PHASE II ENVIRONMENTAL SITE ASSESSMENT

Property Located At:

Harmon Avenue
Falconer, New York

For

McGuire Development Company
560 Delaware Avenue, Suite 300
Buffalo, New York 14202

&

SKF USA, Inc.
891 Forty Foot Road, PO Box 352
Lansdale, PA 19446

August 2010

Prepared By:

GREAT LAKES ENVIRONMENTAL
& SAFETY CONSULTANTS, INC.

50 Ridge Road
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1 Introduction

1.1 General

This document has been prepared by Great Lakes Environmental & Safety Consultants, Inc. (Great Lakes) documenting the findings of a Phase II Environmental Site Assessment (ESA) performed on June 26, 2010, July 14, 2010, July 26, 2010 and August 16, 2010 for McGuire Development Company and SKF USA, Inc. on the former commercial property located along Harmon Avenue in Falconer, Chautauqua County, New York (herein referenced as the site). Based on a Phase I Environmental Site Assessment of the site performed by Hazard Evaluations, Inc. dated August of 2009, historic documentation indicates that the subject site's original use was agriculture until development started in 1981 where the site was utilized as a truck terminal and warehouse until its vacancy in 2008. The site contains a one-story, concrete block, slab foundation building with asphalt and or gravel surfacing surrounding the building. An above ground fuel storage tank (AST) existed historically on-site and there was a NYSDEC documented spill in conjunction with the AST. See Site Map in Appendix A for property detail.

The adjacent properties include a bearing manufacturer and a vacant industrial property that previously managed wastes including the recycling and recovery of hazardous waste. The latter property has a history of spills and/or other environmental concerns. The historical on site spill and potential contaminant migration both give cause for environmental concern thereby precipitating this Phase II ESA.

This document presents and summarizes the methodology and findings of the Phase II ESA for the site. The scope of work associated with the ESA is based on discussions with site representatives as well as review of documents related to previous assessments conducted at the site.

1.2 Project Understanding

Based on the review and evaluation of background information pertaining to the site, as well as review of past site assessment reports, the following primary areas of concern were investigated and evaluated during the ESA:

- Previous site of the AST.
- Potential migration of contamination from adjacent properties.
- Determination of on-site ground water flow direction.

1.3 Site Investigation Objectives

The purpose and objectives of the ESA include the following:

- Determine the potential presence and extent of contaminants in the groundwater and/or soil;
- Identify potential contamination source areas and migration pathways; and

- Develop and evaluate potential remedial measures, as necessary.

1.4 Report Organization

This document presents the findings from data obtained during the Phase II ESA. Section 2 discusses the site investigation activities that were performed at the site. Section 3 provides an overview of the analytical data obtained during the Phase II ESA. Section 4 presents our conclusions regarding the interpretation and findings of the data obtained during the Phase II ESA.

2 Site Investigation

2.1 General

This section presents the approach and methodology used in performing the Phase II ESA at the site. In order to meet the objectives of the project, various field activities were conducted at the site over the three visits that included the following:

- Geo-probing (soil borings);
- Trench test pits;
- Monitored all recovered soil from borings for elevated photo ionization detector (PID) readings;
- Installation of temporary groundwater monitoring wells;
- Topographic survey;
- Groundwater level measurements;
- Sampling and analysis of soil & groundwater.

The following subsections briefly describe the implementation of the above noted field activities.

2.2 Soil Boring & Groundwater Monitoring Well Locations

Soil boring and groundwater monitoring well locations for the Phase II ESA were based on the findings of the previously conducted Phase I ESA as well as information obtained from the site investigation activities. A site map which presents the locations of the soil borings and groundwater monitoring wells is included in Attachment A of this report.

2.3 Geo-probing

Geo-probing was performed at the site during each of the three site visits. Russo Development, Inc. (Russo), conducted all probing with oversight by a Great Lakes environmental professional. The borings were located in areas with the greatest potential for contamination based on the findings of the Phase I Environmental Site Assessment (ESA) prepared by Hazard Evaluations, Inc. dated August 2009 as well as analytical data and observances from field investigation.

Borings were advanced to a maximum depth of twelve feet below grade. The borings were performed using a drill rig equipped with a hydraulic powered, vibratory press. Four-foot, hollow, stainless steel cylinders (2-inch outside-diameter) with an acetate liner in-side the lead section, with a hollow bit were used to bore through to soil. From the acetate liners of the lead hollow cylinder, soil descriptions were logged (see boring logs in Appendix B) and soil samples were selected for analysis based on visual and olfactory observations, PID readings, and/ or as warranted for site characterization.

June 26, 2010
Seventeen borings were advanced at the site and numbered GP-01 through GP-16, and GP-08A.

July 14, 2010
Based on the analytical results of June 26th, a re-sampling of GP-04 (MW-2) was warranted. One boring was advanced at the previous site of boring GP-04 and renamed GP-04A (MW-2A).

July 26, 2010
Based on the analytical results of July 14th, delineation of the groundwater contamination was warranted. Nine additional boring were advanced at the site and numbered GP-17 through GP-25.

August 16, 2010
Based on the analytical results of August 16th, investigation of the site to delineation of the groundwater contamination and locate a source was warranted. Eight additional borings were advanced at the site and numbered GP-26 through GP-33.

2.4 PID Screening

Probes were driven into the ground in 4-foot sections, with a 2-inch-diameter acetate liner inside the lead section. When each subsequent 4-foot section was added, the liner was removed and replaced with a new liner. This allows each liner to be analyzed as a 4-foot profile of the soil at that location. When each liner section was removed from the probe, the liner was cut open, exposing the recovered soil. As the liners were cut, the exposed soil description was logged and the sample was visually inspected for evidence of contamination and screened for total volatile organic vapors using a field calibrated Multi-Rae Plus PID. The PID readings are documented on the boring logs (Appendix B) as head space (H.S.) parts per million (ppm).

June 26, 2010
Out of the seventeen borings, elevated PID readings of the headspace were detected between 0-4, and 4-8 foot intervals at borings GP-4, GP-19, and GP-20.

July 14, 2010
For boring GP-04A, PID readings of the headspace are as follows: 0-4 foot internal: 93 ppm; 4-8 foot interval: 29 ppm; 8-12 foot interval: 6 ppm.

July 26, 2010
For borings GP-17 through GP-25, only two boring soil sample head space readings detected elevated volatile organic compounds: GP-19, 0-4 foot interval: 196 ppm; and GP-20, 4-8 foot interval: 37.4 ppm.

August 16, 2010
For borings GP-26 through GP-33, PID readings were Non-Detect. No odors or visible staining within the soil borings was observed. In addition, test pitting/trenching was conducted in areas of previous groundwater contamination to identify/locate a possible source of contamination at the site. No evidence of contamination (i.e., odors, visible staining, elevated PID readings) was observed in the soils.

2.5 Temporary Well Installation

June 26, 2010
Three temporary wells were installed (MW-2, MW-3, and MW-4) and developed in borings GP-04, GP-05, and GP-8A respectively (see boring locations on the Site Map in Appendix A). The wells were removed and filled post sampling.

July 14, 2010
Based on the detection of vinyl chloride in groundwater well MW-2, groundwater from well MW-2A was installed adjacent to original well, and was sampled and analyzed for vinyl chloride only.

July 26, 2010
Based on the elevated level of vinyl chloride detected in MW-2A groundwater sample, delineation of the contamination (i.e., source) was warranted. Therefore, nine additional temporary groundwater wells were installed in borings GP-17 thru GP-25. The wells were labeled MW-5 thru MW-13 respectively.

August 16, 2010
Based on the elevated level of vinyl chloride detected in both MW-2A and MW-8 groundwater samples, delineation of the contamination (i.e., source) was warranted. Therefore, eight additional temporary groundwater wells and soil trench pit areas were installed. The wells were labeled MW-26 thru MW-33.

2.6 Topographic & Groundwater Elevation Survey

Groundwater flow direction has been determined to be in a northeasterly direction and the average depth to groundwater across the site was approximately six feet below existing grade.

3 Analytical Sampling

This section presents the environmental media sampling performed as part of the Phase II ESA.

The soil and ground water samples discussed below were submitted for laboratory analysis to Paradigm Environmental Services in Rochester, New York. The soil samples and first round of groundwater samples were analyzed for the Target Compound List (TCL) of volatile organic compounds, TCL semi-volatile organic compounds, and Target Analyte List (TAL) metals in accordance with USEPA Methods Method 8260, 8270, and 6000/7000, respectively. Subsequent groundwater samples were analyzed for EPA Method 8260 Volatiles only.

A summary of the analytical results is presented in Appendix C, and the complete analytical data report is presented in Appendix D.

3.1 Subsurface Soil & Groundwater

June 26, 2010
Great Lakes collected five soil samples from five of the soil boring locations at the site. The locations were chosen based on detection of elevated PID reading (GP-04) or as a representative of soil conditions on site. Representative soil samples were collected from the boring interval just above the existing ground water level. Three groundwater samples were collected from three temporary wells MW-2, MW-3, and MW-4 that were installed and developed in borings GP-04, GP-05, and GP-8A, respectively (see boring locations on the Site Map in Appendix A).

July 14, 2010
Based on the detection of vinyl chloride in groundwater well MW-2, a groundwater sample was collected from well MW-2A that was installed adjacent to the original MW-2 well. The sample was analyzed for EPA Method 8260 for vinyl chloride only.

July 26,2010
Based on the elevated level of vinyl chloride detected in the MW-2A groundwater sample, delineation of the contamination was warranted. Great Lakes collected nine groundwater samples from the nine temporary wells that were installed and developed in borings GP-17 thru GP-25. The wells were labeled MW-5 thru MW-13 respectively. The samples were analyzed for EPA Method 8260 Volatiles only.

August 16, 2010
Based on the elevated level of vinyl chloride detected in MW-2A and MW-8 groundwater samples, delineation of the contamination was warranted. Great Lakes collected and additional ten groundwater samples from two existing and eight newly installed temporary wells that were installed and developed in borings GP-26 thru GP-33. The samples were analyzed for EPA Method 8260 Volatiles only. In addition soil trenching was conduct to the groundwater table in the locations presented on Figure 1.

4 Conclusions and Recommendations

This section summarizes the interpretation of the field data and associated findings obtained during the Phase II ESA.

4.1 Conclusions

The major findings associated with the ESA conducted at the study area include the following:

Subsurface Soils

A total of thirty-three soil borings, including test pitting/trenching was conducted at the site. All soil samples and excavated material were visually inspected for evidence of contamination and screened for total volatile organic vapors using a field calibrated Multi-Rae Plus PID. Based on the visual inspection of the samples and soils during the test pitting/trenching activities, as well as the potential for contamination based on previous site and/or adjacent property activities (i.e., elevated PID readings, adjacent property past solvent recovery process, existing on-site drywell, previous AST), soil samples were submitted for laboratory analysis. Based on comparison of the analytical data with the New York State Department of Environmental Conservation (NYSDEC) Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) 4046, no elevated levels were detected.

Groundwater

A total of twenty-two temporary groundwater wells were installed at the site in areas that posed the highest likelihood for the presence of contamination based on previous activities at or adjacent to the site. Following installation of the temporary groundwater wells, groundwater samples were collected from each of the wells and submitted for laboratory analysis. Based on comparison of the analytical data with the New York State Department of Environmental Conservation (NYSDEC) Ambient Water Quality Standards & Guidance Values Water Cleanup Objectives presented in the Division of Water Technical and Operational Guidance Series (1.1.1), six monitoring well locations showed vinyl chloride levels elevated above the guidance values. MW-2 and MW-2A (2.6 ug/L and 9.92 ug/L respectively) during the June 26, and July 14, 2010 sampling events. MW-13 (11.7 ug/L and 8.27 ug/L respectively) during the July 26, and August 16, 2010 sampling events. MW-8 (1,660 ug/L and 5,260 ug/L respectively) during the July 26, and August 16, 2010 sampling event. MW-28 and MW-33 (30.1 ug/L and 7,030 ug/L) during the August 16, 2010 sampling event.

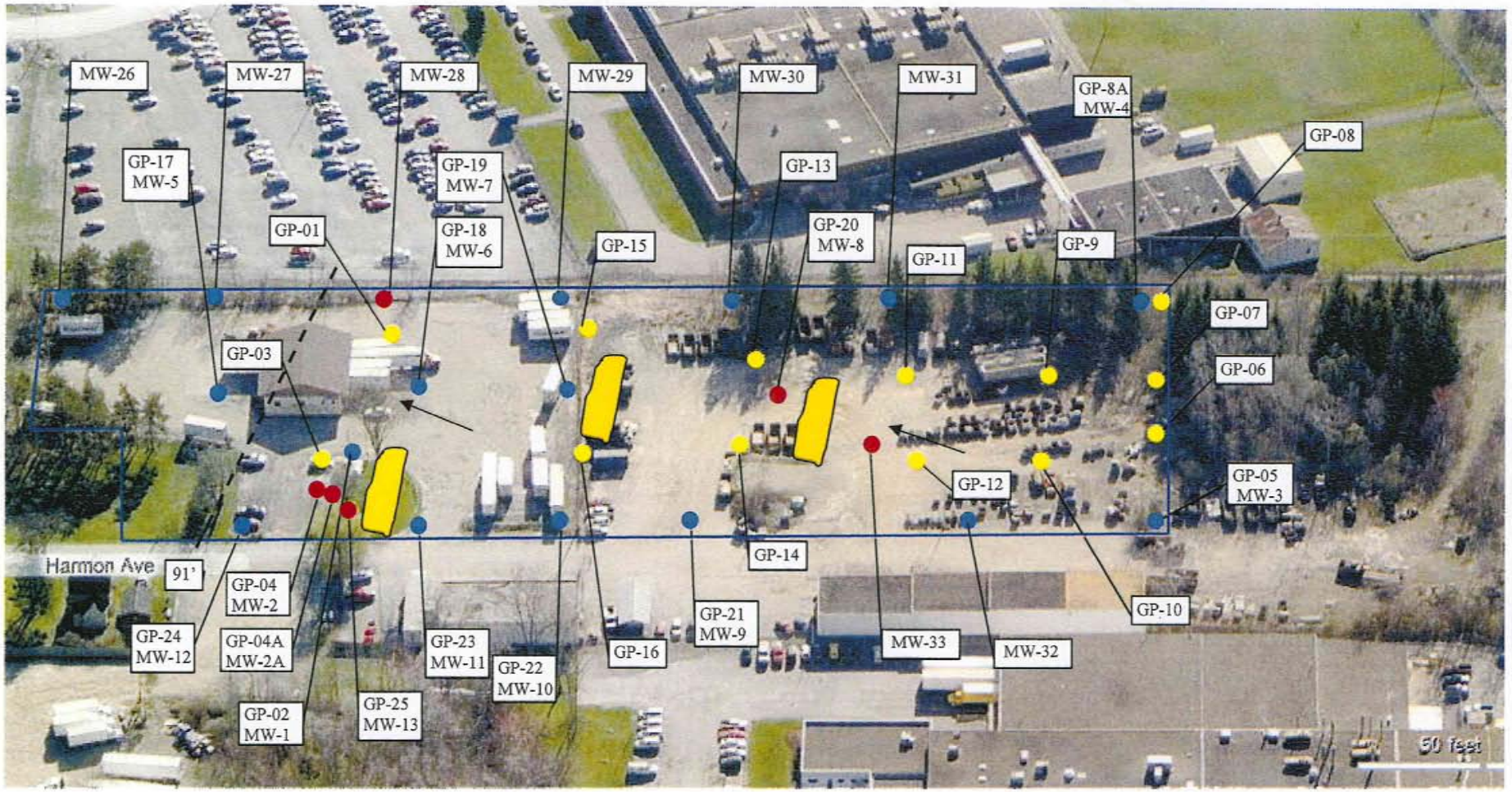
A summary of the analytical results associated with the soil samples is presented in Appendix C, and the complete analytical data report is presented in Appendix D.

4.2 Recommendations

As a result of the information obtained during the Phase II ESA, it is Great Lakes' professional opinion that there is no identifiable source of contamination on the property. The volatile organics (vinyl chloride, trans-1,2-Dichloroethene, 1,1-Dichloroethane, and 1,2-Dichloroethane) detected within the groundwater appear to be breakdown products from a historical spill that can not be sourced to on-site. Based on the extensive soil boring and test pitting/trenching activities conducted at the site (Figure 1), it is Great Lakes professional opinion that in the absence of a source, the contamination levels in the groundwater will be reduced over time via natural attenuation (soils on site are very porous and the depth to groundwater is relatively shallow – approximately 6 feet below grade). In addition, due to the area being on a public water supply, the elevated levels of contamination in the groundwater at the site do not pose an environmental or health & safety concern. Great Lakes provided this report and documentation to the New York State Department of Environmental Conservation (NYSDEC). After reviewing Great Lakes documentation and recommendation, the NYSDEC closed the spill record for the subject property. Great Lakes recommends that no additional subsurface investigation or remedial activities are necessary at the site.

Appendix A

Site Map



Legend:
Site Boundary
6/26/10 Soil Boring
6/26/10 Groundwater Wells
Wells with elevated levels
Test Pitting

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Title: FIGURE 1 - Boring Detail Map
Harmon Avenue, Falconer, New York

Drawn Date: 8/18/10

Drawn By: J. A. Moore

Scale: NTS

Drawing No.

Rev: No.

Appendix B

Field Logs

GREAT LAKES ENVIRONMENTAL & SAFETY CONSULTANTS, INC.

Great Lakes Environmental

~~3556 Lakeshore Road~~, Buffalo, New York 14219
50 RIDGE RD

Boring Number GP-01

BORING LOG

Project Name & Location: McGUIRE DEVELOPMENT CO.	Project Number:
Date & Time Started: 6/26/10 0910	Date & Time Completed: 0930
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE
Sampler(s):	Sampler Hammer: Drop:
Drilling Equipment: GEO PROBE	Method: DP
Elevation & Datum: NA	Completion Depth: Rock Depth:
Bit Size(s):	Core Barrel(s): 4'
Geologist(s): Jim MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0					ASPHALT	
	1	3.5		DP	FILL, YELLOWISH RED 5YR 4/6,	
1					GRAVEL & SAND, DRY	
					↓	
2					YELLOWISH RED 5YR 4/6, SAND	
					& GRAVEL, SOME SILT, DRY-MOIST	
3					MEDIUM STIFF.	
					↓	
4				↓	↓	HS. 3.2 PPM
	2	3.0		DP	BROWN 10YR 5/3, GRAVEL CLOSE	
5						
6						
						▽ 6.5' WL
7					STATIC WATER	
8				↓		HS 1.8 PPM.
	8			~~DP~~	BOTTOM OF BORE @ 8'	
9						
10						

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P.I.D. CALIBRATION 6/26/10
100 PPM ISOBUTYLENE = 100 PPM RESULT JAM

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Great Lakes Environmental

~~3556 Lakeshore~~ 50 RIDGE Road, Buffalo, New York 14219

Boring Number GP-02

BORING LOG

Project Name & Location: McGUIRE DEVELOPMENT, CO.	Project Number:	Date & Time Started: 6/26/10 0734	
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE	Date & Time Completed:	
Drilling Equipment: GEOPROBE	Method: DIRECT PUSH	Sampler(s):	Sampler Hammer: Drop:
Bit Size(s): 2" O.D.	Core Barrel(s): 4' LONG	Elevation & Datum: NA	Completion Depth: Rock Depth:
		Geologist(s): T. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0					ASPHALT	Bituminous
	1	3.0		DP	TOP SOIL DARK GRAY, DRY	
1						
					YELLOWISH RED, GRAVEL & FINES MOIST, LOOSE.	Gravel
2						
3						
4						HS 3.2 PPM
	2	3.0		DP	YELLOWISH RED 5YR 4/6 GRAVEL & FINES. MOIST to WET STIFF	
5						
6						
						WL 6.5
7					BROWN 10YR 5/3 GRAVEL CLAY LOOSE, SATURATED	
8						HS. 0.8
	3	3.5		DP	BROWN 10YR 5/3 GRAVEL CLAY	
9					LOOSE, SATURATED	
10						

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Great Lakes Environmental

Boring Number GP-02

BORING LOG

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
10	3 CUTTINGS	3.5		DP	BROWN 10YR 5/3 GRAVEL,	
11					LOOSE SATURATED	
12					↓	HS - 0.0 PPM
					BOB 12'	
13						
14						
15						
16						
17						
18						
19						
20						

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~~3556 Lakeshore~~ Road, Buffalo, New York 14219
50 RIDGE

Boring Number GP-03

BORING LOG

Project Name & Location: MCGUIRE DEVELOPMENT CO.	Project Number:	Date & Time Started: 6/26/10 1000	
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE	Date & Time Completed:	
Drilling Equipment: GEOPROBE	Method: DIRECT PUSH	Sampler(s):	Sampler Hammer: Drop:
Bit Size(s): 2" O.D.	Core Barrel(s): 4' LONG	Elevation & Datum: NA	Completion Depth: Rock Depth:
		Geologist(s): J. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1	2.5		DP	YELLOWISH BROWN, GRAVEL &	
1					SAND, SOME CLAY & SILT MOIST	
					TO DAMP STIFF	
2						
3					BROWN 10YR 5/3, GRAVEL	
4					SOME SAND & SILT DAMP SOFT.	HS. = 0.0 PPM
	2			DP	BROWN 10YR 5/3 GRAVEL SOME	
5					SATURATED, LOOSE.	
6						▽ 6.0'
7						
8						HS = 0.0 PPM
					BOTTOM OF BORING 8'	
9						
10						

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Great Lakes Environmental

~~3556 Lakeshore~~ 50 RIDGE Road, Buffalo, New York 14219~~3~~

Boring Number GP-04

BORING LOG

Project Name & Location: MCGUIRE DEVELOPMENT, CO.	Project Number:	Date & Time Started: 6/26/10 1025	
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE	Date & Time Completed:	
Drilling Equipment: GEOPROBE	Method: DIRECT PUSH	Sampler(s):	Sampler Hammer: / Drop:
Bit Size(s): 2" O.D.	Core Barrel(s): 4' LONG	Elevation & Datum: NA	Completion Depth: / Rock Depth:
		Geologist(s): J. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1	3.'		DP	TOPSOIL AND GRAVEL SAT	
1					MOIST STIFF	
2						
3						
4						H.S. = 73 PPM
	2	3.5		DP	BROWN 10YR 5/3, GRAVEL	
5					CLEAN, LOOSE WET/SATURATED	
6					89.48'	WL 6.0
7						
8						H.S. 0.8 PPM
	3			DP	BROWN 10YR 5/3 GRAVEL	
9					CLEAN LOOSE SATURATED	
10					12' B.O.B.	H.S 0.8 PPM

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MW-2

(WELL) 0 - 12' BGS. 5' SCREEN, SAND PACK

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50 RIDGE ~~3556 Lakeshore~~ Road, Buffalo, New York 14219

Boring Number GB-4A

BORING LOG

Project Name & Location: MCGUIRE DEVELOPMENT	Project Number:	Date & Time Started: 7/14/10 0845	
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE	Date & Time Completed: 7/14/10	Sampler(s): / Sampler Hammer: / Drop:
Drilling Equipment: GEOPROBE	Method: (DP) DIRECT PUSH	Elevation & Datum: NA	Completion Depth: / Rock Depth:
Bit Size(s): 2" DIA	Core Barrel(s): 9' LENGTH	Geologist(s): J. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1	1.5		DP	TOP SOIL DARK BROWN 10YR 3/3	
1					~~DARK GRAY 5/3~~, GRAVEL F-C ROUNDED, MOIST / SAND F-C	
2						
3						
4						HS = 93 PPM
4	2	3.5		DP	~~DARK GRAY~~ CLEAN (GW) BROWN 10YR 5/3, GRAVEL F-C MOIST / TO SATURATED, F-C SAND, & COBBLES ROUNDED.	
5						
6						WL 6'
7						
8						HS = 29 PPM
8	3	4		DP	DARK GRAY CLEAN F-C GRAVEL (GW) F-C SAND & COBBLES, ROUNDED SATURATED.	
9						
10						

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BORING LOG

Boring Number
~~SB-3~~ V4
GP-4A

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
10	3 CONT			DP	SAME AS ABOVE.	
11	↓			↓	↓	
12	↓			↓	↓	HS = 6.0 PPM
					BOTTOM OF BORING 12'	
13						
14						
15						
16						
17						
18						
19						
20						

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9.5'

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~~3556 Lakeshore~~ 50 RIDGE Road, Buffalo, New York 14219

BORING LOG

Boring Number GP-05

Project Name & Location: MCGUIRE DEVELOPMENT CO.	Project Number:	Date & Time Started: 6/26/10 1100	Date & Time Completed:
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE	Sampler(s):	Sampler Hammer: / Drop:
Drilling Equipment: GEOPROBE	Method: DIRECT PUSH	Elevation & Datum: NA	Completion Depth: / Rock Depth:
Bit Size(s): 2" O.D.	Core Barrel(s): 4' LONG	Geologist(s): J. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1	2'		DP	BRWN/ASH YELLOW 10YR 6/8	
1					SILT & SAND DRY STIFF	
2						
3						
4						HS = 0.0 PPM
	2	3.0		DP	BRWN 10YR 5/3, GRAVEL	
5					LOOSE, SATURATED ROUNDED.	
6					94.90'	WL ▽ 6.0'
7						
8						HS = 0.0 PPM
	3			DP	BRWN 10YR 5/3 GRAVEL	
9					CLEAN LOOSE SATURATED	
					ROUNDED	
10						

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MW-3 0-12' BGS, 5' SCREEN, RISER SAND & BENTONITE TO.

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Great Lakes Environmental

Boring Number GP-05

BORING LOG

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
10					DARK GRAY N3, GRAVEL CLAY,	
					LOOSE SATURATED, ROUNDED	
11					↓	
						HS = 0.0 PPM
12					BOB. 12'	
13						
14						
15						
16						
17						
18						
19						
20						

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Great Lakes Environmental

~~3556 Lakeshore~~ 50 RIDGE Road, Buffalo, New York 14219

Boring Number GP-06

BORING LOG

Project Name & Location MCGUIRE DEVELOPMENT CO.	**Project Number**	**Date & Time Started:** 6/26/10 1145	
Drilling Company RUSSO DEVELOPMENT	**Foreman** MIKE	**Date & Time Completed:** / **Sampler(s)**	**Sampler Hammer** / **Drop**
Drilling Equipment GEOPROBE	**Method** DIRECT PUSH	**Elevation & Datum** NA	**Completion Depth** / **Rock Depth**
Bit Size(s) 2" O.D.	**Core Barrel(s)** 4' LONG	**Geologist(s)** T. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1	2'		DP	FILL, REDDISH BROWN, BRICK,	
1					GRAY - CONCRETE - DRY.	
2						
3						
4						HS = 0.0 PPM
	2	0.2'		DP	FILL - PEAT MOSS, DARK	
5					BROWN, MOIST/SATURATED -	
					GRAY NS SMALL AMOUNT	
6					SATURATED	▽ 6.0' BGS
7						
8						HS = 0.0 PPM
					BOTTOM OF BORE. 8'	
9						
10						

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GREAT LAKES ENVIRONMENTAL & SAFETY CONSULTANTS, INC.

Great Lakes Environmental

~~3556 Lakeshore~~ 50 RIDGE Road, Buffalo, New York 14219

Boring Number GP-07

BORING LOG

Project Name & Location: MCGUIRE DEVELOPMENT CO.	Project Number:	Date & Time Started: 6/26/10	
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE	Date & Time Completed:	
Drilling Equipment: GEOPROBE	Method: DIRECT PUSH	Sampler(s):	Sampler Hammer: Drop:
Bit Size(s): 2" O.D.	Core Barrel(s): 4' LONG	Elevation & Datum: NA	Completion Depth: Rock Depth:
		Geologist(s): J. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1	2'		DP	FILL - YELLOWISH BROWN 5YR 4/6	
1					MOIST, STIFF,	
2						
3						
4						MOISTURE? HS = 0.6 PPM
	2	2'		DP	BROWN 10YR 5/3 STIFF	
5					SILTY CLAY STIFF, MOIST	
6					~~BROWN 10YR 5/3 GRAVEL~~ WET/SATURATED	
7					BROWN 10YR 5/3 SILTY CLAY STIFF WET	
8						HS = 0.0 PPM
	3			DP	GRAY N5, CLAY	
9						
10					TO 12'	HS = 0.0 PPM

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BOTTOM OF BORING

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Great Lakes Environmental

Boring Number GP-07

BORING LOG

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
10					GRAY N5 CLAY SATURATED.	
11					TIGHT (NO WELL)	
12						HS = 0.0 PPM/PPM
					BOTTOM OF BORING 12'	
13						
14						
15						
16						
17						
18						
19						
20						

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BORING LOG

Boring Number GP-08

Project Name & Location MCGUIRE DEVELOPMENT, CO.	**Project Number**	**Date & Time Started:** 6/26/10 1230 **Date & Time Completed:**	
Drilling Company RUSSO DEVELOPMENT C.	**Foreman** MIKE	**Sampler(s)**	**Sampler Hammer** / **Drop**
Drilling Equipment GEOPROBE	**Method** DIRECT PUSH	**Elevation & Datum** NA	**Completion Depth** / **Rock Depth**
Bit Size(s) 2" O.D.	**Core Barrel(s)** 4' LONG	**Geologist(s)** T. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1	1'		DP	FILL YELLOWISH RED, 5YR 4/6	
1					SAND GRAVEL SILT – MOIST	
					SOFT. ↓	
2					↓	
3					↓	
4				↓	↓	HS = 0.0 PPM
	2	0.1		DP	GRAY NS, GRAVEL, LOOSE	
5					LITTLE RECOVR	5.5'
6					↓	
7					↓	
8				↓	↓	HS = 0.6 PPM
	3	0		DP	NO RECOVERY LOST RODS	
9					IN BORE HOLE.	NO SAMPLE
						TO 12'
10					BOB 12'	(NO WELL)

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BORING LOG

Boring Number GP-~~8~~A

NEXT TO GP-0

Project Name & Location: MCGUIRE DEVELOPMENT, CO.	Project Number:	Date & Time Started: 6/26/10	Date & Time Completed:
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE	Sampler(s):	Sampler Hammer: / Drop:
Drilling Equipment: GEOPROBE	Method: DIRECT PUSH	Elevation & Datum: NA	Completion Depth: / Rock Depth:
Bit Size(s): 2" O.D.	Core Barrel(s): 4' LONG	Geologist(s): T. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1	3		DP	FILL YOLLOWISH ROD 5YR 4/6	
1					MOIST SOFT	
2						
3						
4						HS = 0.0 PPM/PPM
	2	3.5		DP	GRAY NS GRAVEL LOOSE	
5					WET/SATURATED	
6						
7					~~CLAYEY~~ GRAY NS SILTY	
8					SAND SATURATED	HS = 0.0 PPM
	3	3.5		DP	GRAY NS SILTY SAND	
9					SATURATED	
10					TO 12'	

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12' B.O. BORING.

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Boring Number GP-09

BORING LOG

Project Name & Location: MCGUIRE DEVELOPMENT CO.	Project Number:	Date & Time Started: 6/26/10	
		Date & Time Completed:	
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE	Sampler(s):	Sampler Hammer: / Drop:
Drilling Equipment: GEOPROBE	Method: DIRECT PUSH (DP)	Elevation & Datum: NA	Completion Depth: / Rock Depth:
Bit Size(s): 2" O.D.	Core Barrel(s): 4' LONG	Geologist(s): J. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1			DP	FILL YELLOWISH BROWN 5YR 4/4	
1					MOIST TO WET @ 4' STIFF	
2						
3						
4						H/S = 0.0 PPM
	2			DP	BROWN 10YR 5/3 SILT &	
5					F-SAND, STIFF, WET MOIST	
6						WL 2'
7						
8						H/S = 0.0 PPM
	3	.5		DP	BROWN 10YR 5/3 SILT &	
9					F-SAND STIFF MOIST.	
10						

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12' B.O.B.

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Boring Number GP-10

BORING LOG

Project Name & Location: MCGUIRE DEVELOPMENT CO.	Project Number:	Date & Time Started: 6/26/10 ~~15:40~~	
Drilling Company: RUSSO DEVELOPMENT	Foreman: MIKE	Date & Time Completed: / Sampler(s):	Sampler Hammer: / Drop:
Drilling Equipment: GEOPROBE	Method: DIRECT PUSH	Elevation & Datum: NA	Completion Depth: / Rock Depth:
Bit Size(s): 2" O.D.	Core Barrel(s): 4' LONG	Geologist(s): T. MOORE	

DEPTH (ft below grade)	SAMPLES: Sample Number	Recovery (feet)	FID/PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
	LOCATION:				SURFACE DESCRIPTION:	
0	1			DP	FILL - GLASS (FILL) SOIL	
1					YELLOWISH RED 5YR 4/6	
2						
3						
4						HS = 0.0 PPM
	2			DP	DARK GRAY N3, GRAVEL CLEAN ROUNDED	
5					LOOSE, SATURATED	WL 5.0'
6						
7						
8						HS = 0.0 PPM
					B.O.B. -8'	
9						
10						

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