

**Periodic Review Report (PRR)  
January 1 – December 31, 2014**

*North Lawrence Oil Dump  
McAuslen Road  
North Lawrence  
St. Lawrence County, New York 12967  
Site ID # 645013  
Work Assignment # D006130-21*

**Prepared for:**

New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway  
Albany, New York 12233



**Prepared by:**

HRP Engineering, P.C.  
1 Fairchild Square Suite 110  
Clifton Park, New York 12065  
518.877.7101

**Submitted: February 20, 2015**

## Table of Contents

EXECUTIVE SUMMARY .....	1
1. INTRODUCTION .....	2
2.0 SITE OVERVIEW.....	2
2.1 Site Description.....	3
2.2 Site History .....	3
2.2.1 Previous Investigations .....	4
2.2.2 Record of Decision .....	5
2.2.3 Disposal Cell Closure Activities.....	5
3.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS .....	7
3.1 Remedial Action Objectives.....	7
3.2 Institutional and Engineering Control Plan Compliance.....	7
3.2.1 Description of Institutional Control .....	7
3.2.2 Description of Engineering Control.....	7
3.2.3 Institutional and Engineering Control Plan Compliance Status .....	8
3.3 Soil Management Plan Compliance .....	8
3.3.1 Excavation Work Plan .....	9
3.3.2 Description of Groundwater Use On-Site.....	9
3.4 Site Monitoring Plan Compliance .....	9
3.4.1 Description of Site Activities & Inspections .....	9
3.4.1.1 Disposal Cell Monitoring.....	9
3.4.1.2 Groundwater Well Decommissioning.....	10
3.4.2 Performance and Effectiveness Monitoring.....	10
3.4.2.1 Leachate Sampling and Analysis .....	10
3.4.2.2 Tracking of Leachate Removal and Disposal .....	10
3.4.2.3 Water Level Monitoring.....	10
3.4.2.4 Groundwater Sampling and Analysis.....	11
3.4.2.5 Surface Water Sampling and Analysis.....	12
3.5 Summary of Groundwater Monitoring .....	11
4.0 COST EVALUATION .....	13
5.0 FINDINGS.....	13
5.1 Findings.....	13
6.0 CONCLUSIONS AND RECOMMENDATIONS .....	13
6.1 Conclusions .....	13
6.2 Recommendations .....	14

## **Table of Contents (Continued)**

### **REFERENCES:**

#### **List of Figure**

Figure 1- Site Location Map

Figure 1A – Aerial View

#### **List of Appendices**

Appendix A - Metes and Bounds, Environmental Notice, Declaration of Covenants and Restrictions

Appendix B – Engineering Controls – Standby Consultant Certification Form

Appendix C- Post-Closure Site Inspection Checklist and Photo Logs

Appendix D- Field Forms

Appendix E - Analytical Results

**Periodic Review Report (PRR)**  
**January 1- December 31, 2014**  
North Lawrence Oil Dump (Site ID #645013)  
*McAuslen Road*  
*North Lawrence, St. Lawrence County, New York 12967*

Report Submittal Date: February 20, 2015  
Prepared by: Jen Kotch

HRP Engineering, P.C.  
1 Fairchild Square, Suite 110  
Clifton Park, New York 12065  
Phone: (518) 877-7101 / Fax: (518) 877-8561

Project Address: McAuslen Road, North Lawrence, New York

*I (we) certify that regarding the above referenced project and/or environmental assessment work:*

**Certification**

For each institutional control identified for the site, I certify that all of the following statements are true;

- (a) the institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by DER;
- (b) nothing has occurred that would impair the ability of such a control to protect public health and the environment;
- (c) nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control; and
- (d) access to the site will continue to be provided to DER to evaluate the remedy, including access to evaluate the continued maintenance of this control.

Environmental Contractor: HRP Engineering, P.C.

By: 

Nancy Garry, P.E



## **EXECUTIVE SUMMARY**

An inspection of the engineering controls (ECs)(i. e. fence and cap) and review of the institutional controls (ICs) were conducted on January 6, 2014 and July 9, 2014, by a qualified environmental professional experienced in landfill inspection, at the North Lawrence Oil Dump Site (Site) located at McAuslen Road, North Lawrence, St. Lawrence County, New York.

The site ECs and ICs are in compliance with the requirements stated in the Site Management Plan (SMP).

The Site's institutional controls as specified in the 1993 ROD were fully implemented in 2013. A deed restriction on parcel 36.0003-4-11 was filed with the St. Lawrence County Clerk in 2012, and was recorded on March 1, 2013. On August 8, 2013, instead of an environmental deed restriction, an environmental notice was filed with the St. Lawrence County Clerk by the NYSDEC for the second parcel, 36.0003-4-10, and it was recorded on September 9, 2013. These documents can be found in Appendix B.

Groundwater monitoring at five monitoring well (5) locations was conducted on January 6, 2014. A trip blank sample was included for analysis. No monitoring deficiencies were noted. Analytical results for volatile organic compounds (VOCs) were found at levels meeting groundwater quality standards, with the exception of cis-1,2-Dichloroethene in monitoring well MW-301. The assumed general flow direction in the area of the Site remains to the south.

Site inspections were completed on January 6, 2014 and July 9, 2014. The disposal cell appears intact and is maintaining at least a 2-foot separation between the high seasonal groundwater and the bottom of the disposal cell. The Long-Term Monitoring Plan (LTMP) is being implemented to conduct monitoring of the site in accordance with the SMP and the Record of Decision (ROD). No operations, monitoring and maintenance (OM&M) deficiencies were reported during the reporting period. Historic analysis of organic and inorganic natural attenuation parameter data suggests that both biodegradation and a biotic degradation of parent VOCs are occurring at the Site. Analytical data collected during the previous monitoring event supports the natural attenuation conclusions and the analytical results from the site show a stable, decreasing trend.

## **1. INTRODUCTION**

This Periodic Review Report (PRR) has been prepared to evaluate the overall effectiveness of the remedies chosen, and their implementation at the North Lawrence Oil Dump (hereinafter referred to as the "Site" or NLOD). HRP Engineering P.C. (HRP) services the New York State Department of Environmental Conservation (NYSDEC) under Work Assignment D006130-21 (WA D06130-21) of the Engineering Services Standby Contract. This document is required as an element of the remedial program at the Site located at McAuslen Road, North Lawrence, St. Lawrence County, New York, under the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program administered by NYSDEC. The Site was remediated in accordance with the signed ROD, Site # 645013, which was executed on March 1993. This report is intended to meet the requirements of the Site's OM&M Plan and SMP (HRP Engineering, P.C. – February 24, 2012) as defined in Regulation 6 NYCRR 375-1.2 and in accordance with Technical Guidance for Site Investigation and Remediation (DER-10), dated May 2010.

Disposal cell monitoring was completed at the Site on January 6, 2014 and July 9, 2014 (the landfill gas monitoring was completed on July 31, 2014) in accordance with the Site's OM&M Plan to evaluate current groundwater and site conditions. Soil and groundwater cleanup criteria have been established for the site based on site conditions, NYSDEC 6 NYCRR Part 375 (December 2006), and NYSDEC Technical and Operational Guidance Series (TOGS) Ambient Water Quality Standards and Guidance Values, October 1993. Groundwater sampling is performed every five quarters (15 months) to monitor the effects of the remedy on groundwater contamination. The last groundwater monitoring events occurred in November 2012 and January 2014, and the next event will occur in April 2015.

As of approximately March 2014, a new NYSDEC project manager, Ms. Debbie Gardell, was assigned to the Site. The NYSDEC and HRP had a meeting in approximately April 2014 to discuss the Site.

## **2.0 SITE OVERVIEW**

The Site is an inactive hazardous waste disposal site which consists primarily of a disposal cell (cell). The 2± acre Site is a former non-regulated municipal dump and gravel pit. The Site is approximately 390 feet above sea level, with the higher terrain south of the Site. The former lagoon area, located south of the disposal cell, was approximately 600-feet long and 75-feet wide and is immediately adjacent to a NYSDEC regulated 150-acre wetlands. The Site occupies portions of two private properties, while the access road to the Site also exists on land owned by the Town of Lawrence.

The NLOD reportedly was operated as a gravel pit before the disposal of waste oil. The excavation operation apparently shaped the Site into a depression with a mounded perimeter. During the middle to late 1960s, the NLOD apparently was used for the disposal of waste oil and oil sludge. Evidence of oil deposits were observed on low laying areas of the perimeter berm at the southwestern end and on vegetation in adjacent wetland areas suggests the dump was

operated as a lagoon. During periods of high water, free-floating oil escaped from the topographically low areas. Contaminants of concern detected in lagoon sludge and soil included PCBs, various VOCs, semi-volatile organic compounds (SVOCs), and lead.

Generally, due to historic operations at the Site the sampling conducted during the first, second, and third phases of the remedial investigation (RI) at the Site revealed the presence of contaminants in the soil, groundwater, lagoon sludge, and lagoon surface water. Contaminants of concern detected in lagoon sludge and soil include polychlorinated biphenyl (PCBs), various VOCs, SVOCs, and lead. Historically, groundwater contamination showed that migration of contaminants through groundwater is limited to the immediate lagoon area.

## **2.1 Site Description**

The Site is located off of McAuslen Road and Cemetary Road in the Town of North Lawrence, St. Lawrence County, New York and is identified on the North Lawrence Tax Maps on two parcels 36.003 and 36.004. The Site is an approximately 2-acre area bound by woodlands and wetlands to the east, south and west, and McAuslen Road to the north (see Figure 1). The boundaries of the Site are more fully described in Appendix A - Metes and Bounds.

Topography is generally flat, sloping downward to the north and northwest with an approximate 1 percent grade. Wetlands occupy much of the surrounding landscape to the south and southeast. Drainage from the Site is directly southwest by surface topography and enters a NYSDEC regulated 150-acre wetland south of the Site. Drainage is then directed northward via tributaries of Redwater Brook, which discharges to Deer River approximately 5 miles downstream of the Site. Groundwater is the primary source of drinking water in the area.

The Site remains unimproved with structures. A gated and locked, unpaved access road, oriented in a north-south direction, approximately 0.25 miles long exists connecting the Site to McAuslen Road. The area south of the disposal area, abutting the wetland area is maintained by the adjacent property owners. The surrounding area is undeveloped and characterized by stands of spruce, white pine, and mixed hardwoods. Two (2) houses are located approximately 0.8 and one-mile from the Site, respectively. The only known human uses of the site are hunting or infrequent trespassing.

## **2.2 Site History**

In 1980, oil stains on vegetation 18-inches above the water in the southeastern end of the lagoon were observed by NYSDEC personnel and, upon analysis, elevated concentrations of polychlorinated biphenyls (PCBs) were detected in the lagoon sediment samples. Since 1980, numerous inspections of the Site have occurred. A New York State Superfund Phase 1 Study for the Site was completed in August 1985. The NYSDEC contracted E. C. Jordan Co. in October 1988 to complete a Phased Remedial Investigation and Feasibility Study (RI/FS)

to determine the extent of Site contamination and to recommend an appropriate remedial action. The first and second RI/FS, generated in 1989 and 1991 respectively, included a geophysical investigation, installation of eight (8) piezometers (five [5] shallow and three [3] deep) and the installation of 16 overburden monitoring wells (five [5] paired wells and six [6] single shallow wells), completion of 41 test borings in the lagoon, air monitoring, in-situ hydraulic conductivity testing in the 16 monitoring wells, collection of air, groundwater, surface water, surface and subsurface soils sediment, and biota tissue samples for laboratory analysis.

The Final Remedial Investigation and Feasibility Study (RI/FS) Reports were submitted in March 1993. The remedial investigation confirmed extensive contamination, primarily with PCBs and lead, in the lagoon and wetlands. Based on the Feasibility Study, a ROD was issued in March 1993, which required on-site excavation of the lagoon and the adjacent impacted wetland areas and solidification/stabilization of the contaminants.

Between 1996 and 1997, excavation of the top 2 to 4 feet of soils in the lagoon contaminated with oil, PCBs, lead and volatile organic chemicals, and 12" of sediment from selected areas of the adjacent wetland contaminated with PCBs, mercury and lead occurred. Approximately 7,400 cubic yards of contaminated soil and sediment were excavated, solidified, and placed in the on-site disposal cell under an impermeable cap. The approximate 2 acre disposal cell was constructed to maintain at least 2 to 3 feet separation between the high seasonal groundwater elevation and the bottom of the disposal cell. Remediation activities were completed in 1997 and the Site was reclassified by the NYSDEC from a class 2 to a class 4 in 1998.

Additionally, twenty (20) groundwater monitoring wells (PZ-1, PZ-4 through PZ-8, MW-103, MW-104A, MW-104B, MW-105A, MW-105B, MW-106, MW-107A, MW-107B, and MW-203) were properly decommissioned (as per Monitoring Plan), in accordance with the NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures" - DER CP-43. Well abandonment was performed on November 12 and December 14, 2012.

### **2.2.1 Previous Investigations**

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the Site. The results of the RI are described in detail in the following reports:

- Record of Decision - 1993;
- North Lawrence Oil Dump Site, Final Feasibility Study - March 1993, by EC Jordon Company;
- North Lawrence Oil Dump Site, Baseline Ecological and Public Health Risk Assessment - March 1993, by EC Jordon Company;
- Stabilization Treatability Study for NLOD sediment materials - 1992, by EC Jordon Company;
- Plan of Operations prepared by IEM Sealand dated August 1996;

- Construction Management Work Plan prepared by ABB Environmental services dated July 1996;
- NYSDEC Fact Sheet, December 1997, Remedial Work Completed; and
- Long Term Monitoring Plan (LTMP) prepared by Harding Lawson Associates dated August 1998.

The Baseline Ecological Risk Assessment, approved by NYSDEC in 1990, determined that lagoon sludge and soil would need to be remediated for PCB contamination. Since many contaminants within the lagoon are physically contaminated with PCBs, it was determined that removal or treatment of PCB-contaminated lagoon materials would address the cleanup of remaining contaminants in the lagoon.

The Long Term Monitoring Plan (LTMP), dated August 1998, identified tasks to monitor the long-term effectiveness of the remedial actions at the NLOD. Long-term monitoring of this site is assumed to extended for 30 years, or until 2028, and is to be conducted in accordance with the requirements of the SMP. The LTMP describes: (1) procedures, including visual inspection activities; the collection of groundwater samples; required analytical parameters and laboratory methods; the reporting requirements to be followed to monitor the long-term effectiveness of the remedial action; and (2) maintenance activities and corrective measures to be undertaken should monitoring data indicate they are necessary.

### **2.2.2 Record of Decision**

Based on the RI/FS Reports completed for the site in 1993, the NYSDEC issued a ROD that required site remediation. Requirements listed in the Record of Decision (ROD) can be found in Section 1.4 (Summary of Remedial Actions) in the SMP.

As per the SMP, a PRR will be submitted to the NYSDEC every twelve (12) months. The report will be submitted in accordance with the NYSDEC DER-10 and will be submitted within 45 days of the end of each certification period.

### **2.2.3 Disposal Cell Closure Activities**

Disposal cell closure activities include: cover maintenance, erosion control, settlement and subsidence control maintenance, maintenance of gas vents, and post closure monitoring.

The vegetative cover on the disposal cell and abutting areas, as well as the area around the access gate for the disposal cell and the main gate will be mowed at least once a year in late summer or fall to prevent the growth of deep rooted, woody species, and to encourage the development of good grass growth.

Erosion of the cover system, identified during Site inspections, shall be repaired as needed in a manner that provides a long-term solution to such damage. The activities

required to repair erosive damage to the cover system will depend on the extent of erosion into the cover.

The grades and slopes of the disposal cell are expected to be sufficient to provide positive drainage slopes even after the anticipated subsidence. Should excessive post-closure settlement or damage to the cap as a result of settlement be identified during Site inspections, repair of the cap will be implemented as necessary to confirm that the cover system layers remain continuous, that a positive slope is maintained, and that ponding does not occur. Subsidence will typically occur gradually. Therefore, on April 28, 2014 the NYSDEC project manager changed the inspection frequency to a semi-annual inspection schedule, which will be sufficient to identify settlement problems.

As part of the quarterly Post-Closure Site Inspection Checklist, explosive gas sampling will be performed every six months, concurrent with the disposal cell inspection or the groundwater sampling event. The sample location, method of detection, along with notes on the vent pipes condition will be recorded. A gas meter, a MR-505Sid Portable Gas Detector or similar type meter, will be utilized to collect readings as to the levels, if present, or %O<sub>2</sub> (oxygen), %LEL (lower explosive limit), and hydrogen sulfide. Olfactory observations will be noted on the checklist and in the field book at that time. The gas vents will require maintenance consisting of inspection and possibly replacement of damaged vent riser pipe.

### **3.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS**

#### **3.1 Remedial Action Objectives**

The Site contains contamination not removed during the previous remedial action. Engineering Controls (EC) have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment.

The SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the remedial action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) performance of periodic inspections, certification of results, and submittal of this Periodic Review Reports; and (4) defining criteria for termination of oversight operations.

#### **3.2 Institutional and Engineering Control Plan Compliance**

The EC/IC plan describes the procedures for the implementation and management of all EC/ICs at the Site. The plan is described in the February 2012 SMP and is subject to revision by NYSDEC. Please refer to the SMP for a full description of the EC/IC control plan compliance.

##### **3.2.1 Description of Institutional Control**

A series of ICs are required by the ROD to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) restrict the use and development of the Site. Adherence to these IC's on the Site is required during the reporting period.

##### **3.2.2 Description of Engineering Control**

The EC at the Site consists of a soil cover system placed over the Site to prevent exposure to remaining contamination in soil/fill and fencing/access control at the Site. This cover system is comprised of a vegetative, low-permeability cap constructed over the treated material to minimize the effects of rain and snow melt on the treated material and to reduce leachate formation. The cap consists of a 6-inch vegetative soil layer overlying 30 inches of barrier protection made of soils, a polyethylene liner, a geotextile fabric and a 12-inch gas venting layer. Procedures for the inspection and maintenance of this cover are provided in the SMP.

### **3.2.3 Institutional and Engineering Control Plan Compliance Status**

The site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/soil vapor extraction systems, to protect public health and the environment. Therefore, the EC plan compliance status of such components is not included in this PRR.

The 2.0 acre disposal cell on the Site comprises of portions of two parcels, Douglas E. Gromly (36.003-4-11) and James R. Covell trust (36.003-4-10). The NYSDEC filed a deed restriction for the Douglas E. Gromly parcel (36.003-4-11) on November 28, 2012 with St. Lawrence County, which was recorded by the St. Lawrence County Clerk on March 1, 2013. Completion and implementation of the deed restriction for the Covell parcel was filed by the NYSDEC on August 8, 2013 and was recorded by the St. Lawrence County Clerk on September 9, 2013. The deed restriction and the environmental notice restrict the use of groundwater and forbid construction and use or occupancy on the site that results in soil disturbance or excavation at the Site. The notices are in Appendix B of this report, and will be included in the final SMP. Current certification that the site ICs are in compliance with the requirements stated in this paragraph.

Inspections of the ECs (soil cap and fencing) currently present at the Site were conducted on January 6, 2014 and July 9, 2014. During the inspections, no deficiencies were observed. The Instructional and Engineering Certifications Form is provided in Appendix B.

Site groundwater monitoring activities to assess natural attenuation will continue. The NYSDEC will make a determination when the residual groundwater concentrations are found to be consistently below NYSDEC guidelines and standards over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic as a level that is not acceptable to the NYSDEC, additional source material removal, treatment, and to control measures will be evaluated.

### **3.3 Soil Management Plan Compliance**

Soil Management Plan compliance is included in the IC's Site restrictions. Site restrictions prohibit the use of the soil underlying the property. Refer to Section 2.1.3, Landfill Closure Activities of the SMP, for additional information on restrictions.

Adherence to these IC's is required by the existing Environmental Deed restriction and Environmental notice.



### **3.3.1 Excavation Work Plan**

No excavations were performed in 2014.

### **3.3.2 Description of Groundwater Use On-Site**

Site restrictions prohibit the use of the groundwater underlying the property. Refer to Section 3.2.1, Description of Institutional Control, for additional information. Human exposure to groundwater is not expected at this Site.

## **3.4 Site Monitoring Plan Compliance**

Site monitoring consists of:

- Visual inspection of the disposal cell and surrounding fenced in areas;
- Visual inspection of the wetlands;
- Groundwater sampling and analysis;
- Gas monitoring;
- Data evaluation; and
- Report preparation.

### **3.4.1 Description of Site Activities & Inspections**

#### **3.4.1.1 Disposal Cell Monitoring**

This subsection presents the PRR site inspection checklists for the disposal cell monitoring. The purposes of the PRR is to monitor the performance of the disposal cell cover and appurtenances to confirm they perform as designed and that maintenance issues are identified and responded to appropriately.

On January 6, 2014 and July 9, 2014 (completed on July 31, 2014), a qualified environmental professional experienced in landfill inspection completed Post-Closure Site Inspections. The completed Post-Closure Site Inspection Checklists and photo logs are attached in Appendix C.

On April 28, 2014, the NYSDEC project manager approved a change in the frequency of the inspections from quarterly inspections to twice a year. The observations were supplemented with photographs, which are presented in Appendix C. The disposal cell appears intact and is maintaining at least a 2-foot separation between the high seasonal groundwater and the bottom of the disposal cell. During the disposal cell inspections, erosion channels, depressions, seeps, or animal burrows were not noted. Vegetative stress or rooted species of vegetation were not noted, and the vegetation was healthy. Explosive gas was monitored for utilizing a MR-505 Sid Portable Gas Detector or similar meter on January 6, 2014 and July 31, 2014 while HRP was in the area of the Site due to the rental company having supplied the wrong style gas meter for the July 9, 2014 inspection. The levels were found

to be in compliance for %LEL (lower explosive limit), with all four %LEL readings being 0.0 ppm. Ponding water or leachate was not observed during the inspection events. Sheen was not observed in the wetlands area and the wetlands vegetation was noted to be healthy. Additionally, the condition of the security fence, posts, gates, and locks were observed to be in working, the warning signs and sign posted at the front gate were noted to be legible.

The condition of groundwater monitoring wells and gas vents were assessed during the sampling rounds. Monitoring well identification labels were relabeled if needed, and the general condition of the well and protective casing was noted to be satisfactory. The condition of the gas vents was noted to be satisfactory. No additional potential causes of any damage were noted and repair and preventative measures were not recommended based on the field inspection observations.

In addition during the site inspections, the access road was in good condition and was not deteriorated. The fencing system around the site was in good working condition with no holes in the chain link fence, the warning signs and sign posted at the front gate were noted to be legible.

#### **3.4.1.2 Groundwater Well Decommissioning**

Groundwater monitoring wells decommissioning was not performed at the Site.

### **3.4.2 Performance and Effectiveness Monitoring**

#### **3.4.2.1 Leachate Sampling and Analysis**

Leachate sampling and analysis are not performed at the Site.

#### **3.4.2.2 Tracking of Leachate Removal and Disposal**

Tracking of leachate removal and disposal are not performed at the Site.

#### **3.4.2.3 Water Level Monitoring**

The network of monitoring wells monitors both up-gradient and down-gradient groundwater conditions at the Site (Figure 2). Groundwater monitoring is performed every 15 months (November 2012 through January 2014) to assess the performance of the remedy and in compliance with the SMP and DER-10. The next groundwater sampling event will occur in April 2015.

Five (5) on-site permanent overburden groundwater monitoring wells are currently associated with the Site. Two (2) monitoring wells (MW-102A, MW-102B) were installed in March and April 1989. In July 1997, three (3)

monitoring wells (MW-301 through MW-303) were installed upgradient, sidegradient, and downgradient of the disposal cell to complete the horizontal profile of the disposal cell area.

All monitoring well sampling activities were recorded in a field book and in a groundwater-sampling log presented in Appendix D. Other observations (e.g., well integrity, etc.) were noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network.

Prior to collecting the groundwater samples, depth to groundwater was measured. Depth to water measurements was collected to the nearest 0.01 foot from the surveyed points identified on the well risers. Water levels were measured using an interface probe capable of detecting separate phase liquids. In addition to measuring the water level, the wells were checked for both light and dense non-aqueous phase liquids (LNAPLs and DNAPLs) utilizing an interface probe.

The historic inferred groundwater flow direction has been determined to be primarily to the south in the unconsolidated saturated zone. These contours are based on sampling and groundwater elevations in previously abandoned 23 monitoring wells. However, based on the five monitoring wells remaining onsite there is a slight northwest groundwater flow seen during the sampling event and the other events completed with only five monitoring wells being sampled component to them (Figure 2). The assumed general flow direction in the area of the Site remains to the south.

#### **3.4.2.4 Groundwater Sampling and Analysis**

Groundwater monitoring was conducted on January 6, 2014 to satisfy the sampling frequency requirement, as defined in the SMP. The water level data, well diameter, and depth were used to calculate the volume of water in each well. The wells were then sampled following USEPA low-flow techniques. Groundwater was monitored in the field for the presence of non-aqueous phase liquids, pH, temperature, conductivity, dissolved oxygen, turbidity, and oxidation-reduction potential. The field data was recorded on field logs. Purge water was discharged adjacent to each well of origin for the water to return to the shallow aquifer of origin. All sampling equipment was appropriately decontaminated between sampling locations or properly disposed.

Annual groundwater monitoring sampling analyzed for volatile organic compounds (VOCs) by EPA Method 8260B consists of the sampling of the

five (5) existing monitoring wells (MW-102A, MW-102B, and MW-301 through MW-303).

All samples were sent to an ELAP certified laboratory. Samples were collected from five (5) groundwater wells currently onsite to verify that groundwater meets class NYSDEC criteria and compliance with the ROD and SMP.

#### **3.4.2.5 Surface Water Sampling and Analysis**

Surface water sampling and analysis are not performed at NLOD.

### **3.5 Summary of Groundwater Monitoring**

Groundwater monitoring was conducted on January 6, 2014, and included the collection of five (5) groundwater samples from monitoring wells MW-102A, MW-102B, and MW-301 through MW-303. Prior to collecting the samples, depth to groundwater was measured from the notched point on the top of casing of each monitoring well. The water level data, well diameter and depth were used to calculate the volume of water in each well. The wells were purged until the parameters of the purge water were stable (10% change between readings) and sampled following USEPA low-flow techniques.

A trip blank was also submitted to the laboratory. All groundwater samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B. Groundwater samples were compared to NYSDEC's Division of Water Technical and Operations Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Water Class GA.

Table 1 (following text) provides a summary of the groundwater sample analytical results for the January 2014 event. Depth to groundwater was measured at the time of sample collection. Laboratory analytical data can be found in Appendix E.

Groundwater flow was determined to be to the south in the unconsolidated saturated zone. Groundwater flow direction is consistent with previous flow direction measurements.

#### **Results for Groundwater Monitoring**

As shown in Table 1, one VOC was found at levels above NYSDEC groundwater guidance and quality standards. Cis-1,2-Dichloroethene was detected in MW-301 (10 ug/L). No other VOC's detected were above NYSDEC groundwater standards or guidance.

### **Monitoring Deficiencies**

No monitoring deficiencies were noted.

## **4.0 COST EVALUATION**

Sampling costs, including all technician time, disposal cell inspection and monitoring costs, laboratory costs, and PRR preparation are expected to be approximately \$4,800.00 per event (every fifteen months). Disposal cell inspection will be semi-annual as per the SMP at a cost of approximately \$1,100 an event. One (1) or two (2) mowing events will occur each fiscal year. The mowing events have historically been completed by the local NYSDEC office at an unknown cost.

The total spent to date as of December 2014 under HRP's Work Assignment is \$73,958.89. Disposal cell maintenance and road maintenance may also be required in the future at an unevaluated cost.

## **5.0 FINDINGS**

### **5.1 Findings**

Based on HRP's January 6, 2014 and July 9, 2014 site inspections, the disposal cell appears intact and is maintaining at least a 2-foot separation between the high seasonal groundwater and the bottom of the disposal cell. The long-term monitoring plan is being implemented to conduct monitoring of the site in accordance with the SMP and the ROD. No O&M deficiencies were reported during the reporting period.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

The periodic review process is used for determining if a remedy continues to be properly managed, and if the remedy continues to be protective of human health and the environment. The remedial measures in place are effective in protecting human health and the environment and are compliant with provisions specified in the ROD.

### **6.1 Conclusions**

The following conclusions discuss the effectiveness of the site's remedial system in comparison to the applicable site remedial goals derived from the SMP and ROD for the Site and DER-10.

- The Site Management Plan (SMP) is being implemented and there were no deficiencies found with the implementation with this plan;

- The Engineering Control (EC) at the site consists of a soil cover system placed over the Site to prevent exposure to remaining contamination in soil/fill and fencing/access control at the Site. This soil cover is in place and is being maintained as outlined in the Site Management Plan for the Site; and
- On April 28, 2014, the NYSDEC project manager changed the inspection frequency to a semi-annual inspection schedule, which will be sufficient to identify settlement problems.
- The Institutional Controls currently in place are compliant with provisions specified in the ROD.

## **6.2 Recommendations**

The following recommendations are made for the North Lawrence Oil Dump Site (Site ID# 645013):

- Continuing with the current approved sampling schedule of monitoring wells is recommended. Conditions at the Site remain protective of public health and the environment.

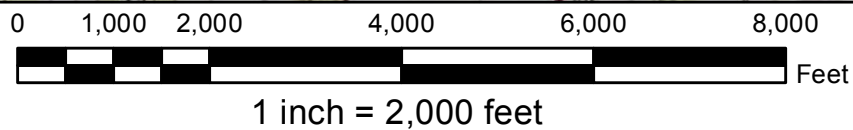
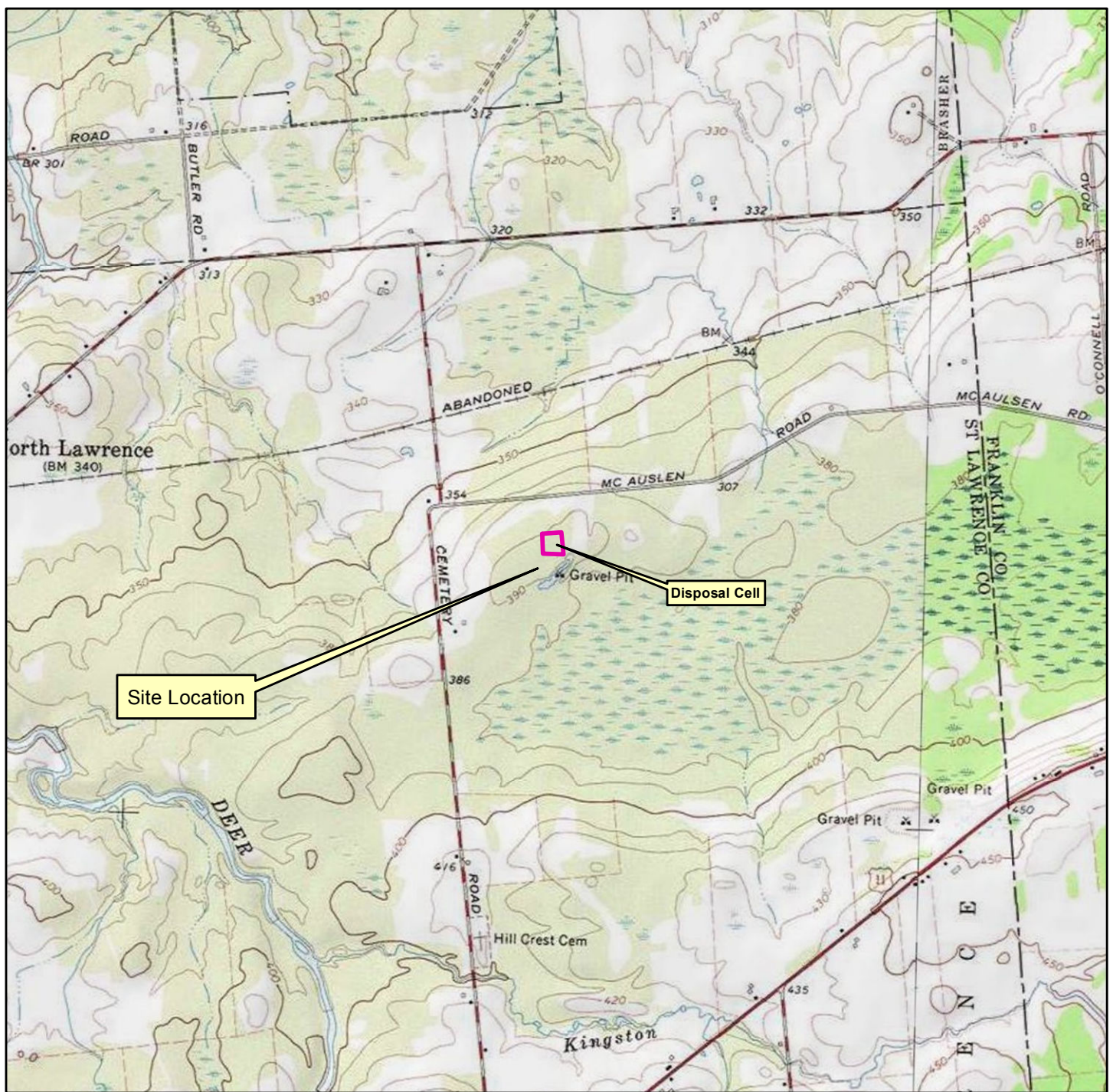
**Table 1**  
**North Lawrence Oil Dump, Site #645013**  
**McAuslen Road**  
**North Lawrence, New York**  
**January 6, 2014**  
**Groundwater Samples - Analyzed for VOCs EPA Method 8260 B**  
**(only exceedences listed)**

Groundwater Sample ID		MW-102A	MW-102B	MW-301	MW-302	MW-303	NYSDEC Class GA Criteria
Date Collected		1/6/2014	1/6/2014	1/6/2014	1/6/2014	1/6/2014	
VOCs 8260C (ug/L)	CAS #						
cis-1,2-Dichloroethene	156-59-2	<5	<5	<b>10</b>	<5	<5	<b>5</b>

NYSDEC class GA criteria are from NYSDEC Technical and Operational Guidance Series (TOGS 1.1.1), Ambient water quality, class GA standards/guidance values from Table 1.

<b>Bold</b>	Sample Exceeds NYSDEC Class GA Criteria
<b>Bold</b>	Sample is above Non-Detect Value but Below NYSDEC Class GA Criteria
<b>&lt;###</b>	Sample is Non-Detect at Laboratory
MW	Monitor Well
ug/L	micrograms per liter or parts per billion
CAS #	Chemical Abstract Number
VOCs	Volatile Organic Compounds

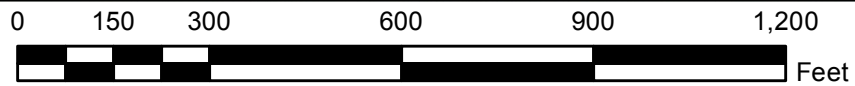




**Figure 1**  
**Site Location**  
**North Lawrence Oil Dump Site**  
**Lawrence, New York**  
**Site Number 645013**  
**Scale 1"=2,000'**

**HRP Associates, Inc.**  
 Environmental/Civil Engineering & Hydrogeology  
 Creating the Right Solutions Together  
 Offices in CT, SC, NY, FL, MA, TX and PA  
 1 Fairchild Square, Suite 110  
 Clifton Park, NY 12065  
 Ph:(518)877-7101 Fax:(518)877-8561  
[www.hrpassociates.com](http://www.hrpassociates.com)

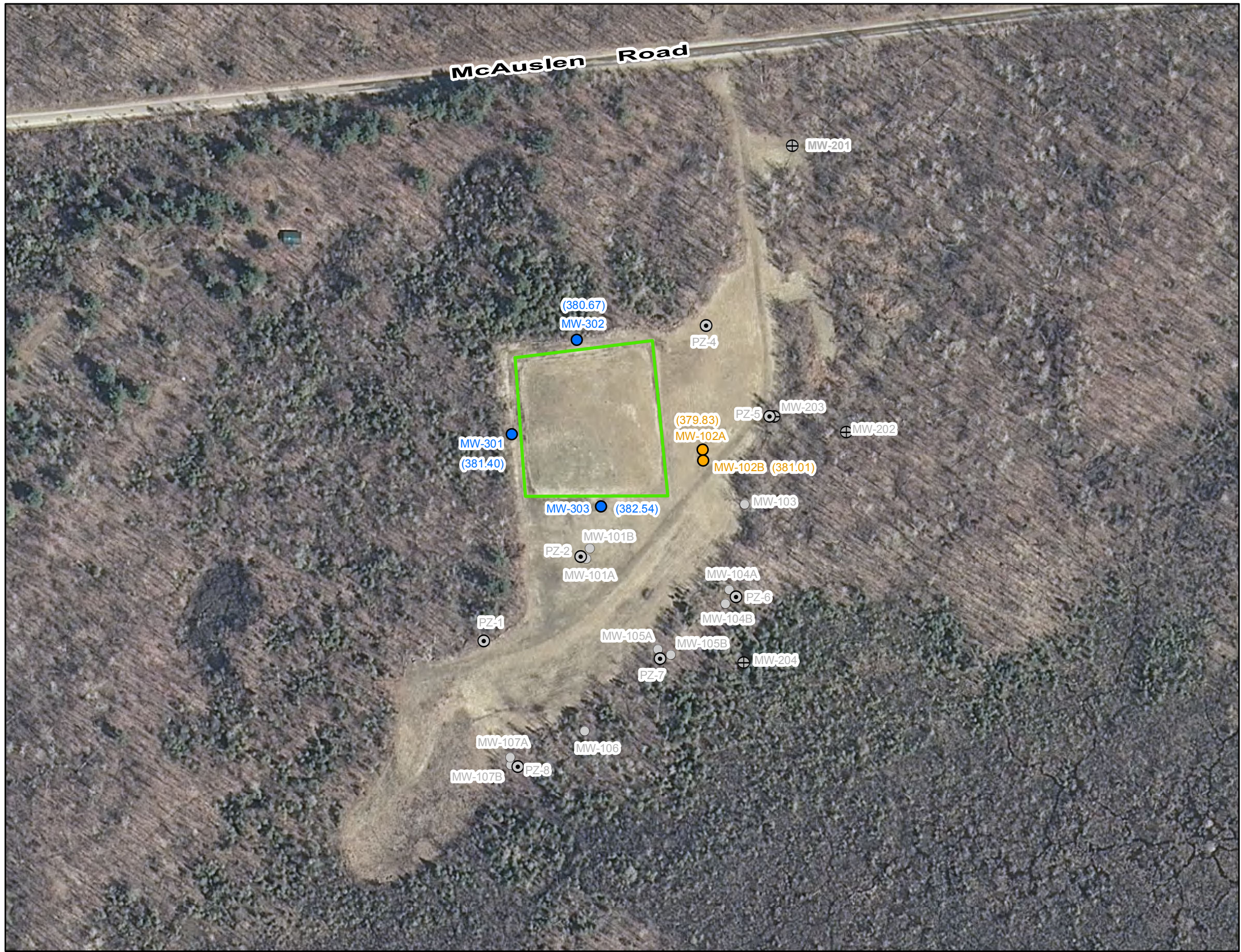




**Figure 1a**  
**Aerial View**  
**North Lawrence Oil Dump Site**  
**Lawrence, New York**  
**Site #645013**  
**Scale 1"=300'**

**HRP Associates, Inc.**  
 Environmental/Civil Engineering & Hydrogeology  
 Creating the Right Solutions Together  
 Offices in CT, SC, NY, FL, MA, TX and PA  
 1 Fairchild Square, Suite 110  
 Clifton Park, NY 12065  
 Ph:(518)877-7101 Fax:(518)877-8561  
[www.hrpassociates.com](http://www.hrpassociates.com)





January 6, 2014	
WELL ID	GROUNDWATER ELEVATION
MW-102A	379.83
MW-102B	381.01
MW301	381.40
MW302	380.67
MW303	382.54

Legend

- 1998 Monitoring Well
- 1992 Phase 1 Monitoring Well
- ⊙ 1992 Phase 1 Piezometer (Abandoned)
- 1992 Phase 1 Monitoring Well (Abandoned)
- ⊕ 1992 Phase 2 Monitoring Well (Abandoned)
- Disposal Cell



Figure 2  
Groundwater Contour Map  
January 6, 2014  
North Lawrence Oil Dump Site  
North Lawrence, New York  
Site Number 645013  
Scale 1"=200'

HRP Associates, Inc.

Environmental/Civil Engineering & Hydrogeology

Creating the Right Solutions Together

Offices in CT, SC, NY, FL, MA and TX

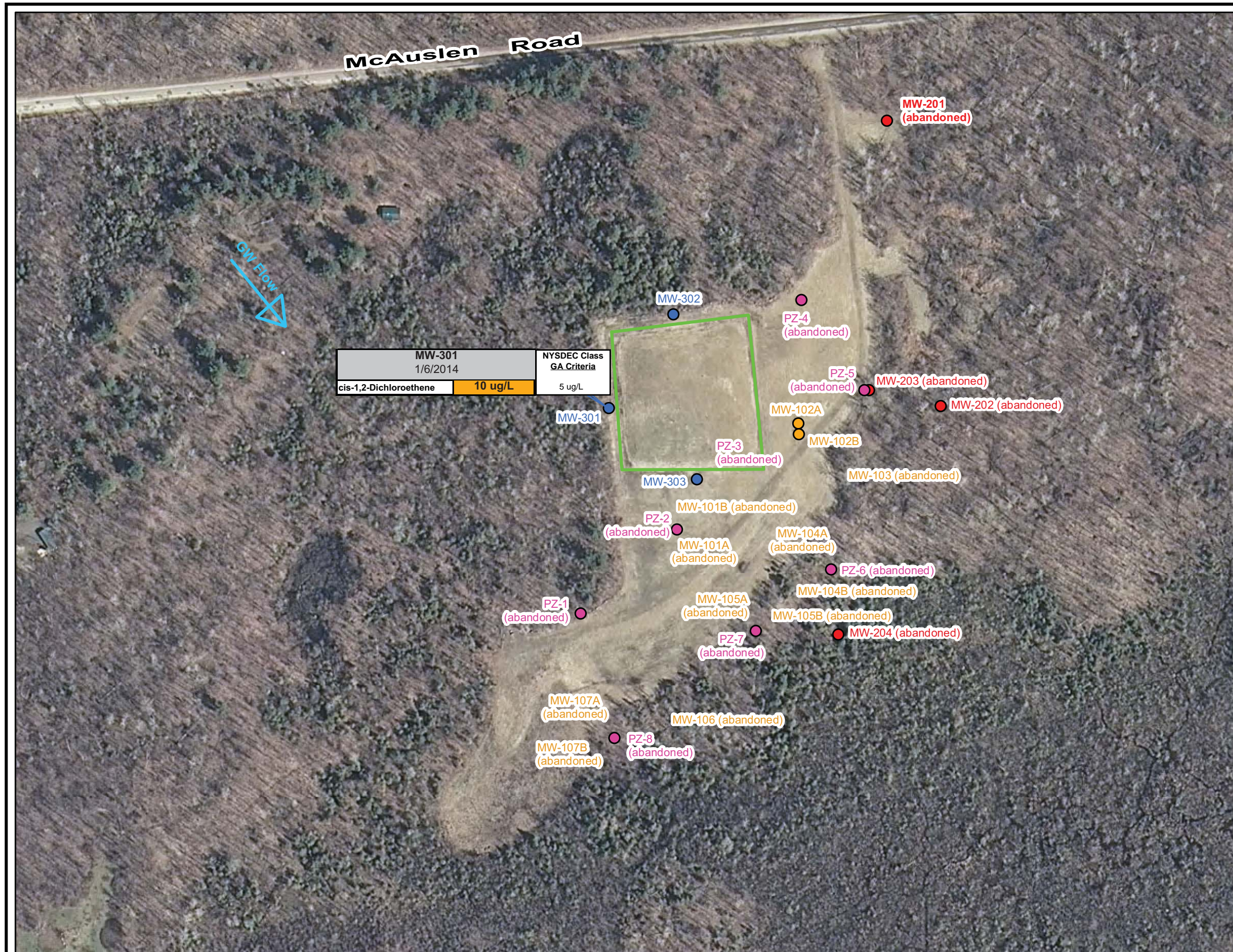
1 Fairchild Square, Suite 110

Clifton Park, NY 12065

Ph:(518)877-7101 Fax:(518)877-8561

www.hrpassociates.com





Note:  
On November 12 and December 14, 2012, twenty (20) groundwater monitoring wells (PZ-1, PZ-4 through PZ-8, MW-103, MW-104A, MW-104B, MW-105A, MW-105B, MW-106, MW-107A, MW-107B and MW-203) were properly decommissioned, in accordance with the NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures."  
Inferred groundwater flow direction based on historical groundwater flow direction

## Legend

- 1992 Phase 1 Piezometer
- 1992 Phase 1 Monitoring Well
- 1992 Phase 2 Monitoring Well
- 1998 Monitoring Well
- Disposal Cell
- Exceeds NYSDEC Class GA Criteria

**Figure 3**  
**Groundwater Samples**  
**Analyzed for VOCs**  
**North Lawrence Oil Dump Site**  
**North Lawrence, New York**  
**Site Number 645013**  
**Scale 1"=200'**



**HRP Associates, Inc.**  
Environmental/Civil Engineering & Hydrogeology  
Creating the Right Solutions Together  
Offices in CT, SC, NY, FL, MA and TX  
1 Fairchild Square, Suite 110  
Clifton Park, NY 12065  
Ph:(518)877-7101 Fax:(518)877-8561  
[www.hrpassociates.com](http://www.hrpassociates.com)



## **Appendix A**

### **Metes and Bounds, Environmental Notice, and, Declaration of Covenants and Restrictions.**

RECEIVED AT  
ST. LAW. CO.  
CLERKS OFC.

North Lawrence Oil Dump  
Site No. 645013  
McAuslen Road  
St. Lawrence County, NY  
Tax Map ID: 36.003-4-10

2013 SEP -9 P 12:14

### ENVIRONMENTAL NOTICE

**THIS ENVIRONMENTAL NOTICE** is made the 8<sup>th</sup> day of August 2013, by the New York State Department of Environmental Conservation (Department), having an office for the transaction of business at 625 Broadway, Albany, New York 12233

**WHEREAS**, a parcel of real property indentified as North Lawrence Oil Dump (Site 645013), located on McAuslen Road in the Town of Lawrence, County of St. Lawrence, State of New York, which is part of lands conveyed by the County of St. Lawrence to The Family Trust of James R. & Nora Covell by deed dated October 6, 1998 and recorded in the St. Lawrence County Clerk's Office on December 3, 1998 in Book 1112 of Deeds at Page 320 and being more particularly described in Appendix "A", attached to this noticed and made a part hereof, and hereinafter referred to as "the Property" is the subject of a remedial program executed by the Department as part of the Department's State Superfund Program; and

**WHEREAS**, the Department approved a cleanup to address contamination disposed at the Property and such cleanup was conditioned upon certain limitations.

**NOW, THEREFORE**, the Department provides notice that:

**FIRST**, the Property subject to this Environmental Notice is as shown on a map attached to this Notice as Appendix "B" and made a part hereof.

**SECOND**, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Operation and Maintenance ("O&M"), there shall be no disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results or may result in a significantly increased threat of harm or damage at any site as a result of exposure to soils. A violation of this provision is a violation of 6 NYCRR 375-1.11(b)(2).


**THIRD**, no person shall disturb, remove, or otherwise interfere with the installation, use, operations, and maintenance of engineering controls required for the Remedy, including but not limited to those engineering controls described in the O&M Plan and listed below, unless in each instance they first obtain a written waiver of such prohibition from the Department or Relevant Agency.

**FOURTH**, the remedy was designed to be protective for the following uses: Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv). Therefore, any use for purposes other than Commercial and Industrial without the express written waiver of such prohibition by the Relevant Agency may result in a significantly increased threat of harm or damage at any site.

**FIFTH**, no person shall use the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency. Use of the groundwater without appropriate treatment may result in a significantly increased threat of harm or damage at any site. groundwater without appropriate treatment may result in a significantly increased threat of harm or damage at any site.

**SIXTH**, it is a violation of 6 NYCRR 375-1.11(b) to use the Property in a manner inconsistent with this environmental notice.

**IN WITNESS WHEREOF**, the undersigned, acting by and through the Department of Environmental Conservation as Designee of the Commissioner, has executed this instrument the day written below.

By:   
Michael J. Ryan, P.E.  
Assistant Director  
Division of Environmental Remediation

STATE OF NEW YORK     )  
                                      ) ss:  
COUNTY OF Albany     )

On the 8th day of August, in the year 2013, before me, the undersigned, personally appeared Michael J. Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his signature on the instrument, the individual, or the person upon behalf of which individual acted, executed the instrument.

  
\_\_\_\_\_  
Notary Public - State of New York

**David J. Chiusano**  
Notary Public, State of New York  
No. 01CH5032146  
Qualified in Schenectady County  
Commission Expires August 22, 2014

## **Appendix A**

### **Metes and Bounds Description**

All that tract or parcel of land situate, lying and being in the Township of Lawrence, County of St. Lawrence, State of New York, bounded and described as follows: McAuslen Rd., SCH 402001, Rural Vacant, 9.7 ac. +/-, Tax Map #404800 #36.003-4-10.

North Lawrence Oil Dump  
Site No. 645013  
McAuslen Road  
St. Lawrence County, NY  
Tax Map ID: 36.003-4-10

---

## **Appendix B**

### **Map**





North Lawrence Oil Dump - Restriction Area  
Site ID No. 645013



1316-98986





## DECLARATION of COVENANTS and RESTRICTIONS

DUPLICATE  
ORIGINAL  
FILED

2013 MAR -1 P 2:29 THIS COVENANT is made the 22<sup>nd</sup> day of November 2012 by Douglas E. Gormley, a natural person residing at 7 Brighton Street, Massena, NY and having an address for the transaction of business at P.O. Box 6 Massena, NY 13662.

WHEREAS, North Lawrence Oil Dump is the subject of a remedial program performed by the New York State Department of Environmental Conservation (the "Department"), namely that parcel of real property located on McAuslen Road in the Town of Lawrence, County of St. Lawrence, State of New York, which is part of lands conveyed by County of St. Lawrence to Douglas E. Gormley by deed dated September 23, 1994 and recorded in the St. Lawrence County Clerk's Office in Liber and Page 1083/613, and being more particularly described in Appendix "A," attached to this declaration and made a part hereof, and hereinafter referred to as "the Property"; and

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants.

NOW, THEREFORE, Douglas E. Gormley, for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is as shown on a map attached to this declaration as Appendix "B" and made a part hereof.

Second, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Site Management Plan ("SMP"), there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results in unacceptable human exposure to contaminated soils. The SMP may be obtained from the New York State Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233.

Third, the owner of the Property shall not prevent access by the Department or its agents to the property nor disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of engineering controls required for the Remedy, which are described in the SMP, unless in each instance the owner first obtains a written waiver of such prohibition from the Department or Relevant Agency.

2013388900

R-2013-00003128  
03/01/2013 12:20:00 PM  
MISCELLANEOUS RECORDING  
8 Pages  
Mary Lou Rupp, St Lawrence County Clerk

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for Commercial or Industrial use and as a maintained and capped landfill without the express written waiver of such prohibition by the Department or Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency.

Sixth, the owner of the Property, upon request, shall provide a periodic certification, to the Department or Relevant Agency, which will certify that: the institutional controls put in place are unchanged from the previous certification, that the owner has complied with the provisions of this restrictive covenant, including compliance with the SMP, that there has been no change in use of the property, unless the Department has been properly notified, and that the engineering controls have not been impaired.

Seventh, the owner of the Property shall continue in full force and effect any institutional controls required for the Remedy and maintain such controls, unless the owner first obtains permission to discontinue such controls from the Department or Relevant Agency, in compliance with the approved SMP, which is incorporated and made enforceable hereto, subject to modifications as approved by the Department or Relevant Agency.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions that the Department or Relevant Agency requires to be recorded, and the owner and its successors and assigns hereby covenant not to contest the authority of the Department or Relevant Agency to seek enforcement.

Ninth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

By: 

Print Name: Doug Gormley

Title: Owner

Date: 11/28/12

County: St Lawrence

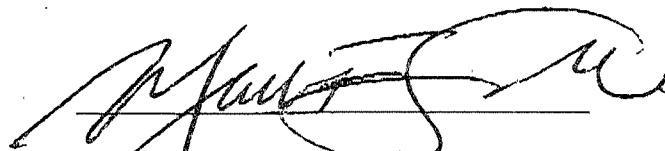
NYSDEC Site No. 645013

STATE OF NEW YORK )

) s.s.:

COUNTY OF ST-LAW )

On the 28 day of NOV, in the year 2012, before me, the undersigned, personally appeared Dorcas Bradley, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



Notary Public State of New York  
MARK E. SNIDER  
Notary Public, State Of New York  
St. Lawrence County #0086784  
Commission Expires 01/31/14

McAuslen Rd. (North Lawrence Oil Dump)

Site No. 645013

McAuslen Road

St. Lawrence County, NY

Tax Map: 36.003-4-11

**APPENDIX A**  
**Metes and Bounds**

McAuslen Rd. (North Lawrence Oil Dump)

Site No. 645013

McAuslen Road

St. Lawrence County, NY

Tax Map: 36.003-4-11

**METES and BOUNDS Description**

All that tract or parcel of land situate, lying and being in the Township of Lawrence, County of St. Lawrence, State of New York, bounded and described as follows: Cheney Rd., SCH 402001, Vacant Land, 10.40 +/-, TM #36.003-4-11, Formerly Carey, Anthony A.

McAuslen Rd. (North Lawrence Oil Dump)

Site No. 645013

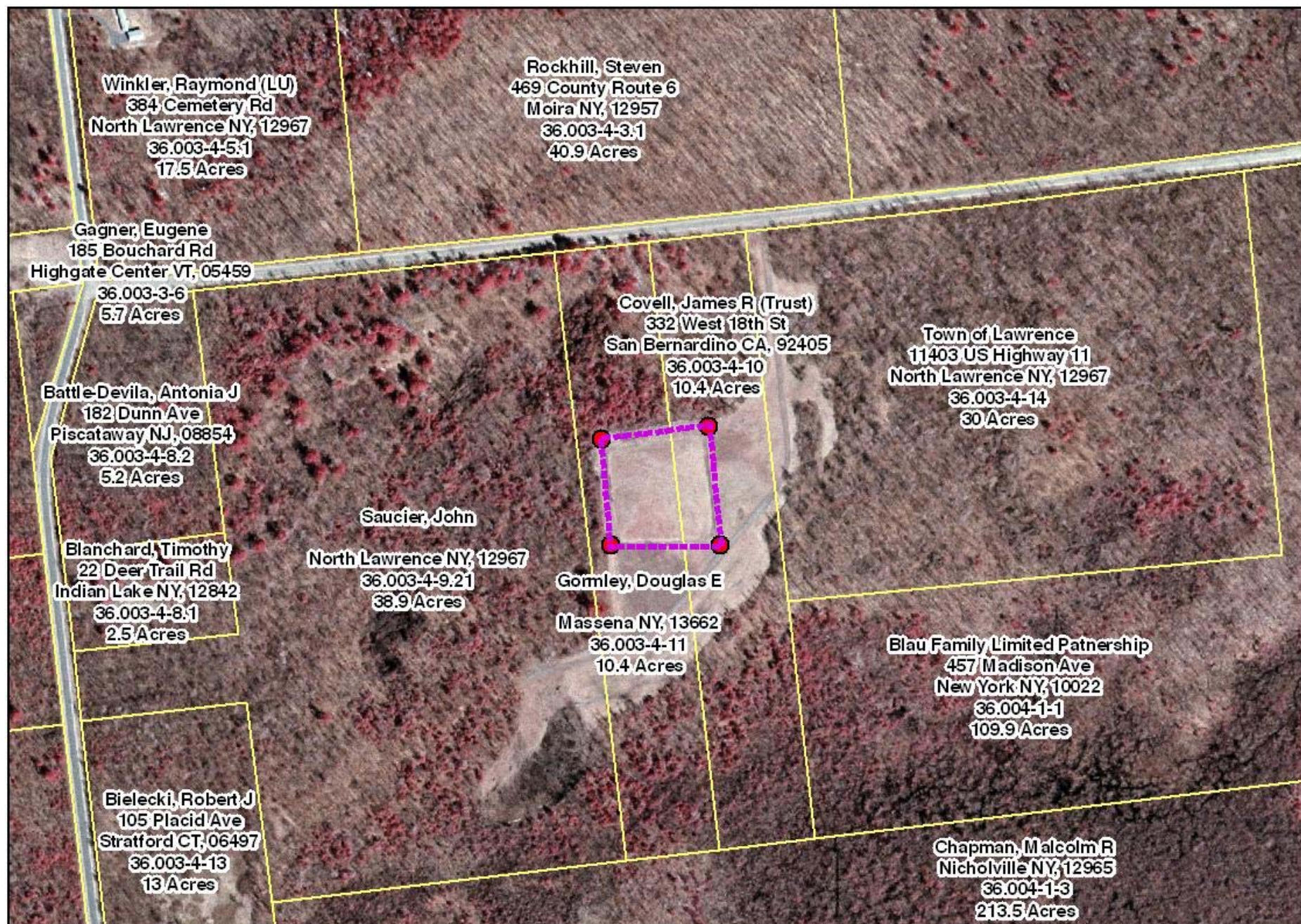
McAuslen Road

St. Lawrence County, NY

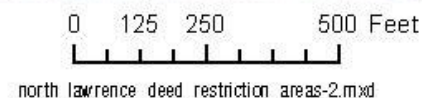
Tax Map: 36.003-4-11

## **APPENDIX B**





**North Lawrence Oil Dump - Restriction Area**  
**Site ID No. 645013**





## **Appendix B**

### **Engineering Controls – Standby Consultant Certification Form**

**Enclosure 1****Engineering Controls - Standby Consultant/Contractor Certification Form**

Site Details		Box 1
<b>Site No.</b>	<b>645013</b>	
<b>Site Name</b> North Lawrence Oil Dump		
Site Address: McAuslen Road (a.k.a. McCauslin Road)      Zip Code: 12967		
City/Town: North Lawrence		
County: St Lawrence		
Site Acreage: 2.0		
Reporting Period: December 31, 2013 to December 31, 2014		
		<b>YES      NO</b>
1. Is the information above correct?		<input checked="" type="checkbox"/> <input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.		
2. To your knowledge has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		<input type="checkbox"/> <input checked="" type="checkbox"/>
3. To your knowledge has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		<input type="checkbox"/> <input checked="" type="checkbox"/>
4. To your knowledge have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		<input type="checkbox"/> <input checked="" type="checkbox"/>
<b>If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.</b>		
5. To your knowledge is the site currently undergoing development?		<input type="checkbox"/> <input checked="" type="checkbox"/>

		Box 2
		<b>YES      NO</b>
6. Is the current site use consistent with the use(s) listed below? Closed Landfill		<input checked="" type="checkbox"/> <input type="checkbox"/>
7. Are all ICs/ECs in place and functioning as designed?		<input checked="" type="checkbox"/> <input type="checkbox"/>
<b>IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.</b>		
_____ Signature of Standby Consultant/Contractor		_____ Date

**Description of Institutional Controls**

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
36.003-4-10	Covell, James R (Trust)	Ground Water Use Restriction Landuse Restriction Site Management Plan  Soil Management Plan Monitoring Plan O&M Plan IC/EC Plan

The parcel is governed by a Site Management Plan (SMP). An environmental notice (EN) for this parcel was recorded on 9/9/2013 with the St. Lawrence County Clerk's office. The EN specifies the following:

FIRST, the Property subject to this Environmental Notice is as shown on the map titled, "North Lawrence Oil Dump - Restriction Area, Site ID No. 645013," located in the Site Management Plan (SMP).

SECOND, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Operation and Maintenance ("O&M"), there shall be no disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results or may result in a significantly increased threat of harm or damage at any site as a result of exposure to soils. A violation of this provision is a violation of 6 NYCRR 375-1.11(b)(2).

THIRD, no person shall disturb, remove, or otherwise interfere with the installation, use, operations, and maintenance of engineering controls required for the Remedy, including but not limited to those engineering controls described in the O&M Plan and listed below, unless in each instance they first obtain a written waiver of such prohibition from the Department or Relevant Agency.

FOURTH, the remedy was designed to be protective for the following uses: Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv). Therefore, any use for purposes other than Commercial and Industrial without the express written waiver of such prohibition by the Relevant Agency may result in a significantly increased threat of harm or damage at any site.

FIFTH, no person shall use the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency. Use of the groundwater without appropriate treatment may result in a significantly increased threat of harm or damage at any site.

SIXTH, it is a violation of 6 NYCRR 375-1.11(b) to use the Property in a manner inconsistent with this environmental notice. The EN specifies restrictions on landuse and groundwater use. In addition, the parcel is regulated by a site management plan (SMP) which includes an IC/EC plan, a soil management plan, a monitoring plan and an O&M plan. No one can interfere with the engineering controls or prohibit access to the property by the Department.

36.003-4-11	Douglas E. Gormley	Site Management Plan  Ground Water Use Restriction Landuse Restriction
-------------	--------------------	---

Building Use Restriction

November 28, 2012, the deed restriction for a State Superfund site was signed. Deed restriction was filed on 3/1/2013 with St. Lawrence County. Includes abiding by the SMP, landuse restriction and groundwater use restriction

Box 4

**Description of Engineering Controls**

Parcel

**36.003-4-10**

Engineering Control

Cover System

Fencing/Access Control

Cover System (cap) comprised of a vegetative, low-permeability cap, a monitoring well network and a locked gate and secure chain-link fence which surrounds the mounded landfill cover (cap).

Monitoring well network

**36.003-4-11**

Cover System

Fencing/Access Control

Fencing: A locked gate and secure chain-link fence surround the mounded landfill cover.

Cover system: A covers the stabilized portion of the site.

Monitoring Well network



**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, including data and material prepared by previous contractors for the current certifying period, if any;

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 complete.

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) nothing has occurred that would constitute a failure to comply with the Site Management Plan, or equivalent if no Site Management Plan exists.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.**

\_\_\_\_\_  
Signature of Standby Consultant/Contractor

\_\_\_\_\_  
Date

IC/EC CERTIFICATIONS

Box 6

Professional Engineer Signature

I certify that all information in Boxes 2 through 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 Nancy Garry at HRP Engineering, P.C.  
print name  
1 Fairchild Square, Suite 110  
Clifton Park, NY 12065  
(print business address)

am certifying as a Professional Engineer.

Nancy Garry  
Signature of Professional Engineer



Stamp  
(Required for PE)

Date

2/12/15

## **Appendix C**

### **Post-Closure Site Inspection Checklist And Photo Logs**

## Post-Closure Site Inspection Checklist North Lawrence Oil Dump Site

Date: 11/6/19

Weather: 30°F - Very windy  
Personnel (Organization): James Charter (HRP)

Instructions: Complete the checklist of visual evaluation items and then complete specific data items. Field measurements should be made with a cloth tape and noted on a site plan. Estimated measurements should be so noted. Attach hand sketches or photographs to the site plan to further define conditions or problems.

## I. VISUAL EVALAUTION ITEMS

	CONDITION: (Check)				REMARKS
	Acceptable	Not Acceptable	Action Required? Yes	No	
1) Vegetative Cover					
a) Disposal Cell	✓				
b) Lagoon	✓				
c) Wetland	✓				
2) Site Drainage					
a) Sediment Build-Up	✓				
b) Pooling or Ponding	✓				
c) Slope Integrity	✓				
d) Erosion Protection (Riprap, grout, vegetation)	✓				
e) Obstruction of Culverts	✓				
3) Condition of Access					
a) Road Condition	✓				
b) Gates/Locks/Signs	✓				
4) Integrity of Ground Water Monitoring Wells	✓				
5) Integrity of Cap					
a) Erosion Damage	✓				
b) Leachate Break-through	✓				
c) Settlement	✓				
6) Gas Venting System					
a) Vents free of obstructions	✓				
b) Gas readings (measure)	✓				
7) Other (e.g., Litter, Unauthorized Dumping, etc.)	✓				

All gates, signage, and locks are in properly working condition.

	O <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub>	BAL	P <sub>u</sub>
V1	21.1	0.0	0.0	79.9	0.0
V2	21.0	0.0	0.0	79.0	0.0
V3	21.0	0.0	0.0	79.0	0.0
V4	21.1	0.0	0.0	78.8	0.0

II. SPECIFIC DATA ITEMS (Write N.A. if not applicable)

A. Erosion and Settlement:

## II. SPECIFIC DATA ITEMS (Write N.A. if not applicable)

### A. Erosion and Settlement:

- 1) Approximate size in feet of eroded cap area(s). (List Separately)
- a. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- c. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- 2) How deep is the most extreme point of erosion when measured from the adjacent surface. (List Separately)
- a. \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet
- c. \_\_\_\_\_ feet
- NA



Figure 3-1

Post-Closure Site Inspection Checklist  
North Lawrence Oil Dump Site  
(continued)

- 3) Approximate size in feet of eroded areas outside the soil cap area such as drainage ditches, roads or slopes. \_\_\_\_\_
- 4) Attach a hand sketch or photograph to be attached to this report, showing location(s) of the eroded area(s). Identify each area by using the letter a, b, c, etc. from Question 1. \_\_\_\_\_
- 5) Approximate size in feet of leachate breakout(s). (List Separately)
- a. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- c. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- 6) Approximate size in feet of any settlement area within the soil cap area. (List Separately)
- a. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- c. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- 7) Approximate depth of each settlement area when measured from the adjacent surface. (List Separately)
- a. \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet
- c. \_\_\_\_\_ feet
- 8) Attach a hand sketch or photograph to the attached site plan showing the location of the settlement area(s). Identify each area by using letter a, b, or c, etc. from Question 6. \_\_\_\_\_

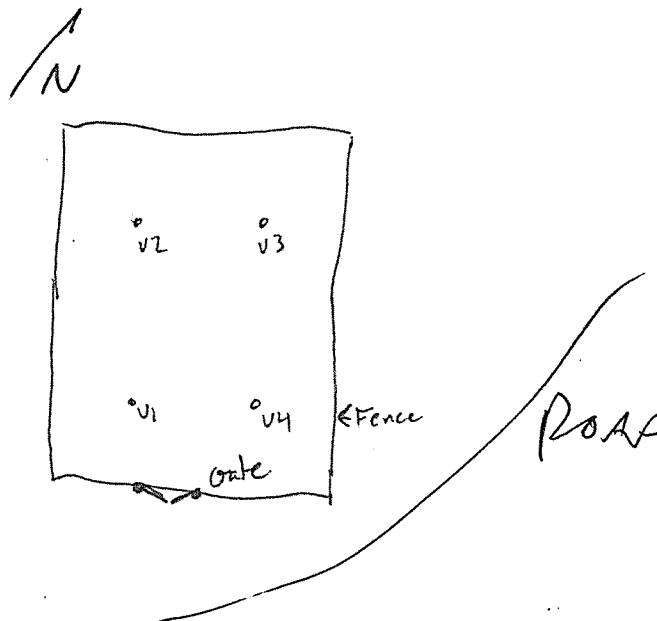
NA

Ang Lj (HRP)

\_\_\_\_\_  
Signature of Inspector(s)

Attachments

\_\_\_\_ Yes ☒ No





**Secured Front Entrance and Sign**



**Fenced Landfill**



**South Side of Disposal Cell (Vents 1 and 4)**



**North Side of Disposal Cell (Vents 2 and 3)**



**MW-301**



**North Portion of Property**



**MW-102B**



**MW-302**



**MW-303**



Figure 3-1

Post-Closure Site Inspection Checklist  
North Lawrence Oil Dump Site

Date: 7/9/14  
Weather: 60° F Sunny Windy  
Personnel (Organization): Sales Charter (HRP)  
Instructions: Complete the checklist of visual evaluation items and then complete specific data items. Field measurements should be made with a cloth tape and noted on a site plan. Estimated measurements should be so noted. Attach hand sketches or photographs to the site plan to further define conditions or problems.

I. VISUAL EVALUATION ITEMS

	Acceptable	CONDITION: (Check)		REMARKS
		Not Acceptable	Action Required? Yes No	
1) Vegetative Cover				
a) Disposal Cell	✓			
b) Lagoon	✓			
c) Wetland	✓			
2) Site Drainage				
a) Sediment Build-Up	✓			
b) Pooling or Ponding	✓			
c) Slope Integrity	✓			
d) Erosion Protection (Riprap, grout, vegetation)	✓			
e) Obstruction of Culverts	✓			
3) Condition of Access				
a) Road Condition	✓			
b) Gates/Locks/Signs	✓			
4) Integrity of Ground Water Monitoring Wells	✓			
5) Integrity of Cap	✓			
a) Erosion Damage	✓			
b) Leachate Break-through	✓			
c) Settlement	✓			
6) Gas Venting System				Small bees nest in V-1
a) Vents free of obstructions	✓			
b) Gas readings (measure)	✓			
7) Other (e.g., Litter, Unauthorized Dumping, etc.)	✓			

DEC has gas monitoring with what equip.?

	O <sub>2</sub>	CO	LEL	SAL	PI
V1	20.9	0	0	0	0.
V2	20.9	0	0	0	0.
V3	20.9	0	0	0	0.
V4	20.9	0	0	0	0.

II. SPECIFIC DATA ITEMS (Write N.A. if not applicable)

A. Erosion and Settlement:

1) Approximate size in feet of eroded cap area(s). (List Separately)

- a. \_\_\_\_\_ feet by \_\_\_\_\_ feet  
b. \_\_\_\_\_ feet by \_\_\_\_\_ feet  
c. \_\_\_\_\_ feet by \_\_\_\_\_ feet

NA

2) How deep is the most extreme point of erosion when measured from the adjacent surface. (List Separately)

- a. \_\_\_\_\_ feet  
b. \_\_\_\_\_ feet  
c. \_\_\_\_\_ feet

Figure 3-1

Post-Closure Site Inspection Checklist  
North Lawrence Oil Dump Site  
(continued)

- 3) Approximate size in feet of eroded areas outside the soil cap area such as drainage ditches, roads or slopes. \_\_\_\_\_
- 4) Attach a hand sketch or photograph to be attached to this report, showing location(s) of the eroded area(s). Identify each area by using the letter a, b, c, etc. from Question 1.
- 5) Approximate size in feet of leachate breakout(s). (List Separately)
- a. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- c. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- 6) Approximate size in feet of any settlement area within the soil cap area. (List Separately) NA
- a. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- c. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- 7) Approximate depth of each settlement area when measured from the adjacent surface. (List Separately)
- a. \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet
- c. \_\_\_\_\_ feet
- 8) Attach a hand sketch or photograph to the attached site plan showing the location of the settlement area(s). Identify each area by using letter a, b, or c, etc. from Question 6.

By LF (HRP)

\_\_\_\_\_  
Signature of Inspector(s)

Attachments

X Yes \_\_\_\_\_ No

# Post-Closure Site Inspection Checklist North Lawrence Oil Dump Site

Date: 7/31/14

Weather: 70° sun

Personnel (Organization): Ten Kate

Instructions: Complete the checklist of visual evaluation items and then complete specific data items. Field measurements should be made with a cloth tape and noted on a site plan. Estimated measurements should be so noted. Attach hand sketches or photographs to the site plan to further define conditions or problems.

## I. VISUAL EVALUATION ITEMS

	Acceptable	CONDITION: (Check)		REMARKS
		Not Acceptable	Action Required? Yes No	
1) Vegetative Cover				
a) Disposal Cell	<u>/</u>			
b) Lagoon	<u>/</u>			
c) Wetland	<u>/</u>			
2) Site Drainage				
a) Sediment Build-Up	<u>/</u>			
b) Pooling or Ponding	<u>/</u>			
c) Slope Integrity	<u>/</u>			
d) Erosion Protection (Riprap, grout, vegetation)	<u>/</u>			
e) Obstruction of Culverts	<u>/</u>			
3) Condition of Access				
a) Road Condition	<u>/</u>			
b) Gates/Locks/Signs	<u>/</u>			
4) Integrity of Ground Water Monitoring Wells	<u>/</u>			
5) Integrity of Cap				
a) Erosion Damage	<u>/</u>			
b) Leachate Break-through	<u>/</u>			
c) Settlement	<u>/</u>			
6) Gas Venting System				
a) Vents free of obstructions	<u>/</u>			
b) Gas readings (measure)	<u>/</u>			
7) Other (e.g., Litter, Unauthorized Dumping, etc.)	<u>/</u>			

	O <sub>2</sub>	CH <sub>4</sub>	CO <sub>2</sub>	BAL
V1	21.0	0.0	0.0	78.9
V2	21.1	0.0	0.0	78.9
V3	21.0	0.0	0.0	78.9
V4	21.1	0.0	0.0	78.9

## II. SPECIFIC DATA ITEMS (Write N.A. if not applicable)

### A. Erosion and Settlement:

1) Approximate size in feet of eroded cap area(s). (List Separately)

- a. \_\_\_\_\_ feet by \_\_\_\_\_ feet  
b. \_\_\_\_\_ feet by \_\_\_\_\_ feet  
c. \_\_\_\_\_ feet by \_\_\_\_\_ feet

NA

2) How deep is the most extreme point of erosion when measured from the adjacent surface. (List Separately)

- a. \_\_\_\_\_ feet  
b. \_\_\_\_\_ feet  
c. \_\_\_\_\_ feet

NA

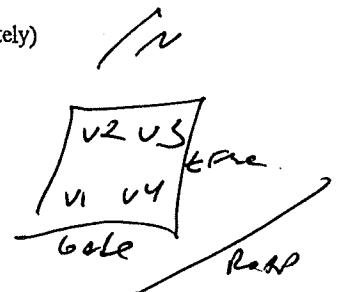
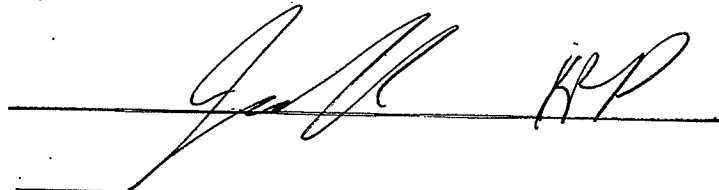


Figure 3-1

Post-Closure Site Inspection Checklist  
North Lawrence Oil Dump Site  
(continued)

- 3) Approximate size in feet of eroded areas outside the soil cap area such as drainage ditches, roads or slopes. \_\_\_\_\_
- 4) Attach a hand sketch or photograph to be attached to this report, showing location(s) of the eroded area(s). Identify each area by using the letter a, b, c, etc. from Question 1. \_\_\_\_\_
- 5) Approximate size in feet of leachate breakout(s). (List Separately)
- a. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet by \_\_\_\_\_ feet *NA*
- c. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- 6) Approximate size in feet of any settlement area within the soil cap area. (List Separately)
- a. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet by \_\_\_\_\_ feet *NA*
- c. \_\_\_\_\_ feet by \_\_\_\_\_ feet
- 7) Approximate depth of each settlement area when measured from the adjacent surface. (List Separately)
- a. \_\_\_\_\_ feet
- b. \_\_\_\_\_ feet *NA*
- c. \_\_\_\_\_ feet
- 8) Attach a hand sketch or photograph to the attached site plan showing the location of the settlement area(s). Identify each area by using letter a, b, or c, etc. from Question 6. \_\_\_\_\_

  
\_\_\_\_\_  
Signature of Inspector(s)

Attachments

\_\_\_\_\_ Yes \_\_\_\_\_ No





**North Lawrence Oil Dump (NLOD) Entrance Gate Signage**



**NLOD Secured Entrance Gate**



**NLOD Property and Disposal Cell**



**MW-102A Protective Casing**



**MW-102A Groundwater Monitoring Well**



**MW-102B Protective Casing**





**MW-102B Groundwater Monitoring Well**



**View to the South**



**Wetlands to the South**



**MW-303 Protective Casing**



**MW-303 Groundwater Monitoring Well**



**MW-301 Protective Casing**





**MW-301 Groundwater Monitoring Well**



**MW-302 Protective Casing**



**MW-302 Groundwater Monitoring Well**



**Disposal Cell Vent V-1**



**Disposal Cell Vent V-2**



**Gas Meter Reading of Vent V-2**





**Disposal Cell Vent V-3**



**Disposal Cell Vent V-4**



**View to the South from atop the Disposal Cell**



**Fenced Disposal Cell Area**

## **Appendix D**

### **Field Forms**

SAMPLE DATE: 1-6-2014

# LOW-FLOW SAMPLING LOG

TOTAL # WELLS: 5

Client Name: NYSDEC

Sample Pump: Peristaltic

Project Location: North Lawrence Oil Dump

Tubing Type: Polyethylene

**Sampler(s):** Jamey Charter

Monitoring Equipment: Horiba

Well I.D.	MW-301
-----------	--------

Screen Setting (ft btoc): \_\_\_\_\_ to \_\_\_\_\_

Well Diameter (inches): 2" PVC

Tubing Intake (ft btoc): \_\_\_\_\_

Total Depth (ft btoc): 15

Comments: DTW not taken during sampling due

Depth to Water (ft btoc): 3.02

to weather conditions, Approx. 1 gallon purged

Well Condition: Good- Well locked and capped upon arrival

[illegible]

Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time		Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
FROM	TO								
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: ~~1:29:00 PM~~ - Sampled for EPA 8260B

Reviewed by: \_\_\_\_\_

ft btoc                      feet below top of casing

NTU Nephelometric Turbidity Units

°C      degrees Celsius

ml/min                      milliliters per minute

mg/l milligrams per liter

mv          millivolts

$\mu\text{S/cm}$                       microseimons per centimeter

SAMPLE DATE: 1-6-2014

# LOW-FLOW SAMPLING LOG

TOTAL # WELLS: 5

Client Name: NYSDEC

Sample Pump: Peristaltic

Project Location: North Lawrence Oil Dump

Tubing Type: Polyethylene

**Sampler(s):** Jamey Charter

Monitoring Equipment: Horiba

Well I.D.	MW-302
-----------	--------

Screen Setting (ft btoc): \_\_\_\_\_ to \_\_\_\_\_

Well Diameter (inches): 2" PVC

Tubing Intake (ft btoc): \_\_\_\_\_

Total Depth (ft btoc):	17.56
------------------------	-------

Comments: DTW not taken during sampling due

Depth to Water (ft btoc): 3.11

to weather conditions, Approx. 1 gallon purged

Well Condition: Good- Well locked and capped upon arrival

[illegible]

## Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time		Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
FROM	TO								
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: ~~1:54:00 PM - Sampled for EPA 8260B~~

Reviewed by: \_\_\_\_\_

ft btoc                      feet below top of casing

NTU Nephelometric Turbidity Units

°C      degrees Celsius

ml/min                      milliliters per minute

mg/l milligrams per liter

mv          millivolts

$\mu\text{S/cm}$                       microseimons per centimeter



SAMPLE DATE: 1-6-2014

# LOW-FLOW SAMPLING LOG

TOTAL # WELLS: 5

Client Name: NYSDEC

Sample Pump: Peristaltic

Project Location: North Lawrence Oil Dump

Tubing Type: Polyethylene

**Sampler(s):** Jamey Charter

Monitoring Equipment: Horiba

Well I.D.	MW-303
-----------	--------

Screen Setting (ft btoc): \_\_\_\_\_ to \_\_\_\_\_

Well Diameter (inches): 2" PVC

Tubing Intake (ft btoc): \_\_\_\_\_

Total Depth (ft btoc):	17.87
------------------------	-------

Comments: DTW not taken during sampling due

Depth to Water (ft btoc): 4.07

to weather conditions, Approx. 1 gallon purged

Well Condition: Good- Well locked and capped upon arrival

[illegible]

## Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time		Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
FROM	TO								
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: ~~1:04:00 PM - Sampled for EPA 8260B~~

Reviewed by: \_\_\_\_\_

ft btoc

feet below top of casing

NTU Nephelometric Turbidity Units

°C

degrees Celsius

ml/min

milliliters per minute

mg/l milligrams per liter

mv

millivolts

 $\mu\text{S/cm}$ 

microseimons per centimeter

SAMPLE DATE: 1-6-2014

# LOW-FLOW SAMPLING LOG

TOTAL # WELLS: 5

Client Name: NYSDEC

Sample Pump: Peristaltic

Project Location: North Lawrence Oil Dump

Tubing Type: Polyethylene

**Sampler(s):** Jamey Charter

Monitoring Equipment: Horiba

Well I.D.	MW-102A
-----------	---------

Screen Setting (ft btoc): \_\_\_\_\_ to \_\_\_\_\_

Well Diameter (inches): 2" Steel

Tubing Intake (ft btoc): \_\_\_\_\_

Total Depth (ft btoc):	41.87
------------------------	-------

Comments: DTW not taken during sampling due

Depth to Water (ft btoc): 6.71

to weather conditions, Approx. 1 gallon purged

Well Condition: Good- Well locked and capped upon arrival

[illegible]

## Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time		Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
FROM	TO								
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: ~~12:05:00 PM - Sampled for EPA 8260B~~

Reviewed by: \_\_\_\_\_

ft btoc                      feet below top of casing

NTU Nephelometric Turbidity Units

°C      degrees Celsius

ml/min                      milliliters per minute

mg/l milligrams per liter

mv          millivolts

$\mu\text{S/cm}$                       microseimons per centimeter

SAMPLE DATE: 1-6-2014

# LOW-FLOW SAMPLING LOG

TOTAL # WELLS: 5

Client Name: NYSDEC

Sample Pump: Peristaltic

Project Location: North Lawrence Oil Dump

Tubing Type: Polyethylene

**Sampler(s):** Jamey Charter

Monitoring Equipment: Horiba

Well I.D.	MW-102B
-----------	---------

Screen Setting (ft btoc): \_\_\_\_\_ to \_\_\_\_\_

Well Diameter (inches): 2" Steel

Tubing Intake (ft btoc): \_\_\_\_\_

Total Depth (ft btoc): 11.77

Comments: DTW not taken during sampling due

Depth to Water (ft btoc): 6.63

to weather conditions, Approx. 1 gallon purged

Well Condition: Good- Well locked and capped upon arrival

[illegible]

## Stabilization of Parameters (stabilization achieved for three consecutive measurements)

Time		Depth to Water (ft btoc)	Evacuation Rate (ml/min)	pH	Conductivity (ms/cm)	Turbidity (NTU)	Dissolved oxygen (mg/l)	Temperature (°C)	ORP (mv)
FROM	TO								
Recommended Stabilization		+/- 0.3	100-500	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10
Stabilization: (Yes/No)									

Sample Time: ~~12:30:00 PM - Sampled for EPA 8260B~~

Reviewed by: \_\_\_\_\_

ft btoc                      feet below top of casing

NTU Nephelometric Turbidity Units

°C      degrees Celsius

ml/min                      milliliters per minute

mg/l milligrams per liter

mv          millivolts

$\mu\text{S/cm}$                       microseimons per centimeter

**Appendix E**  
**Analytical Results**



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-52942-1

Client Project/Site: North Lawrence Oil Dump

For:

HRP Associates, Inc.

1 Fairchild Square

Suite 110

Clifton Park, New York 12065

Attn: Jennifer R. Kotch



Authorized for release by:

1/10/2014 12:29:26 PM

Rebecca Jones, Project Management Assistant I

[rebecca.jones@testamericainc.com](mailto:rebecca.jones@testamericainc.com)

Designee for

Melissa Deyo, Project Manager I

(716)504-9874

[melissa.deyo@testamericainc.com](mailto:melissa.deyo@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15

# Table of Contents

Cover Page . . . . . 1

Table of Contents . . . . . 2

Definitions/Glossary . . . . . 3

Case Narrative . . . . . 4

Detection Summary . . . . . 5

Client Sample Results . . . . . 6

Surrogate Summary . . . . . 18

QC Sample Results . . . . . 19

QC Association Summary . . . . . 21

Lab Chronicle . . . . . 22

Certification Summary . . . . . 23

Method Summary . . . . . 24

Sample Summary . . . . . 25

Chain of Custody . . . . . 26

Receipt Checklists . . . . . 27



## Definitions/Glossary

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

### Qualifiers

#### GC/MS VOA TICs

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Case Narrative

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Job ID: 480-52942-1**

**Laboratory: TestAmerica Buffalo**

### Narrative

**Job Narrative**  
**480-52942-1**

### Receipt

The samples were received on 1/9/2014 2:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7° C.

### GC/MS VOA

No analytical or quality issues were noted.



## Detection Summary

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-102A (1/6/14)**

**Lab Sample ID: 480-52942-1**

No Detections.

**Client Sample ID: MW-102B (1/6/14)**

**Lab Sample ID: 480-52942-2**

No Detections.

**Client Sample ID: MW-303 (1/6/14)**

**Lab Sample ID: 480-52942-3**

No Detections.

**Client Sample ID: MW-301 (1/6/14)**

**Lab Sample ID: 480-52942-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	10		1.0	0.81	ug/L	1			8260C	Total/NA

**Client Sample ID: MW-302 (1/6/14)**

**Lab Sample ID: 480-52942-5**

No Detections.

**Client Sample ID: Tripblank NLOD (1/6/14)**

**Lab Sample ID: 480-52942-6**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-102A (1/6/14)**

**Lab Sample ID: 480-52942-1**

**Date Collected: 01/06/14 12:05**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/09/14 18:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/09/14 18:01	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/09/14 18:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/09/14 18:01	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/09/14 18:01	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/09/14 18:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/09/14 18:01	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/09/14 18:01	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/09/14 18:01	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/09/14 18:01	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/09/14 18:01	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/09/14 18:01	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/09/14 18:01	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/09/14 18:01	1
2-Hexanone	ND		5.0	1.2	ug/L			01/09/14 18:01	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/09/14 18:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/09/14 18:01	1
Acetone	ND		10	3.0	ug/L			01/09/14 18:01	1
Benzene	ND		1.0	0.41	ug/L			01/09/14 18:01	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/09/14 18:01	1
Bromoform	ND		1.0	0.26	ug/L			01/09/14 18:01	1
Bromomethane	ND		1.0	0.69	ug/L			01/09/14 18:01	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/09/14 18:01	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/09/14 18:01	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/09/14 18:01	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/09/14 18:01	1
Chloroethane	ND		1.0	0.32	ug/L			01/09/14 18:01	1
Chloroform	ND		1.0	0.34	ug/L			01/09/14 18:01	1
Chloromethane	ND		1.0	0.35	ug/L			01/09/14 18:01	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/09/14 18:01	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/09/14 18:01	1
Cyclohexane	ND		1.0	0.18	ug/L			01/09/14 18:01	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/09/14 18:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/09/14 18:01	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/09/14 18:01	1
Methyl acetate	ND		1.0	0.50	ug/L			01/09/14 18:01	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/09/14 18:01	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/09/14 18:01	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/09/14 18:01	1
Styrene	ND		1.0	0.73	ug/L			01/09/14 18:01	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/09/14 18:01	1
Toluene	ND		1.0	0.51	ug/L			01/09/14 18:01	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/09/14 18:01	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/09/14 18:01	1
Trichloroethene	ND		1.0	0.46	ug/L			01/09/14 18:01	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/09/14 18:01	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/09/14 18:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/09/14 18:01	1

TestAmerica Buffalo

# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-102A (1/6/14)**

**Lab Sample ID: 480-52942-1**

**Date Collected: 01/06/14 12:05**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>01/09/14 18:01</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>112</i>		<i>66 - 137</i>					<i>01/09/14 18:01</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>93</i>		<i>71 - 126</i>					<i>01/09/14 18:01</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>91</i>		<i>73 - 120</i>					<i>01/09/14 18:01</i>	<i>1</i>

# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-102B (1/6/14)**

**Lab Sample ID: 480-52942-2**

**Date Collected: 01/06/14 12:30**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/09/14 18:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/09/14 18:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/09/14 18:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/09/14 18:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/09/14 18:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/09/14 18:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/09/14 18:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/09/14 18:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/09/14 18:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/09/14 18:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/09/14 18:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/09/14 18:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/09/14 18:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/09/14 18:26	1
2-Hexanone	ND		5.0	1.2	ug/L			01/09/14 18:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/09/14 18:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/09/14 18:26	1
Acetone	ND		10	3.0	ug/L			01/09/14 18:26	1
Benzene	ND		1.0	0.41	ug/L			01/09/14 18:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/09/14 18:26	1
Bromoform	ND		1.0	0.26	ug/L			01/09/14 18:26	1
Bromomethane	ND		1.0	0.69	ug/L			01/09/14 18:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/09/14 18:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/09/14 18:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/09/14 18:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/09/14 18:26	1
Chloroethane	ND		1.0	0.32	ug/L			01/09/14 18:26	1
Chloroform	ND		1.0	0.34	ug/L			01/09/14 18:26	1
Chloromethane	ND		1.0	0.35	ug/L			01/09/14 18:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/09/14 18:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/09/14 18:26	1
Cyclohexane	ND		1.0	0.18	ug/L			01/09/14 18:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/09/14 18:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/09/14 18:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/09/14 18:26	1
Methyl acetate	ND		1.0	0.50	ug/L			01/09/14 18:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/09/14 18:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/09/14 18:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/09/14 18:26	1
Styrene	ND		1.0	0.73	ug/L			01/09/14 18:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/09/14 18:26	1
Toluene	ND		1.0	0.51	ug/L			01/09/14 18:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/09/14 18:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/09/14 18:26	1
Trichloroethene	ND		1.0	0.46	ug/L			01/09/14 18:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/09/14 18:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/09/14 18:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/09/14 18:26	1

TestAmerica Buffalo



## Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-102B (1/6/14)**

**Lab Sample ID: 480-52942-2**

**Date Collected: 01/06/14 12:30**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>01/09/14 18:26</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>114</i>		<i>66 - 137</i>					<i>01/09/14 18:26</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>94</i>		<i>71 - 126</i>					<i>01/09/14 18:26</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>92</i>		<i>73 - 120</i>					<i>01/09/14 18:26</i>	<i>1</i>

# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-303 (1/6/14)**

**Lab Sample ID: 480-52942-3**

**Date Collected: 01/06/14 13:04**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/09/14 18:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/09/14 18:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/09/14 18:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/09/14 18:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/09/14 18:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/09/14 18:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/09/14 18:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/09/14 18:50	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/09/14 18:50	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/09/14 18:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/09/14 18:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/09/14 18:50	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/09/14 18:50	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/09/14 18:50	1
2-Hexanone	ND		5.0	1.2	ug/L			01/09/14 18:50	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/09/14 18:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/09/14 18:50	1
Acetone	ND		10	3.0	ug/L			01/09/14 18:50	1
Benzene	ND		1.0	0.41	ug/L			01/09/14 18:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/09/14 18:50	1
Bromoform	ND		1.0	0.26	ug/L			01/09/14 18:50	1
Bromomethane	ND		1.0	0.69	ug/L			01/09/14 18:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/09/14 18:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/09/14 18:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/09/14 18:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/09/14 18:50	1
Chloroethane	ND		1.0	0.32	ug/L			01/09/14 18:50	1
Chloroform	ND		1.0	0.34	ug/L			01/09/14 18:50	1
Chloromethane	ND		1.0	0.35	ug/L			01/09/14 18:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/09/14 18:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/09/14 18:50	1
Cyclohexane	ND		1.0	0.18	ug/L			01/09/14 18:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/09/14 18:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/09/14 18:50	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/09/14 18:50	1
Methyl acetate	ND		1.0	0.50	ug/L			01/09/14 18:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/09/14 18:50	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/09/14 18:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/09/14 18:50	1
Styrene	ND		1.0	0.73	ug/L			01/09/14 18:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/09/14 18:50	1
Toluene	ND		1.0	0.51	ug/L			01/09/14 18:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/09/14 18:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/09/14 18:50	1
Trichloroethene	ND		1.0	0.46	ug/L			01/09/14 18:50	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/09/14 18:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/09/14 18:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/09/14 18:50	1

TestAmerica Buffalo

# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-303 (1/6/14)**

**Lab Sample ID: 480-52942-3**

**Date Collected: 01/06/14 13:04**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>01/09/14 18:50</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>112</i>		<i>66 - 137</i>					<i>01/09/14 18:50</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>91</i>		<i>71 - 126</i>					<i>01/09/14 18:50</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>90</i>		<i>73 - 120</i>					<i>01/09/14 18:50</i>	<i>1</i>

# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-301 (1/6/14)**

**Lab Sample ID: 480-52942-4**

**Date Collected: 01/06/14 13:29**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/09/14 19:15	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/09/14 19:15	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/09/14 19:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/09/14 19:15	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/09/14 19:15	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/09/14 19:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/09/14 19:15	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/09/14 19:15	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/09/14 19:15	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/09/14 19:15	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/09/14 19:15	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/09/14 19:15	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/09/14 19:15	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/09/14 19:15	1
2-Hexanone	ND		5.0	1.2	ug/L			01/09/14 19:15	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/09/14 19:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/09/14 19:15	1
Acetone	ND		10	3.0	ug/L			01/09/14 19:15	1
Benzene	ND		1.0	0.41	ug/L			01/09/14 19:15	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/09/14 19:15	1
Bromoform	ND		1.0	0.26	ug/L			01/09/14 19:15	1
Bromomethane	ND		1.0	0.69	ug/L			01/09/14 19:15	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/09/14 19:15	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/09/14 19:15	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/09/14 19:15	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/09/14 19:15	1
Chloroethane	ND		1.0	0.32	ug/L			01/09/14 19:15	1
Chloroform	ND		1.0	0.34	ug/L			01/09/14 19:15	1
Chloromethane	ND		1.0	0.35	ug/L			01/09/14 19:15	1
cis-1,2-Dichloroethene	10		1.0	0.81	ug/L			01/09/14 19:15	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/09/14 19:15	1
Cyclohexane	ND		1.0	0.18	ug/L			01/09/14 19:15	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/09/14 19:15	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/09/14 19:15	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/09/14 19:15	1
Methyl acetate	ND		1.0	0.50	ug/L			01/09/14 19:15	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/09/14 19:15	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/09/14 19:15	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/09/14 19:15	1
Styrene	ND		1.0	0.73	ug/L			01/09/14 19:15	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/09/14 19:15	1
Toluene	ND		1.0	0.51	ug/L			01/09/14 19:15	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/09/14 19:15	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/09/14 19:15	1
Trichloroethene	ND		1.0	0.46	ug/L			01/09/14 19:15	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/09/14 19:15	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/09/14 19:15	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/09/14 19:15	1

TestAmerica Buffalo



# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-301 (1/6/14)**

**Lab Sample ID: 480-52942-4**

**Date Collected: 01/06/14 13:29**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>01/09/14 19:15</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>113</i>		<i>66 - 137</i>					<i>01/09/14 19:15</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>92</i>		<i>71 - 126</i>					<i>01/09/14 19:15</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>91</i>		<i>73 - 120</i>					<i>01/09/14 19:15</i>	<i>1</i>

# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-302 (1/6/14)**

**Lab Sample ID: 480-52942-5**

**Date Collected: 01/06/14 13:54**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/09/14 19:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/09/14 19:39	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/09/14 19:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/09/14 19:39	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/09/14 19:39	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/09/14 19:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/09/14 19:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/09/14 19:39	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/09/14 19:39	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/09/14 19:39	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/09/14 19:39	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/09/14 19:39	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/09/14 19:39	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/09/14 19:39	1
2-Hexanone	ND		5.0	1.2	ug/L			01/09/14 19:39	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/09/14 19:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/09/14 19:39	1
Acetone	ND		10	3.0	ug/L			01/09/14 19:39	1
Benzene	ND		1.0	0.41	ug/L			01/09/14 19:39	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/09/14 19:39	1
Bromoform	ND		1.0	0.26	ug/L			01/09/14 19:39	1
Bromomethane	ND		1.0	0.69	ug/L			01/09/14 19:39	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/09/14 19:39	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/09/14 19:39	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/09/14 19:39	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/09/14 19:39	1
Chloroethane	ND		1.0	0.32	ug/L			01/09/14 19:39	1
Chloroform	ND		1.0	0.34	ug/L			01/09/14 19:39	1
Chloromethane	ND		1.0	0.35	ug/L			01/09/14 19:39	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/09/14 19:39	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/09/14 19:39	1
Cyclohexane	ND		1.0	0.18	ug/L			01/09/14 19:39	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/09/14 19:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/09/14 19:39	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/09/14 19:39	1
Methyl acetate	ND		1.0	0.50	ug/L			01/09/14 19:39	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/09/14 19:39	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/09/14 19:39	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/09/14 19:39	1
Styrene	ND		1.0	0.73	ug/L			01/09/14 19:39	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/09/14 19:39	1
Toluene	ND		1.0	0.51	ug/L			01/09/14 19:39	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/09/14 19:39	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/09/14 19:39	1
Trichloroethene	ND		1.0	0.46	ug/L			01/09/14 19:39	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/09/14 19:39	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/09/14 19:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/09/14 19:39	1

TestAmerica Buffalo

# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-302 (1/6/14)**

**Lab Sample ID: 480-52942-5**

**Date Collected: 01/06/14 13:54**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>01/09/14 19:39</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>117</i>		<i>66 - 137</i>					<i>01/09/14 19:39</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>92</i>		<i>71 - 126</i>					<i>01/09/14 19:39</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>92</i>		<i>73 - 120</i>					<i>01/09/14 19:39</i>	<i>1</i>

# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: Tripblank NLOD (1/6/14)**

**Lab Sample ID: 480-52942-6**

**Date Collected: 01/06/14 00:00**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/09/14 20:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/09/14 20:04	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/09/14 20:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/09/14 20:04	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/09/14 20:04	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/09/14 20:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/09/14 20:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/09/14 20:04	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/09/14 20:04	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/09/14 20:04	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/09/14 20:04	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/09/14 20:04	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/09/14 20:04	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/09/14 20:04	1
2-Hexanone	ND		5.0	1.2	ug/L			01/09/14 20:04	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/09/14 20:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/09/14 20:04	1
Acetone	ND		10	3.0	ug/L			01/09/14 20:04	1
Benzene	ND		1.0	0.41	ug/L			01/09/14 20:04	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/09/14 20:04	1
Bromoform	ND		1.0	0.26	ug/L			01/09/14 20:04	1
Bromomethane	ND		1.0	0.69	ug/L			01/09/14 20:04	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/09/14 20:04	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/09/14 20:04	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/09/14 20:04	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/09/14 20:04	1
Chloroethane	ND		1.0	0.32	ug/L			01/09/14 20:04	1
Chloroform	ND		1.0	0.34	ug/L			01/09/14 20:04	1
Chloromethane	ND		1.0	0.35	ug/L			01/09/14 20:04	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/09/14 20:04	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/09/14 20:04	1
Cyclohexane	ND		1.0	0.18	ug/L			01/09/14 20:04	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/09/14 20:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/09/14 20:04	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/09/14 20:04	1
Methyl acetate	ND		1.0	0.50	ug/L			01/09/14 20:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/09/14 20:04	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/09/14 20:04	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/09/14 20:04	1
Styrene	ND		1.0	0.73	ug/L			01/09/14 20:04	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/09/14 20:04	1
Toluene	ND		1.0	0.51	ug/L			01/09/14 20:04	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/09/14 20:04	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/09/14 20:04	1
Trichloroethene	ND		1.0	0.46	ug/L			01/09/14 20:04	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/09/14 20:04	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/09/14 20:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/09/14 20:04	1

TestAmerica Buffalo



# Client Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: Tripblank NLOD (1/6/14)**

**Lab Sample ID: 480-52942-6**

**Date Collected: 01/06/14 00:00**

**Matrix: Water**

**Date Received: 01/09/14 02:00**

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>01/09/14 20:04</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>114</i>		<i>66 - 137</i>					<i>01/09/14 20:04</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>91</i>		<i>71 - 126</i>					<i>01/09/14 20:04</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>88</i>		<i>73 - 120</i>					<i>01/09/14 20:04</i>	<i>1</i>

## Surrogate Summary

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		12DCE (66-137)	TOL (71-126)	BFB (73-120)
480-52942-1	MW-102A (1/6/14)	112	93	91
480-52942-2	MW-102B (1/6/14)	114	94	92
480-52942-3	MW-303 (1/6/14)	112	91	90
480-52942-4	MW-301 (1/6/14)	113	92	91
480-52942-5	MW-302 (1/6/14)	117	92	92
480-52942-6	Tripblank NLOD (1/6/14)	114	91	88
LCS 480-160832/5	Lab Control Sample	95	93	99
MB 480-160832/6	Method Blank	97	94	94

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

# QC Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-160832/6

Matrix: Water

Analysis Batch: 160832

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/09/14 13:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/09/14 13:10	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/09/14 13:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/09/14 13:10	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/09/14 13:10	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/09/14 13:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/09/14 13:10	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/09/14 13:10	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/09/14 13:10	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/09/14 13:10	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/09/14 13:10	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/09/14 13:10	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/09/14 13:10	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/09/14 13:10	1
2-Hexanone	ND		5.0	1.2	ug/L			01/09/14 13:10	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/09/14 13:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/09/14 13:10	1
Acetone	ND		10	3.0	ug/L			01/09/14 13:10	1
Benzene	ND		1.0	0.41	ug/L			01/09/14 13:10	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/09/14 13:10	1
Bromoform	ND		1.0	0.26	ug/L			01/09/14 13:10	1
Bromomethane	ND		1.0	0.69	ug/L			01/09/14 13:10	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/09/14 13:10	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/09/14 13:10	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/09/14 13:10	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/09/14 13:10	1
Chloroethane	ND		1.0	0.32	ug/L			01/09/14 13:10	1
Chloroform	ND		1.0	0.34	ug/L			01/09/14 13:10	1
Chloromethane	ND		1.0	0.35	ug/L			01/09/14 13:10	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/09/14 13:10	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/09/14 13:10	1
Cyclohexane	ND		1.0	0.18	ug/L			01/09/14 13:10	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/09/14 13:10	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/09/14 13:10	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/09/14 13:10	1
Methyl acetate	ND		1.0	0.50	ug/L			01/09/14 13:10	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/09/14 13:10	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/09/14 13:10	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/09/14 13:10	1
Styrene	ND		1.0	0.73	ug/L			01/09/14 13:10	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/09/14 13:10	1
Toluene	ND		1.0	0.51	ug/L			01/09/14 13:10	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/09/14 13:10	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/09/14 13:10	1
Trichloroethene	ND		1.0	0.46	ug/L			01/09/14 13:10	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/09/14 13:10	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/09/14 13:10	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/09/14 13:10	1

TestAmerica Buffalo

# QC Sample Results

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-160832/6

Matrix: Water

Analysis Batch: 160832

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Tentatively Identified Compound</i>	<i>MB</i> <i>Est. Result</i>	<i>MB</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Hexachlorobutadiene	0.442	J	ug/L		17.31	87-68-3		01/09/14 13:10	1
Tentatively Identified Compound	None		ug/L					01/09/14 13:10	1

<i>Surrogate</i>	<i>MB</i> <i>%Recovery</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	97		66 - 137		01/09/14 13:10	1
Toluene-d8 (Surr)	94		71 - 126		01/09/14 13:10	1
4-Bromofluorobenzene (Surr)	94		73 - 120		01/09/14 13:10	1

Lab Sample ID: LCS 480-160832/5

Matrix: Water

Analysis Batch: 160832

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike</i> <i>Added</i>	<i>LCS</i> <i>Result</i>	<i>LCS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>
1,1-Dichloroethane	25.0	24.3		ug/L		97	71 - 129
1,1-Dichloroethene	25.0	24.9		ug/L		100	58 - 121
1,2-Dichlorobenzene	25.0	24.1		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	25.2		ug/L		101	75 - 127
Benzene	25.0	23.9		ug/L		96	71 - 124
Chlorobenzene	25.0	23.9		ug/L		95	72 - 120
cis-1,2-Dichloroethene	25.0	24.9		ug/L		100	74 - 124
Ethylbenzene	25.0	24.7		ug/L		99	77 - 123
Methyl tert-butyl ether	25.0	25.9		ug/L		104	64 - 127
Tetrachloroethene	25.0	24.5		ug/L		98	74 - 122
Toluene	25.0	24.2		ug/L		97	80 - 122
trans-1,2-Dichloroethene	25.0	24.5		ug/L		98	73 - 127
Trichloroethene	25.0	26.7		ug/L		107	74 - 123

<i>Surrogate</i>	<i>LCS</i> <i>%Recovery</i>	<i>LCS</i> <i>Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	95		66 - 137
Toluene-d8 (Surr)	93		71 - 126
4-Bromofluorobenzene (Surr)	99		73 - 120

TestAmerica Buffalo



## QC Association Summary

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

### GC/MS VOA

#### Analysis Batch: 160832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-52942-1	MW-102A (1/6/14)	Total/NA	Water	8260C	
480-52942-2	MW-102B (1/6/14)	Total/NA	Water	8260C	
480-52942-3	MW-303 (1/6/14)	Total/NA	Water	8260C	
480-52942-4	MW-301 (1/6/14)	Total/NA	Water	8260C	
480-52942-5	MW-302 (1/6/14)	Total/NA	Water	8260C	
480-52942-6	Tripblank NLOD (1/6/14)	Total/NA	Water	8260C	
LCS 480-160832/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-160832/6	Method Blank	Total/NA	Water	8260C	

# Lab Chronicle

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

**Client Sample ID: MW-102A (1/6/14)**

Date Collected: 01/06/14 12:05

Date Received: 01/09/14 02:00

**Lab Sample ID: 480-52942-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	160832	01/09/14 18:01	CDC	TAL BUF

**Client Sample ID: MW-102B (1/6/14)**

Date Collected: 01/06/14 12:30

Date Received: 01/09/14 02:00

**Lab Sample ID: 480-52942-2**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	160832	01/09/14 18:26	CDC	TAL BUF

**Client Sample ID: MW-303 (1/6/14)**

Date Collected: 01/06/14 13:04

Date Received: 01/09/14 02:00

**Lab Sample ID: 480-52942-3**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	160832	01/09/14 18:50	CDC	TAL BUF

**Client Sample ID: MW-301 (1/6/14)**

Date Collected: 01/06/14 13:29

Date Received: 01/09/14 02:00

**Lab Sample ID: 480-52942-4**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	160832	01/09/14 19:15	CDC	TAL BUF

**Client Sample ID: MW-302 (1/6/14)**

Date Collected: 01/06/14 13:54

Date Received: 01/09/14 02:00

**Lab Sample ID: 480-52942-5**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	160832	01/09/14 19:39	CDC	TAL BUF

**Client Sample ID: Tripblank NLOD (1/6/14)**

Date Collected: 01/06/14 00:00

Date Received: 01/09/14 02:00

**Lab Sample ID: 480-52942-6**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	160832	01/09/14 20:04	CDC	TAL BUF

## Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TestAmerica Buffalo

# Certification Summary

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

## Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13 *
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13 *
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	03-31-14
Wisconsin	State Program	5	998310390	08-31-14

\* Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

## Method Summary

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

## Sample Summary

Client: HRP Associates, Inc.  
Project/Site: North Lawrence Oil Dump

TestAmerica Job ID: 480-52942-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-52942-1	MW-102A (1/6/14)	Water	01/06/14 12:05	01/09/14 02:00
480-52942-2	MW-102B (1/6/14)	Water	01/06/14 12:30	01/09/14 02:00
480-52942-3	MW-303 (1/6/14)	Water	01/06/14 13:04	01/09/14 02:00
480-52942-4	MW-301 (1/6/14)	Water	01/06/14 13:29	01/09/14 02:00
480-52942-5	MW-302 (1/6/14)	Water	01/06/14 13:54	01/09/14 02:00
480-52942-6	Tripblank NLOD (1/6/14)	Water	01/06/14 00:00	01/09/14 02:00



**THE LEADER IN ENVIRONMENTAL TESTING**

TAL-412A (1007)

Client	HRP Associates	Project Manager	Jen Kotch	Date	1/7/14	Chain of Custody Number	247846
Address	1 Fairchild Sq Suite 110	Telephone Number (Area Code)/Fax Number	518-877-7101 x115 / 518-877-8561	Lab Number		Page	1 of 1

<b>City</b>	<b>State</b>	<b>Zip Code</b>	<b>Site Contact</b>	<b>Lab Contact</b>	<b>Analysis (Attach list if more space is needed)</b>					
Clifton Park	NY	12065	Jen Kotch	Melissa Deyo						
<b>Project Name and Location (State)</b>		<b>Carrier/Vehicle Number</b>								
Martin Lawrence										

[illegible]

<i>Contract/Purchase Order/Quote No.</i>	<i>Matrix</i>	<i>Containers &amp; Preservatives</i>	<i>978-</i>	<i>Conditions of Receipt</i>
NEW9260.OM Task 2				

[illegible]

**Possible Hazard Identification** ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal** ☐ Return To Client ☒ Disposal By Lab ☐ Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify) 2/2/2

1. Relinquished By <i>James Chanter (HRA)</i>	Date <i>1/7/14</i>	Time <i>12:55</i>	1. Received By <i>[Signature]</i>	Date <i>1/7/14</i>	Time <i>12:55</i>
2. Relinquished By <i>[Signature]</i>	Date <i>1/8/14</i>	Time <i>18:00</i>	2. Received By <i>[Signature]</i> T.A.L.	Date <i>1-8-14</i>	Time <i>0200</i>
3. Relinquished By	Date	Time	3. Received By	Date	Time

---

*Comments*

2.  $2 \neq 1$

**DISTRIBUTION:** *WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy*

Page 26 of 27

1/10/2014

## Login Sample Receipt Checklist

Client: HRP Associates, Inc.

Job Number: 480-52942-1

Login Number: 52942

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	