NEW YORK STATE OF OPPORTUNITY. Department of Transportation

ANDREW M. CUOMO
Governor

MARIE THERESE DOMINGUEZ
Acting Commissioner

LANCE MacMILLAN, P.E.
Regional Director

May 17, 2016

VIA EMAIL
Daniel Lanners, Project Manager
NYS Department of Environmental Conservation
Division of Environmental Remediation, BURC
625 Broadway
Albany, NY 12233-7014

RE: SITE MANAGEMENT PERIODIC REVIEW REPORT
SITE NUMBER 360035
NYSDOT HARRISON SUBRESIDENCY
ROUTE 120
TOWN OF HARRISON
WESTCHESTER COUNTY

Dear Mr. Lanners:

Attached please find the Site Management Periodic Review Report for the Harrison Sub-Residency in the Town of Harrison, Westchester County.

Please feel free to contact me at 845.431.5826 or gretchen.fitzgerald@dot.ny.gov if you have any questions or concerns.

Very truly yours,

Gretchen Fitzgerald
Regional Construction Environmental Coordinator, Region 8

Enclosures

cc: C. Kochersberger, Transportation Maintenance Group, Main Office, NYSDOT, POD 54
G. Boucher, Regional Maintenance Engineer, Region 8, NYSDOT
C. Kappeller, Maintenance Environmental Group, Region 8, NYSDOT
J. Argote, Resident Engineer, Residency 8-9, Region 8, NYSDOT

Enclosure 2

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

Site Details **Box 1**

Site No. 360035

Site Name Harrison Subresidency

Site Address: Route 120 Zip Code: 10528
City/Town: Harrison
County: Westchester
Site Acreage: 5.000

Reporting Period: May 14, 2016 to May 14, 2019

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

Box 2

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

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

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

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 360035 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
971-22	NYS Department of Transportation	O&M Plan

The NYSDOT is conducting operation and maintenance of the landfill which includes surface water, sediment and groundwater monitoring and visual inspections of the cover material. Landfill inspections are conducted semi-annually and groundwater samples are collected every fifth quarter.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
971-22	Cover System Fencing/Access Control

The landfill was closed in accordance with NYCRR Part 360. Closure included capping of 2.6 acres of landfill area.

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
X	☐

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

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

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

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

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

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

YES	NO
X	☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 360035

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Gretchen Fitzgerald (print name) at 4 Burnett Blvd., Poughkeepsie, NY 12603 (print business address),

am certifying as owner (NYSDOT) (Owner or Remedial Party)

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

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

5/17/19
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

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

I Gretchen Fitzgerald (print name) at 4 Burnett Blvd., Poughkeepsie, NY 12603 (print business address),

am certifying as a Qualified Environmental Professional for the NYSDOT (owner) (Owner or Remedial Party)

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
		5/17/19

Site Management Periodic Review Report
NYSDOT Harrison Sub-Residency
Harrison, New York
Site Number 360035
May 17, 2019

Introduction

The New York State Department of Transportation (DOT) Harrison sub-residency site is located east of Route 120 and west of the Westchester County Airport in the Town of Harrison, Westchester County (see Attachment 1).

Currently, there are two environmental concerns at the Harrison sub-residency:

- a 2.6 acre landfill, which is listed in the New York State Registry of Inactive Hazardous Waste Sites and is classified as a "Category 4", meaning that it has been remediated and only ongoing monitoring is required, and

- a “closed, does not meet standards” petroleum spill (#94-07349), for which ongoing monitoring continues to be conducted.

Over the past 19 years, results from extensive environmental monitoring (surface water, groundwater, sediment, landfill gas, petroleum-remediation gas emissions) indicate that these areas do not represent a significant threat to the environment, including the nearby Kensico Reservoir.

Site History

The Harrison sub-residency facility was built in 1967 to support the construction and operation of Interstate 684. Roadside and highway construction debris were disposed on-site in a landfill between 1967 and 1976. The area was fenced in 1972. In April 1993, a 55-gallon drum of road striping paint was removed from the landfill during a test pit excavation. Because the paint contained toluene (a solvent), the site was placed on the New York State Registry of Inactive Hazardous Waste Sites.

DOT consulted with the New York State Department of Environmental Conservation (DEC) and the New York State Department of Health (DOH) and performed an expedited, comprehensive investigation (i.e., Preliminary Site Assessment) of the landfill and its vicinity in 1995. Several drums containing hazardous or suspected hazardous waste, mostly paint products, were encountered and removed from the landfill. Based on the results of the investigation, DEC, DOH and DOT indicated that the landfill was not a significant threat to the reservoir.

After consulting with DEC, DOH, and the New York City Department of Environmental Protection (DEP), the landfill was re-graded and capped in accordance with stringent DEC landfill closure requirements on August 31, 1999. The cap includes a durable polyethylene liner to prevent the infiltration of water and subsequent leaching of contaminants into the environment. A small stream that drains into the reservoir was rerouted around the landfill so that it could not act as a collector trench for contaminants (see Attachment 2). The plastic liner extends beneath the repositioned stream, so that any leachate generated within the fill cannot discharge into surface water. Environmental monitoring results have shown no evidence of toxic contaminants from the landfill with the potential of reaching the reservoir.

DOT also identified a petroleum spill at the vicinity of the fuel tank area. With DEC approval, in August 1994, DOT removed three underground petroleum storage tanks (two 400-gallon and one 2000-gallon), 130 cubic yards of contaminated soil, and 8,000 gallons of contaminated water. There are currently no tanks remaining on this property. Monitoring results at the petroleum spill area suggested that the spill had not migrated off-site and was not a significant threat to the reservoir.

Landfill monitoring has been conducted on a quarterly basis since 2000. In February 2010, with concurrence from DOH and DEP, DEC granted permission to DOT to change this frequency to semi-annually. These monitoring reports have been and continue to be submitted to DEC, DOH and DEP.

Beginning in 2000, DOT completed quarterly groundwater, surface water, and sediment sampling and reports at the landfill area, and groundwater sampling and reports at the petroleum spill area. The quarterly reports changed to every-5th quarter reports in October 2005. These reports have been and continue to be submitted to DEC, DOH and DEP.

At the request of DOH and in coordination with DEC, a sub-slab soil gas investigation was conducted in March 2006 at two locations within the sub-residency building beneath the concrete slab foundation. The purpose of the sub-slab soil gas investigation was to assess the potential for vapor intrusion into the sub-residency building from the potential presence of volatile organic compounds in the groundwater and/or sub-surface soil adjacent to and/or beneath the building. DEC reviewed the results of the sub-slab investigation and concluded that the low levels of site-related volatile organic compounds detected in the sub-slab vapor of the sub-residency building indicated that the potential for exposure to site-related compounds via indoor vapor intrusion was unlikely. In addition, the presence of non-site related compounds at the levels detected in the sub-slab soil vapor did not represent an exposure concern considering the current use of the building.

In October 2013, the Town of Harrison Department of Public Works was served with a Notice of Violation from DEP regarding the operation of a solid waste management facility (i.e., organic yard waste transfer station) within 1000 feet of the Kensico Reservoir and a reservoir stem. In February 2015, the Town of Harrison accepted the terms of a variance granted by DEP permitting the Town's operations. The terms included site drainage improvements to be made by the Town. In February 2016, DEP determined that all variance mitigation measures had been installed, and DEP determined that the violation has been satisfactorily resolved.

Institutional and Engineering Controls

- Air Sparge/Soil Vapor Extraction System

On October 31, 2000, DOT started operating an Air Sparge/Soil Vapor Extraction (AS/SVE) system at the petroleum spill area. This system was highly successful: a 90% overall reduction of contaminants was achieved in less than a year due to volatilization and bioremediation of the petroleum product. Because contaminant levels significantly decreased in the first year and then remained relatively constant (i.e., natural attenuation processes were/are effectively reducing and containing the plume), and it was agreed that the maximum benefits of the system had been achieved, the remedial system was taken off-line in October 2002. The pipes were plugged by DOT Maintenance in October 2006.

In March 2008, DEC determined that the remedial work performed at the site, specifically the past operations of the AS/SVE system and the monitoring program which is ongoing, had addressed the open spill number 94-07349. The spill was declared "Closed, does not meet standards". (The official spill closure date is 10/10/02, which is when the AS/SVE system was shut down). The ongoing monitoring program serves to document the status of the residual contamination.

In May - June 2008, after discussions among DOT, DEC, DOH, and DEP, thirteen wells in the petroleum spill area were “closed” or decommissioned. In June of 2008, two new wells, MW-12 and MW-13, were installed (see Attachments 3, 4, 12).

In November 2011 and May 2012, again after discussions among DOT, DEC, DOH, and DEP, five more wells were “closed” or decommissioned (three in the petroleum spill area, one in the landfill area, and one “outlier”). The existing well in the petroleum spill area which has been left open is MW-11 (see Attachments 5, 6, 13).

- Fence

The Harrison sub-residency site is secured with a fence and a locked gate. There is also a fence surrounding the entire perimeter of the landfill, which is also locked. The Town of Harrison operates a leaf transfer station at the Harrison sub-residency. The Town operates out of the old sub-residency garage that is on-site. While the Town is not involved in the groundwater monitoring or landfill inspections, they are responsible for maintaining the area where they work. Any damage to the landfill fence is noted on the semi-annual landfill inspection reports. Any necessary repairs to the fence are made by DOT. On occasion, the Town of Harrison has been asked to fix portions of the fence that have been damaged by their operations.

- Landfill Cap

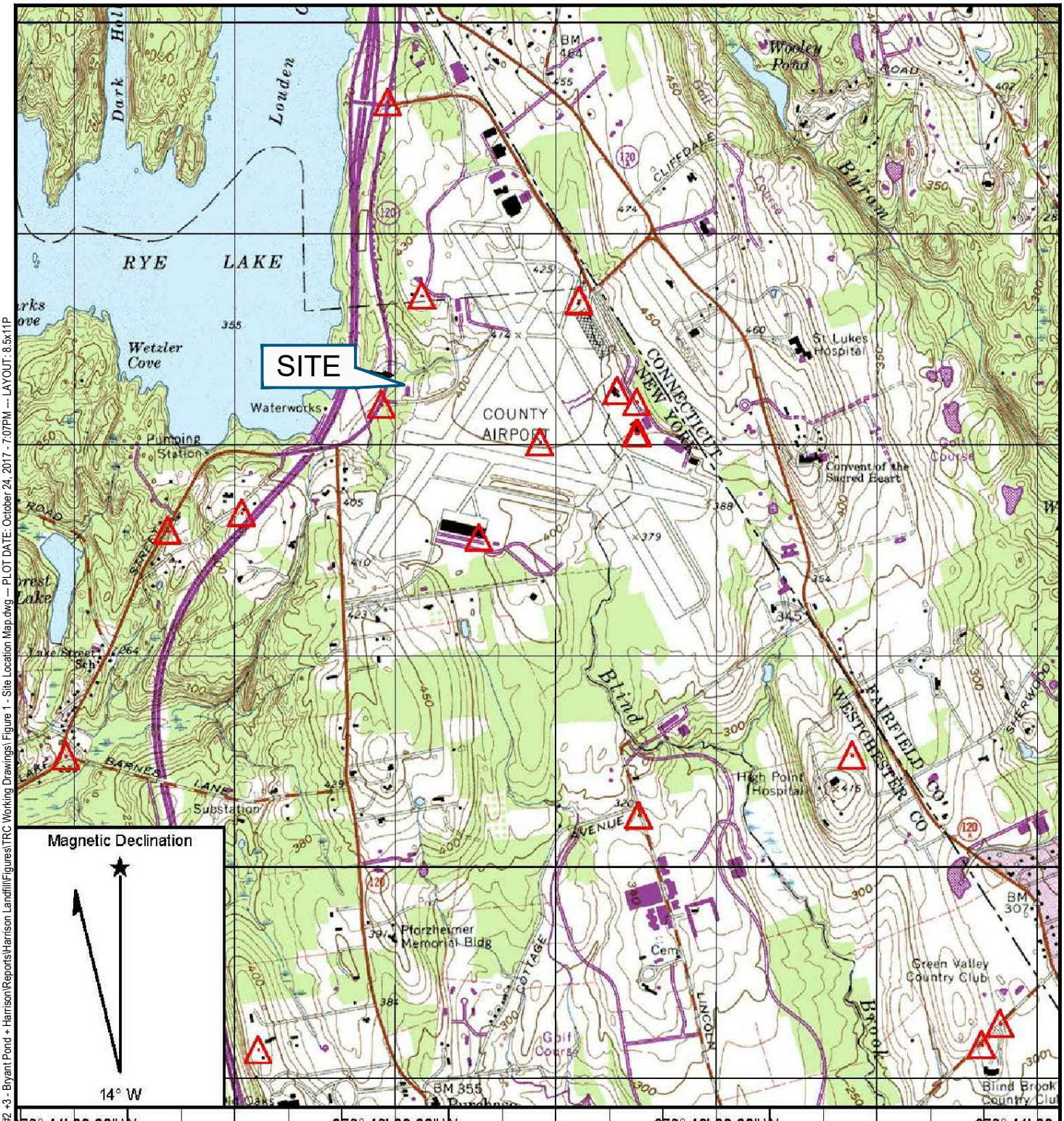
The landfill was re-graded and capped in accordance with stringent DEC landfill closure requirements on August 31, 1999. The cap includes a durable polyethylene liner to prevent the infiltration of water and subsequent leaching of contaminants into the environment. Minor erosion on the western slope of the landfill became an issue in 2006. DOT Region 8 Maintenance applied wood chips to the area in the Spring of 2007. A permanent fix to the erosion/soil slump took place in May 2009 when it was repaired by DOT Residency 8-9 personnel. Approximately 6 inches of #2 crushed stone (NYSDOT Standard Spec. 623.12) was placed on the slump then covered with approximately 12 inches of fine stone fill (NYSDOT Standard Spec. 620.02). Repair suggestions were provided by the DOT Region 8 Geotechnical Group.

- Operations and Maintenance Plan

An Operations and Maintenance (O+M) plan was developed by DOT when well sampling and landfill monitoring began. The O+M plan has been updated throughout the years as necessary and is always shared with and agreed upon by DEC, DOH, and DEP. The most current O+M plan is dated February 2010 (see Attachment 7).

Please see the following attachments for more information:
Attachment 1 - Site Location Map
Attachment 2 - Site Map and Sampling/Monitoring Locations
Attachment 3 - Petroleum Spill Area Historic Well Locations
Attachment 4 - Landfill and Petroleum Spill Area Monitoring Well Locations as of June 2008
Attachment 5 - Landfill and Petroleum Spill Area Monitoring Well Locations as of May 2012
Attachment 6 - Petroleum Spill Area Monitoring Well Locations as of October 2018
Attachment 7 - Operations and Maintenance Plan for the Landfill and Petroleum Spill Area - February 2010
Attachment 8 - Groundwater Data Summary for the Petroleum Spill Area - October 2018
Attachment 9 - Groundwater Data Summary for the Landfill - October 2018
Attachment 10 - Surface Water Data Summary for the Landfill - October 2018
Attachment 11 - Sediment Data Summary for the Landfill – October 2018
Attachment 12 - Plugging Report for Well Closures in May and June 2008
Attachment 13 - Plugging Report for Well Closures in November 2011 and May 2012

Attachment 1



TRC
1430 Broadway
10th Floor
New York, NY 10018
Phone: 212.221.7822

PROJECT: **NEW YORK STATE DEPARTMENT OF TRANSPORTATION**
PIN 8806.51.101 - HARRISON LANDFILL AREA
HARRISON SUB-RESIDENCY
WEST HARRISON, NEW YORK

TITLE:

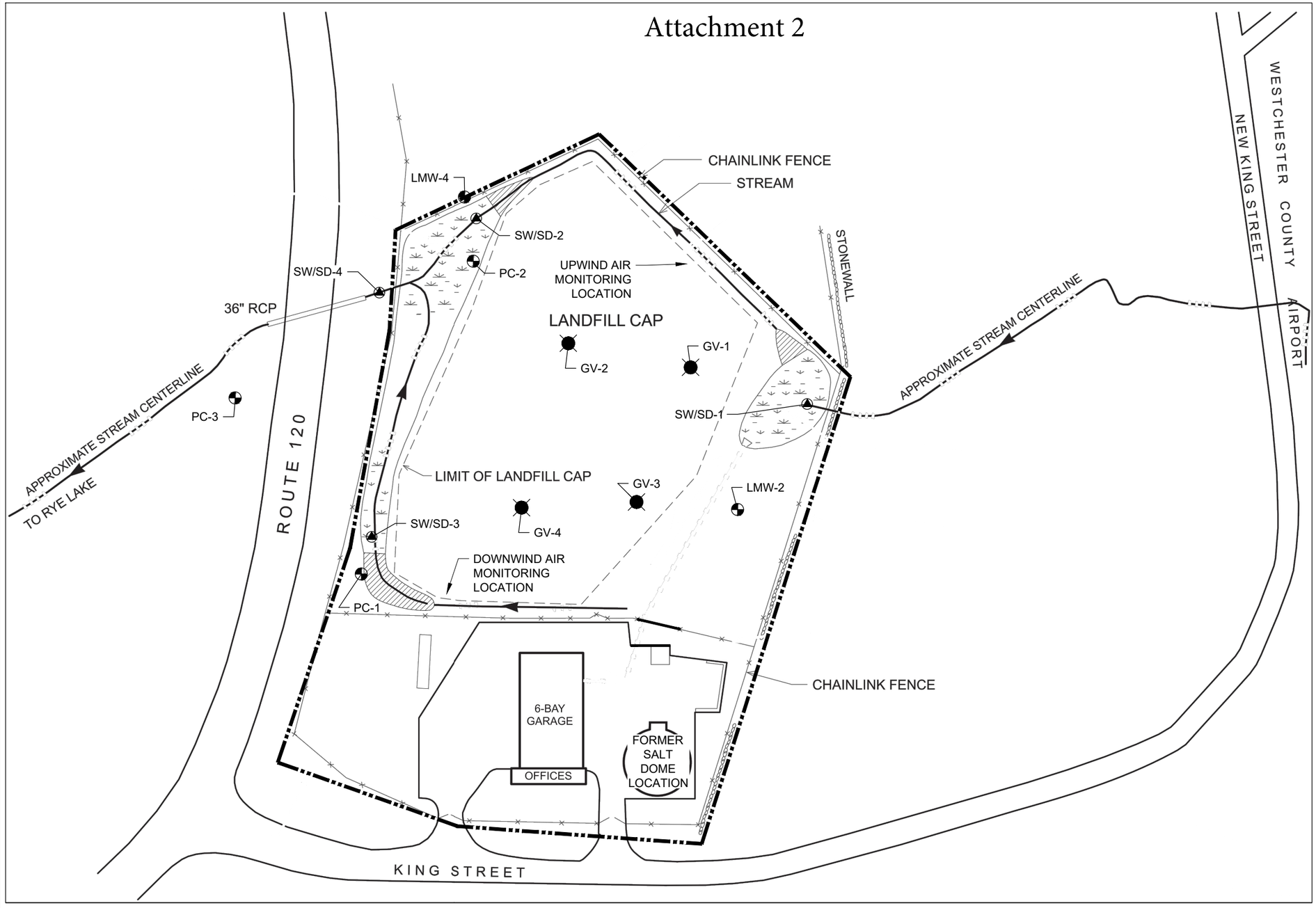
SITE LOCATION MAP

DRAWN BY:	H. DELGADO
CHECKED BY:	J. ROBINSON
APPROVED BY:	J. PERONTO
DATE:	OCTOBER 2017
PROJ. NO.:	280089.0001.0000
FILE:	Figure 1 - Site Location Map.dwg

FIGURE 1

8.5x11 --- ATTACHED XREFS: --- ATTACHED IMAGES: Harrison Landfill Figures, Page_1:
DRAWING NAME: i:\Projects\NYSDOT - D031371\Assignments #2 +3 - Bryant Pond + Harrison\Reports\Harrison Landfill\Figures\TRC Working Drawings\ Figure 1 - Site Location Map.dwg --- PLOT DATE: October 24, 2017 - 7:07PM --- LAYOUT: 8.5x11P

Attachment 2



LEGEND (SYMBOLS NOT TO SCALE):

- SITE BOUNDARY
- LMW-X OR PC-X — MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- SW/SD-X — SURFACE WATER AND SEDIMENT SAMPLING LOCATION AND IDENTIFICATION NUMBER
- GV-X — LANDFILL GAS VENT LOCATION AND IDENTIFICATION NUMBER

N

NOTES:

1. FIGURE SOURCE: HDR ENGINEERING, INC. 5TH QUARTER MONITORING REPORT DATED JUNE 1, 2016.

0 100' 200'

SCALE: 1" = 100'
SHEET SIZE: 11" BY 17"

PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
PIN 8806.51.101 - HARRISON LANDFILL AREA
HARRISON SUB-RESIDENCY
WEST HARRISON, NEW YORK

TITLE:
SITE MAP AND SAMPLING/MONITORING LOCATIONS

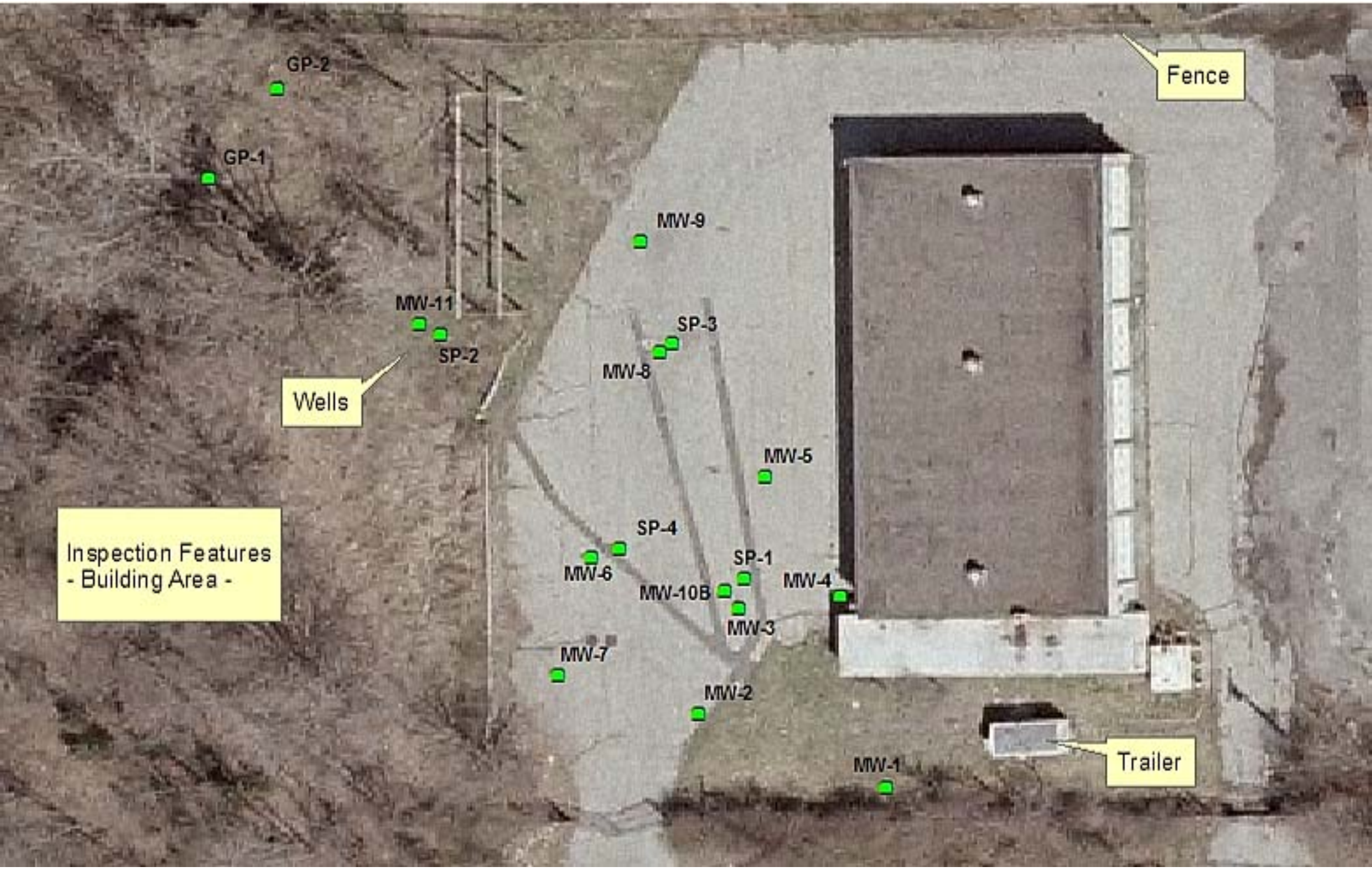
DRAWN BY:	H. DELGADO	PROJ NO.:	280089.0000.0000
CHECKED BY:	J. ROBINSON		
APPROVED BY:	J. PERONTO		**FIGURE 2**
DATE:	OCTOBER 2017		

TRC
1430 Broadway
10th Floor
New York, NY 10018
Phone: 212.221.7822

FILE NO.: Figure 2 - Site Map and Sampling-Monitoring Locations.dwg

Attachment 3

Harrison Spill Area Historic Well Locations



Attachment 4

NYSDOT HARRISON SUBRESIDENCY WESTCHESTER CO.

Monitoring Well Locations May 2009

LMW-4
PC-2
PC-3
V-3
V-2
V-4
V-1
LMW-2
PC-1
GP-2
GP-1
MW-13
MW-11
MW-12
MW-1

N
W
E
S

0 50 100 200 Feet

Monitoring Wells
Vents

Attachment 5

NYSDOT HARRISON SUBRESIDENCY WESTCHESTER CO.

Monitoring
Well Locations
May 2012

LMW-4
PC-2
PC-3
V-3
V-2
V-4
V-1
LMW-2
PC-1
MW-11

N
W
E
S

0 50 100 200 Feet

Monitoring Wells selection
Vents

Attachment 6

LEGEND (SYMBOLS NOT TO SCALE):

GP-XX OR MW-XX — GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION NUMBER

APPROXIMATE PLUME LOCATION

N

SOURCES:

- AERIAL IMAGE FROM GOOGLE EARTH PRO, DATED APRIL 16, 2016.
- APPROXIMATE PLUME LOCATION FROM HDR ENGINEERING, INC.

0 50' 100'

SCALE: 1" = 50'
SHEET SIZE: 11" BY 17"

PROJECT:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
PIN 8807.31.101 - HARRISON SPILL SITE (SPILL #94-07349)
HARRISON SUB-RESIDENCY
WEST HARRISON, NEW YORK

TITLE:
MONITORING WELL LOCATION MAP

DRAWN BY:	H. DELGADO	PROJ NO.:	280089.0000.0000
CHECKED BY:	A. CHALMERS		**FIGURE 2**
APPROVED BY:	K. MYERS		
DATE:	OCTOBER 2017		

TRC
1430 Broadway
10th Floor
New York, NY 10018
Phone: 212.221.7822

FILE NO.: Figure 2 - Spill Site Monitoring Well Locations_r1.dwg

Attachment 7

OPERATION AND MAINTENANCE PLAN FOR THE HARRISON SUBRESIDENCY LANDFILL AND PETROLEUM SPILL AREA

February 2010

Semi-annual (DOT)

1. Inspect monitoring wells.
2. Landfill cap (including cap vegetation) inspection.
3. Inspect landfill gas vents.
4. Inspect perimeter fence, gates, and signs.

Every 5 Quarters (Consultant)

5. Measure water level from monitoring wells.

Landfill Area Only:

6. Vector and vermin inspection.
7. Perimeter drainage swales.
8. Gas monitoring at gas vents and property line perimeter.
9. Sample ground- and surface- water for field parameters: Temperature, turbidity, DO, pH, and specific conductivity. In addition, sample groundwater only for: Eh (or ReDox; field parameter). (*See* **Note 1** *below).*
10. Sample all the media for TCL VOCs, SVOCs, TAL-Metals (including cyanide and chloride). (*See* **Note 2, Note 3,** *and* **Note 4** *below*).

Petroleum Spill Area Only:

11. Sample groundwater for field parameters: Temperature, turbidity, DO, pH, and specific conductivity, and Eh. (*See* **Note 1** *below).*

12. Sample groundwater for BTEX, MTBE, and natural attenuation parameters: Iron (dissolved; Fe-II), Manganese (dissolved; Mn-II), Bicarbonate Alkalinity (reported as HCO3), Alkalinity (Total), Nitrate (NO3), and Sulfate (SO4). Parameters can be modified based on discussions with DEC.

Other (DOT):

13. Twice a year during the growing season (e.g., End of June, Mid September): mow cap grass to a height of no lower than 15 cm.
14. After major rainfall events (5-year storms): inspect cap and drainage swales.

X ***Well purge water can be discharged immediately downgradient from the well.***

Note 1: A flow cell meter must be used to measure all field parameters.

Note 2: *Groundwater*: filter samples for TAL-Metal analyses. *Surface Water*: unfiltered samples; filter samples for TAL-Metal analyses if ***samples have been significantly disturbed*** (e.g., the consultant dug a hole to collect a sample and water turbidity resulted from digging the hole; no unfiltered "disturbed" samples are to be collected for TAL-Metal analyses).

Note 3: Testing for pesticides and PCBs has been suspended after October 2005, because we have no evidence of any disposal of these contaminants at the site, and levels of these contaminants have not been detected or not significantly detected at site monitoring points.

Note 4: If field duplicate samples are collected, they will be performed on water samples only (not on sediment samples), since water samples are expected to be more homogeneous.

Attachment 8

TABLE 1
NYSDOT - Harrison Sub-Residency Petroleum Spill Area
Groundwater Analytical Data Summary
October 2018

	CLIENT ID: / LAB ID: / COLLECTION DATE:	PC-1-102018 AD07118-003 10/15/2018		GW-DUP1-102018 AD07118-005 10/15/2018		MW-11-102018 AD07118-007 10/15/2018		TB-1 AD07118-009 10/15/2018	
Analyte	**NYSDEC Class GA Standards[1]**	Result	RL	Result	RL	Result	RL	Result	RL
Volatile Organic Compounds (µg/L)									
Benzene	1	ND	0.50	ND	0.50	ND	0.50	ND	0.50
Ethylbenzene	5	ND	1.0	ND	1.0	**17**	1	ND	1.0
m&p-Xylenes	5[2]	ND	1.0	ND	1.0	2	1	ND	1.0
Methyl-t-butyl ether	10	ND	0.50	ND	0.50	ND	0.50	ND	0.50
o-Xylene	5[2]	ND	1.0	ND	1.0	ND	1	ND	1.0
Toluene	5	ND	1.0	ND	1.0	ND	1	ND	1.0
Xylenes (Total)	5[2]	ND	1.0	ND	1.0	2	1	ND	1.0
Total BTEX	NS	ND	-	ND	-	19	-	ND	-
Metals (µg/L)									
Iron	300/500[3]	**240**	300	**230**	300	**1,600**	300		
Manganese	300/500[3]	**2,000**	40	**2,000**	40	**1,600**	40		
Natural Attenuation Parameters (µg/L)									
Alkalinity (Total)	NS	450	10			270	10		
Alkalinity (Bicarbonate)	NS	450	10			270	10		
Alkalinity (Carbonate)	NS	ND	10			ND	10		
Nitrite	NS	ND	1,000			ND	1,000		
Nitrate	NS	ND	1,000			ND	1,000		
Sulfate	250,000	8,100	2,000			7,500	2,000		
Sulfide[5]	NS	ND	2	ND	2	ND	2		

Notes:
(1) - NYSDEC Class GA Standards are from Division of Water Technical and Operational Guidance Series (1.1.1),

(2) -There is no GA value for total xylenes. The standards for o-xylene, m-xylene, and p-xylene is 5 µg/L

(3) Standard of 300 ug/L applies to each substance and 500 ug/L applies to the sum of these substances

(4) GW-DUP1-102018 is blind duplicate of PC-1-102018

(5) Sulfide was sampled separately from all other analytes, on October 23, 2018. Due to this, the laboratory IDs listed within the laboratory report for sulfide analyis are different than those displayed above.

NS - No Standard

ND - Analyte not detected at the listed reporting limit

RL - Reporting Limit

µg/L - micrograms per liter

Shaded and **bolded** values exceed regulatory criteria

Alkalinity values are reported in milligrams of CaCO3 per liter (mg CaCO3/L)

Attachment 9

Table 1
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Groundwater Sample Analytical Results for Volatile Organic Compounds

	CLIENT ID:	LMW-2-102018		LMW-4-102018		PC-1-102018		GW-DUP1-102018[4]	
	LAB ID:	AD07118-001		AD07137-001		AD07118-003		AD07118-005	
	COLLECTION DATE:	10/15/2018		10/16/2018		10/15/2018		10/15/2018	
Volatile Organic Compounds	NYSDEC Class GA Standards[1] (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
1,1,1-Trichloroethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1,2,2-Tetrachloroethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloroethane	1	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2,3-Trichlorobenzene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2,4-Trichlorobenzene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromo-3-chloropropane	0.04	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromoethane	6.00E-04	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2-Dichloroethane	0.6	ND	0.50	ND	0.50	ND	0.50	ND	0.50
1,2-Dichloropropane	1	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,3-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,4-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0	ND	1.0
2-Butanone	50	ND	1.0	ND	1.0	ND	1.0	ND	1.0
2-Hexanone	50	ND	1.0	ND	1.0	ND	1.0	ND	1.0
4-Methyl-2-pentanone	NS	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Acetone	50	ND	5.0	ND	5.0	ND	5.0	ND	5.0
Benzene	1	ND	0.50	ND	0.50	ND	0.50	ND	0.50
Bromochloromethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Bromodichloromethane	50	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Bromoform	50	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Bromomethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Carbon disulfide	60	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Carbon tetrachloride	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Chlorobenzene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Chloroethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Chloroform	7	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Chloromethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
cis-1,2-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
cis-1,3-Dichloropropene	0.4[2]	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Cyclohexane	NS	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Dibromochloromethane	50	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Dichlorodifluoromethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Ethylbenzene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Isopropylbenzene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
m&p-Xylenes	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Methyl Acetate	NS	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Methylcyclohexane	NS	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Methylene chloride	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Methyl-t-butyl ether	10	ND	0.50	ND	0.50	ND	0.50	ND	0.50
o-Xylene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Styrene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Tetrachloroethene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Toluene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
trans-1,2-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
trans-1,3-Dichloropropene	0.4[2]	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Trichloroethene	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Trichlorofluoromethane	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Vinyl chloride	2	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Xylenes (Total)	5[3]	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Total VOCs	NS	ND	-	ND	-	ND	-	ND	-

Notes
(1) - NYSDEC Class GA Standards are from Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, revised April 2000.
(2) - 0.4 µg/L applies to the sum of cis- and trans-1,3-dichloropropene.
(3) -There is no GA value for total xylenes. The standards for o-xylene, m-xylene, and p-xylene is 5 µg/L
(4) - GW-DUP1-102018 is a blind duplicate of PC-1-102018
NS - No Standard
ND - Analyte not detected at the listed reporting limit
RL - Reporting Limit
µg/L - micrograms per liter
Shaded and bolded values exceed regulatory criteria

Table 1
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Groundwater Sample Analytical Results for Volatile Organic Compounds

	CLIENT ID:	PC-2-102018		PC-3-102018		TRIP BLANKS	
	LAB ID:	AD07137-003		AD07137-005		VARIOUS	
	COLLECTION DATE:	10/16/2018		10/16/2018		10/15/18 - 10/17/18	
Volatile Organic Compounds	NYSDEC Class GA Standards[1] (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
1,1,1-Trichloroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1,2,2-Tetrachloroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloroethane	1	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0
1,2,3-Trichlorobenzene	5	ND	1.0	ND	1.0	ND	1.0
1,2,4-Trichlorobenzene	5	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromo-3-chloropropane	0.04	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromoethane	6.00E-04	ND	1.0	ND	1.0	ND	1.0
1,2-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0
1,2-Dichloroethane	0.6	ND	0.50	ND	0.50	ND	0.50
1,2-Dichloropropane	1	ND	1.0	ND	1.0	ND	1.0
1,3-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0
1,4-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0
2-Butanone	50	ND	1.0	ND	1.0	ND	1.0
2-Hexanone	50	ND	1.0	ND	1.0	ND	1.0
4-Methyl-2-pentanone	NS	ND	1.0	ND	1.0	ND	1.0
Acetone	50	ND	5.0	ND	5.0	ND	5.0
Benzene	1	ND	0.50	ND	0.50	ND	0.50
Bromochloromethane	5	ND	1.0	ND	1.0	ND	1.0
Bromodichloromethane	50	ND	1.0	ND	1.0	ND	1.0
Bromoform	50	ND	1.0	ND	1.0	ND	1.0
Bromomethane	5	ND	1.0	ND	1.0	ND	1.0
Carbon disulfide	60	ND	1.0	ND	1.0	ND	1.0
Carbon tetrachloride	5	ND	1.0	ND	1.0	ND	1.0
Chlorobenzene	5	ND	1.0	ND	1.0	ND	1.0
Chloroethane	5	ND	1.0	ND	1.0	ND	1.0
Chloroform	7	ND	1.0	ND	1.0	ND	1.0
Chloromethane	5	ND	1.0	ND	1.0	ND	1.0
cis-1,2-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0
cis-1,3-Dichloropropene	0.4[2]	ND	1.0	ND	1.0	ND	1.0
Cyclohexane	NS	ND	1.0	ND	1.0	ND	1.0
Dibromochloromethane	50	ND	1.0	ND	1.0	ND	1.0
Dichlorodifluoromethane	5	ND	1.0	ND	1.0	ND	1.0
Ethylbenzene	5	ND	1.0	ND	1.0	ND	1.0
Isopropylbenzene	5	ND	1.0	ND	1.0	ND	1.0
m&p-Xylenes	5	ND	1.0	ND	1.0	ND	1.0
Methyl Acetate	NS	ND	1.0	ND	1.0	ND	1.0
Methylcyclohexane	NS	ND	1.0	ND	1.0	ND	1.0
Methylene chloride	5	ND	1.0	ND	1.0	ND	1.0
Methyl-t-butyl ether	10	ND	0.50	ND	0.50	ND	0.50
o-Xylene	5	ND	1.0	ND	1.0	ND	1.0
Styrene	5	ND	1.0	ND	1.0	ND	1.0
Tetrachloroethene	5	ND	1.0	ND	1.0	ND	1.0
Toluene	5	ND	1.0	ND	1.0	ND	1.0
trans-1,2-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0
trans-1,3-Dichloropropene	0.4[2]	ND	1.0	ND	1.0	ND	1.0
Trichloroethene	5	ND	1.0	ND	1.0	ND	1.0
Trichlorofluoromethane	5	ND	1.0	ND	1.0	ND	1.0
Vinyl chloride	2	ND	1.0	ND	1.0	ND	1.0
Xylenes (Total)	5[3]	ND	1.0	ND	1.0	ND	1.0
Total VOCs	NS	ND	-	ND	-	ND	-

Notes
(1) - NYSDEC Class GA Standards are from Division of Water
(2) - 0.4 µg/L applies to the sum of cis- and trans-1,3-dichloropr
(3) -There is no GA value for total xylenes. The standards for o
(4) - GW-DUP1-102018 is a blind duplicate of PC-1-102018
NS - No Standard
ND - Analyte not detected at the listed reporting limit
RL - Reporting Limit
µg/L - micrograms per liter
Shaded and bolded values exceed regulatory criteria

Table 2
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Groundwater Sample Analytical Results for Semivolatile Organic Compounds

	CLIENT ID:	LMW-2-102018		LMW-4-102018		PC-1-102018	
	LAB ID:	AD07118-001		AD07137-001		AD07118-003	
	COLLECTION DATE:	10/15/2018		10/16/2018		10/15/2018	
Semivolatile Organic Compounds	NYSDEC Class GA Standards[1] (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
1,1'-Biphenyl	NS	ND	1.0	ND	1.0	ND	1.0
1,2,4,5-Tetrachlorobenzene	10	ND	1.0	ND	1.0	ND	1.0
1, 4-Dioxane	NS	ND	0.26	ND	0.25	ND	0.25
2,3,4,6-Tetrachlorophenol	NS	ND	1.0	ND	1.0	ND	1.0
2,4,5-Trichlorophenol	NS	ND	1.0	ND	1.0	ND	1.0
2,4,6-Trichlorophenol	NS	ND	1.0	ND	1.0	ND	1.0
2,4-Dichlorophenol	1	ND	0.26	ND	0.25	ND	0.25
2,4-Dimethylphenol	1	ND	0.26	ND	0.25	ND	0.25
2,4-Dinitrophenol	1	ND	5.2	ND	5.0	ND	5.0
2,4-Dinitrotoluene	5	ND	1.0	ND	1.0	ND	1.0
2,6-Dinitrotoluene	5	ND	1.0	ND	1.0	ND	1.0
2-Chloronaphthalene	NS	ND	1.0	ND	1.0	ND	1.0
2-Chlorophenol	NS	ND	1.0	ND	1.0	ND	1.0
2-Methylnaphthalene	NS	ND	1.0	ND	1.0	ND	1.0
2-Methylphenol	NS	ND	0.26	ND	0.25	ND	0.25
2-Nitroaniline	5	ND	1.0	ND	1.0	ND	1.0
2-Nitrophenol	NS	ND	1.0	ND	1.0	ND	1.0
3&4-Methylphenol	NS	ND	0.26	ND	0.25	ND	0.25
3,3'-Dichlorobenzidine	5	ND	1.0	ND	1.0	ND	1.0
3-Nitroaniline	5	ND	1.0	ND	1.0	ND	1.0
4,6-Dinitro-2-methylphenol	NS	ND	5.2	ND	5.0	ND	5.0
4-Bromophenyl-phenylether	NS	ND	1.0	ND	1.0	ND	1.0
4-Chloro-3-methylphenol	NS	ND	1.0	ND	1.0	ND	1.0
4-Chloroaniline	5	ND	0.26	ND	0.25	ND	0.25
4-Chlorophenyl-phenylether	NS	ND	1.0	ND	1.0	ND	1.0
4-Nitroaniline	5	ND	1.0	ND	1.0	ND	1.0
4-Nitrophenol	NS	ND	1.0	ND	1.0	ND	1.0
Acenaphthene	20	ND	1.0	ND	1.0	ND	1.0
Acenaphthylene	NS	ND	1.0	ND	1.0	ND	1.0
Acetophenone	NS	ND	1.0	ND	1.0	ND	1.0
Anthracene	NS	ND	1.0	ND	1.0	ND	1.0
Atrazine	7.5	ND	1.0	ND	1.0	ND	1.0
Benzaldehyde	NS	ND	1.0	ND	1.0	ND	1.0
Benzo[a]anthracene	NS	ND	1.0	ND	1.0	ND	1.0
Benzo[a]pyrene	ND	ND	1.0	ND	1.0	ND	1.0
Benzo[b]fluoranthene	NS	ND	1.0	ND	1.0	ND	1.0
Benzo[g,h,i]perylene	NS	ND	1.0	ND	1.0	ND	1.0
Benzo[k]fluoranthene	NS	ND	1.0	ND	1.0	ND	1.0
bis(2-Chloroethoxy)methane	5	ND	1.0	ND	1.0	ND	1.0
bis(2-Chloroethyl)ether	1	ND	0.26	ND	0.25	ND	0.25
bis(2-Chloroisopropyl)ether	5	ND	1.0	ND	1.0	ND	1.0
bis(2-Ethylhexyl)phthalate	5	ND	1.0	ND	1.0	ND	1.0
Butylbenzylphthalate	NS	ND	1.0	ND	1.0	ND	1.0
Caprolactam	NS	ND	1.0	ND	1.0	ND	1.0
Carbazole	NS	ND	1.0	ND	1.0	ND	1.0
Chrysene	NS	ND	1.0	ND	1.0	ND	1.0
Dibenzo[a,h]anthracene	NS	ND	1.0	ND	1.0	ND	1.0
Dibenzofuran	NS	ND	0.26	ND	0.25	ND	0.25
Diethylphthalate	NS	ND	1.0	ND	1.0	ND	1.0
Dimethylphthalate	NS	ND	1.0	ND	1.0	ND	1.0
Di-n-butylphthalate	50	ND	0.26	ND	0.25	ND	0.25
Di-n-octylphthalate	NS	ND	1.0	ND	1.0	ND	1.0
Fluoranthene	NS	ND	1.0	ND	1.0	ND	1.0
Fluorene	NS	ND	1.0	ND	1.0	ND	1.0
Hexachlorobenzene	0.04	ND	1.0	ND	1.0	ND	1.0
Hexachlorobutadiene	0.5	ND	1.0	ND	1.0	ND	1.0
Hexachlorocyclopentadiene	5	ND	1.0	ND	1.0	ND	1.0
Hexachloroethane	5	ND	1.0	ND	1.0	ND	1.0
Indeno[1,2,3-cd]pyrene	NS	ND	1.0	ND	1.0	ND	1.0
Isophorone	NS	ND	1.0	ND	1.0	ND	1.0
Naphthalene	NS	ND	0.26	ND	0.25	ND	0.25
Nitrobenzene	0.4	ND	1.0	ND	1.0	ND	1.0
N-Nitroso-di-n-propylamine	NS	ND	0.26	ND	0.25	ND	0.25
N-Nitrosodiphenylamine	NS	ND	1.0	ND	1.0	ND	1.0
Pentachlorophenol	1	ND	5.2	ND	5.0	ND	5.0
Phenanthrene	NS	ND	1.0	ND	1.0	ND	1.0
Phenol	1	ND	1.0	ND	1.0	ND	1.0
Pyrene	NS	ND	1.0	ND	1.0	ND	1.0
Total SVOCs	NS	ND	-	ND	-	ND	-

Notes

(1) - NYSDEC Class GA Standards are from Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, revised April 2000.
(2) - GW-DUP1-102018 is a blind duplicate of PC-1-102018
NS - No Standard
ND - Analyte not detected at the listed reporting limit
Shaded and bolded values exceed regulatory criteria

Table 2
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Groundwater Sample Analytical Results for Semivolatile Organic Compounds

	CLIENT ID:	GW-DUP1-102018[(2)]		PC-2-102018		PC-3-102018	
	LAB ID:	AD07118-005		AD07137-003		AD07137-005	
	COLLECTION DATE:	10/15/2018		10/16/2018		10/16/2018	
Semivolatile Organic Compounds	NYSDEC Class GA Standards[1] (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
1,1'-Biphenyl	NS	ND	1.0	ND	1.0	ND	1.0
1,2,4,5-Tetrachlorobenzene	10	ND	1.0	ND	1.0	ND	1.0
1, 4-Dioxane	NS	ND	0.25	ND	0.25	ND	0.25
2,3,4,6-Tetrachlorophenol	NS	ND	1.0	ND	1.0	ND	1.0
2,4,5-Trichlorophenol	NS	ND	1.0	ND	1.0	ND	1.0
2,4,6-Trichlorophenol	NS	ND	1.0	ND	1.0	ND	1.0
2,4-Dichlorophenol	1	ND	0.25	ND	0.25	ND	0.25
2,4-Dimethylphenol	1	ND	0.25	ND	0.25	ND	0.25
2,4-Dinitrophenol	1	ND	5.0	ND	5.0	ND	5.0
2,4-Dinitrotoluene	5	ND	1.0	ND	1.0	ND	1.0
2,6-Dinitrotoluene	5	ND	1.0	ND	1.0	ND	1.0
2-Chloronaphthalene	NS	ND	1.0	ND	1.0	ND	1.0
2-Chlorophenol	NS	ND	1.0	ND	1.0	ND	1.0
2-Methylnaphthalene	NS	ND	1.0	ND	1.0	ND	1.0
2-Methylphenol	NS	ND	0.25	ND	0.25	ND	0.25
2-Nitroaniline	5	ND	1.0	ND	1.0	ND	1.0
2-Nitrophenol	NS	ND	1.0	ND	1.0	ND	1.0
3&4-Methylphenol	NS	ND	0.25	ND	0.25	ND	0.25
3,3'-Dichlorobenzidine	5	ND	1.0	ND	1.0	ND	1.0
3-Nitroaniline	5	ND	1.0	ND	1.0	ND	1.0
4,6-Dinitro-2-methylphenol	NS	ND	5.0	ND	5.0	ND	5.0
4-Bromophenyl-phenylether	NS	ND	1.0	ND	1.0	ND	1.0
4-Chloro-3-methylphenol	NS	ND	1.0	ND	1.0	ND	1.0
4-Chloroaniline	5	ND	0.25	ND	0.25	ND	0.25
4-Chlorophenyl-phenylether	NS	ND	1.0	ND	1.0	ND	1.0
4-Nitroaniline	5	ND	1.0	ND	1.0	ND	1.0
4-Nitrophenol	NS	ND	1.0	ND	1.0	ND	1.0
Acenaphthene	20	ND	1.0	ND	1.0	ND	1.0
Acenaphthylene	NS	ND	1.0	ND	1.0	ND	1.0
Acetophenone	NS	ND	1.0	ND	1.0	ND	1.0
Anthracene	NS	ND	1.0	ND	1.0	ND	1.0
Atrazine	7.5	ND	1.0	ND	1.0	ND	1.0
Benzaldehyde	NS	ND	1.0	ND	1.0	ND	1.0
Benzo[a]anthracene	NS	ND	1.0	ND	1.0	ND	1.0
Benzo[a]pyrene	ND	ND	1.0	ND	1.0	ND	1.0
Benzo[b]fluoranthene	NS	ND	1.0	ND	1.0	ND	1.0
Benzo[g,h,i]perylene	NS	ND	1.0	ND	1.0	ND	1.0
Benzo[k]fluoranthene	NS	ND	1.0	ND	1.0	ND	1.0
bis(2-Chloroethoxy)methane	5	ND	1.0	ND	1.0	ND	1.0
bis(2-Chloroethyl)ether	1	ND	0.25	ND	0.25	ND	0.25
bis(2-Chloroisopropyl)ether	5	ND	1.0	ND	1.0	ND	1.0
bis(2-Ethylhexyl)phthalate	5	ND	1.0	ND	1.0	ND	1.0
Butylbenzylphthalate	NS	ND	1.0	ND	1.0	ND	1.0
Caprolactam	NS	ND	1.0	ND	1.0	ND	1.0
Carbazole	NS	ND	1.0	ND	1.0	ND	1.0
Chrysene	NS	ND	1.0	ND	1.0	ND	1.0
Dibenzo[a,h]anthracene	NS	ND	1.0	ND	1.0	ND	1.0
Dibenzofuran	NS	ND	0.25	ND	0.25	ND	0.25
Diethylphthalate	NS	ND	1.0	ND	1.0	ND	1.0
Dimethylphthalate	NS	ND	1.0	ND	1.0	ND	1.0
Di-n-butylphthalate	50	ND	0.25	ND	0.25	ND	0.25
Di-n-octylphthalate	NS	ND	1.0	ND	1.0	ND	1.0
Fluoranthene	NS	ND	1.0	ND	1.0	ND	1.0
Fluorene	NS	ND	1.0	ND	1.0	ND	1.0
Hexachlorobenzene	0.04	ND	1.0	ND	1.0	ND	1.0
Hexachlorobutadiene	0.5	ND	1.0	ND	1.0	ND	1.0
Hexachlorocyclopentadiene	5	ND	1.0	ND	1.0	ND	1.0
Hexachloroethane	5	ND	1.0	ND	1.0	ND	1.0
Indeno[1,2,3-cd]pyrene	NS	ND	1.0	ND	1.0	ND	1.0
Isophorone	NS	ND	1.0	ND	1.0	ND	1.0
Naphthalene	NS	ND	0.25	ND	0.25	ND	0.25
Nitrobenzene	0.4	ND	1.0	ND	1.0	ND	1.0
N-Nitroso-di-n-propylamine	NS	ND	0.25	ND	0.25	ND	0.25
N-Nitrosodiphenylamine	NS	ND	1.0	ND	1.0	ND	1.0
Pentachlorophenol	1	ND	5.0	ND	5.0	ND	5.0
Phenanthrene	NS	ND	1.0	ND	1.0	ND	1.0
Phenol	1	ND	1.0	ND	1.0	ND	1.0
Pyrene	NS	ND	1.0	ND	1.0	ND	1.0
Total SVOCs	NS	ND	-	ND	-	ND	-

Notes

(1) - NYSDEC Class GA Standards are from Division of Water Technica revised April 2000.
(2) - GW-DUP1-102018 is a blind duplicate of PC-1-102018
NS - No Standard
ND - Analyte not detected at the listed reporting limit
Shaded and bolded values exceed regulatory criteria

Table 3
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Groundwater Sample Analytical Results for Metals, Cyanide and Chloride

	CLIENT ID:	LMW-2-102018		LMW-4-102018		PC-1-102018		GW-DUP1-102018[3]		PC-2-102018		PC-3-102018	
	LAB ID:	AD07118-001		AD07137-001		AD07118-003		AD07118-005		AD07137-003		AD07137-005	
	COLLECTION DATE:	10/15/2018		10/16/2018		10/15/2018		10/15/2018		10/16/2018		10/16/2018	
Metals, Cyanide, and Chloride	NYSDEC Class GA Standards[1] (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
Aluminum	2,000	ND	100	ND	100	120	100	ND	100	ND	100	ND	100
Antimony	3	ND	2.5	ND	2.5	ND	2.5	ND	2.5	ND	2.5	ND	2.5
Arsenic	25	ND	1.0	2.0	1.0	ND	1.0	ND	1.0	1.8	1.0	ND	1.0
Barium	1,000	120	25	150	25	140	25	130	25	170	25	160	25
Beryllium	3	ND	0.75	ND	0.75	ND	0.75	ND	0.75	ND	0.75	ND	0.75
Cadmium	5	ND	1.0	ND	1.0	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Calcium	NS	78,000	1,000	40,000	1,000	170,000	1,000	170,000	1,000	81,000	1,000	74,000	1,000
Chromium	50	ND	25	ND	25	ND	25	ND	25	ND	25	ND	25
Cobalt	NS	ND	1	11	1	ND	1	ND	1	1.6	1	ND	1
Copper	200	ND	25	ND	25	ND	25	ND	25	ND	25	ND	25
Iron	300 / 500[2]	170	150	**60,000**	150	**240**	150	**230**	150	**61,000**	150	**1,800**	150
Lead	25	ND	0.75	ND	0.75	ND	0.75	ND	0.75	ND	0.75	ND	0.75
Magnesium	35,000	28,000	1,000	17,000	1,000	27,000	1,000	26,000	1,000	19,000	1,000	21,000	1,000
Manganese	300 / 500[2]	170	25	**9,700**	25	**2,000**	25	**2,000**	25	**11,000**	25	**570**	25
Mercury	0.7	ND	0.2	ND	0.2	ND	0.2	ND	0.2	ND	0.2	ND	0.2
Nickel	100	ND	10	ND	10	ND	10	ND	10	ND	10	ND	10
Potassium	NS	3,900	2,500	3,500	2,500	4,900	2,500	5,000	2,500	3,700	2,500	7,300	2,500
Selenium	10	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
Silver	50	ND	10	ND	10	ND	10	ND	10	ND	10	ND	10
Sodium	20,000	**25,000**	2,500	**29,000**	2,500	**100,000**	2,500	**100,000**	2,500	**39,000**	2,500	**120,000**	2,500
Thallium	0.5	ND	1.5	ND	1.5	ND	1.5	ND	1.5	ND	1.5	ND	1.5
Vanadium	NS	ND	25	ND	25	ND	25	ND	25	ND	25	ND	25
Zinc	2,000	ND	25	ND	25	ND	25	ND	25	ND	25	ND	25
Cyanide	200	ND	20	ND	20	ND	20	ND	20	ND	20	ND	20
Chloride	NS	15,000	2,000	32,000	2,000	230,000	20,000	220,000	20,000	21,000	2,000	230,000	20,000

Notes
(1) - NYSDEC Class GA Standards and Guidance Values are from Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, revised April 2000.
(2) - Standard of 500 µg/L applies to the sum of Iron and Manganese
(3) - GW-DUP1-102018 is a blind duplicate of PC-1-102018
NS - No Standard
ND - Analyte not detected at the listed reporting limit
RL - Reporting Limit
µg/L - micrograms per liter
Shaded and bolded values exceed Class GA Standards

Attachment 10

Table 4
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Surface Water Sample Analytical Results for Volatile Organic Compounds

	CLIENT ID:	SW-1-102018		SW-2-102018		SW-3-102018	
	LAB ID:	AD07161-001		AD07161-003		AD07161-005	
	COLLECTION DATE:	10/17/2018		10/17/2018		10/17/2018	
Volatile Organic Compounds	NYSDEC Class GA Standards[1] (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
1,1,1-Trichloroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1,2,2-Tetrachloroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloroethane	1	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0
1,2,3-Trichlorobenzene	5	ND	1.0	ND	1.0	ND	1.0
1,2,4-Trichlorobenzene	5	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromo-3-chloropropane	0.04	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromoethane	6.00E-04	ND	1.0	ND	1.0	ND	1.0
1,2-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0
1,2-Dichloroethane	0.6	ND	0.50	ND	0.50	ND	0.50
1,2-Dichloropropane	1	ND	1.0	ND	1.0	ND	1.0
1,3-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0
1,4-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0
1,4-Dioxane	NS	ND	50	ND	50	ND	50
2-Butanone	50	ND	1.0	ND	1.0	ND	1.0
2-Hexanone	50	ND	1.0	ND	1.0	ND	1.0
4-Methyl-2-pentanone	NS	ND	1.0	ND	1.0	ND	1.0
Acetone	50	ND	5.0	ND	5.0	ND	5.0
Benzene	1	ND	0.50	ND	0.50	ND	0.50
Bromochloromethane	5	ND	1.0	ND	1.0	ND	1.0
Bromodichloromethane	50	ND	1.0	ND	1.0	ND	1.0
Bromoform	50	ND	1.0	ND	1.0	ND	1.0
Bromomethane	5	ND	1.0	ND	1.0	ND	1.0
Carbon disulfide	60	ND	1.0	ND	1.0	ND	1.0
Carbon tetrachloride	5	ND	1.0	ND	1.0	ND	1.0
Chlorobenzene	5	ND	1.0	ND	1.0	ND	1.0
Chloroethane	5	ND	1.0	ND	1.0	ND	1.0
Chloroform	7	ND	1.0	ND	1.0	ND	1.0
Chloromethane	5	ND	1.0	ND	1.0	ND	1.0
cis-1,2-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0
cis-1,3-Dichloropropene	0.4 [2]	ND	1.0	ND	1.0	ND	1.0
Cyclohexane	NS	ND	1.0	ND	1.0	ND	1.0
Dibromochloromethane	50	ND	1.0	ND	1.0	ND	1.0
Dichlorodifluoromethane	5	ND	1.0	ND	1.0	ND	1.0
Ethylbenzene	5	ND	1.0	ND	1.0	ND	1.0
Isopropylbenzene	5	ND	1.0	ND	1.0	ND	1.0
m&p-Xylenes	5 [3]	ND	1.0	ND	1.0	ND	1.0
Methyl Acetate	NS	ND	1.0	ND	1.0	ND	1.0
Methylcyclohexane	NS	ND	1.0	ND	1.0	ND	1.0
Methylene chloride	5	ND	1.0	ND	1.0	ND	1.0
Methyl-t-butyl ether	10	ND	0.50	ND	0.50	ND	0.50
o-Xylene	5 [3]	ND	1.0	ND	1.0	ND	1.0
Styrene	5	ND	1.0	ND	1.0	ND	1.0
Tetrachloroethene	5	ND	1.0	ND	1.0	ND	1.0
Toluene	5	ND	1.0	ND	1.0	ND	1.0
trans-1,2-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0
trans-1,3-Dichloropropene	0.4 [2]	ND	1.0	ND	1.0	ND	1.0
Trichloroethene	5	ND	1.0	ND	1.0	ND	1.0
Trichlorofluoromethane	5	ND	1.0	ND	1.0	ND	1.0
Vinyl chloride	2	ND	1.0	ND	1.0	ND	1.0
Xylenes (Total)	5 [3]	ND	1.0	ND	1.0	ND	1.0
Total VOCs	NS	ND	-	ND	-	ND	-

Notes

(1) - NYSDEC Class GA Standards are from Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, revised April 2000.

(2) - 0.4 µg/L applies to the sum of cis- and trans-1,3-dichloropropene.

(3) -There is no GA value for total xylenes. The standards for o-xylene, m-xylene, and p-xylene is 5 µg/L

(4) - SW-DUP1-102018 is a blind duplicate of SW-3-102018

NYSDEC Class A Standards are applicable but are not listed as no VOCs were detected in any surface water samples

NS - No Standard

ND - Analyte not detected at the listed reporting limit

RL - Reporting Limit

µg/L - micrograms per liter

Shaded and bolded values exceed regulatory criteria

Table 4
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Surface Water Sample Analytical Results for Volatile Organic Compounds

	CLIENT ID:	SW-DUP1-102018[4]		SW-4-102018		TB-3	
	LAB ID:	AD07161-007		AD07161-008		AD07161-010	
	COLLECTION DATE:	10/17/2018		10/17/2018		10/17/2018	
Volatile Organic Compounds	NYSDEC Class GA Standards[1] (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
1,1,1-Trichloroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1,2,2-Tetrachloroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloroethane	1	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethane	5	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0
1,2,3-Trichlorobenzene	5	ND	1.0	ND	1.0	ND	1.0
1,2,4-Trichlorobenzene	5	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromo-3-chloropropane	0.04	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromoethane	6.00E-04	ND	1.0	ND	1.0	ND	1.0
1,2-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0
1,2-Dichloroethane	0.6	ND	0.50	ND	0.50	ND	0.50
1,2-Dichloropropane	1	ND	1.0	ND	1.0	ND	1.0
1,3-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0
1,4-Dichlorobenzene	3	ND	1.0	ND	1.0	ND	1.0
1,4-Dioxane	NS	ND	50	ND	50	ND	50
2-Butanone	50	ND	1.0	ND	1.0	ND	1.0
2-Hexanone	50	ND	1.0	ND	1.0	ND	1.0
4-Methyl-2-pentanone	NS	ND	1.0	ND	1.0	ND	1.0
Acetone	50	ND	5.0	ND	5.0	ND	5.0
Benzene	1	ND	0.50	ND	0.50	ND	0.50
Bromochloromethane	5	ND	1.0	ND	1.0	ND	1.0
Bromodichloromethane	50	ND	1.0	ND	1.0	ND	1.0
Bromoform	50	ND	1.0	ND	1.0	ND	1.0
Bromomethane	5	ND	1.0	ND	1.0	ND	1.0
Carbon disulfide	60	ND	1.0	ND	1.0	ND	1.0
Carbon tetrachloride	5	ND	1.0	ND	1.0	ND	1.0
Chlorobenzene	5	ND	1.0	ND	1.0	ND	1.0
Chloroethane	5	ND	1.0	ND	1.0	ND	1.0
Chloroform	7	ND	1.0	ND	1.0	ND	1.0
Chloromethane	5	ND	1.0	ND	1.0	ND	1.0
cis-1,2-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0
cis-1,3-Dichloropropene	0.4 [2]	ND	1.0	ND	1.0	ND	1.0
Cyclohexane	NS	ND	1.0	ND	1.0	ND	1.0
Dibromochloromethane	50	ND	1.0	ND	1.0	ND	1.0
Dichlorodifluoromethane	5	ND	1.0	ND	1.0	ND	1.0
Ethylbenzene	5	ND	1.0	ND	1.0	ND	1.0
Isopropylbenzene	5	ND	1.0	ND	1.0	ND	1.0
m&p-Xylenes	5 [3]	ND	1.0	ND	1.0	ND	1.0
Methyl Acetate	NS	ND	1.0	ND	1.0	ND	1.0
Methylcyclohexane	NS	ND	1.0	ND	1.0	ND	1.0
Methylene chloride	5	ND	1.0	ND	1.0	ND	1.0
Methyl-t-butyl ether	10	ND	0.50	ND	0.50	ND	0.50
o-Xylene	5 [3]	ND	1.0	ND	1.0	ND	1.0
Styrene	5	ND	1.0	ND	1.0	ND	1.0
Tetrachloroethene	5	ND	1.0	ND	1.0	ND	1.0
Toluene	5	ND	1.0	ND	1.0	ND	1.0
trans-1,2-Dichloroethene	5	ND	1.0	ND	1.0	ND	1.0
trans-1,3-Dichloropropene	0.4 [2]	ND	1.0	ND	1.0	ND	1.0
Trichloroethene	5	ND	1.0	ND	1.0	ND	1.0
Trichlorofluoromethane	5	ND	1.0	ND	1.0	ND	1.0
Vinyl chloride	2	ND	1.0	ND	1.0	ND	1.0
Xylenes (Total)	5 [3]	ND	1.0	ND	1.0	ND	1.0
Total VOCs	NS	ND	-	ND	-	ND	-

Notes
(1) - NYSDEC Class GA Standards are from Division of Water
June 1998, revised April 2000.
(2) - 0.4 µg/L applies to the sum of cis- and trans-1,3-dichlorop
(3) -There is no GA value for total xylenes. The standards for c
(4) - SW-DUP1-102018 is a blind duplicate of SW-3-102018
NYSDEC Class A Standards are applicable but are not listed
NS - No Standard
ND - Analyte not detected at the listed
reporting limit
RL - Reporting Limit
µg/L - micrograms per liter
Shaded and bolded values exceed regulatory criteria

Table 5
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Surface Water Sample Analytical Results for Semivolatile Organic Compounds

	CLIENT ID:	SW-1-102018		SW-2-102018		SW-3-102018	
	LAB ID:	AD07161-001		AD07161-003		AD07161-005	
	COLLECTION DATE:	10/17/2018		10/17/2018		10/17/2018	
Semivolatile Organic Compounds	NYSDEC Class GA Standards[1] (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
1,1'-Biphenyl	NS	ND	2.5	ND	0.58	ND	0.58
1,2,4,5-Tetrachlorobenzene	10	ND	2.5	ND	0.58	ND	0.58
1,4-Dioxane	NS	ND	0.62	ND	0.14	ND	0.14
2,3,4,6-Tetrachlorophenol	NS	ND	2.5	ND	0.58	ND	0.58
2,4,5-Trichlorophenol	NS	ND	2.5	ND	0.58	ND	0.58
2,4,6-Trichlorophenol	NS	ND	2.5	ND	0.58	ND	0.58
2,4-Dichlorophenol	1	ND	0.62	ND	0.14	ND	0.14
2,4-Dimethylphenol	1	ND	0.62	ND	0.14	ND	0.14
2,4-Dinitrophenol	1	ND	12	ND	2.9	ND	2.9
2,4-Dinitrotoluene	5	ND	2.5	ND	0.58	ND	0.58
2,6-Dinitrotoluene	5	ND	2.5	ND	0.58	ND	0.58
2-Chloronaphthalene	NS	ND	2.5	ND	0.58	ND	0.58
2-Chlorophenol	NS	ND	2.5	ND	0.58	ND	0.58
2-Methylnaphthalene	NS	ND	2.5	ND	0.58	ND	0.58
2-Methylphenol	NS	ND	0.62	ND	0.14	ND	0.14
2-Nitroaniline	5	ND	2.5	ND	0.58	ND	0.58
2-Nitrophenol	NS	ND	2.5	ND	0.58	ND	0.58
3&4-Methylphenol	NS	ND	0.62	ND	0.14	ND	0.14
3,3'-Dichlorobenzidine	5	ND	2.5	ND	0.58	ND	0.58
3-Nitroaniline	5	ND	2.5	ND	0.58	ND	0.58
4,6-Dinitro-2-methylphenol	NS	ND	12	ND	2.9	ND	2.9
4-Bromophenyl-phenylether	NS	ND	2.5	ND	0.58	ND	0.58
4-Chloro-3-methylphenol	NS	ND	2.5	ND	0.58	ND	0.58
4-Chloroaniline	5	ND	0.62	ND	0.14	ND	0.14
4-Chlorophenyl-phenylether	NS	ND	2.5	ND	0.58	ND	0.58
4-Nitroaniline	5	ND	2.5	ND	0.58	ND	0.58
4-Nitrophenol	NS	ND	2.5	ND	0.58	ND	0.58
Acenaphthene	20	ND	2.5	ND	0.58	ND	0.58
Acenaphthylene	NS	ND	2.5	ND	0.58	ND	0.58
Acetophenone	NS	ND	2.5	ND	0.58	ND	0.58
Anthracene	NS	ND	2.5	ND	0.58	ND	0.58
Atrazine	7.5	ND	2.5	ND	0.58	ND	0.58
Benzaldehyde	NS	ND	2.5	ND	0.58	ND	0.58
Benzo[a]anthracene	NS	ND	2.5	ND	0.58	ND	0.58
Benzo[a]pyrene	ND	ND	2.5	ND	0.58	ND	0.58
Benzo[b]fluoranthene	NS	ND	2.5	ND	0.58	ND	0.58
Benzo[g,h,i]perylene	NS	ND	2.5	ND	0.58	ND	0.58
Benzo[k]fluoranthene	NS	ND	2.5	ND	0.58	ND	0.58
bis(2-Chloroethoxy)methane	5	ND	2.5	ND	0.58	ND	0.58
bis(2-Chloroethyl)ether	1	ND	0.62	ND	0.14	ND	0.14
bis(2-Chloroisopropyl)ether	5	ND	2.5	ND	0.58	ND	0.58
bis(2-Ethylhexyl)phthalate	5	ND	2.5	ND	0.58	ND	0.58
Butylbenzylphthalate	NS	ND	2.5	ND	0.58	ND	0.58
Caprolactam	NS	ND	2.5	ND	0.58	ND	0.58
Carbazole	NS	ND	2.5	ND	0.58	ND	0.58
Chrysene	NS	ND	2.5	ND	0.58	ND	0.58
Dibenzo[a,h]anthracene	NS	ND	2.5	ND	0.58	ND	0.58
Dibenzofuran	NS	ND	0.62	ND	0.14	ND	0.14
Diethylphthalate	NS	ND	2.5	ND	0.58	ND	0.58
Dimethylphthalate	NS	ND	2.5	ND	0.58	ND	0.58
Di-n-butylphthalate	50	ND	0.62	ND	0.14	ND	0.14
Di-n-octylphthalate	NS	ND	2.5	ND	0.58	ND	0.58
Fluoranthene	NS	ND	2.5	ND	0.58	ND	0.58
Fluorene	NS	ND	2.5	ND	0.58	ND	0.58
Hexachlorobenzene	0.04	ND	2.5	ND	0.58	ND	0.58
Hexachlorobutadiene	0.5	ND	2.5	ND	0.58	ND	0.58
Hexachlorocyclopentadiene	5	ND	2.5	ND	0.58	ND	0.58
Hexachloroethane	5	ND	2.5	ND	0.58	ND	0.58
Indeno[1,2,3-cd]pyrene	NS	ND	2.5	ND	0.58	ND	0.58
Isophorone	NS	ND	2.5	ND	0.58	ND	0.58
Naphthalene	NS	ND	0.62	ND	0.14	ND	0.14
Nitrobenzene	0.4	ND	2.5	ND	0.58	ND	0.58
N-Nitroso-di-n-propylamine	NS	ND	0.62	ND	0.14	ND	0.14
N-Nitrosodiphenylamine	NS	ND	2.5	ND	0.58	ND	0.58
Pentachlorophenol	1	ND	12	ND	2.9	ND	2.9
Phenanthrene	NS	ND	2.5	ND	0.58	ND	0.58
Phenol	1	ND	2.5	ND	0.58	ND	0.58
Pyrene	NS	ND	2.5	ND	0.58	ND	0.58
Total SVOCs	NS	ND	-	ND	-	ND	-

Notes
(1) - NYSDEC Class GA Standards are from Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, revised April 2000.
(2) - SW-DUP1-102018 is a blind duplicate of SW-3-102018
NYSDEC Class A Standards are applicable but are not listed as no SVOCs were detected in any surface water samples
NS - No Standard
ND - Analyte not detected at the listed reporting limit
RL - Reporting Limit
µg/L - micrograms per liter
Shaded and bolded values exceed regulatory criteria

Table 5
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Surface Water Sample Analytical Results for Semivolatile Organic Compounds

SW-DUP1-102018[(2)] AD07161-007 10/17/2018		SW-4-102018 AD07161-008 10/17/2018	
Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	0.26	ND	0.26
ND	5.2	ND	5.2
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	5.2	ND	5.2
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	1.0	ND	1.0
ND	0.26	ND	0.26
ND	1.0	ND	1.0
ND	5.2	ND	5.2
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	1.0	ND	1.0
ND	-	ND	-

Table 6
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Surface Water Sample Analytical Results for Metals, Cyanide, and Chloride

			CLIENT ID:	SW-1-102018		SW-2-102018		SW-3-102018	
			LAB ID:	AD07161-001		AD07161-003		AD07161-005	
			COLLECTION DATE:	10/17/2018		10/17/2018		10/17/2018	
Metals and Cyanide and Chloride	NYSDEC Class GA Standards[1] (µg/L)	NYSDEC A Standards[1] (µg/L)		Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
Aluminum	NS	100 (A(C))		**390**	200	ND	200	ND	200
Antimony	3	3 (H(WS))		ND	3.0	ND	3.0	ND	3.0
Arsenic	25	50 (H(WS)), 150 (A(C)), 340 (A(A))		ND	2.0	ND	2.0	ND	2.0
Barium	1,000	1,000 (H(WS))		ND	50	ND	50	92	50
Beryllium	3	3 (DW), 1,100 (A(C))[2]		ND	1.0	ND	1.0	ND	1.0
Cadmium	5	5 (H(WS), 2.8 (A(C))[2], 6 (A(A))[2]		ND	2.0	ND	2.0	ND	2.0
Calcium	NS	NS		43,000	5,000	44,000	5,000	170,000	5,000
Chromium	50	50 (H(WS)), 80 (A(C))[2]		ND	50	ND	50	ND	50
Cobalt	NS	5 (A(C))		ND	2	ND	2	ND	2
Copper	200	200 (H(WS)), 12.6 (A(C))[2], 19.7 (A(A))[2]		ND	50	ND	50	ND	50
Cyanide	200	200 (H(WS)), 5.2 (A(C)), 22 (A(A)), 9,000 (H(FC))		ND	20	ND	20	ND	20
Iron	300 / 500[3]	300 (A(C) & E)		**1,800**	300	**330**	300	**1,000**	300
Lead	25	50 (H(WS))		ND	3	ND	3	ND	3
Magnesium	35,000	35,000 (H(WS))		12,000	5,000	12,000	5,000	24,000	5,000
Manganese	300 / 500[3]	300 (E)		**1,500**	40	280[(3)]	40	**980**	40
Mercury	0.7	0.7 (H(WS)), 0.77 (A(C)), 1.4 (A(A)), 7e-4 (H(FC)), 2.6e-3 (W)		ND	0.5	ND	0.5	ND	0.5
Nickel	100	100 (H(WS)), 73.3 (A(C))[2]		ND	50	ND	50	ND	50
Potassium	NS	NS		ND	5,000	ND	5,000	8100	5,000
Selenium	10	10 (H(WS)), 4.6 (A(C))		ND	10	ND	10	ND	10
Silver	50	50 (H(WS))		ND	20	ND	20	ND	20
Sodium	20,000	NS		9,300	5,000	14,000	5,000	**99,000**	5,000
Thallium	0.5	0.5 (H(WS)), 8 (A(C))		ND	2	ND	2	ND	2
Vanadium	NS	14 (FP)		ND	50	ND	50	ND	50
Zinc	2,000	2,000 (H(WS)), 126.8 (A(C))[2], 165 (A(A))[2]		ND	50	ND	50	ND	50
Chloride	250,000	250,000 (H(WS))		23,000	2,000	7,800	2,000	170,000	10,000
Hardness (listed in milligrams of CaCO3 per liter)		NS		150	6.6	160	6.6	500	6.6

Notes
(1) - NYSDEC Class GA and Class A Standards & Guidance Values are from Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, revised April 2000.
(2) - Class A Standard(s) are based on hardness concentrations
(3) - Standard of 500 µg/L applies to the sum of Iron and Manganese
(4) - SW-DUP1-102018 is a blind duplicate of SW-3-102018
NS - No Standard
ND - Analyte not detected at the listed reporting limit
RL - Reporting Limit
µg/L - micrograms per liter
Shaded and bolded values exceed Class GA or Class A Standards or Guidance Values

NYSDEC Class A Standard Types:

A(C) - Fish Propogation	A(C)
H(WS) - Drinking Water	H(WS)
A(A) - Fish Survival	A(A)
H(FC) - Human Consumption of Fish	H(FC)
E - Aesthetic	E
W - Wildlife Protection	W

Table 6
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Surface Water Sample Analytical Results for Metals, Cyanide, and Chloride

			CLIENT ID:	SW-DUP1-102018[4]		SW-4-102018	
			LAB ID:	AD07161-007		AD07161-008	
			COLLECTION DATE:	10/17/2018		10/17/2018	
Metals and Cyanide and Chloride	NYSDEC Class GA Standards[1] (µg/L)	NYSDEC A Standards[1] (µg/L)		Result (µg/L)	RL (µg/L)	Result (µg/L)	RL (µg/L)
Aluminum	NS	100 (A(C))		ND	200	**9,000**	200
Antimony	3	3 (H(WS))		ND	3.0	ND	3.0
Arsenic	25	50 (H(WS)), 150 (A(C)), 340 (A(A))		ND	2.0	2.6	2.0
Barium	1,000	1,000 (H(WS))		110	50	160	50
Beryllium	3	3 (DW), 1,100 (A(C))[2]		ND	1.0	ND	1.0
Cadmium	5	5 (H(WS), 2.8 (A(C))[2], 6 (A(A))[2]		ND	2.0	ND	2.0
Calcium	NS	NS		190,000	5,000	76,000	5,000
Chromium	50	50 (H(WS)), 80 (A(C))[2]		ND	50	ND	50
Cobalt	NS	5 (A(C))		ND	2	5.8	2
Copper	200	200 (H(WS)), 12.6 (A(C))[2], 19.7 (A(A))[2]		ND	50	ND	50
Cyanide	200	200 (H(WS)), 5.2 (A(C)), 22 (A(A)), 9,000 (H(FC))		ND	20	ND	20
Iron	300 / 500[3]	300 (A(C) & E)		**1,200**	300	**20,000**	300
Lead	25	50 (H(WS))		ND	3	24	3
Magnesium	35,000	35,000 (H(WS))		27,000	5,000	23,000	5,000
Manganese	300 / 500[3]	300 (E)		**1,100**	40	**4,600**	40
Mercury	0.7	0.7 (H(WS)), 0.77 (A(C)), 1.4 (A(A)), 7e-4 (H(FC)), 2.6e-3 (W)		ND	0.5	ND	0.5
Nickel	100	100 (H(WS)), 73.3 (A(C))[2]		ND	50	ND	50
Potassium	NS	NS		9,500	5,000	6,200	5,000
Selenium	10	10 (H(WS)), 4.6 (A(C))		ND	10	ND	10
Silver	50	50 (H(WS))		ND	20	ND	20
Sodium	20,000	NS		**120,000**	5,000	**31,000**	5,000
Thallium	0.5	0.5 (H(WS)), 8 (A(C))		ND	2	ND	2
Vanadium	NS	14 (FP)		ND	50	ND	50
Zinc	2,000	2,000 (H(WS)), 126.8 (A(C))[2], 165 (A(A))[2]		ND	50	110	50
Chloride	250,000	250,000 (H(WS))		150,000	10,000	41,000	2,000
Hardness (listed in milligrams of CaCO3 per liter)		NS		500	6.6	310	6.6

Notes
(1) - NYSDEC Class GA and Class A Standards & Guidance Values are from Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, revised April 2000.
(2) - Class A Standard(s) are based on hardness concentrations
(3) - Standard of 500 µg/L applies to the sum of Iron and Manganese
(4) - SW-DUP1-102018 is a blind duplicate of SW-3-102018
NS - No Standard
ND - Analyte not detected at the listed reporting limit
RL - Reporting Limit
µg/L - micrograms per liter
Shaded and bolded values exceed Class GA or Class A Standards or Gu

NYSDEC Class A Standard Types:

A(C) - Fish Propogation	A(C)
H(WS) - Drinking Water	H(WS)
A(A) - Fish Survival	A(A)
H(FC) - Human Consumption of Fish	H(FC)
E - Aesthetic	E
W - Wildlife Protection	W

Attachment 11

Table 7
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Sediment Sample Analytical Results for Volatile Organic Compounds

	CLIENT ID:		SD-1-102018		SD-2-102018		SD-3-102018		SD-4-102018	
	LAB ID:		AD07161-002		AD07161-004		AD07161-006		AD07161-009	
	COLLECTION DATE:		10/17/2018		10/17/2018		10/17/2018		10/17/2018	
Volatile Organic Compounds	NYSDEC Class A SGV[1] (mg/kg)	NYSDEC Class C SGV[1] (mg/kg)	Result (mg/Kg)	RL (mg/Kg)	Result (mg/Kg)	RL (mg/Kg)	Result (mg/Kg)	RL (mg/Kg)	Result (mg/Kg)	RL (mg/Kg)
1,1,1-Trichloroethane	1.8	8.6	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
1,1,2,2-Tetrachloroethane	9	18	ND	0.0044	ND	0.0083	ND	0.0024	ND	0.0094
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
1,1,2-Trichloroethane	1.8	8.6	ND	0.0045	ND	0.0085	ND	0.0025	ND	0.0095
1,1-Dichloroethane	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
1,1-Dichloroethene	0.52	4.7	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
1,2,3-Trichlorobenzene	0.23	2.8	ND	0.0034	ND	0.0063	ND	0.0019	ND	0.0071
1,2,4-Trichlorobenzene	35	55	ND	0.0044	ND	0.0082	ND	0.0024	ND	0.0093
1,2-Dibromo-3-chloropropane	NS	NS	ND	0.0045	ND	0.0084	ND	0.0025	ND	0.0094
1,2-Dibromoethane	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
1,2-Dichlorobenzene	0.28	2.5	ND	0.0053	ND	0.0099	ND	0.0029	ND	0.011
1,2-Dichloroethane	NS	NS	ND	0.0042	ND	0.0079	ND	0.0023	ND	0.0089
1,2-Dichloropropane	NS	NS	ND	0.0036	ND	0.0068	ND	0.0020	ND	0.0076
1,3-Dichlorobenzene	1.8	7.1	ND	0.0041	ND	0.0077	ND	0.0023	ND	0.0087
1,4-Dichlorobenzene	0.72	3.3	ND	0.0030	ND	0.0057	ND	0.0017	ND	0.0064
1,4-Dioxane	NS	NS	ND	0.21	ND	0.39	ND	0.12	ND	0.44
2-Butanone	NS	NS	ND	0.0054	ND	0.010	ND	0.0030	ND	0.011
2-Hexanone	NS	NS	ND	0.0049	ND	0.0093	ND	0.0027	ND	0.010
4-Methyl-2-pentanone	NS	NS	ND	0.0054	ND	0.010	ND	0.0030	ND	0.011
Acetone	NS	NS	ND	0.027	ND	0.051	ND	0.015	ND	0.057
Benzene	0.53	1.9	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Bromochloromethane	NS	NS	ND	0.0047	ND	0.0087	ND	0.0026	ND	0.0098
Bromodichloromethane	NS	NS	ND	0.0033	ND	0.0061	ND	0.0018	ND	0.0069
Bromoform	NS	NS	ND	0.0048	ND	0.0090	ND	0.0026	ND	0.010
Bromomethane	NS	NS	ND	0.0035	ND	0.0066	ND	0.0020	ND	0.0075
Carbon disulfide	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Carbon tetrachloride	1.07	9.6	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Chlorobenzene	0.2	1.7	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Chloroethane	NS	NS	ND	0.0051	ND	0.0095	ND	0.0028	ND	0.011
Chloroform	NS	NS	ND	0.0044	ND	0.0083	ND	0.0024	ND	0.0094
Chloromethane	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
cis-1,2-Dichloroethene	NS	NS	ND	0.0029	ND	0.0055	ND	0.0016	ND	0.0062
cis-1,3-Dichloropropene	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Cyclohexane	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Dibromochloromethane	NS	NS	ND	0.0033	ND	0.0061	ND	0.0018	ND	0.0069
Dichlorodifluoromethane	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Ethylbenzene	0.43	3.7	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Isopropylbenzene	0.21	1.8	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
m&p-Xylenes	0.82	7.2	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Methyl Acetate	NS	NS	ND	0.0046	ND	0.0087	ND	0.0026	ND	0.0098
Methylcyclohexane	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Methylene chloride	NS	NS	ND	0.0049	ND	0.0092	ND	0.0027	ND	0.010
Methyl-t-butyl ether	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
o-Xylene	0.48	4.2	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Styrene	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Tetrachloroethene	16	57	ND	0.0030	ND	0.0056	ND	0.0016	ND	0.0063
Toluene	0.93	4.5	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
trans-1,2-Dichloroethene	1.2	11	ND	0.0028	ND	0.0052	ND	0.0015	ND	0.0058
trans-1,3-Dichloropropene	NS	NS	ND	0.0043	ND	0.0081	ND	0.0024	ND	0.0091
Trichloroethene	1.8	8.6	ND	0.0032	ND	0.0060	ND	0.0018	ND	0.0067
Trichlorofluoromethane	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Vinyl chloride	NS	NS	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Xylenes (Total)	0.59	5.2	ND	0.0027	ND	0.0051	ND	0.0015	ND	0.0057
Total VOCs	NS	NS	ND	-	ND	-	ND	-	ND	-

Notes
(1) - NYSDEC Class A and Class C Sediment Guidance Values are from NYSDEC Bureau of Habitat Screeing and Assessment of Contaminated Sediment Guidance, dated June 24, 2014.
NS - No Standard
ND - Analyte not detected at the listed reporting limit
RL - Reporting Limit
mg/kg - milligrams per kilogram
Shaded and bolded values exceed regulatory criteria

Table 8
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Sediment Sample Analytical Results for Semivolatile Organic Compounds

	CLIENT ID:		SD-1-102018		SD-2-102018		SD-3-102018		SD-4-102018	
	LAB ID:		AD07161-002		AD07161-004		AD07161-006		AD07161-009	
	COLLECTION DATE:		10/17/2018		10/17/2018		10/17/2018		10/17/2018	
Semivolatile Organic Compounds	NYSDEC Class A SGV[1] (mg/kg)	NYSDEC Class C SGV[1] (mg/kg)	Result (mg/Kg)	RL (mg/Kg)	Result (mg/Kg)	RL (mg/Kg)	Result (mg/Kg)	RL (mg/Kg)	Result (mg/Kg)	RL (mg/Kg)
1,1'-Biphenyl	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
1,2,4,5-Tetrachlorobenzene	1	5.3	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2,3,4,6-Tetrachlorophenol	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2,4,5-Trichlorophenol	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2,4,6-Trichlorophenol	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2,4-Dichlorophenol	NS	NS	ND	0.023	ND	0.052	ND	0.015	ND	0.028
2,4-Dimethylphenol	NS	NS	ND	0.023	ND	0.052	ND	0.015	ND	0.028
2,4-Dinitrophenol	NS	NS	ND	0.46	ND	1.0	ND	0.30	ND	0.56
2,4-Dinitrotoluene	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2,6-Dinitrotoluene	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2-Chloronaphthalene	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2-Chlorophenol	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2-Methylnaphthalene	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2-Methylphenol	NS	NS	ND	0.023	ND	0.052	ND	0.015	ND	0.028
2-Nitroaniline	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
2-Nitrophenol	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
3&4-Methylphenol	NS	NS	ND	0.023	ND	0.052	ND	0.015	ND	0.028
3,3'-Dichlorobenzidine	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
3-Nitroaniline	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
4,6-Dinitro-2-methylphenol	NS	NS	ND	0.46	ND	1.0	ND	0.30	ND	0.56
4-Bromophenyl-phenylether	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
4-Chloro-3-methylphenol	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
4-Chloroaniline	NS	NS	ND	0.023	ND	0.052	ND	0.015	ND	0.028
4-Chlorophenyl-phenylether	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
4-Nitroaniline	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
4-Nitrophenol	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Acenaphthene*	9.04		ND	0.093	ND	0.21	ND	0.061	ND	0.11
Acenaphthylene*	9.82		ND	0.093	ND	0.21	ND	0.061	ND	0.11
Acetophenone	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Anthracene*	11.88		ND	0.093	ND	0.21	ND	0.061	ND	0.11
Atrazine	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Benzaldehyde	NS	NS	ND	0.093	ND	0.21	ND	0.061	0.60	0.11
Benzo[a]anthracene*	16.82		0.16	0.093	0.29	0.21	0.075	0.061	0.14	0.11
Benzo[a]pyrene*	19.28		0.21	0.093	0.36	0.21	0.075	0.061	0.17	0.11
Benzo[b]fluoranthene*	19.58		0.31	0.093	0.58	0.21	0.11	0.061	0.26	0.11
Benzo[g,h,i]perylene*	21.90		0.14	0.093	0.3	0.21	ND	0.061	0.14	0.11
Benzo[k]fluoranthene*	19.60		0.1	0.093	ND	0.21	ND	0.061	ND	0.11
bis(2-Chloroethoxy)methane	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
bis(2-Chloroethyl)ether	NS	NS	ND	0.023	ND	0.052	ND	0.015	ND	0.028
bis(2-Chloroisopropyl)ether	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
bis(2-Ethylhexyl)phthalate	360	360	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Butylbenzylphthalate	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Caprolactam	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Carbazole	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Chrysene*	16.86		0.23	0.093	0.41	0.21	0.071	0.061	0.18	0.11
Dibenzo[a,h]anthracene*	22.44		ND	0.093	ND	0.21	ND	0.061	ND	0.11
Dibenzofuran	NS	NS	ND	0.023	ND	0.052	ND	0.015	ND	0.028
Diethylphthalate	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Dimethylphthalate	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Di-n-butylphthalate	NS	NS	ND	0.023	ND	0.052	ND	0.015	ND	0.028
Di-n-octylphthalate	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Fluoranthene*	14.16		0.35	0.093	0.5	0.21	0.13	0.061	0.27	0.11
Fluorene*	10.78		ND	0.093	ND	0.21	ND	0.061	ND	0.11
Hexachlorobenzene	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Hexachlorobutadiene	1.2	12	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Hexachlorocyclopentadiene	0.81	8.1	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Hexachloroethane	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Indeno[1,2,3-cd]pyrene*	22.30		0.12	0.093	0.22	0.21	ND	0.061	ND	0.11
Isophorone	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Naphthalene*	7.70		ND	0.023	ND	0.052	ND	0.015	ND	0.028
Nitrobenzene	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
N-Nitroso-di-n-propylamine	NS	NS	ND	0.023	ND	0.052	ND	0.015	ND	0.028
N-Nitrosodiphenylamine	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Pentachlorophenol	14	19	ND	0.46	ND	1	ND	0.3	ND	0.56
Phenanthrene*	14.90		0.16	0.093	ND	0.21	ND	0.061	0.12	0.11
Phenol	NS	NS	ND	0.093	ND	0.21	ND	0.061	ND	0.11
Pyrene*	13.96		0.35	0.093	0.56	0.21	0.13	0.061	0.27	0.11
Total PAHs (16 Sampled)[2]	4,000	35,000	2.1	-	3.2	-	0.6	-	1.6	-
Total SVOCs	NS	NS	2.1	-	3.2	-	0.6	-	1.6	-

Notes
(1) - NYSDEC Class A and Class C Sediment Guidance Values are from NYSDEC Bureau of Habitat Screeing and Assessment of Contaminated Sediment Guidance, Table 5, dated June 24, 2014.
(2) - The correction Factor (or multiplier) for Total PAH comparison when 16 of 34 PAHs are sampled is 9.3 (see above guidance Section A, Page 27)
* - These compounds are PAHs; Sediment Guidance Values listed are from the above guidance, Table 7.
NS - No Standard
ND - Analyte not detected at the listed reporting limit
RL - Reporting Limit
mg/kg - milligrams per kilogram
Shaded and bolded values exceed regulatory criteria

Table 9
New York State Department of Transportation
Harrison Sub-Residency Landfill Site
Summary of Sediment Sample Analytical Results for Metals and Cyanide

	CLIENT ID:		SD-1-102018		SD-2-102018		SD-3-102018		SD-4-102018	
	LAB ID:		AD07161-002		AD07161-004		AD07161-006		AD07161-009	
	COLLECTION DATE:		10/17/2018		10/17/2018		10/17/2018		10/17/2018	
Metals and Cyanide	NYSDEC Class A SGV[1] (mg/kg)	NYSDEC Class C SGV[1] (mg/kg)	Result (mg/kg)	RL (mg/kg)	Result (mg/kg)	RL (mg/kg)	Result (mg/kg)	RL (mg/kg)	Result (mg/kg)	RL (mg/kg)
Aluminum	NS	NS	6,500	560	8,900	1,200	27,000	360	16,000	670
Antimony	NS	NS	ND	2.2	ND	5.0	ND	1.5	ND	2.7
Arsenic	10	33	1.9	0.56	5.5	1.2	4.2	0.36	4.5	0.67
Barium	NS	NS	330	28	420	62	160	18	210	33
Beryllium	NS	NS	ND	0.56	ND	1.2	0.56	0.36	ND	0.67
Cadmium	1	5	ND	1.1	ND	2.5	**1.2**	0.73	**1.9**	1.3
Calcium	NS	NS	5,700	2,800	13,000	6,200	49,000	1,800	10,000	3,300
Chromium	43	110	19	14	ND	31	42	9.1	40	17
Cobalt	NS	NS	11	6.9	ND	16	15	4.5	13	8.3
Copper	32	150	15	14	**45**	31	**45**	9.1	**45**	17
Cyanide	NS	27	ND	0.67	1.9	1.5	1.3	0.44	ND	0.80
Iron	NS	NS	31,000	560	34,000	1,200	35,000	360	44,000	670
Lead	36	130	21	14	**51**	31	**<u>150</u>**	9.1	**73**	17
Magnesium	NS	NS	2,600	1,400	5,200	3,100	30,000	910	7,300	1,700
Manganese	NS	NS	17,000	280	18,000	250	430	18	1,300	33
Mercury	0.2	1	ND	0.23	ND	0.52	ND	0.15	ND	0.28
Nickel	23	49	ND	14	ND	31	**35**	9.1	**30**	17
Potassium	NS	NS	1,500	1,400	ND	3,100	2,800	910	3,400	1,700
Selenium	NS	NS	ND	5.6	ND	13	ND	3.6	ND	6.7
Silver	1	2.2	ND	0.56	ND	1.2	ND	0.36	ND	0.67
Sodium	NS	NS	ND	690	ND	1,600	650	450	ND	830
Thallium	NS	NS	ND	1.1	ND	2.5	ND	0.73	ND	1.3
Vanadium	NS	NS	ND	28	ND	62	68	18	52	33
Zinc	120	460	69	28	**260**	62	**200**	18	**260**	33
Chloride	NS	NS	ND	56	ND	120	200	36	100	67

<u>Notes</u>
(1) - NYSDEC Class A and Class C Sediment Guidance Values are from NYSDEC Bureau of Habitat Screeing and Assessment of Contaminated Sediment Guidance, dated June 24, 2014.
NS - No Standard
ND - Analyte not detected at the listed reporting limit
RL - Reporting Limit
mg/kg - milligrams per kilogram
Shaded and bolded values exceed Class A SGV; <u>underlined</u> results exceed Class C SGV

Attachment 12

PLUGGING REPORT Page 1 of 2

SPILL NO. 94-07349 **SITE: HARRISON** **COUNTY: WESTCHESTER**

Plugging Date: May and June, 2008 **Plugged By: Greg P. & Eric D.**

Well Number	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
Date Drilled	3-Apr-95	3-Apr-95	3-Apr-95	27-Oct-95	27-Oct-95	27-Oct-95	See Below
Inside Diameter of well	4"	4"	4"	4"	4"	4"	
Length of Riser	2.0 Ft.	2.0 Ft.	2.0 Ft.	2.0 Ft.	5.0 Ft.	5.0 Ft.	
Length of Screen	10.0 Ft.	10.0 Ft.	10.0 Ft.	10.0 Ft.	10.0 Ft.	10.0 Ft.	
Total Depth	12.0 Ft.	12.0 Ft.	12.0 Ft.	12.0 Ft.	15.0 Ft.	15.0 Ft.	
Surface Equipment	Flush Mount	Flush Mount	Flush Mount	Flush Mount	Flush Mount	Flush Mount	
Minimum Volume of Grout Required	9.9 Gal.	9.9 Gal.	9.9 Gal.	9.9 Gal.	12.4 Gal.	12.4 Gal.	

Well Number	MW-9	MW-10B*	SP-01	SP-02	SP-3	SP-4
Date Drilled	17-Mar-99	16-Mar-99	14-Apr-97	14-Apr-97	17-Mar-99	17-Mar-99
Inside Diameter of well	1.5"	1.5"	2"	2"	1.5"	1.5"
Length of Riser	4.0 Ft.	22.5 Ft.	Unknown	Unknown	18.0 Ft.	19.0 Ft.
Length of Screen	10.0 Ft.	4.0 Ft.	Unknown	Unknown	2.5 Ft.	2.5 Ft.
Total Depth	14.0 Ft.	26.5 Ft.	20.0 Ft.	20.0 Ft.	20.5 Ft.	21.5 Ft.
Surface Equipment	Flush Mount	Flush Mount	Flush Mount	Flush Mount	Flush Mount	Flush Mount
Minimum Volume of Grout Required	1.6 Gal.	3.0 Gal.	4.6 Gal.	4.6 Gal.	2.3 Gal.	2.4 Gal.

Remarks

A review of GEB records shows the following:

The above listed wells were plugged in May and June of 2008 using 160 gallons of grout.

MW-8 was probably 4" in diameter with a 15 Ft. Depth. This information is from the attached cross section.

The cross section shows MW-8 having the same depth as MW-7.

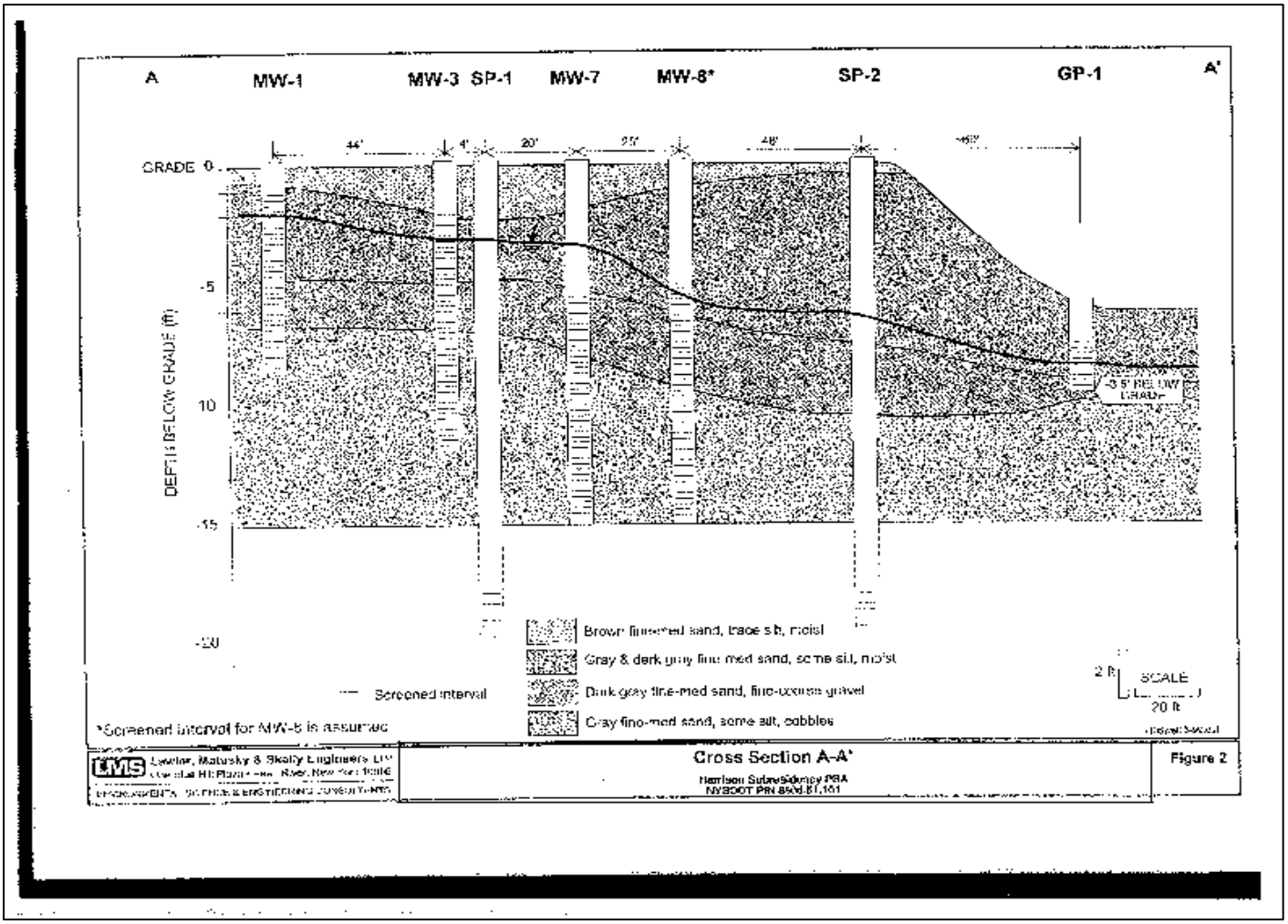
* MW-10B was drilled as SP-1B

The following wells remained unplugged MW-1, MW-11, GP-1 and GP-2

MW-12 and MW-13 were installed in June 2008 and also remained.

SPILL NO. 94-07349 **SITE: HARRISON** **COUNTY: WESTCHESTER**

Plugging Date: May and June, 2008 **Plugged By: Greg P. & Eric D.**



Attachment 13

PLUGGING REPORT

SPILL NO. 94-07349 **SITE: HARRISON** **COUNTY: WESTCHESTER**

Plugging Date: 29 Nov 2011 and 2 May 2012 **Plugged By: NYS DOT, Bob Rickard**

Well Number	MW-1	MW-12	MW-13	GP-1	GP-2	
Inside Diameter of well	4"	2"	2"	1 1/2"	2"	
Length of Riser	1 Ft.	8.2 Ft.	6.2 Ft.	5.1 Ft.	3.5 Ft.	
Length of Screen	7.5 Ft.	10.3 Ft.	10.3 Ft.	1.5 Ft.	2.0 Ft.	
Total Depth	8.5 Ft.	15.5 Ft. BGS	13.5 Ft. BGS	3.45 Ft. BGS	3.5 Ft. BGS	
Surface Equipment	Flush Mount	Protective Cover	Protective Cover	None	None	
Minimum Volume of Grout Required	7.0 Gal.	3.7 Gal.	3.1 Gal.	0.4 Gal.	0.8 Gal.	

Remarks

29 Nov 2011 Pluggings:

MW-13: The protective cover was extracted using a farm jack. The PVC had separated at the intersection of the screen and riser (3.2 Ft. BGS). The soil was excavated to the top of the screen and 4.5 gallons of grout was tremie poured, allowed to settle, then topped off.

GP-1 and GP-2: The PVC pipe was removed using a farm jack. Three gallons of grout were then top poured in the voids, allowed to settle, then topped off.

2 May 2012 Pluggings:

MW-12: The protective cover and PVC were extracted using a farm jack. Six gallons of grout was then tremie poured, allowed to settle, then topped off.

MW-1: The PVC pipe was removed using a farm jack. Eight gallons of grout were then tremie poured, allowed to settle, then topped off. The flush mount cover and concrete pad were then removed using a jackhammer and hand tools.

The surface for both wells was then restored using compacted topsoil.