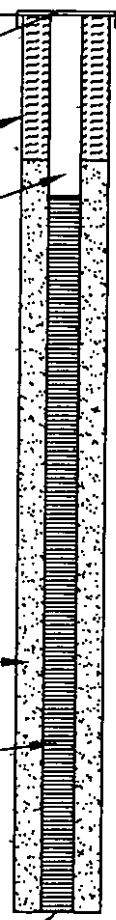

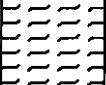

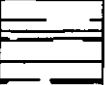
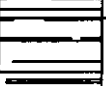
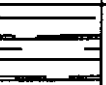
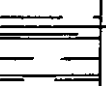
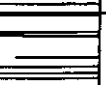
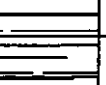
County: ERIE

Depth of Ground Water: 9.35'/89.71'

Township or Municipality: MILLCREEK TWP

Date Measured: 4/23/03

Project Name: LEO'S CARWASH

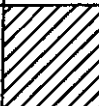
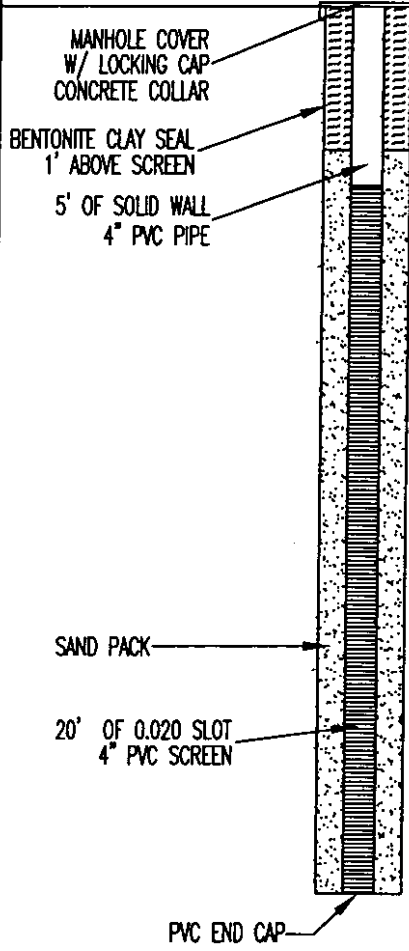



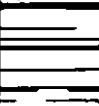

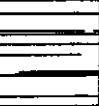

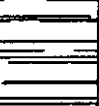

Depth (Ft.)	Lithologic Description	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	ASPHALT, CONCRETE, SAND & GRAVEL			-	-	 <p>MANHOLE COVER W/ LOCKING CAP CONCRETE COLLAR</p> <p>BENTONITE CLAY SEAL 1' ABOVE SCREEN</p> <p>5' OF SOLID WALL 4" PVC PIPE</p> <p>SAND PACK</p> <p>20' OF 0.020 SLOT 4" PVC SCREEN</p> <p>PVC END CAP</p>	0
5	REDDISH BROWN SAND & GRAVEL			19"	1.7		5
	BROWN SANDY SILTY CLAY & GRAVEL			-	-		
10	BROWN SAND & GRAVEL			6"	0.1		10
	GRAY SAND TURNING TO GRAY SHALE			-	-		
15	SOFT GRAY SILTY SHALE			18"	NMR		15
	GRAY SHALE			-	-		
20	GRAY SHALE, HARD			5"	NMR		20
	GRAY SHALE			-	-		
25	GRAY SHALE, HARD			3"	NMR	25	
30						30	
35						35	
40						40	



MONITORING WELL LOG

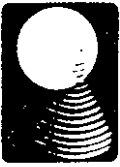
MW#12

Surface Elevation (MSL): 102.47 (ARBITRARY DATUM) Drilling Method: HOLLOW-STEM AUGER  
 Casing Stickup: N/A Date Drilled: 4/9/03  
 Borehole Diameter: 8 inches, From 0 To 25' Drilled By: CHATFIELD DRILLING  
inches, From \_\_\_\_\_ To \_\_\_\_\_ Logged By: PATRICK E. PRUENT  
 Total Depth: 25' County: ERIE  
 Depth of Ground Water: 9.45'/93.02' Township or Municipality: MILLCREEK TWP  
 Date Measured: 4/23/03 Project Name: LEO'S CARWASH

Depth (Ft.)	Lithologic Discription	Strat. Symbol	Samples		PID Meter Response	Comments	Depth (Ft.)
			No.	Rec/Att			
0	ASPHALT, CONCRETE, SAND & GRAVEL			-	-		0
5	REDDISH BROWN SAND & GRAVEL			15"	NMR		5
	REDDISH BROWN SAND & GRAVEL			-	-		10
10	REDDISH BROWN SILTY SAND & GRAVEL, WET			10"	15.4		15
	REDDISH BROWN SAND & GRAVEL TURNING TO GRAY SHALE			-	-		20
15	GRAY SILT WITH SHALE FRAGMENTS			16"	0.4		25
	GRAY SHALE			-	-		30
20	GRAY SHALE, HARD			16"	0.2		35
	GRAY SHALE			-	-	40	
25	GRAY SHALE			3"	NMR		
30							
35							
40							

APPENDIX B

Appendix B: LABORATORY ANALYTICAL REPORT - SOIL



# Environmental Laboratory Services, Inc.

(724) 652-5770

1135 Butler Avenue • New Castle, PA 16101

FAX (724) 652-3814

REPORT DATE: 04/15/03

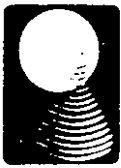
Customer: American Environmental  
Generator: Leo's #3 Wash  
Sample Name: MW#10 (8'-10')  
Sample Date: 04/08/03  
Lab Sample #: HW39736

EPA METHOD 5035/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/kg)</u>	<u>Detection Limit, (mg/kg)</u>
Benzene, mg/kg	<0.1	0.1
Toluene, mg/kg	<0.2	0.2
Ethyl Benzene, mg/kg	<0.2	0.2
Xylenes, (Total, mg/kg	<0.2	0.2
Cumene, mg/kg	<0.2	0.2
Naphthalene, mg/kg	<0.2	0.2
MTBE, mg/kg	<0.2	0.2

*Mark Swansiger*

Mark Swansiger  
Lab Director



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FAX (724) 652-3814

REPORT DATE: 04/15/03

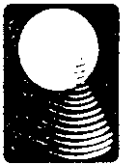
Customer: American Environmental  
Generator: Leo's #3 Wash  
Sample Name: MW#11 (3'-5')  
Sample Date: 04/08/03  
Lab Sample #: HW39737

EPA METHOD 5035/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/kg)</u>	<u>Detection Limit, (mg/kg)</u>
Benzene, mg/kg	<0.1	0.1
Toluene, mg/kg	<0.2	0.2
Ethyl Benzene, mg/kg	<0.2	0.2
Xylenes, (Total, mg/kg)	<0.2	0.2
Cumene, mg/kg	<0.2	0.2
Naphthalene, mg/kg	<0.2	0.2
MTBE, mg/kg	<0.2	0.2

*Mark Swansiger*

Mark Swansiger  
Lab Director



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REPORT DATE: 04/15/03

Customer: American Environmental  
Generator: Leo's #3 Wash  
Sample Name: MW#12 (8'-10')  
Sample Date: 04/08/03  
Lab Sample #: HW39738

## EPA METHOD 5035/8260B LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/kg)</u>	<u>Detection Limit, (mg/kg)</u>
Benzene, mg/kg	<0.1	0.1
Toluene, mg/kg	<0.2	0.2
Ethyl Benzene, mg/kg	<0.2	0.2
Xylenes, (Total, mg/kg)	<0.2	0.2
Cumene, mg/kg	<0.2	0.2
Naphthalene, mg/kg	<0.2	0.2
MTBE, mg/kg	<0.2	0.2

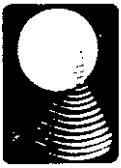
Mark Swansiger  
Lab Director



APPENDIX C



Appendix C: LABORATORY ANALYTICAL REPORT  
GROUNDWATER



**Environmental  
Laboratory  
Services, Inc.**

(724) 652-5770

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FAX (724) 652-3814

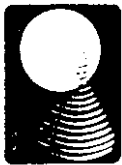
REPORT DATE: 05/05/03

Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#1 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39948

EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	0.005	0.001
Toluene, mg/l	<0.002	0.002
Ethyl Benzene, mg/l	0.136	0.002
Xylenes, (Total, mg/l)	0.213	0.002
Cumene, mg/l	0.009	0.002
Naphthalene, mg/l	0.038	0.002
MTBE, mg/l	0.176	0.002

*Mark Swansiger*  
Mark Swansiger  
Lab Director



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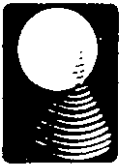
REPORT DATE: 05/05/03

Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#2 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39949

EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	0.051	0.001
Toluene, mg/l	<0.002	0.002
Ethyl Benzene, mg/l	0.011	0.002
Xylenes, (Total, mg/l)	0.005	0.002
Cumene, mg/l	<0.002	0.002
Naphthalene, mg/l	0.002	0.002
MTBE, mg/l	0.072	0.002

*Mark Swansiger*  
Mark Swansiger  
Lab Director



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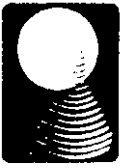
REPORT DATE: 05/05/03

Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#5 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39951

EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	13.6	0.1
Toluene, mg/l	12.2	0.2
Ethyl Benzene, mg/l	1.07	0.2
Xylenes, (Total, mg/l)	4.76	0.2
Cumene, mg/l	<0.2	0.2
Naphthalene, mg/l	<0.2	0.2
MTBE, mg/l	41.7	1.0

*Mark Swansiger*  
Mark Swansiger  
Lab Director



**Environmental  
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REPORT DATE: 05/05/03

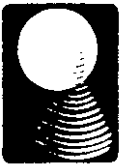
Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#6 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39952

EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	5.40	0.05
Toluene, mg/l	2.64	0.1
Ethyl Benzene, mg/l	0.50	0.1
Xylenes, (Total, mg/l)	4.87	0.1
Cumene, mg/l	<0.1	0.1
Naphthalene, mg/l	0.17	0.1
MTBE, mg/l	3.71	0.1

*Mark Swansiger*

Mark Swansiger  
Lab Director



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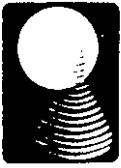
REPORT DATE: 05/05/03

Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#7 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39953

EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	<0.001	0.001
Toluene, mg/l	<0.002	0.002
Ethyl Benzene, mg/l	<0.002	0.002
Xylenes, (Total, mg/l)	<0.002	0.002
Cumene, mg/l	<0.002	0.002
Naphthalene, mg/l	<0.002	0.002
MTBE, mg/l	<0.002	0.002

Mark Swansiger  
Lab Director



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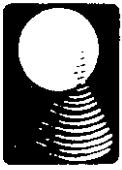
REPORT DATE: 05/05/03

Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#8 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39954

EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	0.016	0.001
Toluene, mg/l	0.005	0.002
Ethyl Benzene, mg/l	<0.002	0.002
Xylenes, (Total, mg/l)	<0.002	0.002
Cumene, mg/l	<0.002	0.002
Naphthalene, mg/l	<0.002	0.002
MTBE, mg/l	0.077	0.002

*Mark Swansiger*  
Mark Swansiger  
Lab Director



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REPORT DATE: 05/05/03

Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#9 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39955

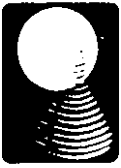
EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	0.004	0.001
Toluene, mg/l	<0.002	0.002
Ethyl Benzene, mg/l	<0.002	0.002
Xylenes, (Total, mg/l)	<0.002	0.002
Cumene, mg/l	<0.002	0.002
Naphthalene, mg/l	<0.002	0.002
MTBE, mg/l	0.078	0.002

*Mark Swansiger*

Mark Swansiger  
Lab Director





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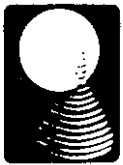
REPORT DATE: 05/05/03

Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#10 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39956

EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	0.002	0.001
Toluene, mg/l	<0.002	0.002
Ethyl Benzene, mg/l	<0.002	0.002
Xylenes, (Total, mg/l)	<0.002	0.002
Cumene, mg/l	<0.002	0.002
Naphthalene, mg/l	<0.002	0.002
MTBE, mg/l	0.195	0.002

Mark Swansiger  
Lab Director



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REPORT DATE: 05/05/03

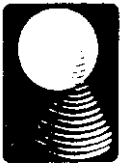
Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#11 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39957

EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	<0.002	0.001
Toluene, mg/l	<0.002	0.002
Ethyl Benzene, mg/l	<0.002	0.002
Xylenes, (Total, mg/l)	0.002	0.002
Cumene, mg/l	<0.002	0.002
Naphthalene, mg/l	<0.002	0.002
MTBE, mg/l	<0.002	0.002

*Mark Swansiger*

Mark Swansiger  
Lab Director



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REPORT DATE: 05/05/03

Customer: American Environmental  
Generator: Leo's Car Wash  
Sample Name: Monitoring Well MW#12 Groundwater Sample  
Sample Date: 04/23/03  
Lab Sample #: HW39958

EPA METHOD 5030B/8260B  
LABORATORY RESULTS

<u>Parameter</u>	<u>Result as Received, (mg/l)</u>	<u>Detection Limit, (mg/l)</u>
Benzene, mg/l	0.508	0.005
Toluene, mg/l	1.14	0.01
Ethyl Benzene, mg/l	0.090	0.002
Xylenes, (Total, mg/l)	0.87	0.01
Cumene, mg/l	0.017	0.002
Naphthalene, mg/l	0.017	0.002
MTBE, mg/l	0.072	0.002

Mark Swansiger  
Lab Director



