NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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Town of Clarkson
Paul Kimball
3710 Lake Road
PO Box 858
Clarkson, NY 14430

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

Former Service Station, Clarkson
Monroe County, Site No.: E828143

Dear Paul Kimball (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: 11/21/2015 to 11/21/2016.

The Department hereby accepts the PRR and associated Certification. The frequency of Periodic Reviews for this site is 1 year, your next PRR is due on December 21, 2017. You will receive a reminder letter and updated certification form 45-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 585-226-5349 or e-mail: danielle.miles@dec.ny.gov.

Sincerely,

Danielle Miles
Project Manager

ec:
Danielle Miles, DEC Project Manager
Julia Kenney, DOH Project Manager
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Frank Sowers, DEC Supervisor
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Greg Andrus, Lu Engineers

Periodic Review Report - 2015/2016

Environmental Restoration Program
Former Service Station Site #E828143
8264 Ridge Road West
Town of Clarkson
Monroe County, New York

Prepared For:

Town of Clarkson
P.O. Box 858
Clarkson, New York 14430

Prepared by:

Lu Engineers
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December 2016

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Executive Summary

The Former Service Station Site #E828143 (hereinafter referred to as the "Site"), located at 8264 Ridge Road West in the Town of Clarkson, Monroe County, New York is a 0.71 acre parcel (Figure 1). The Town of Clarkson acquired the Site through foreclosure in 2008 and is the current owner. The Site was historically used as an automotive service and gasoline station for at least 50 years and contained four (4) abandoned underground storage tanks (USTs). All structures and USTs were removed in May 2009 as interim remedial measures (IRMs) as part of a Remedial Investigation (RI). This periodic review report covers events and activities conducted at the Site in 2015 to 2016.

The RI analytical results indicated concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals in soil and sediment samples exceeding applicable soil cleanup objectives (SCOs). Results of the RI indicated a source area which appeared to be from historic fill material and/or deposition of run-off from up-gradient roadways and drainage areas. Areas of surface soil and sediment in exceedance of Commercial Use SCOs were covered as an IRM during the investigation.

Concentrations of petroleum-related compounds identified in the southwest section of the Site (benzene, ethylbenzene, toluene, and xylene) exceeded NYS Ambient Groundwater Standards in three (3) on-Site wells (MW-01, MW-02, and MW-04). MW-04, located down-gradient from the former USTS, contained the highest concentrations. Based on the results of this investigation, groundwater impacts appear to be limited to the former tank area and have not migrated off-Site. Remedial action was recommended to address the Contaminants of Concern (COC) detected at levels exceeding applicable guidance criteria.

The Site was remediated in accordance with the State Assistance Contract (SAC) #C303810, Site # E828143, which was executed on October 3, 2008 and amended on January 31, 2013. Remedial activities occurred at the Site in April-July 2009 and September 2010 and were conducted in accordance with the NYSDEC-approved Interim Remedial Measures Work Plan dated January 2009 and the IRM Work Plan Addendum Letter dated September 2, 2010. Remedial activities included hazardous material removal and disposal, asbestos abatement, demolition of all Site buildings, slab removal, hydraulic lift removal, and floor drain and oil/water separator removal. Four (4) USTs and 368 tons of petroleum-impacted soil from tank pits were removed for off-Site disposal. A soil cover system was placed over remaining contaminated soil/fill to prevent human exposure. In addition, a stone cover system was placed over contaminated drainage channel sediments remaining in the creek bed to prevent off-Site migration and human exposure.

The effectiveness of the remedial program as outlined in the Site Management Plan (SMP) has been monitored through groundwater sampling, soil and stone cover system monitoring, and a Site-wide inspection. Post-remedial groundwater sampling results indicate that contamination persists in groundwater in the area down-gradient from the former USTs. Groundwater samples

collected during this reporting period (October 26, 2016) showed concentrations of volatile organic compounds (VOCs) exceeding applicable groundwater standards in MW-04. A complete summary of analytical results can be found in Table 1.

In general, the implemented remedies to manage the residual contamination are effective, protective, and are progressing towards the remedial action objectives. The Institutional and Engineering Controls (ICs and ECs) and procedures outlined in the Monitoring Plan and Operation and Maintenance Plan were complied with during this reporting period.

1.0 Periodic Review Report

This Periodic Review Report (PRR) was prepared by Lu Engineers, on behalf of the Town of Clarkson, in accordance with the requirements set forth in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010 and the guidelines provided by the NYSDEC. The first PRR was required eighteen (18) months after the issuance of the Release and Covenant. The reporting period for this PRR is from November 2015 to November 2016. The following items are included in this PRR:

- Identification, assessment, and certification of all ECs/ICs required by the remedy for the Site;
- Results of the Site inspection and sampling events including applicable inspection forms and other records generated for the Site during the reporting period;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables of groundwater contaminants of concern by media;
- Laboratory analysis results, and the required laboratory data deliverables for each sample collected during the reporting period have been and will continue to be submitted electronically in a NYSDEC-approved EQuIS format;
- A Site evaluation, which includes the following:
    I. The compliance of the remedy with the requirements of the Site-specific Record of Decision (ROD);
    II. The operation and the effectiveness of each treatment unit, including identification of any needed repairs or modifications;
    III. Any new conclusions or observations regarding Site contamination based on inspection or lab data generated during the monitoring events;
    IV. Recommendations regarding any necessary changes to the remedy and/or SMP; and
    V. The overall performance and effectiveness of the remedy to date.

2.0 Site Overview

The Site is located in the Town of Clarkson, County of Monroe, New York and is identified as block 0.54.14 and Lot 21 on the Town of Clarkson Tax Map. The Site is an approximately 0.71-acre area bounded by undeveloped land to the north, Ridge Road West (NYS Route 104) to the south, a residence to the east, and a drainage ditch and commercial property to the west (Figure 1).

From 1930 to the early 1970s, the Site was used as a retail gas station which included underground storage of petroleum. The masonry body shop/garage was constructed in the 1930s or 1940s and was used for vehicle maintenance operations until the late 1990s. Prior owners of the Site include: Webaco Oil Company (1953-1974), Charles C. Thomas (1974-2002), and Commercial Property Holdings, LLC (2002-2008). The Town of Clarkson acquired the Site during a foreclosure in April 2008.

Several Recognized Environmental Conditions (RECs) were identified during a Phase 1 Environmental Site Assessment (ESA) by Lu Engineers for the Town of Clarkson in February 2007. A Remedial Investigation (RI) was conducted by Lu Engineers between 2009-2010 to characterize the nature and extent of contamination at the Site. Three (3) 2,000-gallon gasoline USTs, located on the southwest corner of the Site, and one (1) 1,000-gallon UST were identified during the investigation. The tanks were partially filled with a water/gasoline mixture. A 275-gallon aboveground fuel tank was located adjacent to the garage.

Subsurface soil analytical results detected concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals (arsenic, barium, copper, lead, and mercury) exceeding Commercial Use Soil SCOs. The source of the PAHs and metals was attributed in part to historical fill material placed on the Site. Petroleum impacts are inferred to extend off-Site into the Route 104 right-of-way. Areas of soil and sediment in exceedance of Commercial Use SCOs were covered as an IRM during the investigation.

Petroleum-related VOCs (benzene, toluene, ethylbenzene, and xylene) associated with the former gas station and USTs were detected in three (3) on-Site wells (MW-01, MW-02, MW-04) on the southwest portion of the Site at concentrations exceeding NYS Ambient Groundwater Standards. The highest levels were detected in MW-04 which is located down-gradient from the former USTs. Pesticide concentrations were identified in groundwater at levels exceeding 6 NYCRR Part 703 Class GA drinking water standards in two (2) wells. Based on the findings of the RI, it is inferred that no off-Site groundwater contamination has occurred.

Remedial activities were completed at the Site between 2009 and 2010 in accordance with the NYSDEC-approved Interim Remedial Measures Work Plan dated January 2009 and the IRM Work Plan Addendum Letter dated September 2, 2010. The IRM consisted of the following:

- Hazardous material removal/disposal;
- Asbestos abatement;
- Building demolition, slab removal, and hydraulic lift removal;
- Pump island removal;

- Removal of three (3) 2,000-gallon and one (1) 1,000-gallon gasoline USTs;
- Excavation and disposal of 368 tons of petroleum-impacted soil;
- Placement of soil cover system to prevent human exposure to contaminated soil/fill; and
- Placement of a stone cover system in the adjoining creek bed to prevent human exposure and off-Site migration of contaminated drainage channel sediments at the Site.

No potential soil vapor intrusion pathways were identified during this investigation; therefore, vapor intrusion sampling was not conducted.

The SMP requires Institutional Controls (ICs) in the form of an environmental easement that entails a) limiting the use and development of the Site to commercial or industrial use; b) compliance with the approved SMP; c) restriction on the use of groundwater as a source of potable water, without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH); and d) the Site owner or remedial party to complete and submit an annual certification of Institutional and Engineering Controls (ICs/ECs).

Long term management of the remaining contamination, as required by the Record of Decision (ROD) include the following plans for ECS; 1) Monitoring; 2) Operation and maintenance; and 3) Reporting. The specific ECS implemented at the Site include: a) annual groundwater sampling of monitoring wells MW-01, MW-03, MW-04 for VOCs; and b) management and inspection of the existing soil cover system

3.0 Remedy Performance, Effectiveness, and Protectiveness

Post-remedial groundwater sampling indicates that groundwater contamination persists at the Site since the completion of the IRM. One sampling event was conducted in accordance with and as outlined in the SMP. The following is list of the remedial and post-remedial sampling events:

- September 2009 (per RIWP)
- May 2015 (per SMP)
- October 2016 (per SMP)

Table 1, included as an attachment to this report, indicates VOC, SVOC, metals, PCBs, and pesticide concentrations in groundwater in September 2009 and only VOC concentrations in May 2015 and October 2016. Concentrations in groundwater samples were compared to the applicable NYSDEC 6 NYCRR Part 703.5 Class GA and TOGs 1.1.1 groundwater standards.

A significant decrease in VOC concentrations was observed in the post-remedial May 2015 and October 2016 groundwater sampling events in each well. Samples from MW-04 continue to exceed applicable groundwater standards through the 2016 sampling event, but have had a slight decrease since May 2015 sampling. No exceedances in SVOCs were observed in the 2009

results. In addition, no PCBs were detected in the wells in 2009. Elevated concentrations of metals were detected in 2009 including barium, magnesium, manganese, and sodium. Groundwater samples were not analyzed for metals, SVOCs, pesticides, and PCBs in 2015 or 2016 in accordance with the NYSDEC approved SMP. It is noted that MW-02 was presumably destroyed during the Site cover activities. Attempts to locate MW-02 during the May 2015 groundwater sampling event were unsuccessful.

The ICs established for the Site have generally been and continue to be in compliance with the SMP. Though residual contamination exists in the soil and groundwater, these controls reduce the potential for human exposure. The ECs established for the Site are also effective in limiting the potential for human exposure to known Site contaminants.

4.0 Institutional Controls/Engineering Control Plan Compliance

Since remaining contaminated soil and groundwater exists beneath the Site, ICs/ECs are required to protect public health and the environment. The IC/EC Plan is one component of the SMP and is subject to revision by NYSDEC.

A series of Institutional Controls is required by the Record of Decision (ROD) to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to commercial and industrial uses only. Adherence to these Institutional Controls on the Site is required by the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- All Engineering Controls must be operated and maintained as specified in this SMP;
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The Site has a series of Institutional Controls in the form of Site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for commercial or industrial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.

- The property may not be used for a higher level of use, such as unrestricted or residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the property are prohibited;
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable; and
- Annual groundwater monitoring will be conducted to assess the performance and effectiveness of the remedy, in accordance with the SMP.

Engineering Controls (ECs)

- Soil Cover System (Cap) – Exposure to remaining contamination in subsurface soil/fill at the Site is prevented by a soil cover system placed over the Site (the "Cap"). This cover system is comprised of clean soil, asphalt pavement, and/or stone. Procedures for maintaining the Cap are documented in the Operation and Maintenance Plan in Section 4 of the SMP.

  The Excavation Work Plan (EWP) in Appendix A of the SMP outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection, maintenance and monitoring of this cover are provided in the Monitoring Plan included in Section 4 of the SMP.

  In general, the Cap was in good condition as indicated on the Site Inspection Form (Attachment A). The Clarkson Highway Department replaced the creek bed lining and added a new surge stone cover in December, 2015 with full replacement completed in January, 2016.

The Site inspection for October 2016 showed the creek bed lining to be in good condition and in compliance with the SMP requirements. No structures had been constructed on Site since the previous inspection and no change of use has occurred on Site since the last certification (Attachment A & E).

The required IC/EC certification has been completed as a component of this report and a copy is included as Attachment D.

5.0 Monitoring Plan Compliance Report

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the soil cover system, and all affected Site media identified in the table below.

Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
Groundwater Monitoring	Annual	Groundwater	EPA Method 8260 VOCs
Cover System Monitoring	Annual	Soil/Stone Cover System	Visual Inspection; determine whether maintenance is required

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

Monitoring activities completed during this reporting period (2009-2016) included the following:

- Annual groundwater sampling of Site wells MW-01, MW-02 (only in 2009), MW-03, MW-04
- Annual inspection of the Site soil/stone cover system

Groundwater Sampling

The following table summarizes the details of the groundwater sampling program to be completed during each annual sampling event.

Media Sampling and Analysis Summary

Sample Type	Sample Location	Analytical Parameters	Frequency	QA/QC	Total
Groundwater	MW-01, MW-03, MW-04	TCL VOCs plus STARS list compounds by EPA Method 8260	Annual	N/A	3

The previously mentioned Site wells were sampled in 2009, 2015 and 2016 by low flow sampling methods per the procedures outlined in the SMP. Groundwater quality measurements including temperature, turbidity, pH, conductivity and oxidation reduction potential (ORP) were collected during the purging process at each well. Purge water from each well was released to the ground surface near the well. At each well, samples were collected for TCL VOCs plus STARS list compounds by EPA Method 8260B. Groundwater sampling logs are included as Attachment B of this report.

Results of the groundwater sampling conducted during this period are summarized in Table 1 and in Figures 2 and 3. Table 1 presents the analytical results of VOCs, SVOCs, metals, PCBs, and pesticides detected in groundwater from September 2009 and only VOCs in May 2015 and October 2016 in comparison to applicable NYSDEC standards. Figure 2 illustrates the detected contaminant concentrations in groundwater that exceed applicable standards for September 2009. Figure 3 illustrates the detected VOCs and associated concentrations in groundwater that exceed applicable standards for October 2016. Each figure also illustrates groundwater contours based on water level measurements collected at each well during each sampling event. It is noted that groundwater flows primarily to the north.

The following sections summarize the analytical results for each year within this reporting period.

<u>2009</u>

Elevated concentrations of petroleum-related VOCs in September 2009 were detected in MW-01, MW-02, and MW-04 with MW-04 having the highest concentrations. Concentrations of metals, including barium, exceeding NYS Ambient Groundwater Standard or applicable NYSDEC guidance value were identified in all wells. Sample results from MW-01 and MW-03 indicated elevated concentrations of pesticides exceeding NYSDEC Guidance Values. Phenol was detected in MW-04 at a level not exceeding NYSDEC guidance values. PCBs were not detected in any of the wells.

<u>2015</u>

VOC concentrations declined between September 2009 and May 2015 in MW-01, MW-03, and MW-04. Concentration levels of petroleum-related VOCs in MW-04 continue to exceed

applicable groundwater standards. MW-02 was not located and therefore not sampled during this event. In addition, wells were not sampled for SVOCs, PCBS, metals, and pesticides.

In this reporting period, concentrations of petroleum-related VOCs in MW-04 exceeded applicable groundwater standards. Samples were analyzed at Paradigm Environmental Services, Inc., a NYSDOH ELAP-CLP certified laboratory (ELAP) located in Rochester, New York. All sampling methods and QA/QC measures were adhered to as outlined in the approved SMP.

2016
VOC concentrations declined between May 2015 and October 2016 in MW-01, MW-03, and MW-04. Concentration levels of two (2) petroleum-related VOCs (Benzene and sec-Butylbenzene) in MW-04 continue to exceed groundwater standards, however, the levels have shown a significant decrease since previous sample results with the exception of a slight increase in sec-Butylbenzene. It is noted that wells were not sampled for SVOCs, PCBs, Metals, and Pesticides. All laboratory analytical data is included as Attachment C of this report.

Samples were again analyzed by Paradigm Environmental Services, Inc., located in Rochester, New York. All sampling methods and QA/QC measures were adhered to as outlined in the approved SMP.

6.0 Operation and Maintenance Plan Compliance Report

ECs in place at the Site are the soil cover system, referred to as the "Cap." Operation and maintenance is limited to periodic inspection of the Cap, which is documented using the Site Inspection Form. Copies of the Site Inspection Form are included as Attachment A in this report. The Operation and Maintenance Plan located in the SMP describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the Site. Descriptions of the Cap inspections and conditions are provided in Section 4.0 of this report.

7.0 Conclusions and Recommendations

IC/EC Compliance
The requirements and regulations set forth in the SMP for ICs were complied with during this reporting period. This includes the following:

> Land Use Restriction – The Site is currently vacant and has met the requirements of this restriction in this reporting period.
>
> Groundwater Use Restriction – The Site is currently vacant and does not use the Site groundwater in any capacity, therefore meeting the requirements of this restriction in this reporting period.

Site Management Plan (SMP) – The Site is currently in compliance with all components of the Site-specific SMP and all requirements have been met during this reporting period.

The requirements set forth in the SMP for all ECs were met during this reporting period. This includes the following:

Soil Cover System (Cap) – The Site Cap was in compliance with the SMP during this reporting period. The creek bed cover was not in compliance during the previous inspection; however, corrective measures were implemented and completed by January 2016. At this time the creek bed cover and Site Cap are in compliance with the SMP. The Site Inspection Form and photographs illustrating compliance are included as Attachments A and E, respectively, of this report.

Based on post-remedial groundwater conducted to date, remaining groundwater contamination persists in MW-04 which is down-gradient from the former USTS. However, petroleum-related VOC levels have declined in MW-04 since September 2009 and May 2015 sampling events. The previously discussed Site-specific ICs and ECs for the Site continue to meet the remedial objectives while establishing protection of public health and the environment. The continued effectiveness of the ICs/ECs have allowed the remedial objectives at the Site to be met for this reporting period.

It is recommended that the next PRR be submitted approximately one year from submittal of this PRR.

Tables

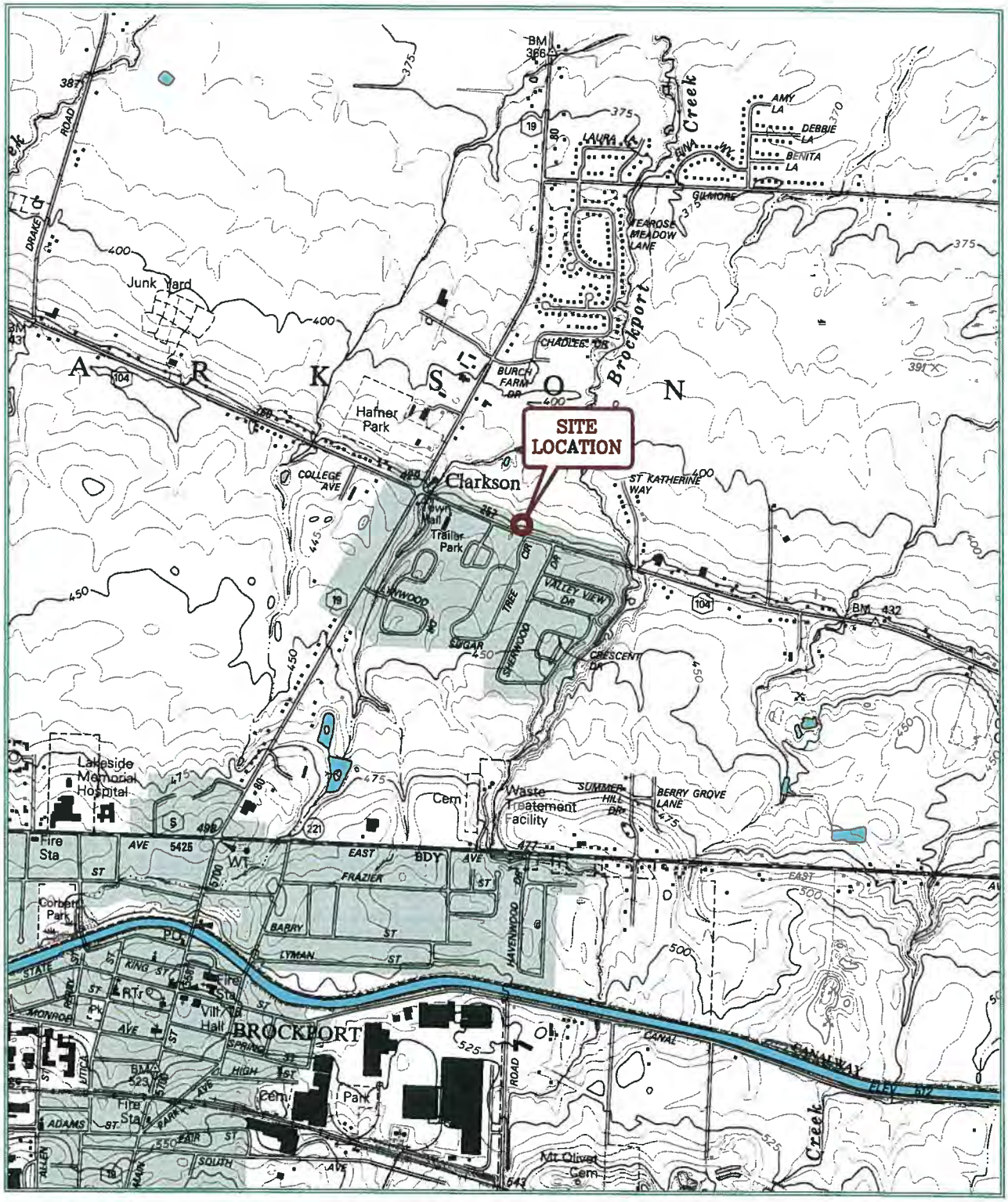
Former Service Station Site (#E828143)
Town of Clarkson
Summary of Validated Analytical Results

Table 1- Groundwater Results

Detected Parameters[1]	NYS Groundwater Standard[2]	MW-01 9/16/2009	MW-01 5/19/2015	MW-01 10/26/2016	MW-02 9/17/2009	MW-03 9/16/2009	MW-03 5/19/2015	MW-03 10/26/2016	MW-04 9/16/2009	MW-04 5/19/2015	MW-04 10/26/2016
EPA 8260 - Volatile Organics											
1,2,4-Trimethylbenzene	**5**	ND	ND	ND	ND	0.76 J	ND	ND	**16.0 J**	3.37	1.41 J
1,3,5-Trimethylbenzene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	2.17	1.80 J
Acetone	**50***	ND	ND	ND	10.0 J	ND	ND	ND	**78.7 J**	ND	ND
Benzene	**1**	**15.3**	ND	ND	**2.09**	ND	ND	ND	**353**	**14.5**	**12.4**
Bromodichloromethane	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone (2-butanone)	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	**60***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	**7**	ND	ND	ND	2.72	ND	ND	ND	ND	ND	ND
Chloromethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	**N/A**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	**N/A**	ND	ND	ND	ND	ND	ND	ND	ND	ND	24.3
Dibromochloromethane	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	**0.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	**1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	**3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	**3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	**3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	**N/A**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	**0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	**5**	ND	ND	ND	ND	ND	ND	ND	**30.2**	3.91	1.70 J
2-Hexanone	**50***	ND	ND	ND	ND	4.23 J,B	ND	ND	ND	ND	ND
Isopropylbenzene	**5**	ND	ND	ND	ND	ND	ND	ND	**10.0 J**	**12.4**	4.73
m/p-Xylenes	**N/A**	ND	ND	ND	ND	ND	ND	ND	25.2	3.04	1.91 J
Methylene Chloride	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	**N/A**	ND	ND	ND	ND	3.78 J,B	ND	ND	ND	ND	ND
Methylcyclohexane	**N/A**	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.4
Methyl-Tert-Butyl Ether (MTBE)	**10***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	**5**	ND	ND	ND	ND	ND	ND	ND	**8.00 J**	**14.4**	4.23
Naphthalene	**10***	1.04 J,B	ND	ND	ND	2.24 J,B	ND	ND	ND	ND	ND
o-Xylene	**N/A**	ND	ND	ND	ND	0.53 J	ND	ND	ND	ND	ND
sec-Butylbenzene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	**7.71**	**5.05**
Styrene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	**5**	2.83	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.39
Toluene	**5**	ND	ND	ND	ND	ND	ND	ND	**20.3**	ND	ND
p-Isopropyltoluene	**N/A**	ND	ND	ND	ND	ND	ND	ND	ND	2.1	1.10 J
1,1,1-Trichloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	**1**	ND	ND	ND	ND	ND	ND	ND	**26.0**	ND	ND
Trichloroethene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	**5**	ND	ND	ND	ND	ND	ND	ND	**25.2**	ND	ND
EPA 8270 - Semi-Volatile Organics											
Phenol	**1**	ND			ND	ND			7.97 J		
TAL Metals											
Aluminum	**N/A**	ND			11,800	ND			ND		
Barium	**1,000**	**1,060**			**1,380**	856			**1,510**		
Calcium	**N/A**	186,000			198,000	133,000			155,000		
Chromium	**50**	ND			10	ND			ND		
Iron	**300**	ND			16,100	ND			**366**		
Lead	**25**	ND			9.000	ND			ND		
Magnesium	**35,000***	**46,700**			**38,700**	23,600			27,900		
Manganese	**300**	**580**			**1,300**	ND			**5,450**		
Potassium	**N/A**	35,000 N,M			20,900 N	10,700 N			19,500 N		
Selenium	**10**	<0.005			<0.005	<0.005			<0.005		
Silver	**50**	<0.010			<0.010	<0.010			<0.010		
Sodium	**20,000**	**465,000**			**253,000**	**262,000**			**514,000**		
Thallium	**0.5***	ND			ND	7			9		
Vanadium	**N/A**	ND			22	ND			ND		
EPA 8082 - PCBs (none detected above laboratory detection limits)											
EPA 8081 - Pesticides											
4,4'-DDD	**0.3**	0.069 J,B				ND					
4,4'-DDE	**0.2**	ND				0.055 J					
4,4'-DDT	**0.2**	0.083 J				0.072 J					
Aldrin	**ND**	**0.053 J**				ND					
alpha-Chlordane	**0.1**	0.041 J				ND					
beta-BHC	**N/A**	ND				ND					
Dieldrin	**0.004**	**0.039 J**				**0.036 J**					
Endosulfan II	**N/A**	ND				0.039 J,B					
Endosulfan Sulfate	**N/A**	0.049 J				ND					
Endrin	**ND**	**0.034 J**				ND					
Endrin aldehyde	**5**	0.061 J				ND					
gamma-BHC (Lindane)	**N/A**	0.033 J				ND					
gamma-Chlordane		0.088 J,B				0.075 J,B					
Methoxychlor	**35**	0.058 J,B				0.035 J,B					

1 all values shown in micrograms per liter (ug/L)
2- NYS Ambient Groundwater Standard (6 NYCRR Part 703.5)
* - NYSDEC Guidance Value (TOGS 1.1.1)
J- value is estimated
B- compound detected in associated method blank
N- compound was "tentatively identified"
M- matrix spike recoveries outside QC limits; matrix bias indicated
~ value detected above NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

Figures



Lu Engineers
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FIGURE 1.

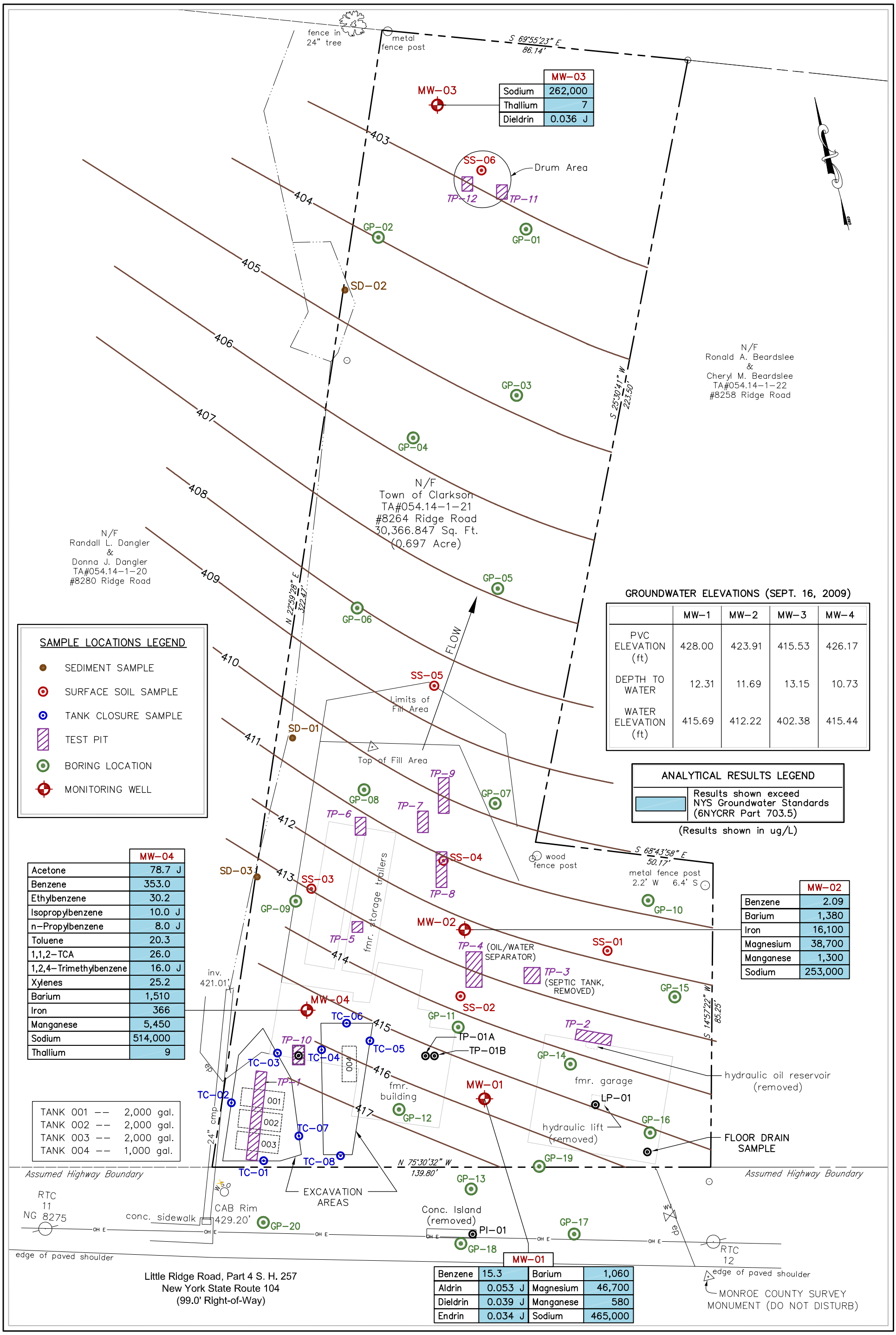
SITE LOCATION MAP

FMR. GAS STATION -- REMEDIAL INVESTIGATION
8264 RIDGE ROAD WEST
TOWN OF CLARKSON NEW YORK

DATE:	JULY 2010
SCALE:	1:24,000
DRAWN BY:	DLS

MAP SOURCE: NYS DOT RASTER QUADRANGLE
BROCKPORT / MONROE COUNTY
DOT EDITION DATE: 1997 / USGS CONTOUR DATA: 1971

J:\Projects\40500 Clarkson\40503 Brownfield Inv-Cleanup\Cadd\RI Report\Fig.1_SiteMap & HospRte.dwg, 8/11/2010 9:06:49 AM, diane'AC2009



	MW-1	MW-2	MW-3	MW-4
PVC ELEVATION (ft)	428.00	423.91	415.53	426.17
DEPTH TO WATER	12.31	11.69	13.15	10.73
WATER ELEVATION (ft)	415.69	412.22	402.38	415.44

	MW-04
Acetone	78.7 J
Benzene	353.0
Ethylbenzene	30.2
Isopropylbenzene	10.0 J
n-Propylbenzene	8.0 J
Toluene	20.3
1,1,2-TCA	26.0
1,2,4-Trimethylbenzene	16.0 J
Xylenes	25.2
Barium	1,510
Iron	366
Manganese	5,450
Sodium	514,000
Thallium	9

	MW-02
Benzene	2.09
Barium	1,380
Iron	16,100
Magnesium	38,700
Manganese	1,300
Sodium	253,000

MW-01			
Benzene	15.3	Barium	1,060
Aldrin	0.053 J	Magnesium	46,700
Dieldrin	0.039 J	Manganese	580
Endrin	0.034 J	Sodium	465,000

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FIGURE 2.
BASELINE GROUNDWATER RESULTS & CONTOUR MAP
FORMER GAS / SERVICE STATION
8264 RIDGE ROAD WEST
TOWN OF CLARKSON | MONROE COUNTY | NEW YORK

DATE: FEBRUARY 2013
SCALE: 1"= 25'
DESIGNED/DRAWN/CHECKED LN/JM/GA
P.N. 40503 ERP Site# E828143

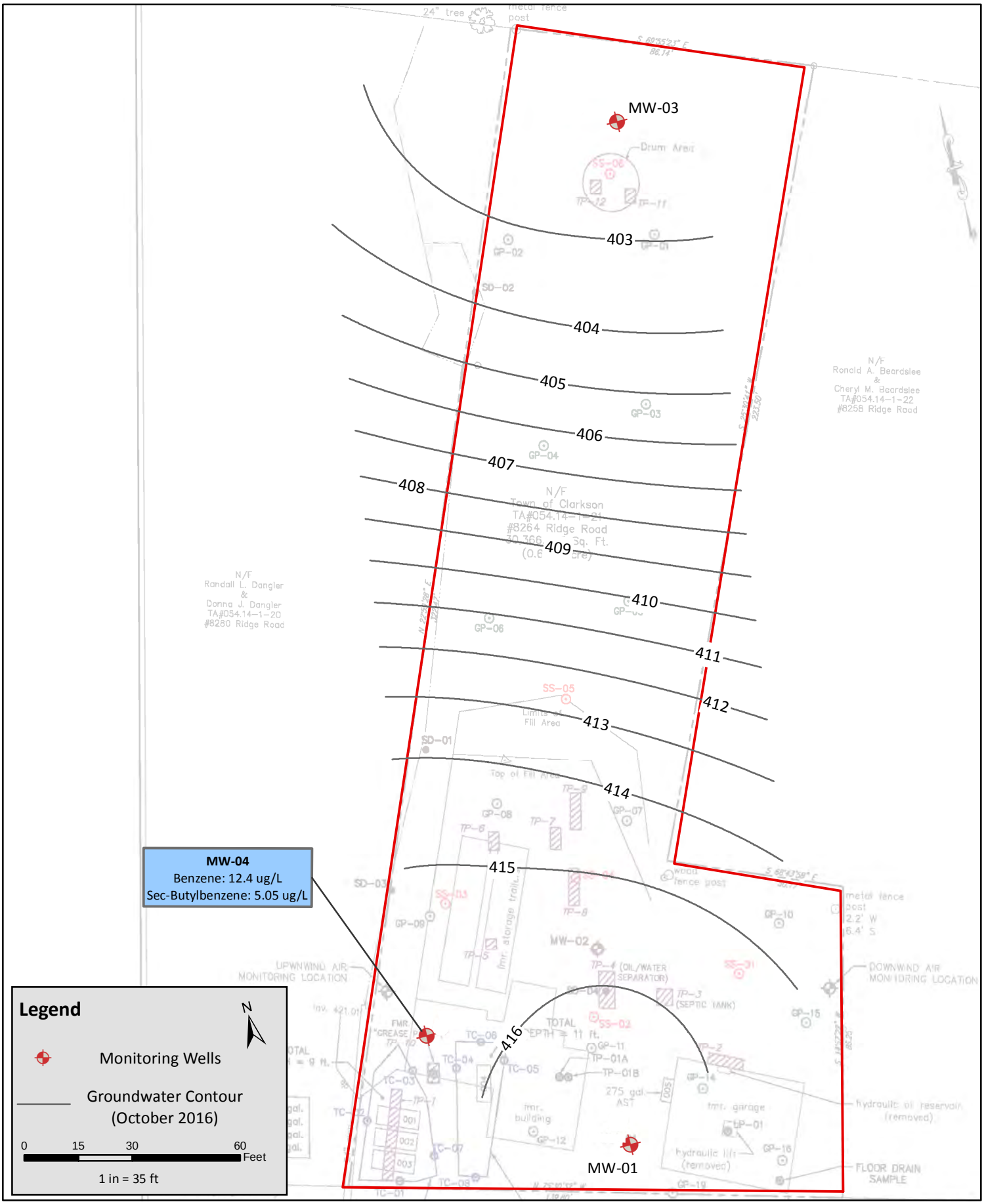

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FIGURE 3
Groundwater Contours and Analytical Results- Novemeber 2016
Former Gas/Service Station
8264 Ridge Road West
Town of Clarkson Monroe County NY

DATE: November 2016
SCALE:1 inch = 35 feet
DRAWN/CHECKED: CSB/GLA
DATA SOURCE: N/A

Appendix A – Site Inspection Forms

SITE-WIDE INSPECTION FORM

Former Service Station Site E828143
Town of Clarkson, Monroe County

NAME OF INSPECTOR: Casey Bok

COMPANY OF INSPECTOR: Lu Engineers

DATE OF INSPECTION: 10/26/16

CURRENT USE OF SITE: Park Land

HAS A CHANGE OF USE OCCURRED SINCE THE LAST CERTIFICATION?
__X__ **YES** _____ **NO**
IF YES, THEN EXPLAIN: Creek bed was built up due to displacement

GENERAL DESCRIPTION OF COVER: General Site of Cover is in great condition and appears to be healthy

HAS THE COVER BEEN PENETRATED? __X__ **YES** _____ **NO**
IF YES, THEN EXPLAIN: Slight excavation due to locate MW-01. Slab of "Turf" placed back on location

HAVE ANY STRUCTURES BEEN CONSTRUCTED ON THE SITE SINCE THE LAST INSPECTION? _____ **YES** __X__ **NO**
IF YES, THEN EXPLAIN: _____

HAVE COVER CONDITIONS CHANGED SINCE THE LAST INSPECTION?
__X__ **YES** _____ **NO**
IF YES, THEN EXPLAIN: Creek bed stone cover was restored

IS ANY MAINTENANCE OF THE COVER REQUIRED?

_____**YES** __X___**NO**

IF YES, THEN EXPLAIN: Creekbed seems sufficient. Grass seems healthy ? Green

ADDITIONAL OBSERVATIONS, CONCLUSIONS OR RECCOMMENDATIONS:

None

ANY CHANGES TO THE SITE OR REQUIRED MAINTENANCE SHOULD BE MARKED IN THE CORRESPONDING LOCATION ON THE ATTACHED MAP

Appendix B – Groundwater Sampling Logs

Low Flow Groundwater Sampling Field Record

Lu Engineers
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Project Name Clarkson ERP Site
Location ID MW-01
Activity Time 1330
Field Sample ID MW-01-102616
Sample Time 1400
Job # 40503
Sampling Event # __
Date 10/26/16

SAMPLING NOTES

Initial Depth to Water 7.2 feet
Final Depth to Water 6.4 feet
Screen Length 10 feet
Total Volume Purged _____ gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 22 feet
Pump Intake Depth _____
PID Well Head _____

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
1330	7.2	200	14	7.1	0.19	14.1	3.977	-70.1	
1335	6.98	↓	14.2	7.1	0.23	11.9	3.439	-72.3	
1340	6.72		14.4	7.09	0.06	12.6	3.174	-69.1	
1345	6.5		14.4	7.12	0.12	13.7	3.832	-71.4	
1350	6.4	↓	14.7	7.12	0.15	14.8	3.761	-72.6	

Purge Observations: Slight odor, clear
Purge Water Containerized: _____

EQUIPMENT DOCUMENTATION

Type of Pump: GeoPump
Type of Tubing: ¼" HDPE
Type of Water Quality Meter: YSI Quattro; LaMotte 2020
Calibrated: ✓ Yes

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	7 x 40 ml	✓

LOCATION NOTES

Under Soil

Signature: _____
Checked By: _____

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Low Flow Groundwater Sampling Field Record

Project Name Clarkson ERP Site
Location ID MW-03
Activity Time 1030

Field Sample ID MW-03-102616
Sample Time 1050

Job # 40503
Sampling Event # __
Date 10/26

SAMPLING NOTES

Initial Depth to Water 13.3 feet
Final Depth to Water 13.6 feet
Screen Length 10 feet
Total Volume Purged _____ gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 14 feet
Pump Intake Depth _____
PID Well Head _____

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
1030	13.9	200	13.5	6.99	5.57	82	0.88	-20.2	
1035	14.2		13.3	7.11	4.72	93	1.12	0.0	
1040	~~13.2~~	14.2	13.2	7.08	4.01	102	1.32	3.6	
1045	14.4		13.3	7.09	3.98	97	1.34	4.9	

Purge Observations: No odor Slightly Turbid
Purge Water Containerized: _____

EQUIPMENT DOCUMENTATION

Type of Pump: _____
Type of Tubing: ¼" HDPE
Type of Water Quality Meter: YSI Quattro; LaMotte 2020
Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	3 x 40 ml	

LOCATION NOTES

Signature: _____
Checked By: _____

Low Flow Groundwater Sampling Field Record

Lu Engineers
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Project Name Clarkson ERP Site
Location ID MW-04
Activity Time 1250

Field Sample ID MW-04-102616
Sample Time 13:20

Job # 40503
Sampling Event # __
Date 10/26/16

SAMPLING NOTES

Initial Depth to Water 11 feet
Final Depth to Water 10.28 feet
Screen Length 10 feet
Total Volume Purged _____ gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 22 feet
Pump Intake Depth _____
PID Well Head _____

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
1255	11.2	200	14	6.07	0.45	82	3.23	-72.9	
1300	11.3	↓	14.3	6.41	0.20	97	3.21	-72.9	
1305	11.7		14.6	6.5	0.11	126	3.00	-74.2	
1310	11.7		14.6	6.57	0.08	98	2.92	-78.5	
1315	11.9		14.7	6.56	0.08	101	2.93	-80.2	

Purge Observations: Slight odor Clear
Purge Water Containerized: _____

EQUIPMENT DOCUMENTATION

Type of Pump: Geo Pump
Type of Tubing: ¼" HDPE
Type of Water Quality Meter: YSI Quattro; LaMotte 2020

Calibrated: Yes

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	3 x 40 ml	

LOCATION NOTES

Broke well cap, 3" above ground level PVC.

Signature: _____
Checked By: _____

Appendix C – Laboratory Analytical Data

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

Lu Engineers, Inc.

For Lab Project ID

164709

Referencing

40503

Prepared

Wednesday, November 02, 2016

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958 • PADEP ID# 68-02351

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 164709

Client: **Lu Engineers, Inc.**

Project Reference: 40503

Sample Identifier: MW-01-102616
Lab Sample ID: 164709-01 **Date Sampled:** 10/26/2016
Matrix: Groundwater **Date Received:** 10/26/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/28/2016 23:37
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/28/2016 23:37
1,1,2-Trichloroethane	< 2.00	ug/L		10/28/2016 23:37
1,1-Dichloroethane	< 2.00	ug/L		10/28/2016 23:37
1,1-Dichloroethene	< 2.00	ug/L		10/28/2016 23:37
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/28/2016 23:37
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/28/2016 23:37
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/28/2016 23:37
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/28/2016 23:37
1,2-Dibromoethane	< 2.00	ug/L		10/28/2016 23:37
1,2-Dichlorobenzene	< 2.00	ug/L		10/28/2016 23:37
1,2-Dichloroethane	< 2.00	ug/L		10/28/2016 23:37
1,2-Dichloropropane	< 2.00	ug/L		10/28/2016 23:37
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/28/2016 23:37
1,3-Dichlorobenzene	< 2.00	ug/L		10/28/2016 23:37
1,4-Dichlorobenzene	< 2.00	ug/L		10/28/2016 23:37
1,4-dioxane	< 20.0	ug/L		10/28/2016 23:37
2-Butanone	< 10.0	ug/L		10/28/2016 23:37
2-Hexanone	< 5.00	ug/L		10/28/2016 23:37
4-Methyl-2-pentanone	< 5.00	ug/L		10/28/2016 23:37
Acetone	< 10.0	ug/L		10/28/2016 23:37
Benzene	< 1.00	ug/L		10/28/2016 23:37
Bromochloromethane	< 5.00	ug/L		10/28/2016 23:37
Bromodichloromethane	< 2.00	ug/L		10/28/2016 23:37
Bromoform	< 5.00	ug/L		10/28/2016 23:37
Bromomethane	< 2.00	ug/L		10/28/2016 23:37
Carbon disulfide	< 2.00	ug/L		10/28/2016 23:37
Carbon Tetrachloride	< 2.00	ug/L		10/28/2016 23:37
Chlorobenzene	< 2.00	ug/L		10/28/2016 23:37

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 164709

Client: **Lu Engineers, Inc.**

Project Reference: 40503

Sample Identifier: MW-01-102616
Lab Sample ID: 164709-01 **Date Sampled:** 10/26/2016
Matrix: Groundwater **Date Received:** 10/26/2016

Chloroethane	< 2.00	ug/L		10/28/2016 23:37
Chloroform	< 2.00	ug/L		10/28/2016 23:37
Chloromethane	< 2.00	ug/L		10/28/2016 23:37
cis-1,2-Dichloroethene	< 2.00	ug/L		10/28/2016 23:37
cis-1,3-Dichloropropene	< 2.00	ug/L		10/28/2016 23:37
Cyclohexane	< 10.0	ug/L		10/28/2016 23:37
Dibromochloromethane	< 2.00	ug/L		10/28/2016 23:37
Dichlorodifluoromethane	< 2.00	ug/L		10/28/2016 23:37
Ethylbenzene	< 2.00	ug/L		10/28/2016 23:37
Freon 113	< 2.00	ug/L		10/28/2016 23:37
Isopropylbenzene	< 2.00	ug/L		10/28/2016 23:37
m,p-Xylene	< 2.00	ug/L		10/28/2016 23:37
Methyl acetate	< 2.00	ug/L		10/28/2016 23:37
Methyl tert-butyl Ether	< 2.00	ug/L		10/28/2016 23:37
Methylcyclohexane	< 2.00	ug/L		10/28/2016 23:37
Methylene chloride	< 5.00	ug/L		10/28/2016 23:37
Naphthalene	< 5.00	ug/L		10/28/2016 23:37
n-Butylbenzene	< 2.00	ug/L		10/28/2016 23:37
n-Propylbenzene	< 2.00	ug/L		10/28/2016 23:37
o-Xylene	< 2.00	ug/L		10/28/2016 23:37
p-Isopropyltoluene	< 2.00	ug/L		10/28/2016 23:37
sec-Butylbenzene	< 2.00	ug/L		10/28/2016 23:37
Styrene	< 5.00	ug/L		10/28/2016 23:37
tert-Butylbenzene	< 2.00	ug/L		10/28/2016 23:37
Tetrachloroethene	< 2.00	ug/L		10/28/2016 23:37
Toluene	< 2.00	ug/L		10/28/2016 23:37
trans-1,2-Dichloroethene	< 2.00	ug/L		10/28/2016 23:37
trans-1,3-Dichloropropene	< 2.00	ug/L		10/28/2016 23:37
Trichloroethene	< 2.00	ug/L		10/28/2016 23:37
Trichlorofluoromethane	< 2.00	ug/L		10/28/2016 23:37
Vinyl chloride	< 2.00	ug/L		10/28/2016 23:37

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 164709

Client: **Lu Engineers, Inc.**

Project Reference: 40503

Sample Identifier: MW-01-102616
Lab Sample ID: 164709-01 **Date Sampled:** 10/26/2016
Matrix: Groundwater **Date Received:** 10/26/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**90.7**	85.8 - 116		10/28/2016 23:37
4-Bromofluorobenzene	**93.9**	80.6 - 114		10/28/2016 23:37
Pentafluorobenzene	**99.8**	89.6 - 112		10/28/2016 23:37
Toluene-D8	**98.2**	89.6 - 109		10/28/2016 23:37

Method Reference(s): EPA 8260C
EPA 5030C
Data File: x36525.D

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 164709

Client: **Lu Engineers, Inc.**

Project Reference: 40503

Sample Identifier: MW-03-102616
Lab Sample ID: 164709-02 **Date Sampled:** 10/26/2016
Matrix: Groundwater **Date Received:** 10/26/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/29/2016 00:01
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/29/2016 00:01
1,1,2-Trichloroethane	< 2.00	ug/L		10/29/2016 00:01
1,1-Dichloroethane	< 2.00	ug/L		10/29/2016 00:01
1,1-Dichloroethene	< 2.00	ug/L		10/29/2016 00:01
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/29/2016 00:01
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/29/2016 00:01
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/29/2016 00:01
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/29/2016 00:01
1,2-Dibromoethane	< 2.00	ug/L		10/29/2016 00:01
1,2-Dichlorobenzene	< 2.00	ug/L		10/29/2016 00:01
1,2-Dichloroethane	< 2.00	ug/L		10/29/2016 00:01
1,2-Dichloropropane	< 2.00	ug/L		10/29/2016 00:01
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/29/2016 00:01
1,3-Dichlorobenzene	< 2.00	ug/L		10/29/2016 00:01
1,4-Dichlorobenzene	< 2.00	ug/L		10/29/2016 00:01
1,4-dioxane	< 20.0	ug/L		10/29/2016 00:01
2-Butanone	< 10.0	ug/L		10/29/2016 00:01
2-Hexanone	< 5.00	ug/L		10/29/2016 00:01
4-Methyl-2-pentanone	< 5.00	ug/L		10/29/2016 00:01
Acetone	< 10.0	ug/L		10/29/2016 00:01
Benzene	< 1.00	ug/L		10/29/2016 00:01
Bromochloromethane	< 5.00	ug/L		10/29/2016 00:01
Bromodichloromethane	< 2.00	ug/L		10/29/2016 00:01
Bromoform	< 5.00	ug/L		10/29/2016 00:01
Bromomethane	< 2.00	ug/L		10/29/2016 00:01
Carbon disulfide	< 2.00	ug/L		10/29/2016 00:01
Carbon Tetrachloride	< 2.00	ug/L		10/29/2016 00:01
Chlorobenzene	< 2.00	ug/L		10/29/2016 00:01

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 164709

Client: **Lu Engineers, Inc.**

Project Reference: 40503

Sample Identifier: MW-03-102616
Lab Sample ID: 164709-02 **Date Sampled:** 10/26/2016
Matrix: Groundwater **Date Received:** 10/26/2016

Chloroethane	< 2.00	ug/L	10/29/2016	00:01
Chloroform	< 2.00	ug/L	10/29/2016	00:01
Chloromethane	< 2.00	ug/L	10/29/2016	00:01
cis-1,2-Dichloroethene	< 2.00	ug/L	10/29/2016	00:01
cis-1,3-Dichloropropene	< 2.00	ug/L	10/29/2016	00:01
Cyclohexane	< 10.0	ug/L	10/29/2016	00:01
Dibromochloromethane	< 2.00	ug/L	10/29/2016	00:01
Dichlorodifluoromethane	< 2.00	ug/L	10/29/2016	00:01
Ethylbenzene	< 2.00	ug/L	10/29/2016	00:01
Freon 113	< 2.00	ug/L	10/29/2016	00:01
Isopropylbenzene	< 2.00	ug/L	10/29/2016	00:01
m,p-Xylene	< 2.00	ug/L	10/29/2016	00:01
Methyl acetate	< 2.00	ug/L	10/29/2016	00:01
Methyl tert-butyl Ether	< 2.00	ug/L	10/29/2016	00:01
Methylcyclohexane	< 2.00	ug/L	10/29/2016	00:01
Methylene chloride	< 5.00	ug/L	10/29/2016	00:01
Naphthalene	< 5.00	ug/L	10/29/2016	00:01
n-Butylbenzene	< 2.00	ug/L	10/29/2016	00:01
n-Propylbenzene	< 2.00	ug/L	10/29/2016	00:01
o-Xylene	< 2.00	ug/L	10/29/2016	00:01
p-Isopropyltoluene	< 2.00	ug/L	10/29/2016	00:01
sec-Butylbenzene	< 2.00	ug/L	10/29/2016	00:01
Styrene	< 5.00	ug/L	10/29/2016	00:01
tert-Butylbenzene	< 2.00	ug/L	10/29/2016	00:01
Tetrachloroethene	< 2.00	ug/L	10/29/2016	00:01
Toluene	< 2.00	ug/L	10/29/2016	00:01
trans-1,2-Dichloroethene	< 2.00	ug/L	10/29/2016	00:01
trans-1,3-Dichloropropene	< 2.00	ug/L	10/29/2016	00:01
Trichloroethene	< 2.00	ug/L	10/29/2016	00:01
Trichlorofluoromethane	< 2.00	ug/L	10/29/2016	00:01
Vinyl chloride	< 2.00	ug/L	10/29/2016	00:01

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 164709

Client: **Lu Engineers, Inc.**

Project Reference: 40503

Sample Identifier: MW-03-102616
Lab Sample ID: 164709-02 **Date Sampled:** 10/26/2016
Matrix: Groundwater **Date Received:** 10/26/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**88.8**	85.8 - 116		10/29/2016	00:01
4-Bromofluorobenzene	**94.8**	80.6 - 114		10/29/2016	00:01
Pentafluorobenzene	**98.9**	89.6 - 112		10/29/2016	00:01
Toluene-D8	**98.3**	89.6 - 109		10/29/2016	00:01

Method Reference(s): EPA 8260C
EPA 5030C
Data File: x36526.D

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 164709

Client: **Lu Engineers, Inc.**

Project Reference: 40503

Sample Identifier: MW-04-102616
Lab Sample ID: 164709-03 **Date Sampled:** 10/26/2016
Matrix: Groundwater **Date Received:** 10/26/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/31/2016 13:28
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/31/2016 13:28
1,1,2-Trichloroethane	< 2.00	ug/L		10/31/2016 13:28
1,1-Dichloroethane	< 2.00	ug/L		10/31/2016 13:28
1,1-Dichloroethene	< 2.00	ug/L		10/31/2016 13:28
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/31/2016 13:28
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/31/2016 13:28
1,2,4-Trimethylbenzene	**1.41**	ug/L	J	10/31/2016 13:28
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/31/2016 13:28
1,2-Dibromoethane	< 2.00	ug/L		10/31/2016 13:28
1,2-Dichlorobenzene	< 2.00	ug/L		10/31/2016 13:28
1,2-Dichloroethane	< 2.00	ug/L		10/31/2016 13:28
1,2-Dichloropropane	< 2.00	ug/L		10/31/2016 13:28
1,3,5-Trimethylbenzene	**1.80**	ug/L	J	10/31/2016 13:28
1,3-Dichlorobenzene	< 2.00	ug/L		10/31/2016 13:28
1,4-Dichlorobenzene	< 2.00	ug/L		10/31/2016 13:28
1,4-dioxane	< 20.0	ug/L		10/31/2016 13:28
2-Butanone	< 10.0	ug/L		10/31/2016 13:28
2-Hexanone	< 5.00	ug/L		10/31/2016 13:28
4-Methyl-2-pentanone	< 5.00	ug/L		10/31/2016 13:28
Acetone	< 10.0	ug/L		10/31/2016 13:28
Benzene	**12.4**	ug/L		10/31/2016 13:28
Bromochloromethane	< 5.00	ug/L		10/31/2016 13:28
Bromodichloromethane	< 2.00	ug/L		10/31/2016 13:28
Bromoform	< 5.00	ug/L		10/31/2016 13:28
Bromomethane	< 2.00	ug/L		10/31/2016 13:28
Carbon disulfide	< 2.00	ug/L		10/31/2016 13:28
Carbon Tetrachloride	< 2.00	ug/L		10/31/2016 13:28
Chlorobenzene	< 2.00	ug/L		10/31/2016 13:28

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 164709

Client: **Lu Engineers, Inc.**

Project Reference: 40503

Sample Identifier: MW-04-102616
Lab Sample ID: 164709-03 **Date Sampled:** 10/26/2016
Matrix: Groundwater **Date Received:** 10/26/2016

Chloroethane	< 2.00	ug/L		10/31/2016	13:28
Chloroform	< 2.00	ug/L		10/31/2016	13:28
Chloromethane	< 2.00	ug/L		10/31/2016	13:28
cis-1,2-Dichloroethene	< 2.00	ug/L		10/31/2016	13:28
cis-1,3-Dichloropropene	< 2.00	ug/L		10/31/2016	13:28
Cyclohexane	**24.3**	ug/L		10/31/2016	13:28
Dibromochloromethane	< 2.00	ug/L		10/31/2016	13:28
Dichlorodifluoromethane	< 2.00	ug/L		10/31/2016	13:28
Ethylbenzene	**1.70**	ug/L	J	10/31/2016	13:28
Freon 113	< 2.00	ug/L		10/31/2016	13:28
Isopropylbenzene	**4.73**	ug/L		10/31/2016	13:28
m,p-Xylene	**1.91**	ug/L	J	10/31/2016	13:28
Methyl acetate	< 2.00	ug/L		10/31/2016	13:28
Methyl tert-butyl Ether	< 2.00	ug/L		10/31/2016	13:28
Methylcyclohexane	**23.4**	ug/L		10/31/2016	13:28
Methylene chloride	< 5.00	ug/L		10/31/2016	13:28
Naphthalene	< 5.00	ug/L		10/31/2016	13:28
n-Butylbenzene	< 2.00	ug/L		10/31/2016	13:28
n-Propylbenzene	**4.23**	ug/L		10/31/2016	13:28
o-Xylene	< 2.00	ug/L		10/31/2016	13:28
p-Isopropyltoluene	**1.10**	ug/L	J	10/31/2016	13:28
sec-Butylbenzene	**5.05**	ug/L		10/31/2016	13:28
Styrene	< 5.00	ug/L		10/31/2016	13:28
tert-Butylbenzene	**1.39**	ug/L	J	10/31/2016	13:28
Tetrachloroethene	< 2.00	ug/L		10/31/2016	13:28
Toluene	< 2.00	ug/L		10/31/2016	13:28
trans-1,2-Dichloroethene	< 2.00	ug/L		10/31/2016	13:28
trans-1,3-Dichloropropene	< 2.00	ug/L		10/31/2016	13:28
Trichloroethene	< 2.00	ug/L		10/31/2016	13:28
Trichlorofluoromethane	< 2.00	ug/L		10/31/2016	13:28
Vinyl chloride	< 2.00	ug/L		10/31/2016	13:28

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 164709

Client: **Lu Engineers, Inc.**

Project Reference: 40503

Sample Identifier: MW-04-102616
Lab Sample ID: 164709-03 **Date Sampled:** 10/26/2016
Matrix: Groundwater **Date Received:** 10/26/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**87.5**	85.8 - 116		10/31/2016 13:28
4-Bromofluorobenzene	**98.0**	80.6 - 114		10/31/2016 13:28
Pentafluorobenzene	**101**	89.6 - 112		10/31/2016 13:28
Toluene-D8	**102**	89.6 - 109		10/31/2016 13:28

Method Reference(s): EPA 8260C
EPA 5030C
Data File: x36536.D

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Method Blank Report

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	<2.00	ug/L		10/28/2016	14:31
1,1,2,2-Tetrachloroethane	<2.00	ug/L		10/28/2016	14:31
1,1,2-Trichloroethane	<2.00	ug/L		10/28/2016	14:31
1,1-Dichloroethane	<2.00	ug/L		10/28/2016	14:31
1,1-Dichloroethene	<2.00	ug/L		10/28/2016	14:31
1,2,3-Trichlorobenzene	<5.00	ug/L		10/28/2016	14:31
1,2,4-Trichlorobenzene	<5.00	ug/L		10/28/2016	14:31
1,2,4-Trimethylbenzene	<2.00	ug/L		10/28/2016	14:31
1,2-Dibromo-3-Chloropropane	<10.0	ug/L		10/28/2016	14:31
1,2-Dibromoethane	<2.00	ug/L		10/28/2016	14:31
1,2-Dichlorobenzene	<2.00	ug/L		10/28/2016	14:31
1,2-Dichloroethane	<2.00	ug/L		10/28/2016	14:31
1,2-Dichloropropane	<2.00	ug/L		10/28/2016	14:31
1,3,5-Trimethylbenzene	<2.00	ug/L		10/28/2016	14:31
1,3-Dichlorobenzene	<2.00	ug/L		10/28/2016	14:31
1,4-Dichlorobenzene	<2.00	ug/L		10/28/2016	14:31
1,4-dioxane	<20.0	ug/L		10/28/2016	14:31
2-Butanone	<10.0	ug/L		10/28/2016	14:31
2-Hexanone	<5.00	ug/L		10/28/2016	14:31
4-Methyl-2-pentanone	<5.00	ug/L		10/28/2016	14:31
Acetone	<10.0	ug/L		10/28/2016	14:31
Benzene	<1.00	ug/L		10/28/2016	14:31
Bromochloromethane	<5.00	ug/L		10/28/2016	14:31
Bromodichloromethane	<2.00	ug/L		10/28/2016	14:31
Bromoform	<5.00	ug/L		10/28/2016	14:31
Bromomethane	<2.00	ug/L		10/28/2016	14:31
Carbon disulfide	<2.00	ug/L		10/28/2016	14:31
Carbon Tetrachloride	<2.00	ug/L		10/28/2016	14:31

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Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Method Blank Report

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
Chlorobenzene	<2.00	ug/L		10/28/2016	14:31
Chloroethane	<2.00	ug/L		10/28/2016	14:31
Chloroform	<2.00	ug/L		10/28/2016	14:31
Chloromethane	<2.00	ug/L		10/28/2016	14:31
cis-1,2-Dichloroethene	<2.00	ug/L		10/28/2016	14:31
cis-1,3-Dichloropropene	<2.00	ug/L		10/28/2016	14:31
Cyclohexane	<10.0	ug/L		10/28/2016	14:31
Dibromochloromethane	<2.00	ug/L		10/28/2016	14:31
Dichlorodifluoromethane	<2.00	ug/L		10/28/2016	14:31
Ethylbenzene	<2.00	ug/L		10/28/2016	14:31
Freon 113	<2.00	ug/L		10/28/2016	14:31
Isopropylbenzene	<2.00	ug/L		10/28/2016	14:31
m,p-Xylene	<2.00	ug/L		10/28/2016	14:31
Methyl acetate	<2.00	ug/L		10/28/2016	14:31
Methyl tert-butyl Ether	<2.00	ug/L		10/28/2016	14:31
Methylcyclohexane	<2.00	ug/L		10/28/2016	14:31
Methylene chloride	<5.00	ug/L		10/28/2016	14:31
Naphthalene	<5.00	ug/L		10/28/2016	14:31
n-Butylbenzene	<2.00	ug/L		10/28/2016	14:31
n-Propylbenzene	<2.00	ug/L		10/28/2016	14:31
o-Xylene	<2.00	ug/L		10/28/2016	14:31
p-Isopropyltoluene	<2.00	ug/L		10/28/2016	14:31
sec-Butylbenzene	<2.00	ug/L		10/28/2016	14:31
Styrene	<5.00	ug/L		10/28/2016	14:31
tert-Butylbenzene	<2.00	ug/L		10/28/2016	14:31
Tetrachloroethene	<2.00	ug/L		10/28/2016	14:31
Toluene	<2.00	ug/L		10/28/2016	14:31
trans-1,2-Dichloroethene	<2.00	ug/L		10/28/2016	14:31

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Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Method Blank Report

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
trans-1,3-Dichloropropene	<2.00	ug/L		10/28/2016 14:31
Trichloroethene	<2.00	ug/L		10/28/2016 14:31
Trichlorofluoromethane	<2.00	ug/L		10/28/2016 14:31
Vinyl chloride	<2.00	ug/L		10/28/2016 14:31

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**89.1**	85.8 - 116		10/28/2016 14:31
4-Bromofluorobenzene	**93.0**	80.6 - 114		10/28/2016 14:31
Pentafluorobenzene	**101**	89.6 - 112		10/28/2016 14:31
Toluene-D8	**98.2**	89.6 - 109		10/28/2016 14:31

Method Reference(s): EPA 8260C
EPA 5030C
Data File: x36502.D
QC Batch ID: voaw102816
QC Number: 1

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Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,1,1-Trichloroethane	20.0	ug/L	17.4	87.2	83.2 - 117		10/28/2016
1,1,2,2-Tetrachloroethane	20.0	ug/L	20.1	100	78.4 - 121		10/28/2016
1,1,2-Trichloroethane	20.0	ug/L	18.5	92.5	80.8 - 114		10/28/2016
1,1-Dichloroethane	20.0	ug/L	18.5	92.7	82.8 - 112		10/28/2016
1,1-Dichloroethene	20.0	ug/L	19.0	95.2	82.7 - 120		10/28/2016
1,2-Dichlorobenzene	20.0	ug/L	20.1	101	80.5 - 117		10/28/2016
1,2-Dichloroethane	20.0	ug/L	17.5	87.4	83.5 - 119		10/28/2016
1,2-Dichloropropane	20.0	ug/L	19.3	96.6	81 - 112		10/28/2016
1,3-Dichlorobenzene	20.0	ug/L	19.3	96.3	78 - 112		10/28/2016
1,4-Dichlorobenzene	20.0	ug/L	18.8	94.0	77.8 - 110		10/28/2016
Benzene	20.0	ug/L	20.7	103	89.1 - 116		10/28/2016
Bromodichloromethane	20.0	ug/L	18.4	91.9	82.4 - 117		10/28/2016
Bromoform	20.0	ug/L	16.9	84.3	62.3 - 105		10/28/2016
Bromomethane	20.0	ug/L	20.7	104	67.9 - 155		10/28/2016
Carbon Tetrachloride	20.0	ug/L	17.1	85.6	78.7 - 122		10/28/2016
Chlorobenzene	20.0	ug/L	19.8	99.1	83.5 - 113		10/28/2016

Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chloroethane	20.0	ug/L	21.0	105	80.4 - 136		10/28/2016
Chloroform	20.0	ug/L	19.3	96.4	89.2 - 119		10/28/2016
Chloromethane	20.0	ug/L	17.5	87.5	63.8 - 132		10/28/2016
cis-1,3-Dichloropropene	20.0	ug/L	21.0	105	77.5 - 118		10/28/2016
Dibromochloromethane	20.0	ug/L	18.0	90.2	76.1 - 114		10/28/2016
Ethylbenzene	20.0	ug/L	20.0	99.9	83 - 115		10/28/2016
Methylene chloride	20.0	ug/L	19.5	97.6	76.7 - 127		10/28/2016
Tetrachloroethene	20.0	ug/L	17.8	88.8	84.2 - 119		10/28/2016
Toluene	20.0	ug/L	19.9	99.3	84.5 - 116		10/28/2016
trans-1,2-Dichloroethene	20.0	ug/L	19.1	95.7	70.6 - 135		10/28/2016
trans-1,3-Dichloropropene	20.0	ug/L	19.7	98.6	75.7 - 113		10/28/2016
Trichloroethene	20.0	ug/L	19.2	96.0	86.1 - 115		10/28/2016
Trichlorofluoromethane	20.0	ug/L	17.6	87.8	76.7 - 129		10/28/2016
Vinyl chloride	20.0	ug/L	20.5	103	73.7 - 129		10/28/2016

Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Method Reference(s):	EPA 8260C EPA 5030C						
Data File:	x36501.D						
QC Number:	1						
QC Batch ID:	voaw102816						

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Method Blank Report

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	<2.00	ug/L		10/31/2016	13:04
1,1,2,2-Tetrachloroethane	<2.00	ug/L		10/31/2016	13:04
1,1,2-Trichloroethane	<2.00	ug/L		10/31/2016	13:04
1,1-Dichloroethane	<2.00	ug/L		10/31/2016	13:04
1,1-Dichloroethene	<2.00	ug/L		10/31/2016	13:04
1,2,3-Trichlorobenzene	<5.00	ug/L		10/31/2016	13:04
1,2,4-Trichlorobenzene	<5.00	ug/L		10/31/2016	13:04
1,2,4-Trimethylbenzene	<2.00	ug/L		10/31/2016	13:04
1,2-Dibromo-3-Chloropropane	<10.0	ug/L		10/31/2016	13:04
1,2-Dibromoethane	<2.00	ug/L		10/31/2016	13:04
1,2-Dichlorobenzene	<2.00	ug/L		10/31/2016	13:04
1,2-Dichloroethane	<2.00	ug/L		10/31/2016	13:04
1,2-Dichloropropane	<2.00	ug/L		10/31/2016	13:04
1,3,5-Trimethylbenzene	<2.00	ug/L		10/31/2016	13:04
1,3-Dichlorobenzene	<2.00	ug/L		10/31/2016	13:04
1,4-Dichlorobenzene	<2.00	ug/L		10/31/2016	13:04
1,4-dioxane	<20.0	ug/L		10/31/2016	13:04
2-Butanone	<10.0	ug/L		10/31/2016	13:04
2-Hexanone	<5.00	ug/L		10/31/2016	13:04
4-Methyl-2-pentanone	<5.00	ug/L		10/31/2016	13:04
Acetone	<10.0	ug/L		10/31/2016	13:04
Benzene	<1.00	ug/L		10/31/2016	13:04
Bromochloromethane	<5.00	ug/L		10/31/2016	13:04
Bromodichloromethane	<2.00	ug/L		10/31/2016	13:04
Bromoform	<5.00	ug/L		10/31/2016	13:04
Bromomethane	<2.00	ug/L		10/31/2016	13:04
Carbon disulfide	<2.00	ug/L		10/31/2016	13:04
Carbon Tetrachloride	<2.00	ug/L		10/31/2016	13:04

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Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Method Blank Report

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
Chlorobenzene	<2.00	ug/L		10/31/2016	13:04
Chloroethane	<2.00	ug/L		10/31/2016	13:04
Chloroform	<2.00	ug/L		10/31/2016	13:04
Chloromethane	<2.00	ug/L		10/31/2016	13:04
cis-1,2-Dichloroethene	<2.00	ug/L		10/31/2016	13:04
cis-1,3-Dichloropropene	<2.00	ug/L		10/31/2016	13:04
Cyclohexane	<10.0	ug/L		10/31/2016	13:04
Dibromochloromethane	<2.00	ug/L		10/31/2016	13:04
Dichlorodifluoromethane	<2.00	ug/L		10/31/2016	13:04
Ethylbenzene	<2.00	ug/L		10/31/2016	13:04
Freon 113	<2.00	ug/L		10/31/2016	13:04
Isopropylbenzene	<2.00	ug/L		10/31/2016	13:04
m,p-Xylene	<2.00	ug/L		10/31/2016	13:04
Methyl acetate	<2.00	ug/L		10/31/2016	13:04
Methyl tert-butyl Ether	<2.00	ug/L		10/31/2016	13:04
Methylcyclohexane	<2.00	ug/L		10/31/2016	13:04
Methylene chloride	<5.00	ug/L		10/31/2016	13:04
Naphthalene	<5.00	ug/L		10/31/2016	13:04
n-Butylbenzene	<2.00	ug/L		10/31/2016	13:04
n-Propylbenzene	<2.00	ug/L		10/31/2016	13:04
o-Xylene	<2.00	ug/L		10/31/2016	13:04
p-Isopropyltoluene	<2.00	ug/L		10/31/2016	13:04
sec-Butylbenzene	<2.00	ug/L		10/31/2016	13:04
Styrene	<5.00	ug/L		10/31/2016	13:04
tert-Butylbenzene	<2.00	ug/L		10/31/2016	13:04
Tetrachloroethene	<2.00	ug/L		10/31/2016	13:04
Toluene	<2.00	ug/L		10/31/2016	13:04
trans-1,2-Dichloroethene	<2.00	ug/L		10/31/2016	13:04

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Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Method Blank Report

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
trans-1,3-Dichloropropene	<2.00	ug/L		10/31/2016 13:04
Trichloroethene	<2.00	ug/L		10/31/2016 13:04
Trichlorofluoromethane	<2.00	ug/L		10/31/2016 13:04
Vinyl chloride	<2.00	ug/L		10/31/2016 13:04

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**91.5**	85.8 - 116		10/31/2016 13:04
4-Bromofluorobenzene	**93.0**	80.6 - 114		10/31/2016 13:04
Pentafluorobenzene	**97.2**	89.6 - 112		10/31/2016 13:04
Toluene-D8	**96.0**	89.6 - 109		10/31/2016 13:04

Method Reference(s): EPA 8260C
EPA 5030C
Data File: x36535.D
QC Batch ID: voaw103116
QC Number: 1

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,1,1-Trichloroethane	20.0	ug/L	18.7	93.6	83.2 - 117		10/31/2016
1,1,2,2-Tetrachloroethane	20.0	ug/L	20.4	102	78.4 - 121		10/31/2016
1,1,2-Trichloroethane	20.0	ug/L	18.9	94.5	80.8 - 114		10/31/2016
1,1-Dichloroethane	20.0	ug/L	18.7	93.7	82.8 - 112		10/31/2016
1,1-Dichloroethene	20.0	ug/L	20.0	100	82.7 - 120		10/31/2016
1,2-Dichlorobenzene	20.0	ug/L	20.8	104	80.5 - 117		10/31/2016
1,2-Dichloroethane	20.0	ug/L	17.3	86.6	83.5 - 119		10/31/2016
1,2-Dichloropropane	20.0	ug/L	19.8	98.9	81 - 112		10/31/2016
1,3-Dichlorobenzene	20.0	ug/L	19.9	99.5	78 - 112		10/31/2016
1,4-Dichlorobenzene	20.0	ug/L	19.6	98.1	77.8 - 110		10/31/2016
Benzene	20.0	ug/L	21.1	106	89.1 - 116		10/31/2016
Bromodichloromethane	20.0	ug/L	18.3	91.5	82.4 - 117		10/31/2016
Bromoform	20.0	ug/L	16.7	83.5	62.3 - 105		10/31/2016
Bromomethane	20.0	ug/L	21.0	105	67.9 - 155		10/31/2016
Carbon Tetrachloride	20.0	ug/L	17.7	88.6	78.7 - 122		10/31/2016
Chlorobenzene	20.0	ug/L	20.4	102	83.5 - 113		10/31/2016

Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chloroethane	20.0	ug/L	21.2	106	80.4 - 136		10/31/2016
Chloroform	20.0	ug/L	19.7	98.5	89.2 - 119		10/31/2016
Chloromethane	20.0	ug/L	17.6	88.0	63.8 - 132		10/31/2016
cis-1,3-Dichloropropene	20.0	ug/L	21.6	108	77.5 - 118		10/31/2016
Dibromochloromethane	20.0	ug/L	17.9	89.5	76.1 - 114		10/31/2016
Ethylbenzene	20.0	ug/L	20.5	103	83 - 115		10/31/2016
Methylene chloride	20.0	ug/L	20.7	103	76.7 - 127		10/31/2016
Tetrachloroethene	20.0	ug/L	17.8	88.9	84.2 - 119		10/31/2016
Toluene	20.0	ug/L	20.6	103	84.5 - 116		10/31/2016
trans-1,2-Dichloroethene	20.0	ug/L	20.6	103	70.6 - 135		10/31/2016
trans-1,3-Dichloropropene	20.0	ug/L	19.8	98.9	75.7 - 113		10/31/2016
Trichloroethene	20.0	ug/L	20.2	101	86.1 - 115		10/31/2016
Trichlorofluoromethane	20.0	ug/L	19.0	94.8	76.7 - 129		10/31/2016
Vinyl chloride	20.0	ug/L	21.6	108	73.7 - 129		10/31/2016

Report Prepared Tuesday, November 01, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Lu Engineers, Inc.
Project Reference: 40503
Lab Project ID: 164709
SDG #: 4709-01
Matrix: Groundwater

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Method Reference(s):	EPA 8260C EPA 5030C						
Data File:	x36542a.D						
QC Number:	1						
QC Batch ID:	voaw103116						

Report Prepared Tuesday, November 01, 2016

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT: LU Engineers		CLIENT:		LAB PROJECT ID: 164709
ADDRESS: 339 East Ave		ADDRESS: Same		
CITY: Rochester STATE: NY ZIP: 14604		CITY: STATE: ZIP:		Quotation #:
PHONE: 585 385 7411		PHONE:		Email: gregandrus@LUEngineers.com
ATTN: Greg Andrus		ATTN:		

PROJECT REFERENCE: 40503

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	8260 + STARS									REMARKS	PARADIGM LAB SAMPLE NUMBER
10/26/16	1400		X	MW-01-102616	WG	2	X										01
10/26/16	1050		X	MW-03-102616	WG	2	X										02
10/26/16	1315		X	MW-04-102616	WG	2	X										03

Turnaround Time		Report Supplements		
Availability contingent upon lab approval; additional fees may apply.				
Standard 5 day	X	None Required		None Required
10 day		Batch QC		Basic EDD
Rush 3 day		Category A	X	NYSDEC EDD
Rush 2 day		Category B		
Rush 1 day				
Other please indicate date needed:		Other please indicate package needed:		Other EDD please indicate EDD needed :

Sampled By: Cory Bor — Date/Time: 10/26/16 1500

Relinquished By: [signature] — Date/Time: 10/26/16 1505

Received By: James J Dalleri — Date/Time: 10/26/16 1505

Received @ Lab By: [signature] — Date/Time: 10/26/16 15:31

Total Cost:

P.I.F.

5°C iced 10/26/16 15:25

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

Custody Seal N/A, samples delivered by client GP 10/26/16

See additional page for sample conditions.

Chain of Custody Supplement

Client: Lu Engineers **Completed by:** Glenn Pezzulo

Lab Project ID: 164709 **Date:** 10/26/16

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X		
Comments			
Preservation	X		
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		
Comments	5°C iced 10/26/16 15:25		
Sufficient Sample Quantity	X		
Comments			

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

11/15/2016

Paul Kimball
Supervisor
Town of Clarkson
3710 Lake Road
PO Box 858
Clarkson, NY 14430

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Former Service Station
Site No.: E828143
Site Address: 8264 Ridge Road
Clarkson, NY 14430

Dear Paul Kimball:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **December 21, 2016**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Danielle Miles, Project Manager, at the following address:

New York State Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, NY 14414

Phone number: 585-295-5349. E-mail: danielle.miles@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures
Danielle Miles, Project Manager
Bernette Schilling, Hazardous Waste Remediation Engineer, Region 8

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **E828143**

Site Name Former Service Station

Site Address: 8264 Ridge Road Zip Code: 14430
City/Town: Clarkson
County: Monroe
Site Acreage: 0.71

Reporting Period: November 21, 2015 to November 21, 2016

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative _____ Date _____

SITE NO. E828143

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
054.14-1-21	Town of Clarkson	Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
054.14-1-21	Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. E828143

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gregory L. Andrus at 200 East Ave Suite 200 Rochester NY 14604,
print name print business address

am certifying as Designated Representative of Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

12/7/16
Date

IC/EC CERTIFICATIONS

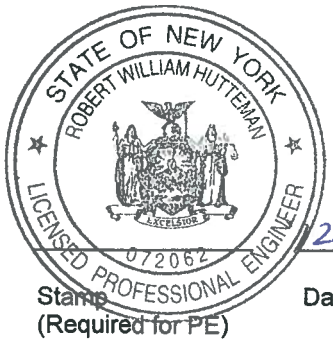
Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Robert Hutteman at 339 East Ave. Rochester, NY 14604
print name print business address

am certifying as a Professional Engineer for the TOWN OF CLARKSON
(Owner or Remedial Party)



Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

2-16-16
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as

designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Appendix E – Photo Log

Site Photographs
Site

Property facing south

Property facing east

Property facing southeast

Property facing northeast

Creek bed facing north

Creek bed facing south