

**Supplemental Site Investigation and Closure Report for Ameron Site,**

**Site no. 915133- June 2004**

**111 Colgate Avenue, Buffalo, New York**

**AFI Project No. R1015**

July 21, 2004

Mr. Myles Culhane  
Ameron International  
Ameron Center  
245 South Los Robles Avenue  
Pasadena, CA 91101-2820

**RE: Supplemental Site Investigation and Closure Report for Ameron Site,  
Site no. 915133- June 2004  
111 Colgate Avenue, Buffalo, New York  
AFI Project No. R1015**

Dear Mr. Culhane:

*AFI Environmental (AFI)* has prepared this letter report to summarize the results of a **Supplemental Site Investigation and Closure Report for Ameron Site, Site no. 915133 - June 2004**. *AFI's* work included a Supplemental, Subsurface Soil Investigation (soil borings 1-4) within the paint room, Chemical Analysis of Groundwater Sample collected from Monitoring Well #2 (MW2), and a Supplemental Site UST Investigation (EM-61 Electro-magnetometer Survey) conducted at the former Ameron Site located at 111 Colgate Avenue, Buffalo, Erie County, New York, June 2, 2004, on behalf of Mr. Craig Slater, Esq., of Harter, Secrest & Emery LLP.

## **Purpose of Study**

The purpose of *AFI's* **Supplemental Site Investigation and Closure Report for Ameron Site, Site no. 915133 - June 2004** was to determine the effectiveness of a soil vapor recovery system operating for the past twelve (12) years within the concrete block and brick paint building located at the western edge of Building #1 (See Site Map), and to identify potential underground storage tank (UST) locations, if any.

In order to address this issue of Closure for the Ameron Site, AFI was asked by Mr. Craig Slater, Esq. of Harter, Secrest & Emery LLP and retained by Ameron, to conduct a Supplemental, Subsurface Soil Investigation within Building #1, beneath the concrete slab floor, in close proximity to the paint tanks and juxtaposed to the SVE treatment system, and to collect a representative down gradient, groundwater sample from MW #2. The purpose of this data collection was to assess the effectiveness of the SVE's removal of target chemicals of concern (MEK, MIBK, and MBK) from the soils and groundwater near building #1. A second aspect of the investigation included a geophysical (magnetometer) survey of the entire property as part of a Supplemental Site UST Investigation. AFI's investigation conducted on June 2, 2004 included the following tasks:

### **Supplemental Site Investigation and Closure Activities- Ameron, Site No. 915133**

1. Installation of four (4) geoprobe borings through 6" concrete top layer and to a depth of 8 feet BGS.
2. Collection of continuous 4' split-spoon samples advanced with a geoprobe sampler from surface to a depth of 8 feet BGS. Two (2) samples were collected from each bore hole.
3. Head space scanning for Volatile Organic Carbons using a "mini-rae" PID meter from a sample representative of each split-spoon for each of the four (4) borings.
4. Chemical analysis of four (4) subsurface soil samples for target compound list (MEK, MIBK and MBK); one soil sample representing the 4 ft. zone with highest PID readings at each bore hole location.
5. Recording of water level measurements from monitoring well MW2.
6. Well development and water sample collection from MW2.
7. Analysis of MW2 water sample for target compound list (MEK, MIBK and MBK).

### **Supplemental UST Investigation Activities**

8. Geophysical survey undertaken using a dual antenna magnetometer unit (EM-61) and data logging equipment.

AFI has prepared this summary report to:

1. Present details concerning the methods employed to collect and analyze soils and water samples;
2. Describe subsurface conditions encountered;
3. Evaluate resultant data with respect to the occurrence of contamination;
4. Compare contaminant concentrations with applicable regulatory levels;
5. Provide recommendation for closure; or further investigation and remedial action at the site, if warranted.

### **Site History**

This site has been on the DEC Registry of Inactive Hazardous Waste Sites (Site No. 915133) for over ten (10) years. The listing of this site resulted from the determination that the protective coatings manufacturing facility was operated between 1960 to approximately 1982, during which time contaminants of concern were used, including methylethyl ketone, other ketones, acetone, xylenes, and various benzene-based compounds. As the result of the listing of this property, Ameron signed an Order on Consent in 1985 compelling remediation of the site, primarily associated with Plant No. 1. Plant No. 1 had associated with it contaminants of concern underneath the building slab. Although other minor remedial elements were completed, the primary remediation required was to install a vapor collection ventilation system under the two westernmost rooms of Plant No. 1. Under their Order on Consent, Ameron was required to operate SVE System for a period of ten (10) years which, concluded sometime in 1996.

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While DEC acknowledged that all of Ameron's obligations under the Order on Consent were completed to their satisfaction, DEC continues to list this site on the Registry of Inactive Hazardous Waste Sites as a Class 4, which connotes a site properly closed but requires continued management. DEC refused, based on the data it had in hand in 1999, to change the site classification to Class 5 (site properly closed, does not require continued management) or remove the site from the Registry altogether.

Ameron desired to have this site removed from the DEC Registry completely and, for that purpose, has contracted AFI Environmental to implement a Focused, Supplemental Site Investigation in the area of the potential impact (primarily in the area adjacent to the SVE System) to confirm that the SVE successfully remediated contaminants of concern to levels below DEC TAGM 4046 and to make a closure request.

### **Supplemental Subsurface Investigation**

On June 2, 2004, a total of four (4) soil borings (SB#1-4) were completed by AFI and their subcontractors, C&W Environmental, to a maximum depth of 8.0 feet below ground surface (BGS). Each of these borings were positioned, near the paint tanks, so as to determine soil conditions, beneath the concrete floor, and to identify the possible presence of subsurface contamination inside the treatment building (building #1) at the Ameron Site located at 111 Colgate Avenue, Buffalo, New York. See Figure 1 for boring locations.

### ***Soil Boring***

A track mounted 54DT Direct Push Rig was utilized to secure continuous soil samples under the supervision of AFI Senior Scientist and with the assistance of AFI Field Scientist and technicians. Refer to Figure 1 presented in Attachment A for soil boring locations.. At the completion of every soil sampling interval, the split-spoon samplers were decontaminated by a rinse wash combined with a concentrated surfactant and a clean water second rinse to complete decontamination. The soil borings were advanced through the concrete, to a depth of eight (8) feet below ground surface (BGS) to collect discrete grab samples of the shallow overburden.

### **Sample Analysis**

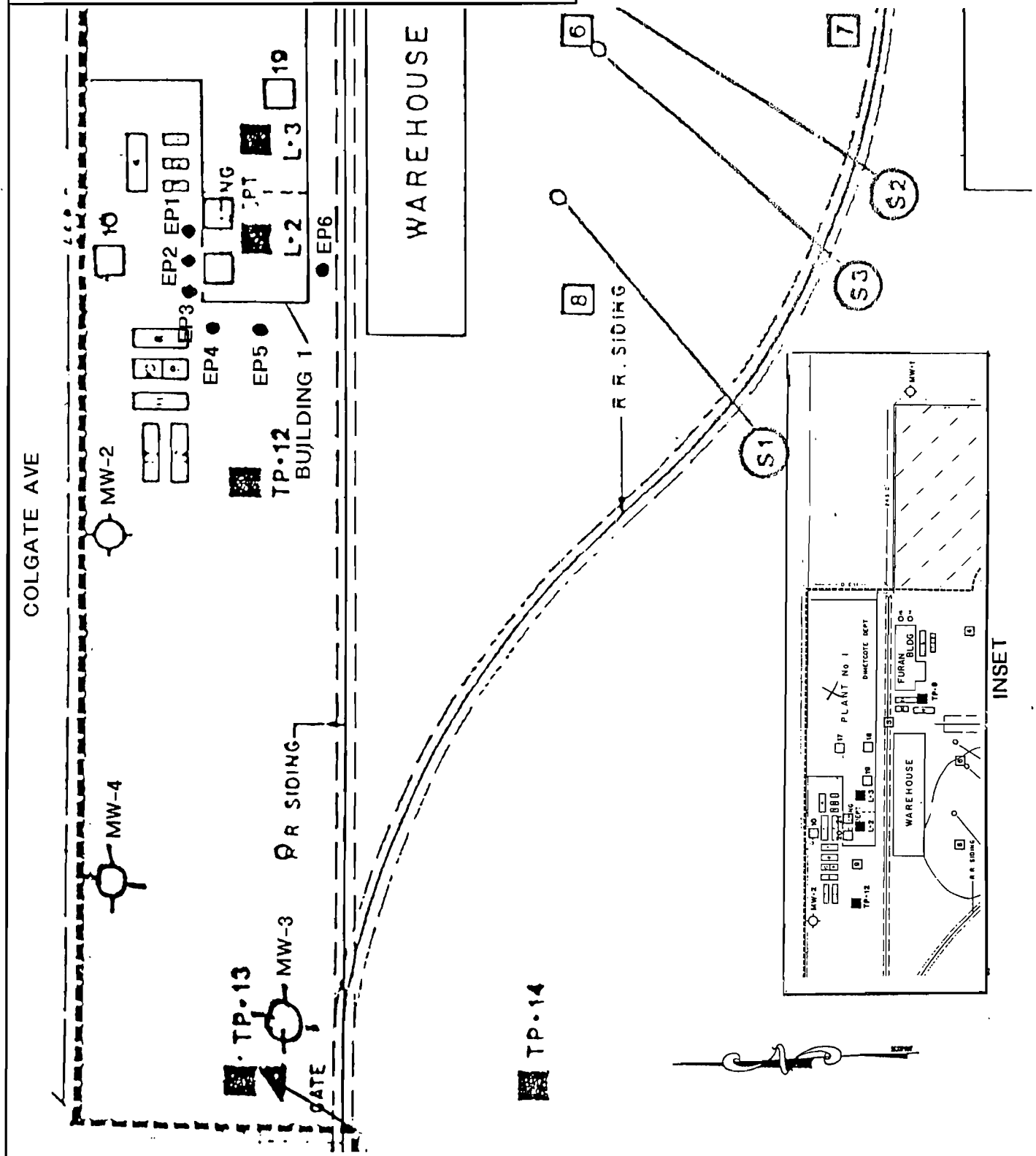
A total of eight (8) subsurface soil samples were collected and four (4) subsurface soil samples were submitted for chemical analysis. The soil borings were advanced through the concrete, to a depth of eight (8) feet below ground surface (BGS) to collect discrete grab samples of the shallow overburden. The samples were collected with Marco Core (MC) open samplers. These samplers are open tube design and measure approximately 2 inches outside diameter (OD) by about 48 inches long. The samplers are fitted with a removable cutting shoe and a clear acetate liner. The location of each Geoprobe soil boring was determined in the field by the AFI's Senior Scientist. Upon completion, each of the soil boring holes were backfilled with bentonite..

Samples were evaluated for volatiles in Head space using a PID meter. Samples from each 4' interval exhibiting the highest PID readings from each soil boring were sent for analysis. Based on visual/sensory observation and PID screening results, one (1) grab sample was obtained from borings SB#1 (0'-4'), SB#2 (0'-4'), SB#3 (4'-8'), and SB#4 (0'-8'). These four (4) samples were analyzed for volatile organic compounds (EPA 8260) and MEK, MIBK and MBK. Field sampling records, which were prepared for each sampling location, the chain-of-custody record and the analytical results are presented in Appendix A. The results of the chemical analysis are discussed below.

7815 Buffalo Avenue  
Niagara Falls, NY 14304  
(716) 283-7645

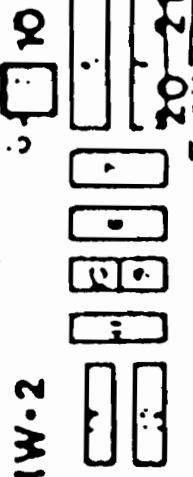
111 COLGATE AVE • PROJECT NO. R1015

**AFI**  
ENVIRONMENTAL



COLGATE AVENUE

MW-2



17

BUILDING 1

9

TP-12

18

DIMETCOTE DEPT

LEGEND

MONITORING WELL

SOIL BORING

WAREHOUSE

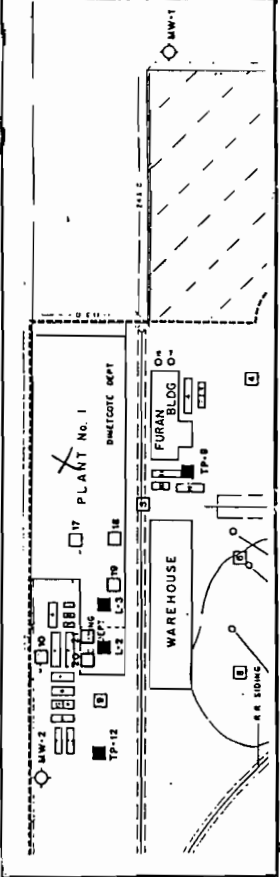
FURAN BLDG

TP-9

8

R.R. SIDING

4



SITE MAP

SOIL BORING/MONITORING WELL LOCATIONS

111 COLGATE AVE • PROJECT NO. R1015

**AFI** ENVIRONMENTAL  
7815 BUFFALO AVE  
NIAGARA FALLS, NY 14304  
(716) 283-7645

FIGURE NO.

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## **Findings of Investigation**

### ***Subsurface Soils***

Fill material was encountered below a concrete layer 4 inches thick. The fill material consisted of crushed stone followed by silty sand..

The natural soils encountered below the fill were variable, consisting of silty sand and brownish-gray clay, with varying amounts of as described in the boring log.

Detailed soil description of each interval samples as well as other pertinent boring information are included in the Test Boring Logs presented in Appendix B.

PID screening performed during the boring investigation revealed all soil borings with PID readings above background (5 PPM). Readings for the corresponding PID screening results of each boring interval are presented as Table 1.

**TABLE 1**  
**PID HEADSPACE ANALYSIS**  
**JUNE 2, 2004**  
**111 COLGATE AVENUE**  
**BUFFALO, NEW YORK**  
**PROJECT NO. R1015**

<b>SOIL BORING LOCATION</b>	<b>DEPTH</b>	<b>PID READING (ppm)</b>	<b>COMMENTS</b>
SB-1	0'-4'	999	PETROLEUM ODOR
SB-1	4'-8'	103	PETROLEUM ODOR
SB-2	0'-4'	532	PETROLEUM ODOR
SB-2	4'-8'	7.0	NO ODOR
SB-3	0'-4'	13.0	NO ODOR
SB-3	4'-8'	17.5	NO ODOR
SB-4	0'-4'	106	NO ODOR
SB-4	4'-8'	57	NO ODOR

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### ***Water Level/Well Development***

On June 2, 2004, water levels and total depths were gauged at the previously installed monitoring well MW#2. Monitoring well #2 was then developed (purged of a minimum of 3.5 well volumes) to obtain a representative water sample for analytical testing.

The water sample was analyzed for volatile organic compounds (EPA 8260) and MEK, MIBK and MBK.

### ***Analytical Results***

#### ***Soil Results***

All soil samples were analyzed for the volatile organic compounds (VOCs) and MEK, MIBK and MBK, listed in the *Spill Technology and Remediation Series* (STARS) Memo #1, published by the New York State Department of Environmental Conservation (NYSDEC) using EPA methods 8260.

The analytical results for the four (4) soil samples are presented in Table #2 and results are summarized and compared to the NYSDEC TAGM 4046. The complete Analytical Reports with chain-of-custody are presented in Appendix A.

A review of Table #2 shows that there are no exceedances for any of the chemicals of concern MEK, MIBK, and MBK for any of the four soil borings (SB-1, SB-2, SB-3, & SB-4). SB-1 and SB-2 exceed some of the Guidance Values for other volatile organics and SB-4 exceeded the Guidance Values for m,p-Xylene, o-Xylene and Xylenes (Total). The exceedances for chemicals that are not chemicals of concern for the site may be related to USTs remaining at the site (see Supplemental UST Investigation discussions below).



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**TABLE 2**  
**SOIL ANALYTICAL RESULTS**  
**JUNE 2, 2004**  
**111 COLGATE AVE., BUFFALO, NY**  
**VOLATILES**  
**CHEMICALS OF CONCERN**

Component	<i>Client</i>		SB-1	SB-2	SB-3	SB-4	Rec. Soil
	<i>Lab</i>	<i>Date</i>	(0-4ft)	(0-4ft)	(4-8ft)	(0-4ft)	Cleanup
	MDL	Units	032214 04	032215 04	032216 04	032217 04	Objective
			02-Jun-2004	02-Jun-2004	02-Jun-2004	02-Jun-2004	TAGM 4046
							ppm
Isopropylbenzene	0.001	mg/kg	1.4	6.5	0.84	0.29	5**
n-Propylbenzene	0.001	"	0.49	5.1	0.63	0.17	14**
p-Isopropyltoluene	0.001	"	<0.10	<0.12	<0.10	<0.10	10
1,2,4-Trimethylbenzene	0.001	"	0.18	15	0.21	0.19	13**
1,3,5-Trimethylbenzene	0.001	"	0.16	7.4	<0.10	0.13	3.3
n-Butylbenzene	0.001	"	<0.10	<0.12	<0.10	<0.10	10
sec-Butylbenzene	0.001	"	<0.10	<0.12	<0.10	<0.10	25**
tert-Butylbenzene	0.001	"	<0.10	<0.12	<0.10	<0.10	1.3
Naphthalene	0.001	"	<0.10	0.41	<0.10	<0.10	13
Benzene	0.001	"	<0.10	<0.12	<0.10	<0.10	0.06
Ethylbenzene	0.001	"	64	70	0.12	4.9	5.5
Toluene	0.001	"	16	0.15	<0.10	0.22	1.5
m&p-Xylene	0.001	"	250	390	0.60	28	1.2
o-Xylene	0.001	"	76	0.55	0.13	5.8	1.2
Xylenes(Total)	0.001	"	320	390	0.73	34	1.2
Methyl-t-butylether	0.001	"	<0.10	<0.12	<0.10	<0.10	0.12
2-Butanone	0.005	"	<.50	<.60	<.50	<.50	0.3
2-Hexanone	0.005	"	<.50	<.60	<.50	<.50	1*
4-Methyl-2-Pentanone	0.005	"	<.50	<.60	<.50	<.50	1

\*As per phone conversation with Greg Sutton of the NYSDEC on June 16, 2004

\*\* As per NYSDEC Technical Memorandum (Michael J. O'Toole, Director) on December 20, 2000

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### Groundwater Results

Table #3 summarizes the analytical results of the water sample from MW2. No chemicals found in the water sample were above TAGM 4046 Guidance Values or above detection limits this included the Target Chemicals of Concern for the Site (MEK, MBK, MIBK).

**TABLE 3**  
**SOIL ANALYTICAL RESULTS**  
**JUNE 2, 2004**  
**111 COLGATE AVE., BUFFALO, NY**  
**VOLATILES**

Component	CHEMICALS OF CONCERN		Groundwater	
	Lab No.:	032219 04	Standards	
	Date Sampled:	02-Jun-2004	Criteria	
	MDL	Units	ug/l or ppb	
Isopropylbenzene	0.5	ug/L	<	5
n-Propylbenzene	0.5	"	<	5
p-Isopropyltoluene	0.5	"	<	5
1,2,4-Trimethylbenzene	0.5	"	<	5
1,3,5-Trimethylbenzene	0.5	"	<	2
n-Butylbenzene	0.5	"	<	5
sec-Butylbenzene	0.5	"	<	5
tert-Butylbenzene	0.5	"	<	5
Naphthalene	0.5	"	<	10
Benzene	0.5	"	<	1.0**
Ethylbenzene	0.5	"	<	5
Toluene	0.5	"	<	5
m&p-Xylene	1.0	"	<	5
o-Xylene	0.5	"	<	5
Xylenes(Total)	1.0	"	<	5
Methyl-t-butylether	0.5	"	<	10
2-Butanone	3.2	"	<	50
2-Hexanone	1.3	"	<	5*
4-Methyl-2-Pentanone	1.5	"	<	50

\* As per phone conversation with Greg Sutton of the NYSDEC on June 16, 2004

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\*\* As per NYSDEC Technical Memorandum (Michael J. O'Toole, Director) on December 20, 2000

#### **Supplemental Site UST Investigation -Geophysical Survey**

The geophysical survey was conducted by utilizing a Geonics EM-61 dual antenna magnetometer unit with data logging equipment. Under the supervision of AFI's Senior Scientist, our subcontractor, Construction Lending Services, Inc., traversed the property and obtained readings along a 5' grid system established by CLS in the field. The ground surface in the area of the survey was cleared of all obstructions which could result in data gaps and interferences, before the survey was conducted.

#### **Observations**

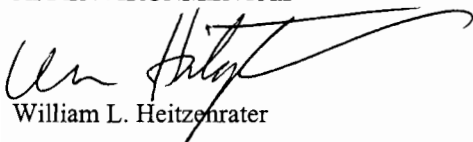
##### ***Magnetometer Survey***

Based on the results of the EM-61 Magnetometer Survey, seventeen (17) anomalies were detected. Twelve (12) are suspected to be UST and the additional five (5) are unknown. See the EM-61 Magnetometer Survey attached as Appendix C.

#### **Conclusions/Recommendations**

I recommend that the site be removed from the NYSDEC's Registry of Inactive Hazardous Waste Sites site No. 915133 and be closed in respect to the target chemicals of concern; AFI also recommends that a NYSDEC Spill number be issued for the site and that all USTs and potential USTs (identified via magnetometer) be excavated, pumped dry, exhumed and that the tank farm be properly closed under the newly assigned NYSDEC Spill Number. The owner must consider excavation and proper disposal of any petroleum contaminated soils resulting from possible tank leakage. Additional soil sampling will be warranted to document proper UST closure according to NYSDEC Spill Regulations.

Sincerely,  
AFI ENVIRONMENTAL



William L. Heitzenrater

WLH:smh  
Enclosure

cc: Mr. Craig Slater, Esq.  
file





## *Certificate of Analysis*

### CLIENT INFORMATION

Attention: Alby Benton  
Client Name: AFI Environmental  
Project: P1014  
Project Desc: Colgate Ave.

Address: 7815 Buffalo Avenue  
Niagara Falls, NY  
14304  
Fax Number: 716 283-2858  
Phone Number: 716 283-7645

### LABORATORY INFORMATION

Contact: Mike Challis, B.Sc, C.Chem.  
Project: AN040768  
Date Received: 03-Jun-2004  
Date Reported: 10-Jun-2004

Submission No.: 4F0159  
Sample No.: 032213-032219

### NOTES:

*"-" = not analysed "<" = less than Method Detection Limit (MDL) "NA" = no data available*

*LOQ can be determined for all analytes by multiplying the appropriate MDL X 3.33*

*Solids data is based on dry weight except for biota analyses.*

*Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DED/DBF analyses)*

*The enclosed copy of the Chain of Custody Record may contain information necessary for the interpretation of the data.*

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

### COMMENTS:

Certified by: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'M. Challis', is written over a horizontal line.

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6/10/04

**PASC - Certificate of Analysis**

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			SB-1 (0-4ft)	SB-2 (0-4ft)	SB-3 (4-8ft)	SB-4 (0-4ft)
<b>Client ID:</b>			032214 04	032215 04	032216 04	032217 04
<b>Lab No.:</b>			02-Jun-2004	02-Jun-2004	02-Jun-2004	02-Jun-2004
<b>Date Sampled:</b>						
Component	MDL	Units				
Acetone	0.020	mg/kg	<2.0	<2.4	<2.0	<2.0
Benzene	0.001	"	<0.10	<0.12	<0.10	<0.10
Bromoform	0.001	"	<0.10	<0.12	<0.10	<0.10
Bromomethane	0.006	"	<0.60	<0.72	<0.60	<0.60
2-Butanone MEK	0.005	"	<0.50	<0.60	<0.50	<0.50
Carbon Disulfide	0.001	"	<0.10	<0.12	<0.10	<0.10
Carbon Tetrachloride	0.001	"	<0.10	<0.12	<0.10	<0.10
Chlorobenzene	0.001	"	<0.10	<0.12	<0.10	<0.10
Chlorodibromomethane	0.001	"	<0.10	<0.12	<0.10	<0.10
Chloroethane	0.001	"	<0.10	<0.12	<0.10	<0.10
Chloroform	0.001	"	<0.10	<0.12	<0.10	<0.10
Chloromethane	0.001	"	<0.10	<0.12	<0.10	<0.10
1,2-Dichlorobenzene	0.001	"	<0.10	<0.12	<0.10	<0.10
1,3-Dichlorobenzene	0.001	"	<0.10	<0.12	<0.10	<0.10
1,4-Dichlorobenzene	0.001	"	<0.10	<0.12	<0.10	<0.10
Dichlorobromomethane	0.001	"	<0.10	<0.12	<0.10	<0.10
1,1-Dichloroethane	0.001	"	<0.10	<0.12	<0.10	<0.10
1,2-Dichloroethane	0.001	"	<0.10	<0.12	<0.10	<0.10
1,1-Dichloroethene	0.001	"	<0.10	<0.12	<0.10	<0.10
cis-1,2-Dichloroethene	0.001	"	<0.10	<0.12	<0.10	<0.10
trans-1,2-Dichloroethene	0.001	"	<0.10	<0.12	<0.10	<0.10
1,2-Dichloropropane	0.001	"	<0.10	<0.12	<0.10	<0.10
cis-1,3-Dichloropropene	0.001	"	<0.10	<0.12	<0.10	<0.10
trans-1,3-Dichloropropene	0.001	"	<0.10	<0.12	<0.10	<0.10
Ethylbenzene	0.001	"	64	70	0.12	4.9
2-Hexanone MEK	0.005	"	<0.50	<0.60	<0.50	<0.50
Dichloromethane	0.020	"	<2.0	<2.4	<2.0	<2.0
4-Methyl-2-Pentanone MEK	0.005	"	1.2	<0.60	<0.50	<0.50
Methyl-t-butylether	0.001	"	<0.10	<0.12	<0.10	<0.10
Styrene	0.001	"	1.6	<0.12	<0.10	<0.10
1,1,2,2-Tetrachloroethane	0.001	"	<0.10	<0.12	<0.10	<0.10
Tetrachloroethene	0.001	"	<0.10	<0.12	<0.10	<0.10
Toluene	0.001	"	16	0.15	<0.10	0.22
1,1,1-Trichloroethane	0.001	"	<0.10	<0.12	<0.10	<0.10
1,1,2-Trichloroethane	0.001	"	<0.10	<0.12	<0.10	<0.10
Trichloroethene	0.001	"	<0.10	<0.12	<0.10	<0.10
Trichlorofluoromethane	0.001	"	<0.10	<0.12	<0.10	<0.10
Vinyl Acetate	0.005	"	<0.50	<0.60	<0.50	<0.50
Vinyl Chloride	0.001	"	<0.10	<0.12	<0.10	<0.10
m&p-Xylene	0.001	"	250	390	0.60	28
o-Xylene	0.001	"	76	0.55	0.13	5.8
Surrogate Recoveries		%				
d4-1,2-Dichloroethane			89	88	87	87
d8-Toluene			98	98	98	98
Bromofluorobenzene			96	96	93	94
d10-Ethylbenzene			57	71	64	61

6/10/04

**PASC - Certificate of Analysis**

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Component	Client ID:		Method	Blank	%	Blank Spike	%
	Lab No.:		Blank	Spike	Recovery	Duplicate	Recovery
	Date Sampled:		032213 04	032213 04	032213 04	032213 04	032213 04
			02-Jun-2004	02-Jun-2004	02-Jun-2004	02-Jun-2004	02-Jun-2004
	MDL	Units					
Acetone	0.020	mg/kg	<0.80	2.9	120	2.9	120
Benzene	0.001	"	<0.040	2.5	98	2.5	99
Bromoform	0.001	"	<0.040	2.5	100	2.6	100
Bromomethane	0.006	"	<0.24	2.4	96	2.5	99
2-Butanone	0.005	"	<0.10	2.4	96	2.5	98
Carbon Disulfide	0.001	"	<0.040	2.2	88	2.2	89
Carbon Tetrachloride	0.001	"	<0.040	2.4	96	2.4	98
Chlorobenzene	0.001	"	<0.040	2.6	100	2.6	100
Chlorodibromomethane	0.001	"	<0.040	2.5	100	2.6	100
Chloroethane	0.001	"	<0.040	2.4	97	2.4	96
Chloroform	0.001	"	<0.040	2.5	99	2.5	99
Chloromethane	0.001	"	<0.040	2.4	95	2.4	95
1,2-Dichlorobenzene	0.001	"	<0.040	2.4	95	2.4	96
1,3-Dichlorobenzene	0.001	"	<0.040	2.4	98	2.5	98
1,4-Dichlorobenzene	0.001	"	<0.040	2.4	97	2.4	97
Dichlorobromomethane	0.001	"	<0.040	2.5	99	2.5	100
1,1-Dichloroethane	0.001	"	<0.040	2.4	97	2.4	98
1,2-Dichloroethane	0.001	"	<0.040	2.4	96	2.4	98
1,1-Dichloroethene	0.001	"	<0.040	2.3	93	2.3	93
cis-1,2-Dichloroethene	0.001	"	<0.040	2.5	99	2.5	99
trans-1,2-Dichloroethene	0.001	"	<0.040	2.4	95	2.4	96
1,2-Dichloropropane	0.001	"	<0.040	2.5	100	2.5	100
cis-1,3-Dichloropropene	0.001	"	<0.040	2.4	96	2.4	97
trans-1,3-Dichloropropene	0.001	"	<0.040	2.3	92	2.3	93
Ethylbenzene	0.001	"	<0.040	2.6	100	2.6	100
2-Hexanone	0.005	"	<0.20	2.7	110	2.8	110
Dichloromethane	0.020	"	<0.80	2.5	100	2.5	100
4-Methyl-2-Pentanone	0.005	"	<0.20	2.5	100	2.6	100
Methyl-t-butylether	0.001	"	<0.040	NS	-	NS	-
Styrene	0.001	"	<0.040	2.7	110	2.8	110
1,1,2,2-Tetrachloroethane	0.001	"	<0.040	2.2	86	2.1	85
Tetrachloroethene	0.001	"	<0.040	2.5	98	2.5	99
Toluene	0.001	"	<0.040	2.5	100	2.5	100
1,1,1-Trichloroethane	0.001	"	<0.040	2.4	96	2.4	97
1,1,2-Trichloroethane	0.001	"	<0.040	2.5	100	2.5	100
Trichloroethene	0.001	"	<0.040	2.6	100	2.7	110
Trichlorofluoromethane	0.001	"	<0.040	2.5	100	2.6	100
Vinyl Acetate	0.005	"	<0.040	NS	-	NS	-
Vinyl Chloride	0.001	"	<0.040	2.4	95	2.4	95
m&p-Xylene	0.001	"	<0.040	5.2	100	5.2	100
o-Xylene	0.001	"	<0.040	2.6	100	2.6	100
Surrogate Recoveries		%					
d4-1,2-Dichloroethane			88	94	94	95	95
d8-Toluene			97	102	102	102	102
Bromofluorobenzene			93	101	101	101	102
d10-Ethylbenzene			87	NA	-	NA	-

## PASC - Certification Analysis

PSC Submission No: 4F0159

Client: AFI Environmental Project P1014

Component	Client ID: Lab No.: Date Sampled:	MDL	Units	SB-1 (0-4R) 032214 04 02-Jun-2004	SB-2 (0-4R) 032215 04 02-Jun-2004	SB-3 (4-8R) 032216 04 02-Jun-2004	SB-4 (0-4R) 032217 04 02-Jun-2004
Isopropylbenzene	0.001	mg/kg	1.4		6.5	0.84	0.29
n-Propylbenzene	0.001	"	0.49		5.1	0.63	0.17
p-Isopropyltoluene	0.001	"	<0.10		<0.12	<0.10	<0.10
1,2,4-Trimethylbenzene	0.001	"	0.18		15	0.21	0.19
1,3,5-Trimethylbenzene	0.001	"	0.16		7.4	<0.10	0.13
n-Butylbenzene	0.001	"	<0.10		<0.12	<0.10	<0.10
sec-Butylbenzene	0.001	"	<0.10		<0.12	<0.10	<0.10
tert-Butylbenzene	0.001	"	<0.10		<0.12	<0.10	<0.10
Naphthalene	0.001	"	<0.10		0.41	<0.10	<0.10
Benzene	0.001	"	<0.10		<0.12	<0.10	<0.10
Ethylbenzene	0.001	"	64		70	0.12	4.9
Toluene	0.001	"	16		0.15	<0.10	0.22
m&p-Xylene	0.001	"	250		390	0.60	28
o-Xylene	0.001	"	76		0.55	0.13	5.8
Xylenes(Total)	0.001	"	320		390	0.73	34
Isopropylbenzene	0.001	"	1.4		6.5	0.84	0.29
n-Propylbenzene	0.001	"	0.49		5.1	0.63	0.17
p-Isopropyltoluene	0.001	"	<0.10		<0.12	<0.10	<0.10
1,2,4-Trimethylbenzene	0.001	"	0.18		15	0.21	0.19
1,3,5-Trimethylbenzene	0.001	"	0.16		7.4	0.090	0.13
n-Butylbenzene	0.001	"	<0.10		<0.12	<0.10	<0.10
sec-Butylbenzene	0.001	"	<0.10		<0.12	<0.10	<0.10
tert-Butylbenzene	0.001	"	<0.10		<0.12	<0.10	<0.10
Naphthalene	0.001	"	<0.10		0.41	<0.10	<0.10
Methyl-t-butylether	0.001	"	<0.10		<0.12	<0.10	<0.10
Surrogate Recoveries		%					
d4-1,2-Dichloroethane			89	88	87	87	87
d8-Toluene			98	98	98	98	98
Bromofluorobenzene			96	96	93	94	94
d10-Ethylbenzene			57	71	64	61	61



## PASC - Certification Analysis

Component	Client ID:	MDL	Units	Method	Blank	%	Blank Spike	%	Blank Spike	%
	Lab No.:			Blank	032213 04	032213 04	Duplicate	032213 04		
	Date Sampled:			02-Jun-2004	02-Jun-2004	02-Jun-2004	02-Jun-2004	02-Jun-2004		
Isopropylbenzene	0.001	mg/kg	<0.040	2.3	91	2.3	92			
n-Propylbenzene	0.001	"	<0.040	2.4	97	2.5	98			
p-Isopropyltoluene	0.001	"	<0.040	2.4	97	2.5	98			
1,2,4-Trimethylbenzene	0.001	"	<0.040	2.4	97	2.4	98			
1,3,5-Trimethylbenzene	0.001	"	<0.040	2.5	98	2.5	100			
n-Butylbenzene	0.001	"	<0.040	2.5	99	2.5	100			
sec-Butylbenzene	0.001	"	<0.040	2.5	100	2.5	100			
tert-Butylbenzene	0.001	"	<0.040	2.4	96	2.4	97			
Naphthalene	0.001	"	<0.040	2.3	92	2.4	95			
Benzene	0.001	"	<0.040	2.5	98	2.5	99			
Ethylbenzene	0.001	"	<0.040	2.6	100	2.6	100			
Toluene	0.001	"	<0.040	2.5	100	2.5	100			
m&p-Xylene	0.001	"	<0.040	5.2	100	2.2	100			
o-Xylene	0.001	"	<0.040	2.6	100	2.6	100			
Xylenes(Total)	0.001	"	<0.040	7.8	100	7.8	100			
Isopropylbenzene	0.001	"	<0.040	2.3	91	2.3	92			
n-Propylbenzene	0.001	"	<0.040	2.4	97	2.5	98			
p-Isopropyltoluene	0.001	"	<0.040	2.4	97	2.5	98			
1,2,4-Trimethylbenzene	0.001	"	<0.040	2.4	97	2.5	98			
1,3,5-Trimethylbenzene	0.001	"	<0.040	2.5	98	2.5	100			
n-Butylbenzene	0.001	"	<0.040	2.5	99	2.5	100			
sec-Butylbenzene	0.001	"	<0.040	2.5	100	2.5	100			
tert-Butylbenzene	0.001	"	<0.040	2.4	96	2.4	97			
Naphthalene	0.001	"	<0.040	2.3	92	2.4	95			
Methyl-t-butylether	0.001	"	<0.040	NS	-	NS	-			
Surrogate Recoveries		%								
d4-1,2-Dichloroethane			88	94	94	95	95			
d8-Toluene			97	102	102	102	102			
Bromofluorobenzene			93	101	101	101	102			
d10-Ethylbenzene			87	NA	-	NA	-			

6/10/04

**PASC - Certificate of Analysis**

Page 6 of 9

Component	Client ID:		Method		Blank		% Recovery	
	Lab No.:		Blank		Spike		Recovery	
	Date Sampled:		032218 04		032218 04		032218 04	
	MDL		02-Jun-2004		02-Jun-2004		02-Jun-2004	
	Units							
pH of VOC vials	7.00		7.00		-		-	
Acetone	12.7	ug/L	<	<	68	140		
Benzene	0.5	"	<	<	50	100		
Bromoform	0.7	"	<	<	52	100		
Bromomethane	1.0	"	<	<	36	72		
2-Butanone	3.2	"	<	<	55	110		
Carbon Disulfide	0.9	"	<	<	48	96		
Carbon Tetrachloride	0.7	"	<	<	49	99		
Chlorobenzene	0.6	"	<	<	51	100		
Chlorodibromomethane	0.4	"	<	<	51	100		
Chloroethane	0.9	"	<	<	51	100		
2-Chloroethylvinylether	2.8	"	<	<	NA	<		
Chloroform	0.4	"	<	<	50	100		
Chloromethane	1.4	"	<	<	55	110		
1,2-Dichlorobenzene	0.8	"	<	<	48	96		
1,3-Dichlorobenzene	1.8	"	<	<	49	99		
1,4-Dichlorobenzene	1.6	"	<	<	49	99		
Dichlorobromomethane	0.4	"	<	<	51	100		
1,1-Dichloroethane	0.5	"	<	<	49	97		
1,2-Dichloroethane	0.4	"	<	<	48	96		
1,1-Dichloroethene	0.7	"	<	<	48	96		
cis-1,2-Dichloroethene	0.6	"	2.8	<	51	100		
trans-1,2-Dichloroethene	0.5	"	<	<	47	94		
1,2-Dichloropropane	0.7	"	<	<	50	100		
cis-1,3-Dichloropropene	0.3	"	<	<	49	98		
trans-1,3-Dichloropropene	0.6	"	<	<	48	95		
Ethylbenzene	0.5	"	<	<	52	100		
2-Hexanone	1.3	"	<	<	53	110		
Dichloromethane	2.3	"	<	<	49	98		
4-Methyl-2-Pentanone	1.5	"	<	<	50	99		
Methyl-t-butylether	0.5	"	<	<	NS	-		
Styrene	0.6	"	<	<	52	100		
1,1,2,2-Tetrachloroethane	0.8	"	<	<	50	100		
Tetrachloroethene	0.5	"	<	<	50	100		
Toluene	1.0	"	<	<	51	100		
1,1,1-Trichloroethane	0.8	"	<	<	49	97		
1,1,2-Trichloroethane	0.6	"	<	<	51	100		
Trichloroethene	1.0	"	<	<	49	99		
Trichlorofluoromethane	1.8	"	<	<	53	110		
Vinyl Acetate	2.4	"	<	<	NS	-		
Vinyl Chloride	0.9	"	1.0	<	50	100		
m&p-Xylene	1.1	"	<	<	100	100		
o-Xylene	0.5	"	<	<	50	100		
Surrogate Recoveries	%							
d4-1,2-Dichloroethane	86		85		90		90	
18-Toluene	94		94		98		98	
1,2-Dichlorobenzene	93		92		98		98	

6/10/04

**PASC - Certificate of Analysis**

Page 7 of 9

Component	Client ID:		M-W-2		Method	Blank	%
	Lab No.:		032219 04		Blank	Spike	Recovery
	Date Sampled:		02-Jun-2004		032218 04	032218 04	032218 04
					02-Jun-2004	02-Jun-2004	02-Jun-2004
MDL	Units						
pH of VOC vials			7.00		7.00	-	-
Bromofluorobenzene			93		92	98	98
Isopropylbenzene	0.5	ug/L	<		<	46	93
n-Propylbenzene	0.5	"	<		<	50	99
p-Isopropyltoluene	0.5	"	<		<	50	99
1,2,4-Trimethylbenzene	0.5	"	<		<	51	100
1,3,5-Trimethylbenzene	0.5	"	<		<	51	100
n-Butylbenzene	0.5	"	<		<	50	100
sec-Butylbenzene	0.5	"	<		<	51	100
tert-Butylbenzene	0.5	"	<		<	50	100
Naphthalene	0.5	"	<		1.1	45	90
Benzene	0.5	"	<		<	50	100
Ethylbenzene	0.5	"	<		<	52	100
Toluene	0.5	"	<		<	51	100
m&p-Xylene	1.0	"	<		<	100	100
o-Xylene	0.5	"	<		<	50	100
Xylenes(Total)	1.0	"	<		<	150	100
Isopropylbenzene	0.5	"	<		<	46	93
n-Propylbenzene	0.5	"	<		<	50	99
p-Isopropyltoluene	0.5	"	<		<	50	99
1,2,4-Trimethylbenzene	0.5	"	<		<	51	100
1,3,5-Trimethylbenzene	0.5	"	<		<	51	100
n-Butylbenzene	0.5	"	<		<	50	100
sec-Butylbenzene	0.5	"	<		<	51	100
tert-Butylbenzene	0.5	"	<		<	50	100
Naphthalene	0.5	"	<		1.1	45	90
Methyl-t-butylether	0.5	"	<		<	NS	-
Surrogate Recoveries			%				
d4-1,2-Dichloroethane			86		85	90	90
d8-Toluene			94		94	98	98
Bromofluorobenzene			93		92	98	98

6/10/04

***PASC - Summary of Analysis Pre. Dates***

Page MS-8 of 9

**Batch Code:** 0608MC02  
**Acetone** 032213 04  
032214 04  
032215 04  
032216 04  
032217 04  
**Date Analysed:** 04/06/08  
**Date Prepared:** 04/06/08

**Batch Code:** 0608MC02  
**Ethylbenzene** 032213 04  
032214 04  
032215 04  
032216 04  
032217 04  
**Date Analysed:** 04/06/08  
**Date Prepared:** 04/06/08

**Batch Code:** 0608MC02  
**Isopropylbenzene** 032213 04  
032214 04  
032215 04  
032216 04  
032217 04  
**Date Analysed:** 04/06/08  
**Date Prepared:** 04/06/08

**Batch Code:** 0608MC02  
**Benzene** 032213 04  
032214 04  
032215 04  
032216 04  
032217 04  
**Date Analysed:** 04/06/08  
**Date Prepared:** 04/06/08

6/10/04

***PASC - Summary of Analysis Pre. Dates***

Page MS-9 of 9

**Batch Code:** 0604DJ01  
**pH of VOC vials** 032218 04  
032219 04  
**Date Analysed:** 04/06/04  
**Date Prepared:** 04/06/04

**Batch Code:** 0604DJ01  
**Acetone** 032218 04  
032219 04  
**Date Analysed:** 04/06/04  
**Date Prepared:** 04/06/04

**Batch Code:** 0604DJ01  
**Ethylbenzene** 032218 04  
032219 04  
**Date Analysed:** 04/06/04  
**Date Prepared:** 04/06/04

**Batch Code:** 0604DJ01  
**Isopropylbenzene** 032218 04  
032219 04  
**Date Analysed:** 04/06/04  
**Date Prepared:** 04/06/04

**Batch Code:** 0604DJ01  
**Benzene** 032218 04  
032219 04  
**Date Analysed:** 04/06/04  
**Date Prepared:** 04/06/04



**ANALYTICAL SERVICES**  
5555 North Service Road  
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639  
Tel: (905) 332-8788  
Fax: (905) 332-9169

# CHAIN OF USTODY

## CLIENT

## INFORMATION

Company Name: AFI Environmental  
Project Manager: Alby Benton  
Address: 7815 Buffalo Ave  
Niagara Falls, NY 14304  
Phone #: 283-7645 Fax #: 283-2858  
Sampled by: Tim Lucinski

MS-032213

MSW-032218

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	Level of contamination (low, high, unknown)
32214	SB-1 (0-4ft)	1	Soil	6-2-04	0931	X
15	SB-2 (0-4ft)	1	Soil	6-2-04	0945	X
16	SB-3 (4-8ft)	1	Soil	6-2-04	0959	X
17	SB-4 (0-4ft)	1	Soil	6-2-04	1040	X
19	M-W-Z	3	water	6-2-04	1330	X

## TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

\*some exceptions apply please contact Lab

STD 10 Business Days

RUSH 5 Business Days

RUSH 2 Business Days

RUSH 1 Business Days

Other Business Days

## PROJECT INFORMATION

Project #: P1014

Site: Colgate Ave

PO#: \_\_\_\_\_

Philip Quote #: \_\_\_\_\_

Philip Project #: \_\_\_\_\_

Philip Contact: \_\_\_\_\_

## SPECIAL DETECTION LIMITS

MISA ☐

## SPECIAL REQUIREMENTS / REGULATIONS

## REMARKS

Client Signature: \_\_\_\_\_

Affiliation: AFI Environmental

Date/Time: 6/2/04 1:40 pm

Received By: \_\_\_\_\_

Affiliation: PSC

Date/Time: 6/2/04 1:45 pm

Rec'd By: \_\_\_\_\_

Date/Time: \_\_\_\_\_

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS









<b>C &amp; W Environmental, LLC</b>		<b>Subsurface Log</b>		Hole No: SB3 Sheet: 1 of 1	Date Started: 6/2/04 Date Finished: 6/2/04	
Client : AFI Environmental Location: 111 Colgate Ave.		Method of Investigation: Advance 48" long by 2" diameter Acetate lined sampler, utilizing a direct push drill rig.				
Project no: B5145 Proj. Mgr: Mark Wilder Geologist: AFI Personnel		Drilling Co.: C & W Environmental, LLC Driller: Dennis Hoffman Drill Rig: 54DT Direct Push Rig		Weather: 60° F Overcast		
Depth (ft.)	Sample				Groundwater and Other Observations	
	No.	Depth (ft.)	Blows /6"	Recovery (%)		Sample Description
	1	0'-4'		42.5	3" of wet concrete and stone. 1.4' of brown fine grained moist sandy-silt.	
5	2	4'-8'		72.5	Water encountered at 4'. 6" of silty sand to grayish silty clay. 1' of brownish-gray clay, tight, dense. 8" of wet silty sand.	
10						
15						
20						
25						
30						

**Sample Types:**

S = Split Spoon: \_\_\_\_\_ T = Shelby Tube: \_\_\_\_\_

R = Rock Core: \_\_\_\_\_ O= \_\_\_\_\_

N = ASTM D1586

**Backfill Well Key**

Cement

Sand

Native Fill

Bentonite







**Construction Lending Services, Inc.**

*Nailing the details Since 1981*

Construction Lending Services, Inc.  
P.O. Box 272  
Buffalo, NY 14205  
Phone: 716-854-0937  
Fax: 716-854-0718  
[www.clsnailsit.com](http://www.clsnailsit.com)

## **EM-61 (MAGNETOMETER) SURVEY**

for

**COMMERCIAL PROPERTY  
111 COLGATE AVENUE  
BUFFALO, NEW YORK**

PREPARED FOR:

**AFI ENVIRONMENTAL  
7815 BUFFALO AVENUE  
NIAGARA FALLS, NEW YORK 14304**

PREPARED BY:

**CONSTRUCTION LENDING SERVICES, INC.  
P.O. BOX 272  
BUFFALO, NEW YORK 14205**

PROJECT NO. 04CLS161.90  
DATE: June 8, 2004



**Construction Lending Services, Inc.**

*Nailing the details Since 1981*

Construction Lending Services, Inc.  
P.O. Box 272  
Buffalo, NY 14205  
Phone: 716-854-0937  
Fax: 716-854-0718  
www.clsnailsit.com

June 8, 2004

AFI Environmental  
7815 Buffalo Avenue  
Niagara Falls, New York 14304

**ATTN: Mr. Elby Benton**

**RE: SUMMARY REPORT: Magnetometer Survey and Limited Subsurface Investigation,  
111 Colgate Avenue (Former Ameron Facility), Buffalo, New York**

Dear Elby:

Construction Lending Services, Inc. (CLS) is pleased to submit this summary report for the performance of a Geonics EM-61 magnetometer survey undertaken at the above-referenced property on June 2, 2004 (refer to Figure #1). The methodology and results of the investigation are presented in the sections below.

#### 1.0 Magnetometer Survey

The purpose of the geophysical (i.e., magnetometer) survey was to determine the presence/absence of potential underground storage tanks (USTs) which may be present at the former facility. The EM-61 is a highly sensitive, two-antenna magnetometer, which is capable of detecting both ferrous (i.e., iron, steel) and non-ferrous (i.e., copper, aluminum) objects which may be associated with underground USTs, drums, etc. The recorded time-domain data does not distinguish between the ferrous and non-ferrous anomalies which were encountered, nor are any quantitative interpretations made as to the source or type of anomalies as part of this preliminary survey.

The survey was undertaken at the subject property by means of obtaining readings along a grid system with a typical five (5) foot spacing. The magnetometer survey progressed generally east- and westward from the survey origin point (X=0, Y=0), which is located two feet south of the existing fence line along the northern portion of the subject property, near the Colgate Avenue side of the northern existing building.

The EM-61 was programmed to obtain total (i.e., bottom) and top (differential) magnetic readings every 0.63 feet along each of the respective grid lines. The magnetic readings were stored in a data logger during the field activities. Subsequently, the data was downloaded via a laptop computer, and the data was processed by means of a computer gridding program. The results of the EM-61 survey for the property consist of a Section Plan view produced by means of gridding the differential magnetic data points with a modeling program known as QuikGrid™ Version 4.5 (2002). Additional Section Plans labeled as Section "A" and "C" are presented at a larger scale for ease of viewing. Three dimensional representations of the graphed results are also presented.


Based on the results of the EM-61 survey, the presence of at least seventeen (17) anomalies, some or all possibly associated with former underground storage tank (USTs), were identified. The locations of the anomalies are referenced to the survey origin point, and the potential sources of the anomalies are listed in the attached Table No. 1.

## 2.0 Conclusions

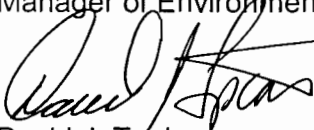
*Construction Lending Services, Inc.* undertook a magnetometer survey to investigate the presence/absence of the suspected USTs at the subject property. Based on the results of the magnetometer survey, anomalies, all or some associated with USTs, were identified on the subject property.

Thank you for the opportunity to assist you with this project. Please call the undersigned at your earliest convenience, if you have any questions.

Very truly yours,  
CONSTRUCTION LENDING SERVICES, INC.



Andrew J. Kucserik, CPG, PG  
Senior Geologist  
Manager of Environmental Services



David J. Topian  
President

Attachments	Figures	Site Topographic Map
		Section Plan Map
		Section "A" View
		Section "A" and "B" Three Dimensional Views
		Section "C" View
		Section "C" Three Dimensional View
	Tables	Magnetic Anomalies

**TABLE NO. 1**

**LOCATION OF SUSPECTED MAGNETIC ANOMALIES  
BASED ON EM-61 SURVEY AND QUIKGRID™ RESULTS**

<b>ANOMALY</b>	<b>WESTING (Feet) (Note 1)</b>	<b>SOUTHING (Feet) (Note 2)</b>	<b>POTENTIAL ANOMALY SOURCE</b>
1	-30.0	3.5	Suspected UST
2	-21.1	6.6	Suspected UST
3	-6.9	16.9	Suspected UST
4	-16.0	42.5	Suspected UST
5	-36.3	40.9	Suspected UST
6	-25.6	56.2	Suspected UST
7	-21.1	75.7	Suspected UST
8	-20.0	91.3	Suspected UST
9	-35.9	104.6	Suspected UST
10	-30.2	123.0	Suspected UST
11	-65.0	132.9	Suspected UST
12	-80.0	128.4	Suspected UST
13	-131.1	152.4	Unknown
14	-163.3	-42.4	Unknown
15	-123.0	-80.5	Underground utilities at AST?
16	-152.8	-130.0	Along south wall of building
17	-104.7	-121.3 to -184.0	Along north wall of building

NOTE 1: These dimensions are referenced to the Survey Origin Point where a negative dimension indicates a distance to the south of the Survey Origin Point.

NOTE 2: These dimensions are referenced to the Survey Origin Point where a negative dimension indicates a distance to the east of the Survey Origin Point.

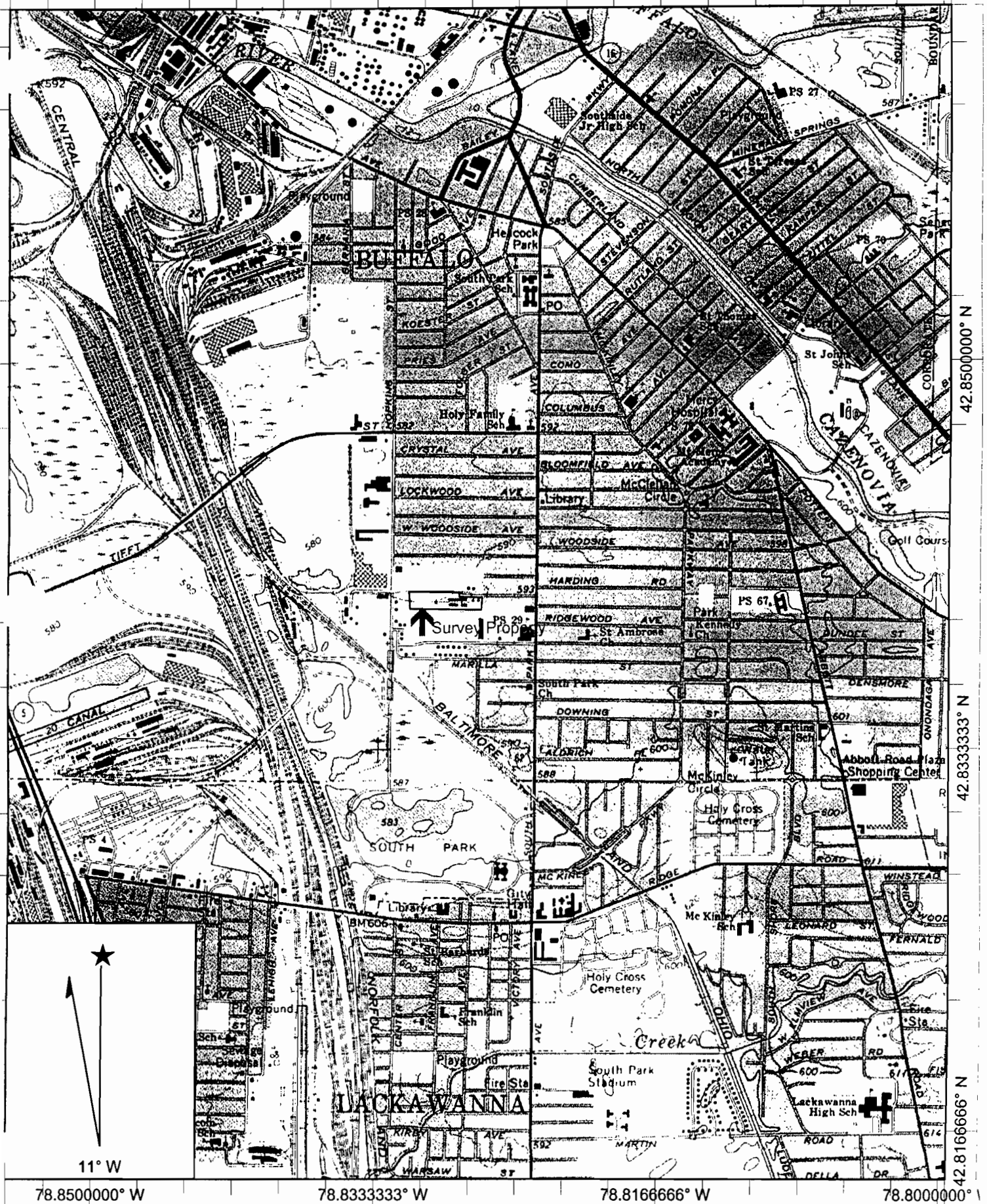


78.850000° W

78.833333° W

78.816666° W

78.800000° W



42.850000° N

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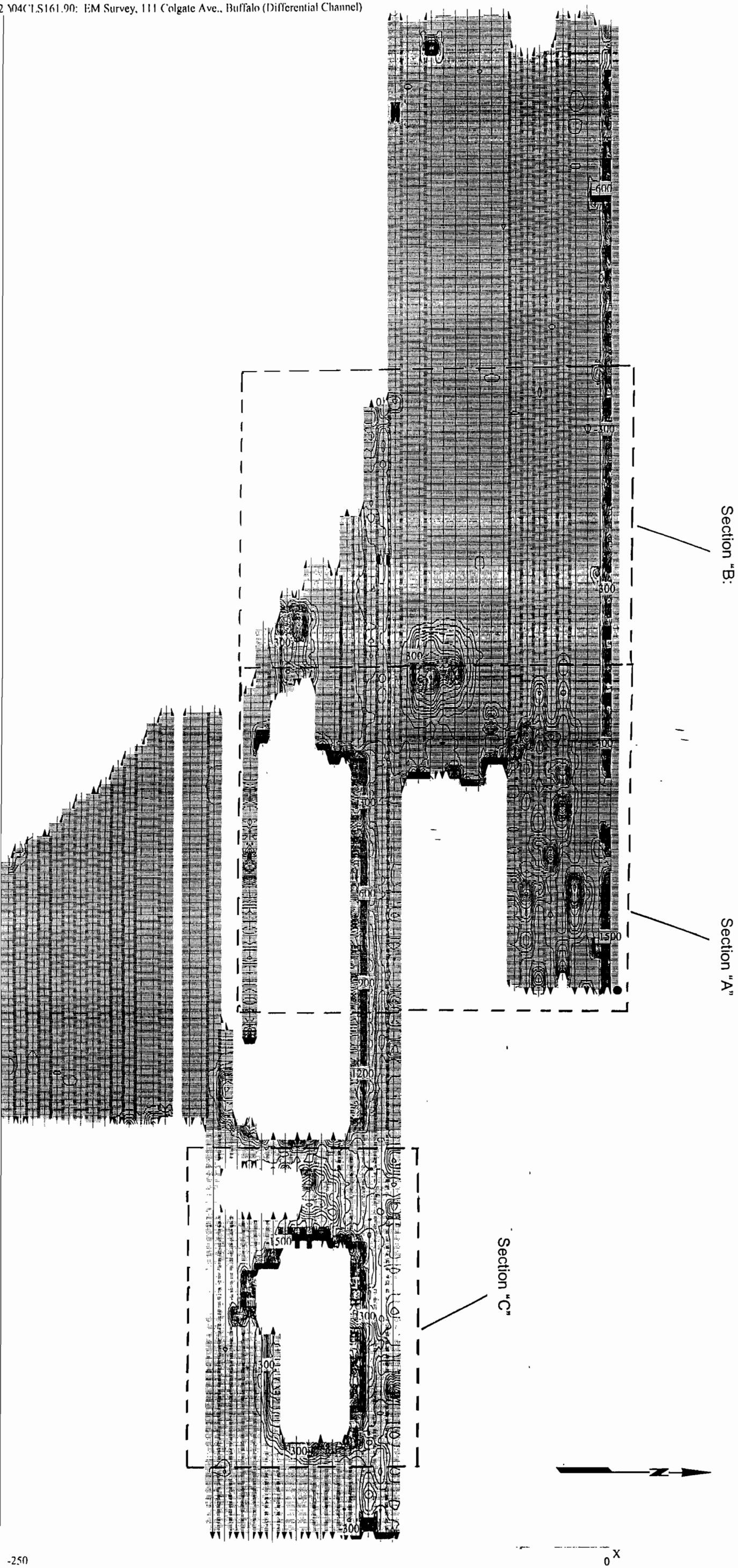
78.833333° W

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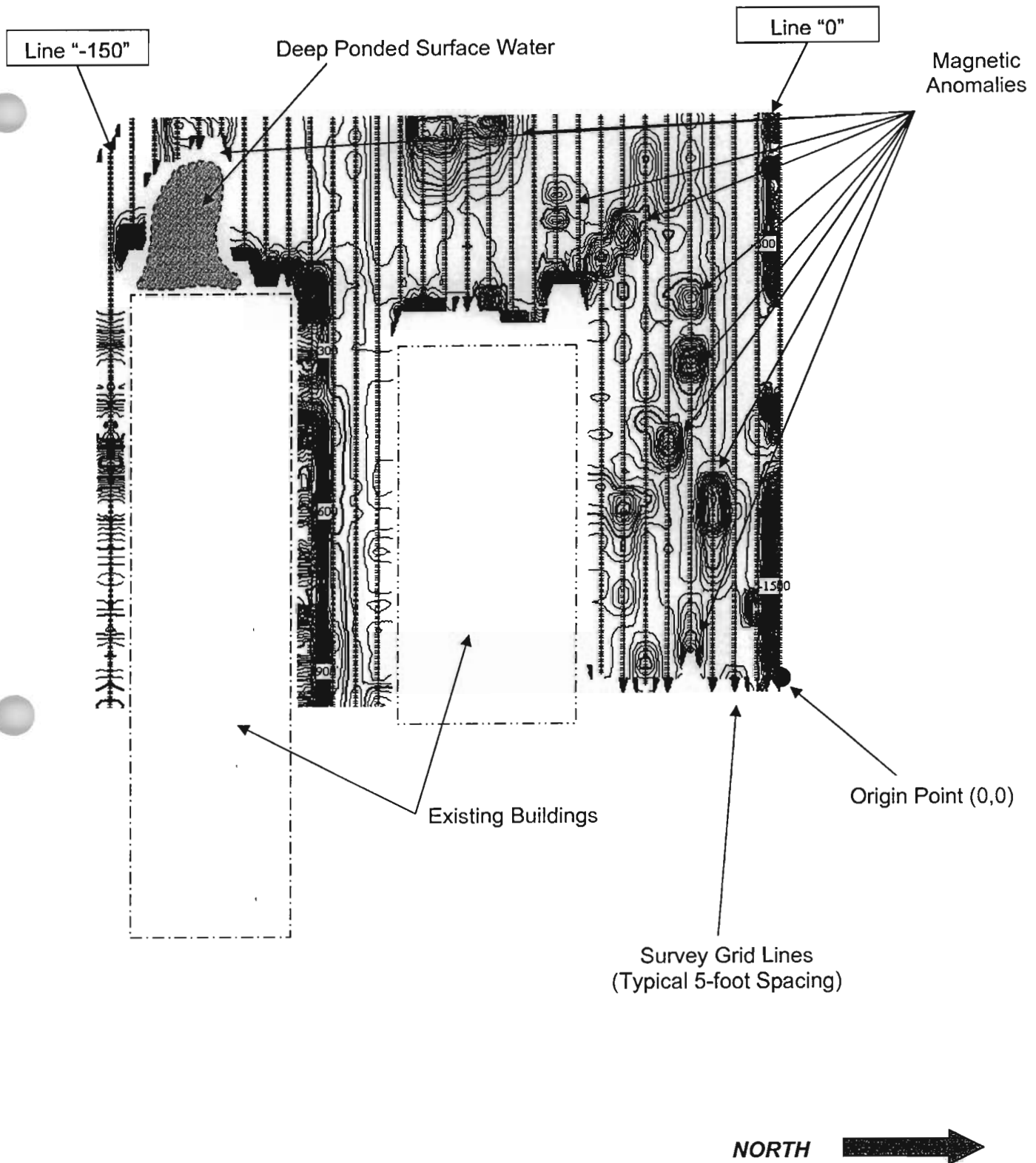
78.800000° W

Name: BUFFALO SE  
 Date: 6/8/2004  
 Scale: 1 inch equals 2000 feet

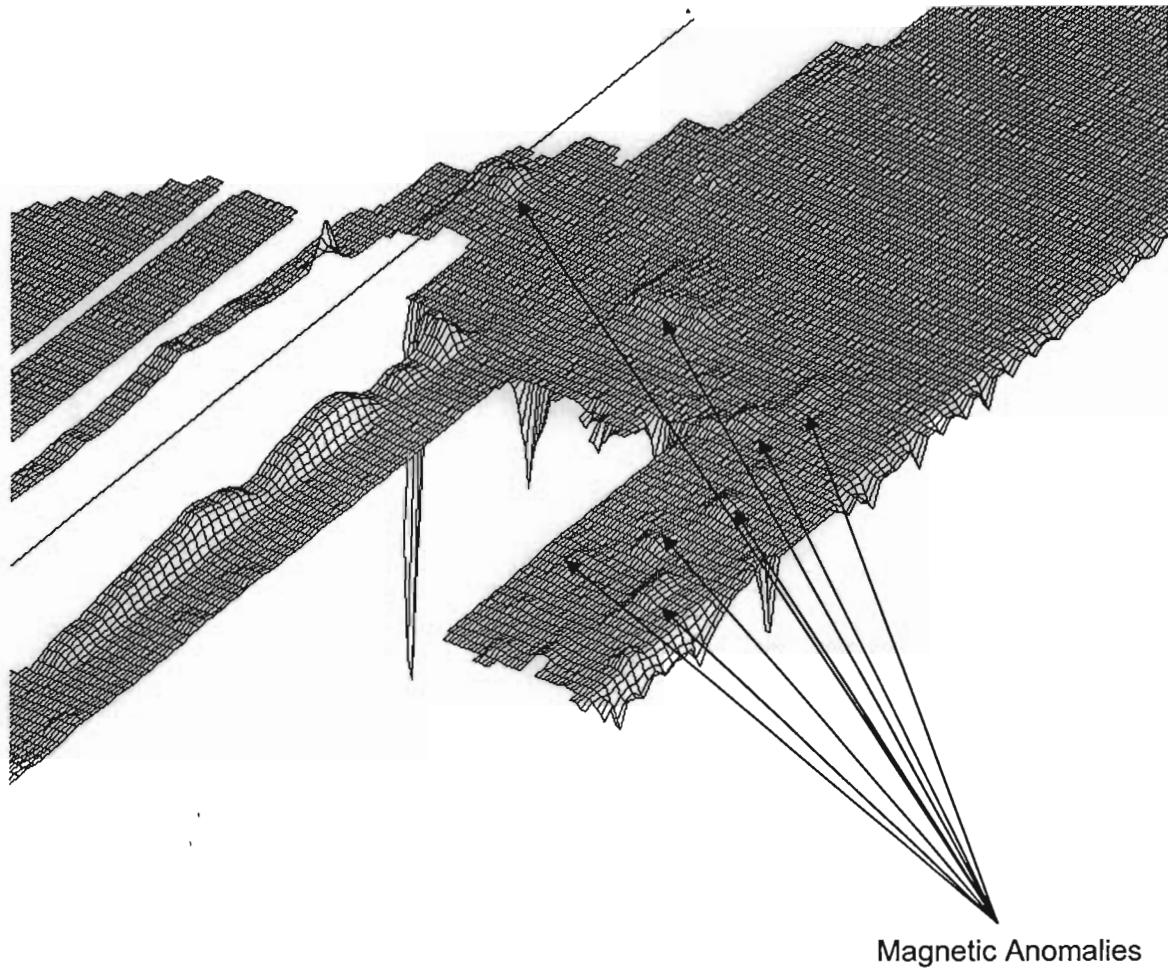
Location: 042.8400959° N 078.8273147° W  
 Caption: 04CLS161.90: EM Survey,  
 111 Colgate Avenue,  
 Buffalo, New York



Construction Lending Services, Inc. P.O. Box 272 Buffalo, New York 14205	EM-61 (Magnetometer) Survey--Section Plan Former Ameron Facility 111 Colgate Avenue, Buffalo, NY
Project No.: 04CLS161.90 Date: 06/07/2004	Differential Channel Data -- Plan View Contour Interval = 300 millivolts



Construction Lending Services, Inc. P.O. Box 272 Buffalo, New York 14205	EM-61 (Magnetometer) Survey – Section "A" Former Ameron Facility 111 Colgate Avenue, Buffalo, NY
Project No.: 04CLS161.90 Date: 06/07/2004	Differential Channel Data – Plan View Contour Interval = 300 millivolts



**NORTH**



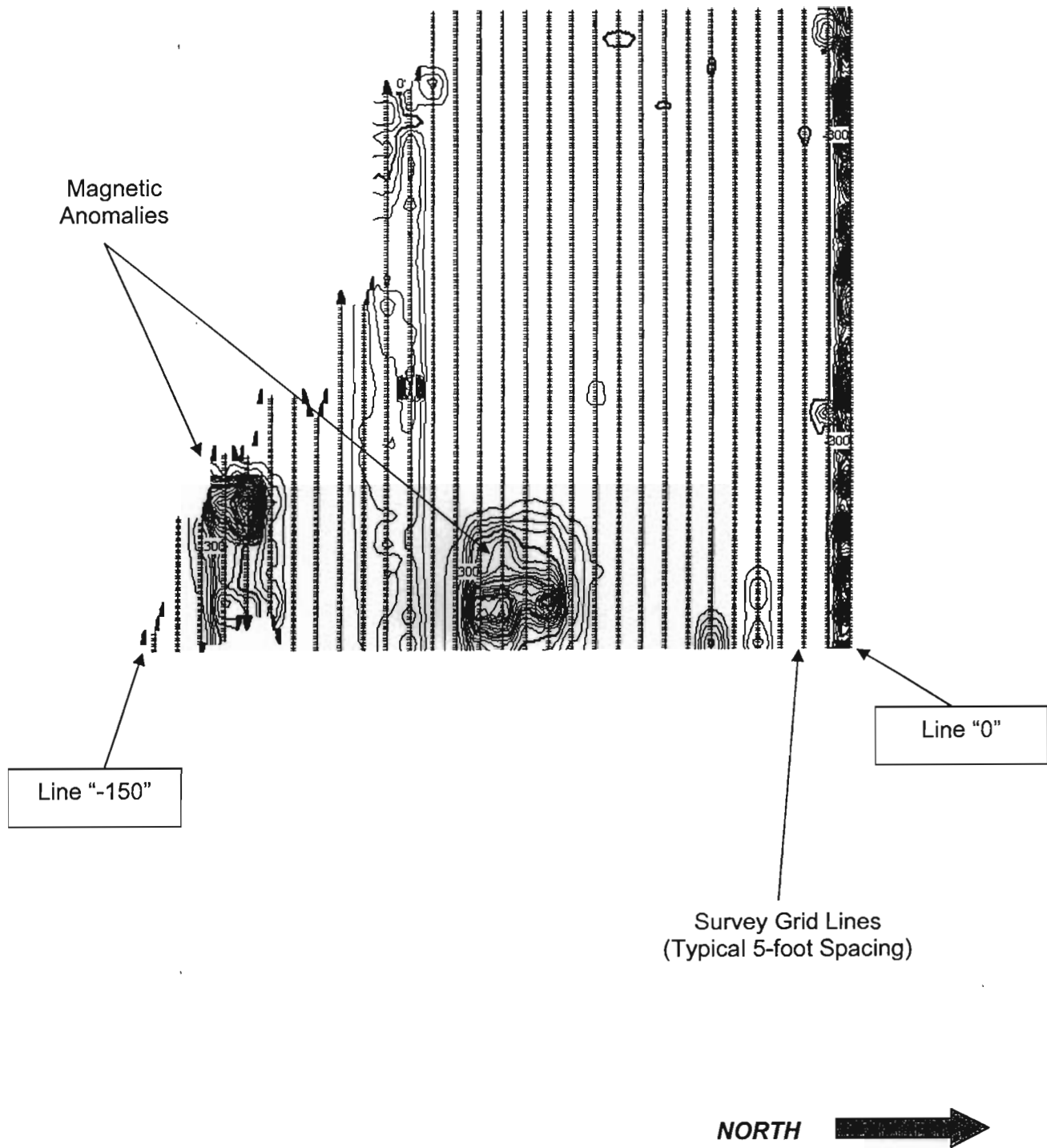
Construction Lending Services, Inc.  
P.O. Box 272  
Buffalo, New York 14205

EM-61 (Magnetometer) Survey – Section “A”  
Former Ameron Facility  
111 Colgate Avenue, Buffalo, NY

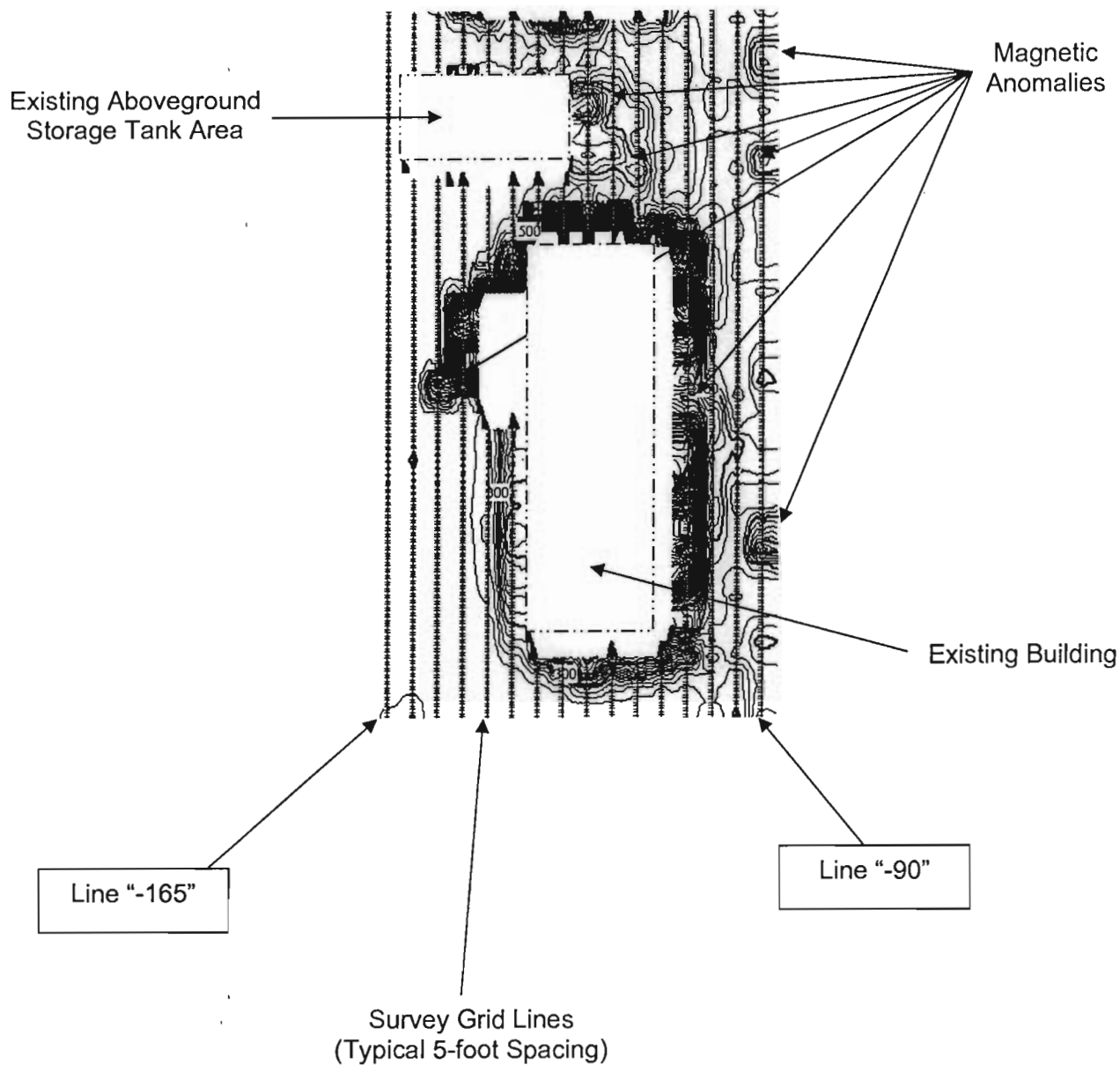
Project No.: 04CLS161.90  
Date: 06/07/2004

Differential Channel Data – 3D View  
Angle of Viewing: a=35, e=35

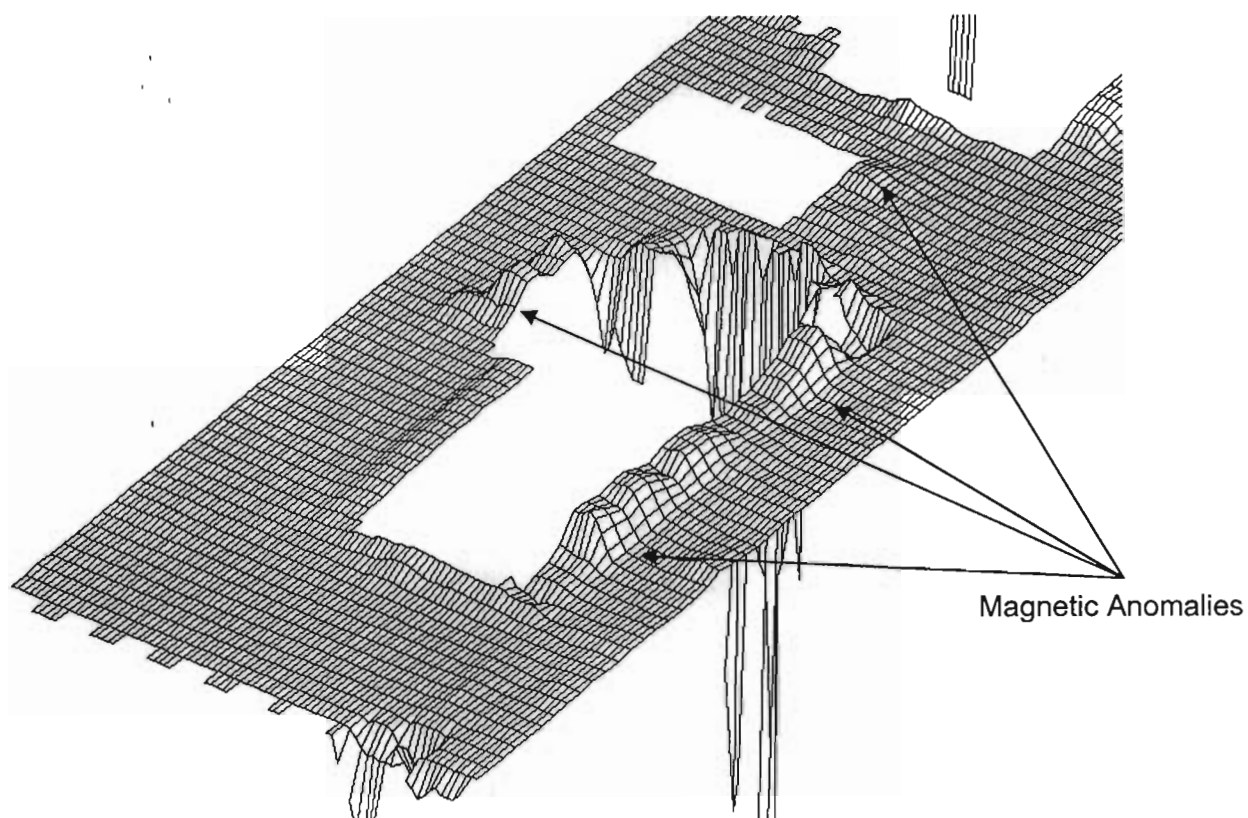




Construction Lending Services, Inc. P.O. Box 272 Buffalo, New York 14205	EM-61 (Magnetometer) Survey – Section "B" Former Ameron Facility 111 Colgate Avenue, Buffalo, NY
Project No.: 04CLS161.90 Date: 06/07/2004	Differential Channel Data – Plan View Contour Interval = 300 milliVolts



<p>Construction Lending Services, Inc.  P.O. Box 272  Buffalo, New York 14205</p>	<p>EM-61 (Magnetometer) Survey—Section "C"  Former Ameron Facility  111 Colgate Avenue, Buffalo, NY</p>
<p>Project No.: 04CLS161.90  Date: 06/07/2004</p>	<p>Differential Channel Data – Plan View  Contour Interval = 300 milliVolts</p>



**NORTH**



<b>Construction Lending Services, Inc.</b> <b>P.O. Box 272</b> <b>Buffalo, New York 14205</b>	<b>EM-61 (Magnetometer) Survey – Section “C”</b> <b>Former Ameron Facility</b> <b>111 Colgate Avenue, Buffalo, NY</b>
<b>Project No.: 04CLS161.90</b> <b>Date: 06/07/2004</b>	<b>Differential Channel Data – 3D View</b> <b>Angle of Viewing: a=35, e=35</b>















**SUBSURFACE SOIL INVESTIGATION  
AND WATER ANALYSIS MW2  
AT AMERON SITE  
111 COLGATE AVENUE  
BUFFALO, NEW YORK**

**AFI Environmental**  
7815 Buffalo Avenue  
Niagara Falls, New York 14304  
AFI Project No. P1014

**NOVEMBER 2001**



# AFI Environmental

7815 Buffalo Avenue  
Niagara Falls, New York 14304  
716-283-7645  
Fax: 716-283-2858

November 30, 2001

Mr. Myles Culhane  
Ameron International  
Ameron Center  
245 South Los Robles Avenue  
Pasadena, CA 91101-2820

**RE: Subsurface Soil Investigation and  
Water Analysis MW2  
at Ameron Site  
111 Colgate Avenue, Buffalo, New York  
AFI Project No. P1014**

Dear Mr. Culhane:

AFI Environmental (AFI) has prepared this letter report to summarize the results of a Limited Subsurface Soil Investigation and Chemical Water Analysis of Monitoring Well #2 (MW2) conducted at the former Ameron Site located at 111 Colgate Avenue, Buffalo, Erie County, New York, October 9, 2001, on behalf of Mr. Craig Slater, Esq., of Harter, Secrest & Emery LLP.

## **Purpose of Study**

The purpose of this *Limited Subsurface Soil Investigation and Water Analysis of Monitoring Well #2 (MW2)* was to determine the effectiveness of a soil vapor recover system operating for the past ten (10) years within the concrete block and brick building located at the western edge of Building #1 (See Site Map).

In order to address this issue, AFI was asked by Mr. Craig Slater, Esq. of Harter, Secrest & Emery LLP and retained by Ameron, to conduct a subsurface soil investigation near the perimeter and down gradient of Building #1, and the SVE treatment system. AFI's investigation conducted on October 9, 2001 included the following tasks:

1. Installation of six (6) geoprobe borings through 9" pavement/concrete top layer and to a depth of 8 feet BGS.
2. Collection of continuous 2' split-spoon samples advanced with a geoprobe sampler from surface to a depth of 8 feet BGS. Four (4) samples were collected from each bore hole.
3. Headspace scanning for Volatile Organic Carbons using a "mini-rae" PID meter from a sample representative of each split-spoon for each of the six (6) borings.

COLGATE AVE

MW-4

MW-2

UST  
AREA

TP-12

EP5

EP4

EP3

EP2

EP1

L-2

L-3

EP6

TP-1

TP-3

TP-4

TP-5

TP-6

TP-7

TP-8

TP-9

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4. Chemical analysis of six (6) subsurface soil samples for target compound list; one soil sample representing the 2 ft. zone with highest PID readings at each bore hole location.
5. Recording of water level measurements from monitoring wells MW1, MW2, MW3, MW4 across the site.
6. Well development and water sample collection from MW2.
7. Analysis of MW2 water sample for target compound list.
8. Repair of monitoring well MW3. Repairs were made of the surface/weather collar down to the grout seal above the sand pack and above well screen.

AFI has prepared this summary report to:

1. Present details concerning the methods employed to collect and analyze soils and water samples;
2. Describe subsurface conditions encountered;
3. Evaluate resultant data with respect to the occurrence of contamination;
4. Compare contaminant concentrations with applicable regulatory levels;
5. Provide recommendation for further investigation and remedial action at the site.
6. Describe the monitoring well repair procedures used at MW3.

### Site History

This site has been on the DEC Registry of Inactive Hazardous Waste Sites (Site No. 915133) for over ten (10) years. The listing of this site resulted from the determination that the protective coatings manufacturing facility was operated between 1960 to approximately 1982, during which time contaminants of concern were used, including methylethyl, ketone, other ketones, acetone, xylenes, and various benzene-based compounds. As the result of the listing of this property, Ameron signed an Order on Consent in 1985 compelling remediation of the site, primarily associated with Plant No. 1. Plant No. 1 had associated with it contaminants of concern underneath the building slab. Although other minor remedial elements were completed, the primary remediation required was to install a vapor collection ventilation system under the two westernmost rooms of Plant No. 1. Under their Order on Consent, Ameron was required to operate SVE System for a period of ten (10) years which, concluded sometime in 1996.

While DEC acknowledged that all of Ameron's obligations under the Order on Consent were completed to their satisfaction, DEC continues to list this site on the Registry of Inactive Hazardous Waste Sites as a Class 4, which connotes a site properly closed but requires continued management. DEC refused, based



Mr. Myles Culhane  
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on the data it had in hand in 1999, to change the site classification to Class 5 (site properly closed, does not require continued management) or remove the site from the Registry altogether.

Ameron desired to have this site removed from the DEC Registry completely and, for that purpose, has contracted AFI Environmental to implement a Focused Environmental Investigation in the area of the potential impact (primarily in the area adjacent to the SVE System) to confirm that the SVE successfully remediated contaminants of concern to levels below DEC TAGM 4046.

AFI took special precaution to assure that all earthprobe - soil borings did not penetrate any of the USTs located to the west of Building #1 (see Site Map for location) of USTs.

### **Subsurface Investigation**

On October 9, 2001, a total of six (6) earthprobe - soil borings (EP #1-6) were completed by AFI and their subcontractors to a maximum depth of 8.0 feet below ground surface (BGS). Each of these borings were positioned so as to determine soil conditions on site and to identify the possible presence of subsurface contamination outside the treatment building (building #1) at the Ameron Site located at 111 Colgate Avenue, Buffalo, New York.

#### ***Soil Boring***

A Simco Drill-team 2400 earthprobe was utilized to secure continuous soil samples. At the completion of every soil sampling interval, the split-spoon samplers were decontaminated by a rinse wash combined with a concentrated surfactant and a clean water second rinse to complete decontamination.

### **Sample Analysis**

A total of six (6) subsurface soil samples were obtained and submitted for chemical analysis. Samples were assembled from a representative subsample collected from each 2' interval from split-spoon. Samples were evaluated for volatiles in headspace using a PID meter. Samples from each 2' split spoon interval exhibiting the highest PID readings from each earthprobe - soil borings were sent for analysis. Based on visual/sensory observation and PID screening results, one (1) grab sample was obtained from borings EP#1 (0'-2'), EP#2 (6'-8'), EP#3 (2'-4'), EP#4 (6'-8'), EP#5 (6'-8') and EP#6 (6'-8') interval). These six (6) samples were analyzed for volatile and semi-volatile organic compounds (EPA 8021 and EPA 8270 respectively) and TCLP metals (EPA 6010B). Field sampling records, which were prepared for each sampling location, the chain-of-custody record and the analytical results are presented in Appendix A. The results of the chemical analysis are discussed below.

### **Findings of Investigation**

#### ***Subsurface Soils***

Fill material was encountered below a thin surficial asphalt layer 0.1' foot thick. The fill material consisted of (SANDY-SILT) to (SAND) textured material with gravel contents ranging from 15 to

as much as 60 percent. The fill material is present to a range of depths from 3.5 to 4.5 feet BGS across the investigated area, with the exception of EP#2 at which fill material was encountered to a completion depth of 8.0 feet. It should also be noted that EP#1 encountered fill material to a refusal depth of 4.5 feet.

The natural soils encountered below the fill were variable, consisting of water sorted and deposited (SILTY-SAND) with varying amounts of as described in EP#3 and EP#4 to (SILT) and (CLAYEY-SILT) textured slack water sediment as described in EP#5 and EP#6 (refer to boring logs).

Detailed soil description of each interval samples and the corresponding PID screening results as well as other pertinent boring information are included in the Test Boring Logs presented in Appendix B.

PID screening performed during the boring investigation revealed four (4) earthprobe-soil borings with PID readings above background (5 PPM).

#### ***Water Level/Well Development***

On October 9, 2001, water levels and total depths were gauged at four (4) previously installed 2" monitoring wells present on the subject site (- MW#1, MW#2, MW#3 and MW#4). Monitoring well #2 was then developed (purged of a minimum of 3.5 well volumes) to obtain a representative water sample for analytical testing (refer to Water Level/Well Development Table - Appendix C).

The water sample was analyzed for volatile and semi-volatile organic compounds (EPA 8021 and EPA 8270 respectively) and TCLP metals (EPA 6010B).

#### **Analytical Results**

All soil samples were analyzed for the volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) and TCLP metals listed in the *Spill Technology and Remediation Series* (STARS) Memo #1, published by the New York State Department of Environmental Conservation (NYSDEC) using EPA methods 8021 and 8270 (STARS List) direct and EPA 6010 and 7470 for TCLP metals.

The analytical results for the six (6) soil samples are presented in Table #4 and results are summarized in Table #3 and compared to the NYSDEC TAGM 4046 for TCLP; the Alternative Methodology Comparison is also provided. The complete Analytical Reports with chain-of-custody are presented in Appendix A.

#### ***Groundwater***

Table #5 summarizes the analytical results of the water sample from MW2. Benzene was the only chemical found in the water sample above TAGM 4046 Guidance Values or above detection limits.

### **Well Repair**

MW#3 was observed to have a cracked concrete collar with damage to the top seal and grout seal layer. This was repaired by removing the old collar, installing a new grout seal, backfilling to the surface and installing a new 2'x2' concrete collar.

### **Observations**

#### ***Volatiles***

A review of Table #4 shows that Toluene, Ethylbenzene, m,p-Xylene, o-Xylene exceed the Alternative Guidance Values (20 x extract Guidance Value) at EP2 and EP4. EP3 exceeded the Alternative Guidance Values for Ethylbenzene, m,p-Xylene and o-Xylene. EP5 and EP6 showed exceedance for m,p-Xylene.

#### ***Semi-Volatile***

Semi-volatiles were in excess of the Alternative Guidance Values at BH3 (EP3) for the entire suite of chemicals from the TAGM 4046.

Table #2 shows the depth of the soil horizon that each sample was collected from and summarizes the chemical data in relationship to the NYSDEC TAGM 4046 Guidance Values for each analytical at each depth and location.

### **Conclusions/Recommendations**

High levels of semi-volatiles were only recorded at EP3. EP3's proximity to two or more underground storage tanks (USTs) suggests that there may be a problem with one or more of the USTs in this area.

The slightly elevated levels of Toluene in soil samples collected from EP2 and EP4 and the significant levels of m,p-Xylene across the site suggests that volatiles are still present in the vicinity of building #1. Elevated levels of Xylene at 0-2 ft. bgs which is above the elevation of the bottom of the footer of Building #1 may be explained by historical railroad operation on sidings that traverse the site in the vicinity of the study area.

Benzene was the only volatile or semi-volatile that exceeded TAGM 4046 Groundwater Standards in a groundwater sample collected at MW2, all other groundwater results were non-detect (ND).

AFI recommends that all USTs be pumped dry, exhumed and that the tank farm be properly closed. The owner must consider excavation and proper disposal of any petroleum contaminated soils resulting from possible tank leakage. Further excavation and disposal of contaminated soils not resulting from possible petroleum UST sources to be conducted in conjunction with the tank pull work. Additional sampling to quantify spatial limits of soil impacts may be warranted instead of excavate and disposal approach. This may be more costly overall, but would allow for the owner to evaluate excavation and disposal costs prior to initiating remedial activities. Installation of a soil vapor extraction and carbon filtration system outside

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Building #1 is also an option. AFI also recommended additional soil borings down gradient of Building #1 to define the lateral extent of soil impacts.

AFI also recommends continued water sampling of MW2, and possibly a limited analysis of MW1 and MW3. To establish ground water flow direction, AFI will require to have the wells surveyed and/or for the client to provide well riser elevations to 2nd decimal points.

Sincerely,  
AFI ENVIRONMENTAL



William L. Heitzenrater

WLH:smh  
Enclosure

cc: Mr. Craig Slater, Esq.  
file

**TABLE 1**  
**WATER LEVELS/WELL DEVELOPMENT TABLE**

**AMERON SITE**  
**111 Colgate Avenue**  
**Buffalo, New York**

**October 9, 2001**

	MW1	MW2	MW3	MW4
TOTAL DEPTH (ft.)	12.4	7.5	10.5	22.2
WATER LEVEL (BGS)	8.7	0.7	3.1	6.7
WATER COLUMN (ft.)		6.8		
CONV. FACTOR		0.17		
WELL VOLUME (gal.)		1.156		
Total Removed (gal.)		3.5		
		Silty Bailed Dry Recharged Clean		

af/p1014/table.wpd

**TABLE 2**  
**BORING/SAMPLE LOG**

*AMERON SITE*  
*111 Colgate Avenue*  
*Buffalo, New York*

*October 9, 2001*

DATE	LOCATION	DEPTH (feet BGS)	PID READINGS ppm
10/9/01	EP1	0'-2'	04.9
10/9/01	EP2	6'-8'	71.9
10/9/01	EP3	2'-4'	192.0
10/9/01	EP4	6'-8'	20.7
10/9/01	EP5	6'-8'	3.0
10/9/01	EP6	0'-2'	196.0

**TABLE 3**  
**MONITORING WELL SAMPLE LOG**

*AMERON SITE  
111 Colgate Avenue  
Buffalo, New York*

*October 9, 2001*

DATE	LOCATION	ANALYTICAL METHOD	EXCEEDING TAGM YES/NO
10/9/01	MW2	8021	NO*
		8270	NO
		TCLP Metals	NO

\* Based on change from .07ppb to 1.0 ppb for Benzene in May 5, 1998 NYSDEC Memorandum

111 Colgate Avenue, Buffalo, New York

**AFI Environmental** 7815 Buffalo Avenue, Niagara Falls, New York 14304

**Project No. P1014**

**716-283-7645**

**TABLE #4**  
**ANALYTICAL RESULTS for SOIL SAMPLES**  
**111 Colgate Avenue**  
**BUFFALO, NEW YORK**

**PROJECT NO. P1014**

Constituents	TAGM 4046 Allowable Soil Conc. ppm	TAGM 4046 Soil Cleanup Objectives ppm**	EP1 (ug/Kg)	EP2 (ug/Kg)	EP3 (ug/Kg) <i>mg/kg</i>	EP4 (ug/Kg)	EP5 (ug/Kg)	EP6 (ug/Kg)
<b>Volatiles: (8021)</b>								
Methyl tert-butyl ether	.0012	0.12	ND	ND	ND	ND	.06	ND
Benzene	.0006	0.06	ND	ND	ND	ND	ND	ND
Toluene	0.008	0.8	.022	.383	ND	1.24	ND	ND
Ethylbenzene	0.06	5.5	.0869	1.9	18.0	4.09	.0635	ND
m,p-Xylene	0.012	1.2	.373	8.45	75.0	24.6	2.66	164.0
o-Xylene	0.012	1.2	ND	3.63	9.02	6.69	.0927	ND
Isopropylbenzene	0.023	2.3	ND	ND	ND	ND	ND	ND
n-Propylbenzene	0.037	3.7	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.001	0.1	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.03	3.0	ND	ND	ND	ND	.0447	ND

\*\* All figures based on December 5, 2001 letter and values from Greg Sutton, NYSDEC Region 9



Constituents	TAGM 4046 Allowable Soil Conc. ppm	TAGM 4046 Soil Cleanup Objectives ppm**	EP1 (ug/Kg)	EP2 (ug/Kg)	EP3 (ug/Kg)	EP4 (ug/Kg)	EP5 (ug/Kg)	EP6 (ug/Kg)
<b>Semi-Volatiles:(8270)</b>								
Acenaphthene	2.30	230	ND	ND	3.91	ND	ND	ND
Fluorene	3.65	365	ND	ND	9.55	ND	ND	ND
Fluoranthene	19	1,900	ND	ND	69.7	ND	ND	ND
Anthracene	7	700	ND	ND	26.9	ND	ND	ND
Phenanthrene	2.2	218	ND	ND	88.5	ND	ND	ND
Benzo (a) anthracene	0.028	2.8	ND	ND	38.3	ND	ND	ND
Chrysene	0.004	0.4	ND	ND	35.8	ND	ND	ND
Pyrene	6.6	665	ND	ND	113.0	ND	ND	ND
Benzo (b) fluoranthene	0.011	1.1	ND	ND	30.1	ND	ND	ND
Benzo (k) fluoranthene	0.011	1.1	ND	ND	40.5	ND	ND	ND
Benzo (g,h,i) perylene	80	8,000	ND	ND	14.1	ND	ND	ND
Benzo (a) pyrene	0.11	11	ND	ND	17.7	ND	ND	ND

\*\* All figures based on December 5, 2001 letter and values from Greg Sutton, NYSDEC Region 9

**TABLE #5**  
**ANALYTICAL RESULTS for WATER (MW2)**  
**111 Colgate Avenue**  
**BUFFALO, NEW YORK**  
**PROJECT NO. P1014**

Constituents	Groundwater Stand./Criteria ug/L or ppb	MW2 (ug/L)
<b>Volatiles: (8021)</b>		
Methyl tert-butyl ether	10	ND
Benzene	1.0 *	.99
Toluene	5	ND
Ethylbenzene	5	ND
m,p-Xylene	5	ND
o-Xylene	5	ND
Isopropylbenzene	5	ND
n-Propylbenzene	5	ND
1,3,5-Trimethylbenzene	5	ND
1,2,4-Trimethylbenzene	5	ND

Constituents	Groundwater Stand./Criteria ug/L or ppb	MW2 (ug/L)
<b>Semi-Volatiles:(8270)</b>		
Acenaphthene	50	ND
Fluorene	50	ND
Fluoranthene	50	ND
Anthracene	50	ND
Phenanthrene	50	ND
Benzo (a) anthracene	0.002	ND
Chrysene	0.002	ND
Pyrene	50	ND
Benzo (b) fluoranthene	0.002	ND
Benzo (k) fluoranthene	0.002	ND
Benzo (a) pyrene	0.002	ND

\* 0.7 value was revised to 1.0 in May 5, 1998 NYSDEC Memorandum

**PARADIGM  
ENVIRONMENTAL  
SERVICES, INC.**

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

## Volatile Aromatic Analysis Report For Solids (STARS List)

Client: AFI Environmental

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9357

Client Job No.: P1014

Sample Type: Soil

Field Location: BH1 0'-2'

Date Sampled: 10/09/01

Field ID No.: N/A

Date Received: 10/10/01

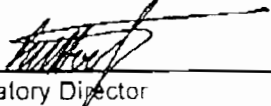
Date Analyzed: 10/16/01

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-butyl Ether	ND< 10.7
Benzene	ND< 10.7
Toluene	22.0
Ethylbenzene	85.9
m,p-Xylene	57.1
o-Xylene	373
Isopropylbenzene	ND< 10.7
n-Propylbenzene	ND< 10.7
1,3,5-Trimethylbenzene	ND< 10.7
tert-Butylbenzene	ND< 10.7
1,2,4-Trimethylbenzene	ND< 10.7
sec-Butylbenzene	ND< 10.7
p-Isopropyltoluene	ND< 10.7
n-Butylbenzene	ND< 10.7
Naphthalene	ND< 53.3

Analytical Method: EPA 8021

NYS ELAP ID No 10959

Comments: ND denotes not detected

Approved By:   
Laboratory Director

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ENVIRONMENTAL  
SERVICES, INC.**

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

**Volatile Aromatic Analysis Report For Solids (STARS List)**Client: **AFI Environmental**

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9358

Client Job No.: P1014

Sample Type: Soil

Field Location: BH2 8'-8'

Date Sampled: 10/09/01

Field ID No.: N/A

Date Received: 10/10/01

Date Analyzed: 10/17/01

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-butyl Ether	ND< 139
Benzene	ND< 139
Toluene	383
Ethylbenzene	1,800
m,p-Xylene	8,450
o-Xylene	3,630
Isopropylbenzene	ND< 139
n-Propylbenzene	ND< 139
1,3,5-Trimethylbenzene	ND< 139
tert-Butylbenzene	ND< 139
1,2,4-Trimethylbenzene	ND< 139
sec-Butylbenzene	ND< 139
p-Isopropyltoluene	ND< 139
n-Butylbenzene	ND< 139
Naphthalene	ND< 693

Analytical Method: EPA 8021

NYS ELAP ID No 10956

Comments: ND denotes not detected

Approved By:   
Laboratory Director

**PARADIGM**  
**ENVIRONMENTAL**  
**SERVICES, INC.**

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

**Volatile Aromatic Analysis Report For Soil/Sludge (STARS List)**

Client: AFI Environmental Lab Project No.: 01-2562  
Client Job Site: Colgate St. Lab Sample No.: 9359  
Client Job No.: P1014 Sample Type: Soil  
Field Location: BH3 2'-4' Date Sampled: 10/09/01  
Field ID No.: N/A Date Received: 10/10/01  
Date Analyzed: 10/18/01

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-butyl Ether	ND< 1,110
Benzene	ND< 1,110
Toluene	ND< 1,110
Ethylbenzene	18,000
m,p-Xylene	75,000
o-Xylene	9,020
Isopropylbenzene	ND< 1,110
n-Propylbenzene	ND< 1,110
1,3,5-Trimethylbenzene	ND< 1,110
tert-Butylbenzene	ND< 1,110
1,2,4-Trimethylbenzene	ND< 1,110
sec-Butylbenzene	ND< 1,110
p-Isopropyltoluene	ND< 1,110
n-Butylbenzene	ND< 1,110
Naphthalene	ND< 2,760

Analytical Method EPA 8021

NYS ELAP ID No.: 10958

Comments ND denotes Not Detected

Approved By: \_\_\_\_\_

Laboratory Director

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SERVICES, INC.**

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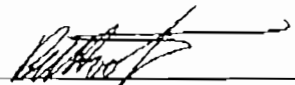
**Volatile Aromatic Analysis Report For Solids (STARS List)****Client:** AFI Environmental**Lab Project No.:** 01-2562**Client Job Site:** Colgate St.**Lab Sample No.:** 9360**Client Job No.:** P1014**Sample Type:** Soil**Field Location:** BH4 6'-8'**Date Sampled:** 10/09/01**Field ID No.:** N/A**Date Received:** 10/10/01**Date Analyzed:** 10/17/01

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-butyl Ether	ND< 345
Benzene	ND< 345
Toluene	1,240
Ethylbenzene	4,090
m,p-Xylene	24,600
o-Xylene	6,690
Isopropylbenzene	ND< 345
n-Propylbenzene	ND< 345
1,3,5-Trimethylbenzene	ND< 345
tert-Butylbenzene	ND< 345
1,2,4-Trimethylbenzene	ND< 345
sec-Butylbenzene	ND< 345
p-Isopropyltoluene	ND< 345
n-Butylbenzene	ND< 345
Naphthalene	ND< 1,730

Analytical Method: EPA 8021

NYS ELAP ID No.: 10956

Comments: ND denotes not detected

Approved By: 

Laboratory Director

**PARADIGM  
ENVIRONMENTAL  
SERVICES, INC.**

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

**Volatile Aromatic Analysis Report For Solids (STARS List)**Client: **AFI Environmental**

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9361

Client Job No.: P1014

Sample Type: Soil

Field Location: BH5 6'-8'

Date Sampled: 10/09/01

Field ID No.: N/A

Date Received: 10/10/01

Date Analyzed: 10/18/01

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-butyl Ether	60.1
Benzene	ND< 39.0
Toluene	ND< 39.0
Ethylbenzene	63.5
m,p-Xylene	2,660
o-Xylene	92.7
Isopropylbenzene	ND< 39.0
n-Propylbenzene	ND< 39.0
1,3,5-Trimethylbenzene	ND< 39.0
tert-Butylbenzene	ND< 39.0
1,2,4-Trimethylbenzene	44.7
sec-Butylbenzene	ND< 39.0
p-Isopropyltoluene	ND< 39.0
n-Butylbenzene	ND< 39.0
Naphthalene	ND< 195

Analytical Method EPA 8021

NYS ELAP ID No. 10356

Comments: ND denotes not detected

Approved By: \_\_\_\_\_

Laboratory Director

**PARADIGM  
ENVIRONMENTAL  
SERVICES, INC.**

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

## Volatile Aromatic Analysis Report For Soil/Sludge (STARS List)

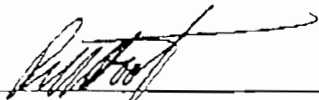
Client: AFI Environmental Lab Project No.: 01-2562  
Client Job Site: Colgate St. Lab Sample No.: 9362  
Client Job No.: P1014 Sample Type: Soil  
Field Location: BH6 0'-2' Date Sampled: 10/09/01  
Field ID No.: N/A Date Received: 10/10/01  
Date Analyzed: 10/18/01

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-butyl Ether	ND< 10,200
Benzene	ND< 10,200
Toluene	ND< 10,200
Ethylbenzene	ND< 10,200
m,p-Xylene	164,000
o-Xylene	ND< 10,200
Isopropylbenzene	ND< 10,200
n-Propylbenzene	ND< 10,200
1,3,5-Trimethylbenzene	ND< 10,200
tert-Butylbenzene	ND< 10,200
1,2,4-Trimethylbenzene	ND< 10,200
sec-Butylbenzene	ND< 10,200
p-Isopropyltoluene	ND< 10,200
n-Butylbenzene	ND< 10,200
Naphthalene	ND< 25,300

Analytical Method: EPA 8021

NYS ELAP ID No.: 10958

Comments: ND denotes Not Detected

Approved By: 

Laboratory Director



**PARADIGM  
ENVIRONMENTAL  
SERVICES, INC.**

179 Lake Avenue Rochester, New York 14608 716-647-2630 FAX 716-647-3311

**Volatile Aromatic Analysis Report For Non-Potable Water (STARS List)**Client: AFI Environmental

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9363

Client Job No.: P1014

Sample Type: Water

Field Location: MW2

Date Sampled: 10/09/01

Field ID No.: N/A

Date Received: 10/10/01

Date Analyzed: 10/12/01

VOLATILE AROMATICS	RESULTS (ug/L)
Methyl tert-butyl Ether	ND< 2.00
Benzene	0.99
Toluene	ND< 2.00
Ethylbenzene	ND< 2.00
m,p-Xylene	ND< 2.00
o-Xylene	ND< 2.00
Isopropylbenzene	ND< 2.00
n-Propylbenzene	ND< 2.00
1,3,5-Trimethylbenzene	ND< 2.00
tert-Butylbenzene	ND< 2.00
1,2,4-Trimethylbenzene	ND< 2.00
sec-Butylbenzene	ND< 2.00
p-Isopropyltoluene	ND< 2.00
n-Butylbenzene	ND< 2.00
Naphthalene	ND< 5.00

Analytical Method EPA 8021

NYS ELAP ID No 10958

Comments: ND denotes not detected

Approved By: \_\_\_\_\_

Laboratory Director



179 Lake Avenue, Rochester, NY 14608 (716) 647-2530 FAX (716) 647-3311

Client: AFI Environmental

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9357

Client Job No.: P1014

Sample Type: TCLP Extract

Field Location: BH1 0'-2'

Date Sampled: 10/09/2001


Field ID No.: N/A

Date Received: 10/10/2001

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	10/12/2001	EPA 6010	<0.100	5.0
Barium	10/12/2001	EPA 6010	0.464	100.0
Cadmium	10/12/2001	EPA 6010	<0.025	1.0
Chromium	10/12/2001	EPA 6010	<0.050	5.0
Lead	10/12/2001	EPA 6010	<0.100	5.0
Mercury	10/12/2001	EPA 7470	<0.0020	0.2
Selenium	10/12/2001	EPA 6010	<0.100	1.0
Silver	10/12/2001	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By: 

Laboratory Director



179 Lake Avenue, Rochester, NY 14608 (716) 647-2530 FAX (716) 647-3311

Client: AFI Environmental

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9358

Client Job No.: P1014

Sample Type: TCLP Extract

Field Location: BH2 6'-8'

Date Sampled: 10/09/2001

Field ID No.: N/A

Date Received: 10/10/2001

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	10/12/2001	EPA 6010	<0.100	5.0
Barium	10/12/2001	EPA 8010	0.559	100.0
Cadmium	10/12/2001	EPA 6010	<0.025	1.0
Chromium	10/12/2001	EPA 6010	<0.050	5.0
Lead	10/12/2001	EPA 6010	<0.100	5.0
Mercury	10/12/2001	EPA 7470	<0.0020	0.2
Selenium	10/12/2001	EPA 6010	<0.100	1.0
Silver	10/12/2001	EPA 6010	<0.050	5.0

ELAP ID No. 10958

Comments:

Approved By: 

Laboratory Director

**PARADIGM**

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (716) 647-2530 FAX (716) 647-3311

Client: AFI Environmental

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9359

Client Job No.: P1014

Sample Type: TCLP Extract

Field Location: BH3 2'-4'

Date Sampled: 10/09/2001

Field ID No.: N/A

Date Received: 10/10/2001

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	10/12/2001	EPA 6010	<0.100	5.0
Barium	10/12/2001	EPA 6010	1.05	100.0
Cadmium	10/12/2001	EPA 6010	<0.025	1.0
Chromium	10/12/2001	EPA 6010	0.062	5.0
Lead	10/12/2001	EPA 6010	4.20	5.0
Mercury	10/12/2001	EPA 7470	<0.0020	0.2
Selenium	10/12/2001	EPA 6010	<0.100	1.0
Silver	10/12/2001	EPA 6010	<0.050	5.0

ELAP ID No 10958

Comments:

Approved By: \_\_\_\_\_

  
Laboratory Director

File ID: 012562

**PARADIGM**

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (716) 647-2530 FAX (716) 647-3311

Client: AFI Environmental

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9360

Client Job No.: P1014

Sample Type: TCLP Extract

Field Location: BH4 6'-8'

Date Sampled: 10/09/2001

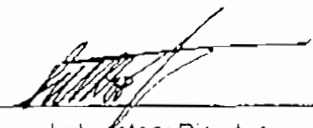
Field ID No.: N/A

Date Received: 10/10/2001

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	10/12/2001	EPA 6010	<0.100	5.0
Barium	10/12/2001	EPA 6010	0.360	100.0
Cadmium	10/12/2001	EPA 6010	<0.025	1.0
Chromium	10/12/2001	EPA 6010	<0.050	5.0
Lead	10/12/2001	EPA 6010	<0.100	5.0
Mercury	10/12/2001	EPA 7470	<0.0020	0.2
Selenium	10/12/2001	EPA 6010	<0.100	1.0
Silver	10/12/2001	EPA 6010	<0.050	5.0

ELAP ID No. 10958

Comments.

Approved By: 

Laboratory Director

**PARADIGM**

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (716) 647-2530 FAX (716) 647-3311

Client: AFI Environmental

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9361

Client Job No.: P1014

Sample Type: TCLP Extract

Field Location: BH5 6'-8'

Date Sampled: 10/09/2001

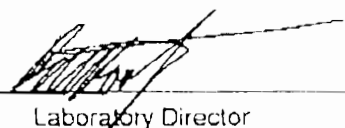
Field ID No.: N/A

Date Received: 10/10/2001

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	10/12/2001	EPA 6010	<0.100	5.0
Barium	10/12/2001	EPA 6010	0.598	100.0
Cadmium	10/12/2001	EPA 6010	<0.025	1.0
Chromium	10/12/2001	EPA 6010	<0.050	5.0
Lead	10/12/2001	EPA 6010	<0.100	5.0
Mercury	10/12/2001	EPA 7470	<0.0020	0.2
Selenium	10/12/2001	EPA 6010	<0.100	1.0
Silver	10/12/2001	EPA 6010	<0.050	5.0

ELAP ID No. 10958

Comments

Approved By: 

Laboratory Director

File ID: 012562

**PARADIGM**

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (716) 647-2530 FAX (716) 647-3311

Client: AFI Environmental

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9362

Client Job No.: P1014

Sample Type: TCLP Extract

Field Location: BH6 0'-2'

Date Sampled: 10/09/2001

Field ID No.: N/A

Date Received: 10/10/2001

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
<b>TCLP Metal Series</b>				
Arsenic	10/12/2001	EPA 6010	<0.100	5.0
Barium	10/12/2001	EPA 6010	0.706	100.0
Cadmium	10/12/2001	EPA 6010	<0.025	1.0
Chromium	10/12/2001	EPA 6010	<0.050	5.0
Lead	10/12/2001	EPA 6010	36.6	5.0
Mercury	10/12/2001	EPA 7470	<0.0020	0.2
Selenium	10/12/2001	EPA 6010	<0.100	1.0
Silver	10/12/2001	EPA 6010	<0.050	5.0

ELAP ID No.: 10956

Comments:

Approved By: \_\_\_\_\_

  
Laboratory Director

File ID: 012562

**PARADIGM**

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (716) 647-2530 FAX (716) 647-3311

Client: AFI Environmental

Lab Project No.: 01-2562

Client Job Site: Colgate St.

Lab Sample No.: 9363

Client Job No.: P1014

Sample Type: TCLP Extract

Field Location: MW2

Date Sampled: 10/09/2001

Field ID No.: N/A

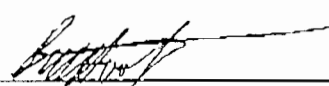
Date Received: 10/10/2001

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
<b>TCLP Metal Series</b>				
Arsenic	10/12/2001	EPA 6010	<0.100	5.0
Barium	10/12/2001	EPA 6010	0.112	100.0
Cadmium	10/12/2001	EPA 6010	<0.025	1.0
Chromium	10/12/2001	EPA 6010	<0.050	5.0
Lead	10/12/2001	EPA 6010	<0.100	5.0
Mercury	10/12/2001	EPA 7470	<0.0020	0.2
Selenium	10/12/2001	EPA 6010	<0.100	1.0
Silver	10/12/2001	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By: \_\_\_\_\_

  
Laboratory Director

File ID: 012552



# PARADIGM

## ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue  
Rochester, NY 14608  
(716) 647-2530 • (800) 724-1897  
FAX: (716) 647-3311

## CHAIN OF CUSTODY

REPORT TO:

INVOICE TO:

PROJECT NAME/SITE NAME:

Colgate ST

COMPANY: <u>AEI Environmental</u>	ADDRESS: <u>7815 Buffalo Ave</u>	CITY: <u>Niagara Falls</u>	STATE: <u>NY</u>	ZIP: <u>14304</u>
PHONE: <u>716-7645</u>	FAX: <u>716-283-2858</u>	ATTN: <u>Bill Heftzenreder</u>	PROJECT: <u>code # 622-6008</u>	REQUESTED ANALYSIS: <u>8270 STARS</u> <u>8021 STARS</u> <u>TCLP metals</u>
LAB PROJECT # <u>01-2502</u>	CLIENT PROJECT # <u>P1014</u>	TURNAROUND TIME (WORKING DAYS) <u>10 Day</u>	STD <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>

DATE	TIME	COMPOSITION	GRAIN SIZE	SAMPLE LOCATION/FIELD ID	MATERIAL	CONTAMINANTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	10:01	10:55	X	BH1 0'-2'	Soil	1	X	9357
2	"	9:45	X	BH2 6'-8'	Soil	1	X	9358
3	"	10:05	X	BH3 2'-4'	Soil	1	X	9359
4	"	10:35	X	BH4 6'-8'	Soil	1	X	9360
5	"	11:48	X	BH5 6'-8'	Soil	1	X	9361
6	"	12:12	X	BH6 0'-2'	Soil	1	X	9362
7	"	1:30	X	MW2	H2O	3	X	9363
8								
9								
10								

\*\*LAB USE ONLY\*\*

SAMPLE CONDITION: Check box  
If acceptable or note deviation:

CONTAINER TYPE: ☒

PRESERVATIONS: ☒

HOLDING TIME: ☒

TEMPERATURE: ☒

12

Sampled By:

S. Bend

Date/Time:

10/9/01 1:30

Relinquished By:

Paul Bend

Date/Time:

10/10/01 9:15 AM

Received By:

Date/Time:

Received By: Anthony Caliendo

Received @ Lab By:

Date/Time:

P.I.F.

Date/Time:

Total Cost:

10/10/01 10:45

**PARADIGM****ENVIRONMENTAL  
SERVICES, INC.**

179 Lake Avenue, Rochester, New York 14608 (716) 647-2530 FAX (716) 647-3311

**Semi-Volatile Analysis Report For Solids (STARS List)**Client: **AFI Environmental**

Lab Project No. 01-2562

Lab Sample No. 9357

Client Job Site: Colgate St

Sample Type: Soil

Client Job No.: P1014

Date Sampled: 10/09/01

Field Location: BH1 0'-2'

Date Received: 10/10/01

Field ID No.: N/A

Date Analyzed: 10/25/01

COMPOUND	RESULT (ug/Kg)
Naphthalene	ND< 3,120
Acenaphthene	ND< 3,120
Fluorene	ND< 3,120
Fluoranthene	ND< 3,120
Anthracene	ND< 3,120
Phenanthrene	ND< 3,120
Benzo (a) anthracene	ND< 3,120
Chrysene	ND< 3,120
Pyrene	ND< 3,120
Benzo (b) fluoranthene	ND< 3,120
Benzo (k) fluoranthene	ND< 3,120
Benzo (g,h,i) perylene	ND< 3,120
Benzo (a) pyrene	ND< 3,120
Dibenz (a,h) anthracene	ND< 3,120
Indeno (1,2,3-cd) pyrene	ND< 3,120

Analytical Method: EPA 8270

NYS ELAP ID No. 10958

Comments

ND denotes Not Detected

Detection Limit elevated due to non-target hydrocarbons

Approved By: 

Laboratory Director

**PARADIGM****ENVIRONMENTAL  
SERVICES, INC.**

179 Lake Avenue, Rochester, New York 14608 (716) 647-2530 FAX (716) 647-3311

**Semi-Volatile Analysis Report For Solids (STARS List)****Client:** AFI Environmental**Lab Project No.** 01-2562**Client Job Site:** Colgate St**Lab Sample No.** 9358**Client Job No.:** P1014**Sample Type:** Soil**Field Location:** BH2 6-8'**Date Sampled:** 10/09/01**Field ID No.:** N/A**Date Received:** 10/10/01**Date Analyzed:** 10/25/01

COMPOUND	RESULT (ug/Kg)
Naphthalene	ND< 312
Acenaphthene	ND< 312
Fluorene	ND< 312
Fluoranthene	ND< 312
Anthracene	ND< 312
Phenanthrene	ND< 312
Benzo (a) anthracene	ND< 312
Chrysene	ND< 312
Pyrene	ND< 312
Benzo (b) fluoranthene	ND< 312
Benzo (k) fluoranthene	ND< 312
Benzo (g,h,i) perylene	ND< 312
Benzo (a) pyrene	ND< 312
Dibenz (a,h) anthracene	ND< 312
Indeno (1,2,3-cd) pyrene	ND< 312

Analytical Method EPA 8270

NYS ELAP ID No. 10958

Comments ND denotes Not Detected

Approved By: 

Laboratory Director

**PARADIGM****ENVIRONMENTAL  
SERVICES, INC.**179 Lake Avenue, Rochester, New York 14608 (716) 647-2530 FAX (716) 647-3311**Semi-Volatile Analysis Report For Solids (STARS List)**Client: **AFI Environmental**

Lab Project No. 01-2562

Client Job Site: Colgate St

Lab Sample No. 9359

Client Job No.: P1014

Sample Type: Soil

Field Location: BH3 2'-4'

Date Sampled: 10/09/01

Field ID No.: N/A

Date Received: 10/10/01

Date Analyzed: 10/25/01

COMPOUND	RESULT (ug/Kg)
Naphthalene	ND< 3,430
Acenaphthene	3,910
Fluorene	9,550
Fluoranthene	69,700
Anthracene	26,900
Phenanthrene	88,500
Benzo (a) anthracene	38,300
Chrysene	35,800
Pyrene	E 113,000
Benzo (b) fluoranthene	30,100
Benzo (k) fluoranthene	40,500
Benzo (g,h,i) perylene	14,100
Benzo (a) pyrene	17,700
Dibenz (a,h) anthracene	ND< 3,430
Indeno (1,2,3-cd) pyrene	ND< 3,430

Analytical Method EPA 8270

NYS ELAP ID No. 10958

Comments

ND denotes Not Detected

E denotes Estimated Concentration exceeds calibration range

Approved By: \_\_\_\_\_

  
Laboratory Director

**PARADIGM****ENVIRONMENTAL  
SERVICES, INC.**

179 Lake Avenue, Rochester, New York 14608 (716) 647-2530 FAX (716) 647-3311

**Semi-Volatile Analysis Report For Solids (STARS List)**Client: **AFI Environmental**

Lab Project No. 01-2562

Client Job Site: Colgate St

Lab Sample No. 9360

Client Job No.: P1014

Sample Type: Soil

Field Location: BH4 6'-8'

Date Sampled: 10/09/01

Field ID No.: N/A

Date Received: 10/10/01

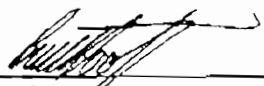
Date Analyzed: 10/25/01

COMPOUND	RESULT (ug/Kg)
Naphthalene	ND< 344
Acenaphthene	ND< 344
Fluorene	ND< 344
Fluoranthene	ND< 344
Anthracene	ND< 344
Phenanthrene	ND< 344
Benzo (a) anthracene	ND< 344
Chrysene	ND< 344
Pyrene	ND< 344
Benzo (b) fluoranthene	ND< 344
Benzo (k) fluoranthene	ND< 344
Benzo (g,h,i) perylene	ND< 344
Benzo (a) pyrene	ND< 344
Dibenz (a,h) anthracene	ND< 344
Indeno (1,2,3-cd) pyrene	ND< 344

Analytical Method: EPA 8270

NYS ELAP ID No. 10966

Comments: ND denotes Not Detected

Approved By: 

Laboratory Director

**PARADIGM****ENVIRONMENTAL  
SERVICES, INC.**

179 Lake Avenue, Rochester, New York 14608 (716) 647-2530 FAX (716) 647-3311

**Semi-Volatile Analysis Report For Solids (STARS List)**Client: **AFI Environmental**

Lab Project No. 01-2562

Client Job Site: Colgate St

Lab Sample No. 9361

Client Job No.: P1014

Sample Type: Soil

Field Location: BH5 6'-8'

Date Sampled: 10/09/01

Field ID No.: N/A

Date Received: 10/10/01


Date Analyzed: 10/25/01

COMPOUND	RESULT (ug/Kg)
Naphtnalene	ND< 353
Acenaphthene	ND< 353
Fluorene	ND< 353
Fluoranthene	ND< 353
Anthracene	ND< 353
Phenanthrene	ND< 353
Benzo (a) anthracene	ND< 353
Chrysene	ND< 353
Pyrene	ND< 353
Benzo (b) fluoranthene	ND< 353
Benzo (k) fluoranthene	ND< 353
Benzo (g,h,i) perylene	ND< 353
Benzo (a) pyrene	ND< 353
Dibenz (a,h) anthracene	ND< 353
Indeno (1,2,3-cd) pyrene	ND< 353

Analytical Method EPA 8270

NYS ELAP ID No. 10958

Comments ND denotes Not Detected

Approved By: 

Laboratory Director

**PARADIGM**  
**ENVIRONMENTAL**  
**SERVICES, INC.**

179 Lake Avenue, Rochester, New York 14608 (716) 647-2530 FAX (716) 647-3311

**Semi-Volatile Analysis Report For Solids (STARS List)**Client: **AFI Environmental**

Lab Project No. 01-2562

Client Job Site: Colgate St

Lab Sample No. 9382

Client Job No.: P1014

Sample Type: Soil

Field Location: SH6 0'-2'

Date Sampled: 10/09/01

Field ID No.: N/A

Date Received: 10/10/01

Date Analyzed: 10/25/01

COMPOUND	RESULT (ug/Kg)
Naphthalene	ND< 3,290
Acenaphthene	ND< 3,290
Fluorene	ND< 3,290
Fluoranthene	ND< 3,290
Anthracene	ND< 3,290
Phenanthrene	ND< 3,290
Benzo (a) anthracene	ND< 3,290
Chrysene	ND< 3,290
Pyrene	ND< 3,290
Benzo (b) fluoranthene	ND< 3,290
Benzo (k) fluoranthene	ND< 3,290
Benzo (g,h,i) perylene	ND< 3,290
Benzo (a) pyrene	ND< 3,290
Dibenz (a,h) anthracene	ND< 3,290
Indeno (1,2,3-cd) pyrene	ND< 3,290

Analytical Method: EPA 8270

NYS ELAP ID No.: 10958

Comments: ND denotes Not Detected  
Detection Limit elevated due to non-target compounds

Approved By: 

Laboratory Director

**PARADIGM**  
**ENVIRONMENTAL**  
**SERVICES, INC.**

179 Lake Avenue, Rochester, New York 14608 (716) 647-2530 FAX (716) 647-3311

**Semi-Volatile Analysis Report For Water (STARS List)****Client:** AFI Environmental**Lab Project No.:** 01-2562**Lab Sample No.:** 9363**Client Job Site:** Colgate St**Sample Type:** Water**Client Job No.:** P1014**Date Sampled:** 10/09/01**Field Location:** MW2**Date Received:** 10/10/01**Field ID No.:** N/A**Date Analyzed:** 10/16/01

COMPOUND	RESULT (ug/L)
Naphthalene	ND< 10.0
Acenaphthene	ND< 10.0
Fluorene	ND< 10.0
Fluoranthene	ND< 10.0
Anthracene	ND< 10.0
Phenanthrene	ND< 10.0
Benzo (a) anthracene	ND< 10.0
Chrysene	ND< 10.0
Pyrene	ND< 10.0
Benzo (b) fluoranthene	ND< 10.0
Benzo (k) fluoranthene	ND< 10.0
Benzo (g,h,i) perylene	ND< 10.0
Benzo (a) pyrene	ND< 10.0
Dibenz (a,h) anthracene	ND< 10.0
Indeno (1,2,3-cd) pyrene	ND< 10.0

EPA Analytical Method: 8270

NYS ELAP ID No.: 10958

**Comments:** ND denotes Not Detected**Approved By:**

Laboratory Director



# P. RADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue  
Hochester, NY 14608  
(716) 647-2530 • (800) 724-1997  
FAX: (716) 647-3311

## CHAIN OF CUSTODY

REPORT TO: INVOICE TO:

COMPANY: AFI Environmental	LAB PROJECT #: 01-2562	CLIENT PROJECT #: P1014
ADDRESS: 7815 Buffalo Ave	TURNAROUND TIME: (WORKING DAYS)	
CITY: Niagara Falls	STATE: NY	ZIP: 14304
PHONE: 283-7645	FAX: 283-2858	
ATTN: Bill Hedzenrader	10 DAY	OTHER
COMMENTS: Colgate ST	STD	5

### REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRA B	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINANTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 10-9-01	10:55	X		BH1 0'-2'	Soil	8270 STARS 8021 STARS TCLP Metals		9357
2 "	9:45	X		BH2 6'-8'	Soil	X		9358
3 "	10:05	X		BH3 2'-4'	Soil	X		9359
4 "	10:35	X		BH4 6'-8'	Soil	X		9360
5 "	11:48	X		BH5 - 6'-8'	Soil	X		9361
6 "	12:12	X		BH6 0'-2'	Soil	X		9362
7 "	1:30	X		MW2	H2O	X		9363
8								
9								
10								

\*\*LAB USE ONLY\*\*

SAMPLE CONDITION: Check box if acceptable or note deviation:	CONTAINER TYPE: 7	PRESERVATIONS: 7	HOLDING TIME: 4	TEMPERATURE: 12
Relinquished By: E. Bender	Date/Time: 10/9/01 1:30	Relinquished By: Anthony C. Orlando	Date/Time: 10/10/01 9:15am	Total Cost:
Received By: E. Bender	Date/Time: 10/10/01 9:15 AM	Received @ Lab By: [Signature]	Date/Time: 10/10/01 @ 11:45	

Hole Number: EP 1-01

ELEVATION: \_\_\_\_\_

111 Colgate Street, Buffalo, New York

BORING LOCATION: See Map

LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1



FAX (716) 937-9360



ENVIRONMENTAL CONSULTANTS & CONTRACTORS, INC.

CRITTENDEN  
(716) 937-6527  
SENECA FALLS  
(315) 568-1664

Hole Number: EP 3-01

DATE: 10/09/01

ELEVATION: \_\_\_\_\_

PROJECT: Earthprobe Investigation at the AMERON Site

111 Colgate Street, Buffalo, New York

PREPARED FOR: AFI Environmental

BORING LOCATION: See Map

SN	0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	OVM	COMMENTS
0									
1	↑						Asphalt pavement	0.1	Asphalt pavement to 0.1 foot over sandy fill with some gravel to 4.5 feet over apparent water sorted and deposited sand and some gravel with little silt to end of boring
2	X						Extremely moist, olive gray to dark gray, gravelly (SILTY-SAND) fill with 20 to 40% gravel with red brick fragments, very fine to fine size sand, little silt with occasional pockets of "stone free" (SANDY-SILT)	192.0	
3	X							4.5	17.4
4	X						Extremely moist to wet, gray, gravelly (SILTY-SAND) with 20 to 40% mostly fine size gravel, very fine to medium size sand, little silt, weakly stratified	8.1	
	↓							8.0	
							Earthprobe Boring Completed at 8.0 feet		
10									
15									
20									

LOGGED BY: Dale M. Gramza / Senior Geologist

PAGE 1 of 1

3553 CRITTENDEN ROAD

CRITTENDEN, NEW YORK 14038

FAX (716) 937-9360

Hole Number: EP 4-01

ELEVATION: \_\_\_\_\_

111 Colgate Street, Buffalo, New York

BORING LOCATION: See Map

20 LOGGED BY: Dale M. Gramza / Senior Geologist PAGE 1 of 1



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ENVIRONMENTAL CONSULTANTS & CONTRACTORS, INC.

CRITTENDEN  
(716) 937-6527  
SENECA FALLS  
(315) 568-1664

Hole Number: EP 6-01

DATE: 10/09/01

ELEVATION: \_\_\_\_\_

PROJECT: Earthprobe Investigation at the AMERON Site

111 Colgate Street, Buffalo, New York

PREPARED FOR: AFI Environmental

BORING LOCATION: See Map

SN	0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	OVM	COMMENTS
0									
1	↑						Asphalt pavement	196.0	Asphalt pavement to 0.1 foot over sandy fill with little gravel and little to some silt to 3.5 feet over silty slack water sediment to end of boring
2	×						Extremely moist, dark gray, gravelly (SILTY-SAND) fill with 15 to 25% gravel, very fine size sand, little to some silt	48.7	
3	×						Extremely moist, gray (CLAYEY-SILT) with little clay, weakly thinly laminated	0.4	
4	×							154.0	
	↓							8.0	
							Earthprobe Boring Completed at 8.0 feet		
10									
15									
20									

LOGGED BY: Dale M. Gramza / Senior Geologist

PAGE 1 of 1

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**ENVIRONMENTAL CONSULTANTS & CONTRACTORS, INC.**

**CRITTENDEN**  
**(716) 937-6527**  
**SENECA FALLS**  
**(315) 568-1664**

AMERON Site  
111 Colgate Street  
Buffalo, New York

AFI Environmental  
10/09/01

Water Levels / Well Development Table

	MW 1	MW 2	MW 3	MW 4
TOTAL DEPTH	12.4	7.5	10.5	22.2
WATER LEVEL	8.7	0.7	3.1	6.7
WATER COLUMN		6.8		
CONV. FACTOR		0.17		
WELL VOLUME		1.156		
Total Removed		3.5		
		Silty Bailed Dry Recharged Clean		