HIGHLAND PLAZA

ERIE COUNTY, NEW YORK

Annual Report
2018-2019

NYSDEC Site Number: C 9 1 5 2 9 3

Prepared for:

Highland Plaza
215 Highland Parkway
Tonawanda, New York

Prepared by:

Environmental & Geologic Management Services. LLC

15 Briar Hill Road
Orchard Park, New York 14127

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I. Introduction

A. Site Background and Remedial History

Highland Plaza entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) in April, 2015 to investigate and remediate a 0.69-acre property located in the Town of Tonawanda, New York. The property was remediated to commercial use, and will be used for commercial use only (Figure 1).

The site is located in the County of Erie, New York and is identified as Lot #33, Township 12 Range 6 of the Holland land Company's Survey and being Sublots #35 to 46 inclusive on the Tonawanda, Erie County Tax Map (Figure 2). The site is situated on an approximately 0.69-acre area bounded by Highland Parkway to the north, an alley way followed by residential properties to the south, a parking lot and credit union to the east, and a gasoline station and Colvin Boulevard to the west (see Figures 1 and 2).

The site remedial technologies are comprised of the following:

- A cap and cover system; and
- A sub-slab depressurization system.

Site monitoring requirements include the annual inspection and certification of the cap and cover system and the sub-slab depressurization system; as well as annual sampling of onsite groundwater monitoring wells to evaluate potential changes in groundwater quality.

B. Effectiveness of the Remedial Program

The cap and cover system is effectively preventing ingestion/direct contact with contaminated soil and is also preventing inhalation of, or exposure from contaminants volatilizing from contaminated onsite soil. In addition, the cap and cover system is preventing migration of contaminants that could result in groundwater or surface water contamination.

Two sub-slab depressurization systems (SSDSs) are mitigating impacts to public health from existing, or the potential for, soil vapor intrusion into onsite buildings.

There are no groundwater remedial activities onsite.

C. Compliance

The cap and cover system was inspected in June, 2019 and was observed to have all elements of the system in place and was adequately maintained as described in the Site Management Plan (SMP).

The SSDSs were inspected on December 18, 2018 and were certified to be operating as designed and described in the SMP.

D. Recommendations

At this time, no changes to the SMP are recommended. The requirements for discontinuing the SMP have not been met.

II. Site Overview

A. Site Description

The site is situated on an approximately 0.69-acre area bounded by Highland Parkway to the north, an alley way followed by residential properties to the south, a parking lot and credit union to the east, and a gasoline station and Colvin Boulevard to the west (see Figures 1 and 2).

B Remedial Action Objectives

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) were identified for this site.

Soil RAOs for Public Health Protection are as follows:

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure from, contaminants volatilizing from contaminants in soil.

Soils RAOs for Environmental Protection are as follows:

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Groundwater RAOs for Public Health Protection are as follows:

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

Groundwater RAOs for Environmental Protection are as follows:

- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable.

- Remove the source of ground or surface water contamination.

Soil Vapor RAOs for Public Health Protection are as follows:

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

III. DESCRIPTION OF SELECTED REMEDY

The site was remediated in accordance with the remedy selected by the NYSDEC in the Decision Document dated December, 2017. The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

1. Maintenance of the existing cover system consisting of the asphalt parking lot covering approximately 50% of the site; the building slab on grade concrete floor and foundation covering approximately 47% of the site; and a clean soil cover behind the building covering approximately 3% of the site to prevent human exposure to remaining contaminated soil/fill remaining at the site (Figures 1, 2, 3, 4 and 5);
2. Two (SSDSs) located in Building #1 (235 to 237 Highland Parkway); and Building #2 (231 Highland Parkway (Figure 7);
3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the site.
4. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;
5. Periodic certification of the institutional and engineering controls listed above.

IV. Remedy Performance, Effectiveness, and Protectiveness

The inspection of the cap and cover system on June 21, 2019 showed that the existing cap and cover system consisting of the asphalt parking lot, the building slab on grade concrete floor and foundation, and the clean soil cover behind the building has been properly maintained to prevent human exposure to remaining contaminated soil/fill remaining at the site.

The inspection of the two SSDSs located in Buildings #1 and #2 are operating as designed to mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

Review of the groundwater analytical results from June, 2019 indicates that groundwater quality with respect to the presence of volatile organic compounds is below the NYSDEC TOGS 1.1.1 groundwater quality standards; and therefore, no onsite groundwater remedial actions are necessary, other than the annual monitoring that is required as part of the SMP.

V. Institutional Controls/Engineering Controls Plan Compliance (IC/EC Plan)

a. IC/EC Requirements and Compliance

Highland Plaza has both engineering controls (cap and cover system, and SSDS's) and institutional controls (Deed Restriction) in place.

Institutional Controls - The site continues to be owned and managed by Highland Plaza. No sale of the property has been made or is currently contemplated. ICs are noted on survey maps of the area are subject to deed restrictions.

Engineering Controls – Highland Plaza continues to maintain the cap and cover system as well as operation of onsite SSDSs.

Corrective Measures – There were no corrective measures implemented during the annual reporting period

No changes to EC/IC Plan are recommended at this time. The IC/EC certification is provided in Appendix A.

VI. Monitoring Plan Compliance Report

a. Monitoring Plan Requirements

The monitoring plan requires that wells (MW 1, MW – 2 and MW – 3 are sampled annually and samples are analyzed for volatile organic compounds (VOCs). Annual groundwater sampling was most recently completed in June 21, 2019, by GES.

b. Summary of Monitoring Completed during Reporting Period

Groundwater analytical data is included in Appendix B.

c. Comparisons with NYSDEC Standards

Groundwater quality results from June, 2019 were compared to groundwater quality results collected and analyzed in December, 2015. The following provides a summary of the volatile organic compounds (VOCs) historic results.

MW – 1. This monitoring well is located at the northwest end of the site, furthest from the former dry cleaner. Acetone was detected in MW – 1 groundwater samples in both 2015 and 2019 below the TOGS 1.1.1 standard of 50 micrograms per liter (ug/l) (Table 1).

MW – 2. Monitoring well MW – 2 is located the north center area of the site west of the former dry cleaner. There were no VOCs detected in the groundwater samples collected in 2015 and 2019 above the laboratory's method detection limits.

MW – 3. Monitoring well MW – 3 is located at the northeast end of the site just north of the former dry cleaner. In 2015, cis-1,2-Dichloroethene was detected in the groundwater sample at a concentration of 24.0 ug/l, above the TOGS 1.1.1 standard of 5 ug/l. In 2019, tetrachloroethene was the only VOC detected in the groundwater, at an estimated concentration of 0.47 (J) ug/l; below the TOGS 1.1.1 standard of 0.7 ug/l.

d. **Monitoring Deficiencies**:

There were no monitoring deficiencies in this period.

e. Conclusions and Recommendations

No changes to the monitoring program are recommended at this time.

VII. Operation & Maintenance (O & M) Plan Compliance Report

a. Components of O&M Plan

Inspections and data recording are being conducted as required. Deficiencies are corrected and corrective actions are documented.

b. Summary of O & M Completed During Reporting Period

O&M activities are summarized and details of O & M actions are recorded in the monthly inspection reports and are kept onsite. The SSDSs were recently inspected during this reporting period. This certified inspection form is attached as Appendix D.

c. Evaluation of Remedial Systems

The remedial systems (cap and cover system; SSDSs) have been inspected and are operating as designed. Maintenance performed is routine and not unusual (ex. blower failure). No changes to the remedial systems are recommended at this time.

d. O & M Deficiencies

There are no operational or maintenance deficiencies at this time.

e. Conclusions and Recommendations for Improvements

The remedial systems as designed and operated are functioning properly. There are no recommendations for improvement to the remedial systems, and no changes to the O & M plan are recommended.

VIII. Overall Conclusions and Recommendations

a. Compliance with SMP

Highland Plaza has complied with all aspects of the SMP (IC/EC; O& M and Monitoring) for the period 2018 to 2019.

b. Performance and Effectiveness of the Remedy

The remedy has been effective in containing soil contamination and preventing contamination from leaving the site. Groundwater quality criteria have been met as compared to NYSDEC TOGS 1.1.1 standards.

c. Future Submittals

Frequency of reporting should remain as currently required.

FIGURES

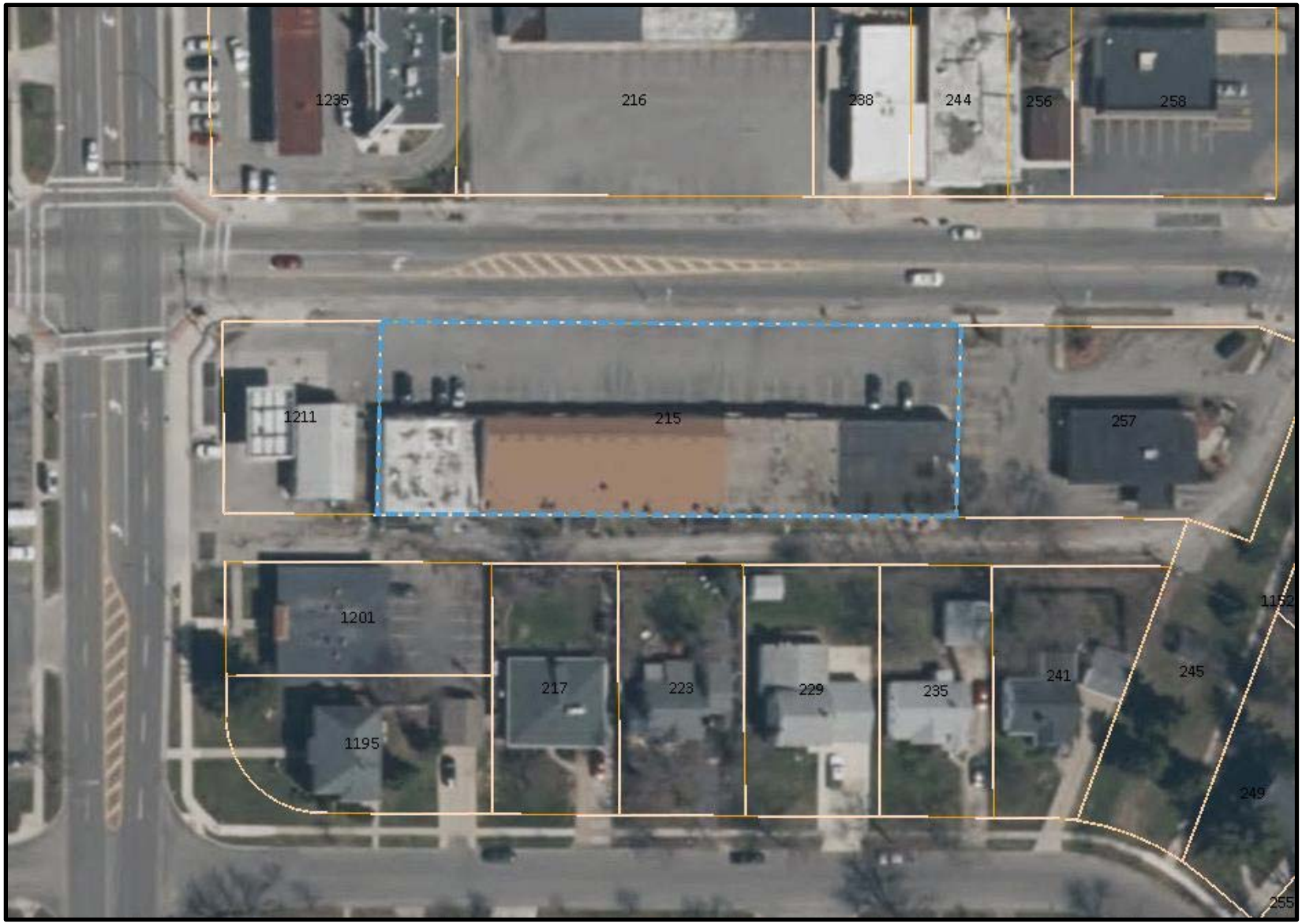
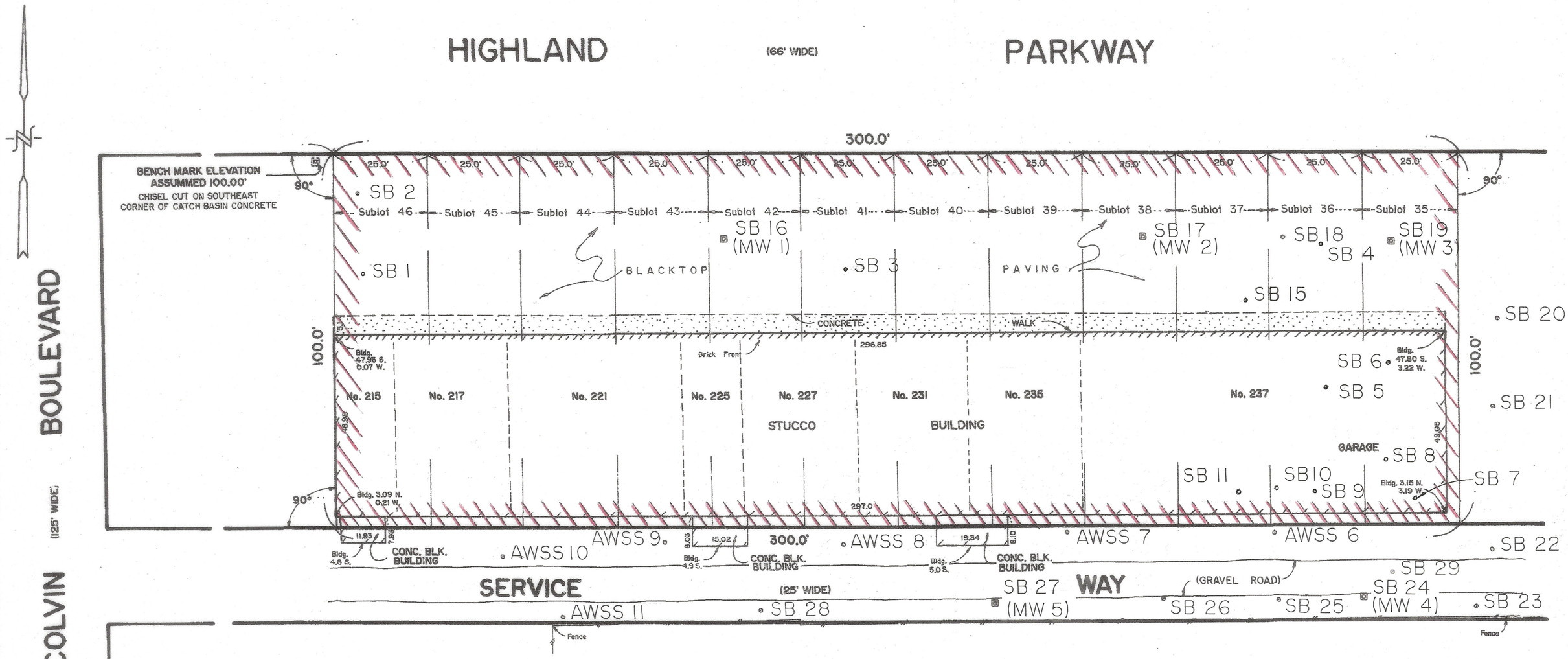


Figure 1. Location of the Highland Plaza BCP Site (Site No. C915293) in Tonawanda, Erie County, New York.



NOTE:
DELINEATES BROWNFIELD AREA BOUNDARY

NOTE:
Tenant spaces/Addresses are as shown on EGMS Drawing FIGURE 4: RI VAPOR INTRUSIONSAMPLE LOCATIONS SOIL VAPOR INTRUSION INVESTIGATION HIGHLAND PLAZA IN TONAWANDA, N.Y. Dated May 2016

NOTE:
SOIL BORING SB 1 WAS NOT SAMPLED

NOTE:
THE ADDITIONAL SOIL BORING LOCATIONS AND REVISED SOIL BORING LOCATIONS ARE SHOWN ACCORDING TO DIMENSIONS PROVIDED TO OUR FIRM IN A LETTER FROM ENVIRONMENTAL & GEOLOGICAL MANAGEMENT SERVICES, LLC Dated May 15, 2017

NOTE:
SONNENBERGER LAND SURVEYING ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF ADDITIONAL AND REVISED SOIL BORING LOCATIONS.

Point Description	Distance East of Northwest Property Corner	Distance South of Northwest Property Corner	Elevation (PVC Pipe)
SB 16 (MW 1)	104.45	22.36	100.51
SB 17 (MW 2)	216.22	22.43	100.18
SB 19 (MW 3)	282.43	24.29	100.08
SB 24 (MW 4)	274.59	119.19	101.45
SB 27 (MW 5)	176.13	120.15	102.06
SB 18	253.63	22.88	
SB20	310.68	44.85	
SB 21	309.38	68.53	
SB 22	309.20	106.52	
SB 23	304.75	121.78	
SB 25	251.83	119.34	
SB 26	221.32	118.93	
SB 28	113.74	121.41	
SB 29	282.23	112.08	
AWSS 6	251.01	101.56	
AWSS 7	195.55	101.02	
AWSS 8	136.09	104.20	
AWSS 9	88.35	102.98	
AWSS 10	45.14	106.68	
AWSS 11	61.17	122.98	

Point Description	Distance East of Northwest Property Corner	Distance South of Northwest Property Corner
SB 1	8'	32.5'
SB 2	6.5'	10'
SB 3	136'	31'
SB 15	242'	39.5'
SB 4	262'	24'
SOIL BORING LOCATIONS ARE APPROXIMATE		

Point Description	Distance West of Northeast Building Corner	Distance South of Northeast Building Corner
SB 5	32'	15'
SB 6	15'	8'
SB 7	8'	44'
SB 8	16'	34'
SB 9	35'	43'
SB 10	45'	42'
SB 11	55'	43'
SOIL BORING LOCATIONS ARE ESTIMATED		

FIGURE 2 : SITE BASE MAP

HIGHLAND PLAZA
TONAWANDA, NEW YORK

SUBLOTS 35 to 46 INCLUSIVE
MAP COVER 1400
PART OF LOT 33, TOWNSHIP 12, RANGE 8
TOWN OF TONAWANDA
ERIE COUNTY, NEW YORK

40 20 0 10 20
BAR SCALE 1"= 20'

SONNENBERGER LAND SURVEYING
60 NIAGARA STREET
BUFFALO, NEW YORK 14202
(716) 854-0159
SonnenbergerLandSurveying.com

SCALE: 1" = 20' DATE: NOV. 10, 2015
SHEET: 69621 No. 15-221 ATS-1
REVISED 5/20/16 REVISED 5/18/17

LICENSED LAND SURVEYOR FRANCIS X. METZGER STATE OF NEW YORK 049989

This map void unless EMBOSSED with New York State Licensed Land Surveyor's Seal No. 049989

Altering any item on this map is in violation of the law, excepting as provided in Section 7209, Part 2 of the New York State Education Law.

This Survey was prepared without the benefit of a current full abstract of title and is subject to any state of facts that may be revealed by an examination of same

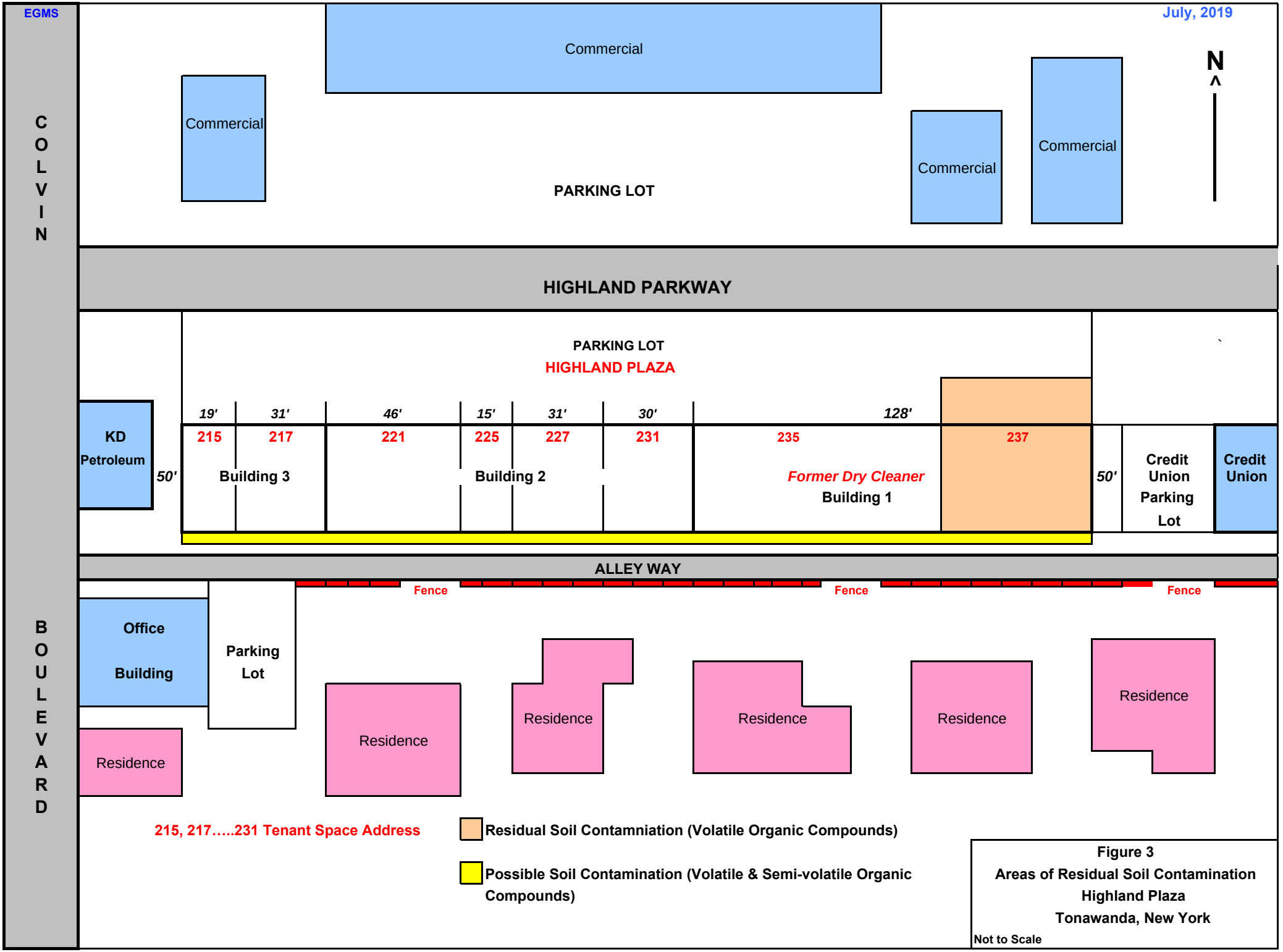
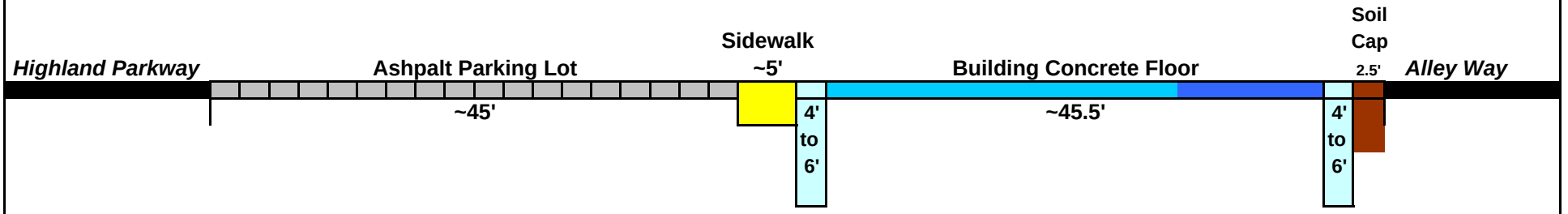


Figure 3
Areas of Residual Soil Contamination
Highland Plaza
Tonawanda, New York
Not to Scale

EGMS July, 2019

HIGHLAND PLAZA

Looking East



- Highland Parkway and Alley Way
- Asphalt Parking Lot (~ 4 Inches Thick)
- Sidewalk (Variable Thickness from 4 to 18 Inches)
- Building Foundation (Variable Thickness from 4 to 6 Feet)
- Building Concrete Floor (~ 4 Inches Thick)
- Soil Cap (Variable Thickness from 12 to 24 Inches)

Figure 4. Profile of Cap and Cover System Highland Plaza

Not to Scale

EGMS

July, 2019

N

COLVIN

COMMERCIAL PROPERTIES

HIGHLAND PARKWAY

HIGHLAND PLAZA
Parking Lot
~ 300' X 45'

KD Petroleum

Building #3
215 217

Building #2
221 225 227 231

Building #1
235 - 237

Credit Parking

Credit Union

ALLEY WAY

Fence

Fence

BOULEVARD

RESIDENTIAL PROPERTIES

215, 217…..231 Tenant Space Address

- Highland Parkway and Alley Way
- Asphalt Parking Lot (~ 4 Inches Thick; ~ 300 Feet x ~ 45 Feet)
- Sidewalk (Variable Thickness from 4 to 18 Inches; ~300 Feet x ~ 5 Feet)
- Building Foundation (Variable Thickness - 4 to 6 Feet; ~ 1.5 Feet x ~ 47.5 Feet x 297')
- Building Old Concrete Floor (~ 4 inches thick; ~ 45.5 feet x 201 Feet)
- Building New Concrete Floor (~ 4 inches thick; ~ 45.5 feet x 96 Feet)
- Soil Cap (Variable thickness from 12 to 24 inches; ~ 300 Feet x 2.95 Feet)

Figure 5. Cap and Cover System
Plan View
Highland Plaza
Tonawanda, New York

Not to Scale

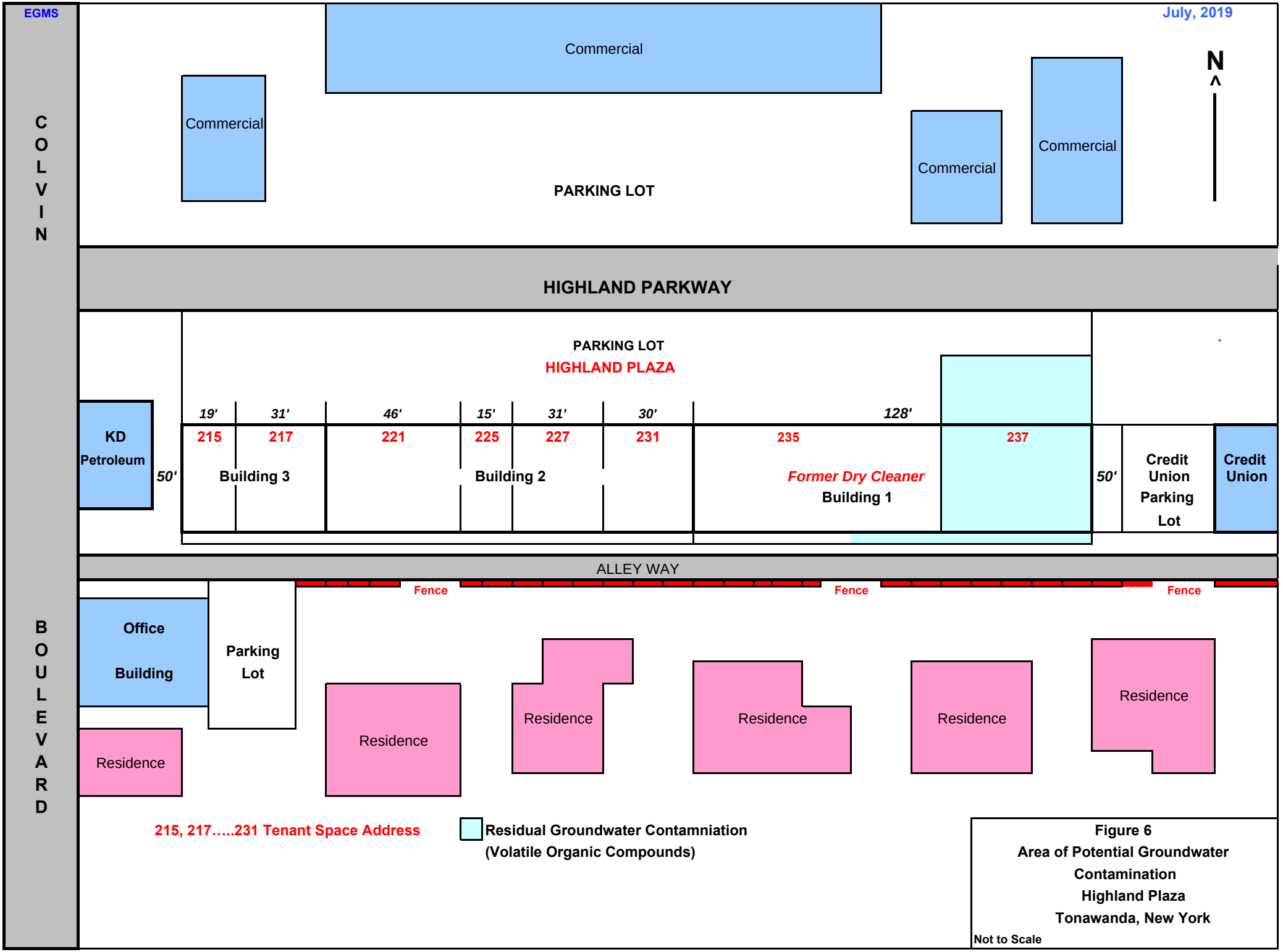


Figure 6
Area of Potential Groundwater Contamination
Highland Plaza
Tonawanda, New York

Not to Scale

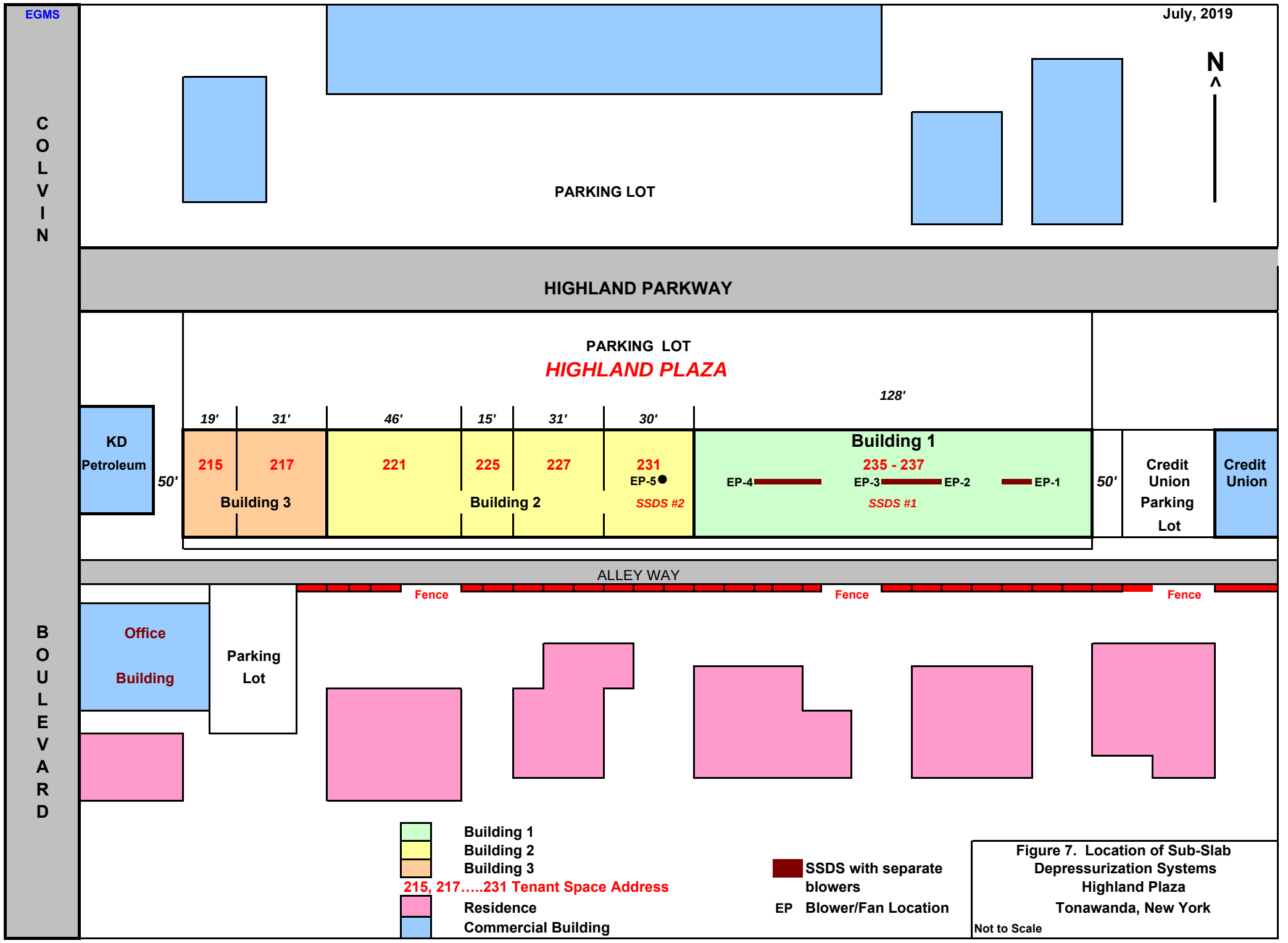


Figure 7. Location of Sub-Slab Depressurization Systems
Highland Plaza
Tonawanda, New York
Not to Scale

TABLES

July, 2019

TABLE 1: HISTORIC GROUNDWATER ANALYTICAL RESULTS
HIGHLAND PLAZA

Well ID			MW 1	MW 1
Date			12/22/2015	6/21/2019
Parameter	*Units*	*Criteria*		
Acetone	ug/l	50	**5.4 J**	**19.0**
cis-1,2-Dichloroethene	ug/l	5	ND (0.74)	ND (0.81).
Tetrachloroethene	ug/l	0.7		ND (0.36)
Trichloroethene	ug/l	5	ND (0.46)	ND (0.46)
Well ID			MW 2	MW 2
Date			12/22/2015	6/21/2019
Parameter	*Units*	*Criteria*		
Acetone	ug/l	50	ND (3.0)	ND (3.0)
cis-1,2-Dichloroethene	ug/l	5	ND (0.81)	ND (0.81)
Tetrachloroethene	ug/l	0.7		ND (0.36)
Trichloroethene	ug/l	5	ND (0.46)	ND (0.46)
Well ID			MW 3	MW 3
Date			12/22/2015	6/21/2019
Parameter	*Units*	*Criteria*		
Acetone	ug/l	50	ND (3.0)	ND (3.0)
cis-1,2-Dichloroethene	ug/l	5	**24.0**	ND (0.81)
Tetrachloroethene	ug/l	0.7		**0.47J**
Trichloroethene	ug/l	5	**0.85J**	ND (0.46)

Notes:

Exceeds Standard

1) Standards are NYSDEC T.O.G.S. 1.1.1 Ambient Water Quality Standards

2) ND = Not-Detected

3) J = Estimated Value

APPENDICES

APPENDIX A

REPORT CERTIFICATIONS

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. **C915293**

Site Name Highland Plaza

Site Address: 215 Highland Parkway Zip Code: 14223
City/Town: Tonawanda (T)
County: Erie
Site Acreage: 0.690

Reporting Period: December 29, 2017 to April 29, 2019

	YES	NO
1. Is the information above correct? Yes		
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? No		
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? No		
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? No		
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? No		

Box 2

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

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

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid? No		

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

	YES	NO
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years) Yes		

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C915293 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
66.57-2-8.11	Gary Crewson	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan O&M Plan

An Environmental Easement was filed with the Erie County Clerk's Office on August 22, 2017. The Controlled Property may be used for commercial and industrial use as long as the following long-term institutional controls are employed: (1) all Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP); (2) all Engineering Controls must be inspected at a frequency and in a manner defined in the SMP; (3) the use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Erie County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department; (4) groundwater and other environmental or public health monitoring must be performed as defined in the SMP; (5) data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP; (6) all future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP; (7) monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP; (8) operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP; and (9) access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
66.57-2-8.11	Vapor Mitigation Cover System

(1) A site cover currently exists and will be maintained to allow for commercial/industrial use of the site. Any site redevelopment will maintain the existing site cover, which consists of structures such as buildings, concrete sidewalks, an asphalt parking lot, and a clean soil cover over the southern portion of the site, adjacent to the alleyway.

(2) Sub-slab depressurization systems exist in Buildings 1 and 2. These systems will continue to operate to prevent the migration of sub-slab soil vapor from soil and groundwater into these buildings.

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

   (YES) NO

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

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

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

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

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

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

   (YES) NO

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C915293

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 Gary Crewson at 1800 BROADWAY AVE, BUFF. NY 14212,
print name print business address

am certifying as OWNER (Owner or Remedial Party)

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

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

Aug 1 / 2019
Date

IC/EC CERTIFICATIONS

Box 7

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 Norm Wohlabaugh at 15 Briar Hill Rd, Orchard Park, NY
print name print business address

am certifying as a for the Buffalo Business Park
(Owner or Remedial Party)

NK Wohlabaugh — 8/5/19

Signature of , for the Owner or Remedial Party, Rendering Certification — Stamp (Required for PE) — Date

EC/IC

APPENDIX B

PHOTOGRAPHS OF CAP AND COVER SYSTEM

Photograph of Pavement Cap Looking West

Photograph of Sidewalk Looking East

Photograph of Soil Cap Looking West

APPENDIX C

JULY 2019 LABORATORY ANALYTICAL DATA PACKAGE

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-155317-1
Client Project/Site: Highland Plaza - OffSite C915293A

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

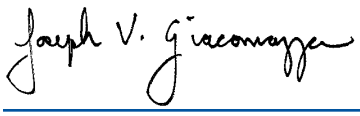
Joseph V. Giacomazza

Authorized for release by:
6/30/2019 2:31:26 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager
(484)685-0864
orlette.johnson@testamericainc.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
6/30/2019 2:31:26 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Job ID: 480-155317-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-155317-1

Comments
No additional comments.

Receipt
The samples were received on 6/21/2019 4:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

GC/MS VOA
Method(s) 8260C: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: MW-1 (480-155317-1), MW-3 (480-155317-3) and MW-5 (480-155317-5). The samples were analyzed within 7 days per EPA recommendation.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-4 (480-155317-4) and MW-5 (480-155317-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-1 — Lab Sample ID: 480-155317-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	19		10	3.0	ug/L	1		8260C	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 480-155317-2

No Detections.

Client Sample ID: MW-3 — Lab Sample ID: 480-155317-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.47	J	1.0	0.36	ug/L	1		8260C	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 480-155317-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	52000		2000	720	ug/L	2000		8260C	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 480-155317-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	580		8.0	6.5	ug/L	8		8260C	Total/NA
Tetrachloroethene	200		8.0	2.9	ug/L	8		8260C	Total/NA
trans-1,2-Dichloroethene	18		8.0	7.2	ug/L	8		8260C	Total/NA
Trichloroethene	130		8.0	3.7	ug/L	8		8260C	Total/NA

Client Sample ID: HIGHLAND GW DUP — Lab Sample ID: 480-155317-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-1
Lab Sample ID: 480-155317-1
Date Collected: 06/21/19 12:00
Matrix: Water
Date Received: 06/21/19 16:45

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			06/25/19 13:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/25/19 13:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/25/19 13:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/25/19 13:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/19 13:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/25/19 13:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/25/19 13:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/25/19 13:25	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/25/19 13:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/25/19 13:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/25/19 13:25	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/25/19 13:25	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/25/19 13:25	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/19 13:25	1
2-Hexanone	ND		5.0	1.2	ug/L			06/25/19 13:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/25/19 13:25	1
Acetone	**19**		10	3.0	ug/L			06/25/19 13:25	1
Benzene	ND		1.0	0.41	ug/L			06/25/19 13:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/25/19 13:25	1
Bromoform	ND		1.0	0.26	ug/L			06/25/19 13:25	1
Bromomethane	ND		1.0	0.69	ug/L			06/25/19 13:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/25/19 13:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/25/19 13:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/25/19 13:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/25/19 13:25	1
Chloroethane	ND		1.0	0.32	ug/L			06/25/19 13:25	1
Chloroform	ND		1.0	0.34	ug/L			06/25/19 13:25	1
Chloromethane	ND		1.0	0.35	ug/L			06/25/19 13:25	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/19 13:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/25/19 13:25	1
Cyclohexane	ND		1.0	0.18	ug/L			06/25/19 13:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/25/19 13:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/25/19 13:25	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/25/19 13:25	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/25/19 13:25	1
Methyl acetate	ND		2.5	1.3	ug/L			06/25/19 13:25	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/25/19 13:25	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/25/19 13:25	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/19 13:25	1
Styrene	ND		1.0	0.73	ug/L			06/25/19 13:25	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/19 13:25	1
Toluene	ND		1.0	0.51	ug/L			06/25/19 13:25	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/25/19 13:25	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/25/19 13:25	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/19 13:25	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/25/19 13:25	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/25/19 13:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/25/19 13:25	1

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-1
Lab Sample ID: 480-155317-1
Date Collected: 06/21/19 12:00
Matrix: Water
Date Received: 06/21/19 16:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/25/19 13:25	1
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		06/25/19 13:25	1
4-Bromofluorobenzene (Surr)	81		73 - 120		06/25/19 13:25	1
Dibromofluoromethane (Surr)	103		75 - 123		06/25/19 13:25	1

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-2
Lab Sample ID: 480-155317-2
Date Collected: 06/21/19 13:10
Matrix: Water
Date Received: 06/21/19 16:45

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			06/25/19 13:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/25/19 13:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/25/19 13:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/25/19 13:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/19 13:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/25/19 13:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/25/19 13:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/25/19 13:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/25/19 13:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/25/19 13:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/25/19 13:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/25/19 13:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/25/19 13:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/19 13:48	1
2-Hexanone	ND		5.0	1.2	ug/L			06/25/19 13:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/25/19 13:48	1
Acetone	ND		10	3.0	ug/L			06/25/19 13:48	1
Benzene	ND		1.0	0.41	ug/L			06/25/19 13:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/25/19 13:48	1
Bromoform	ND		1.0	0.26	ug/L			06/25/19 13:48	1
Bromomethane	ND		1.0	0.69	ug/L			06/25/19 13:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/25/19 13:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/25/19 13:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/25/19 13:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/25/19 13:48	1
Chloroethane	ND		1.0	0.32	ug/L			06/25/19 13:48	1
Chloroform	ND		1.0	0.34	ug/L			06/25/19 13:48	1
Chloromethane	ND		1.0	0.35	ug/L			06/25/19 13:48	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/19 13:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/25/19 13:48	1
Cyclohexane	ND		1.0	0.18	ug/L			06/25/19 13:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/25/19 13:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/25/19 13:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/25/19 13:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/25/19 13:48	1
Methyl acetate	ND		2.5	1.3	ug/L			06/25/19 13:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/25/19 13:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/25/19 13:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/19 13:48	1
Styrene	ND		1.0	0.73	ug/L			06/25/19 13:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/19 13:48	1
Toluene	ND		1.0	0.51	ug/L			06/25/19 13:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/25/19 13:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/25/19 13:48	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/19 13:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/25/19 13:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/25/19 13:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/25/19 13:48	1

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-2
Lab Sample ID: 480-155317-2
Date Collected: 06/21/19 13:10
Matrix: Water
Date Received: 06/21/19 16:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	88		80 - 120		06/25/19 13:48	1
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		06/25/19 13:48	1
4-Bromofluorobenzene (Surr)	79		73 - 120		06/25/19 13:48	1
Dibromofluoromethane (Surr)	91		75 - 123		06/25/19 13:48	1

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-3
Lab Sample ID: 480-155317-3
Date Collected: 06/21/19 13:35
Matrix: Water
Date Received: 06/21/19 16:45

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			06/25/19 14:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/25/19 14:12	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/25/19 14:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/25/19 14:12	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/19 14:12	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/25/19 14:12	1
1,2,4-Trichlorobenzene	ND	F1	1.0	0.41	ug/L			06/25/19 14:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/25/19 14:12	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/25/19 14:12	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/25/19 14:12	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/25/19 14:12	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/25/19 14:12	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/25/19 14:12	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/19 14:12	1
2-Hexanone	ND		5.0	1.2	ug/L			06/25/19 14:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/25/19 14:12	1
Acetone	ND		10	3.0	ug/L			06/25/19 14:12	1
Benzene	ND		1.0	0.41	ug/L			06/25/19 14:12	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/25/19 14:12	1
Bromoform	ND		1.0	0.26	ug/L			06/25/19 14:12	1
Bromomethane	ND		1.0	0.69	ug/L			06/25/19 14:12	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/25/19 14:12	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/25/19 14:12	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/25/19 14:12	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/25/19 14:12	1
Chloroethane	ND		1.0	0.32	ug/L			06/25/19 14:12	1
Chloroform	ND		1.0	0.34	ug/L			06/25/19 14:12	1
Chloromethane	ND		1.0	0.35	ug/L			06/25/19 14:12	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/19 14:12	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/25/19 14:12	1
Cyclohexane	ND		1.0	0.18	ug/L			06/25/19 14:12	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/25/19 14:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/25/19 14:12	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/25/19 14:12	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/25/19 14:12	1
Methyl acetate	ND		2.5	1.3	ug/L			06/25/19 14:12	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/25/19 14:12	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/25/19 14:12	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/19 14:12	1
Styrene	ND		1.0	0.73	ug/L			06/25/19 14:12	1
Tetrachloroethene	**0.47**	**J**	1.0	0.36	ug/L			06/25/19 14:12	1
Toluene	ND		1.0	0.51	ug/L			06/25/19 14:12	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/25/19 14:12	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/25/19 14:12	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/19 14:12	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/25/19 14:12	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/25/19 14:12	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/25/19 14:12	1

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-3
Lab Sample ID: 480-155317-3
Date Collected: 06/21/19 13:35
Matrix: Water
Date Received: 06/21/19 16:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	89		80 - 120		06/25/19 14:12	1
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		06/25/19 14:12	1
4-Bromofluorobenzene (Surr)	81		73 - 120		06/25/19 14:12	1
Dibromofluoromethane (Surr)	98		75 - 123		06/25/19 14:12	1

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-4
Lab Sample ID: 480-155317-4
Date Collected: 06/21/19 14:50
Matrix: Water
Date Received: 06/21/19 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2000	1600	ug/L			06/25/19 14:37	2000
1,1,2,2-Tetrachloroethane	ND		2000	420	ug/L			06/25/19 14:37	2000
1,1,2-Trichloroethane	ND		2000	460	ug/L			06/25/19 14:37	2000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2000	620	ug/L			06/25/19 14:37	2000
1,1-Dichloroethane	ND		2000	760	ug/L			06/25/19 14:37	2000
1,1-Dichloroethene	ND		2000	580	ug/L			06/25/19 14:37	2000
1,2,4-Trichlorobenzene	ND		2000	820	ug/L			06/25/19 14:37	2000
1,2-Dibromo-3-Chloropropane	ND		2000	780	ug/L			06/25/19 14:37	2000
1,2-Dichlorobenzene	ND		2000	1600	ug/L			06/25/19 14:37	2000
1,2-Dichloroethane	ND		2000	420	ug/L			06/25/19 14:37	2000
1,2-Dichloropropane	ND		2000	1400	ug/L			06/25/19 14:37	2000
1,3-Dichlorobenzene	ND		2000	1600	ug/L			06/25/19 14:37	2000
1,4-Dichlorobenzene	ND		2000	1700	ug/L			06/25/19 14:37	2000
2-Butanone (MEK)	ND		20000	2600	ug/L			06/25/19 14:37	2000
2-Hexanone	ND		10000	2500	ug/L			06/25/19 14:37	2000
4-Methyl-2-pentanone (MIBK)	ND		10000	4200	ug/L			06/25/19 14:37	2000
Acetone	ND		20000	6000	ug/L			06/25/19 14:37	2000
Benzene	ND		2000	820	ug/L			06/25/19 14:37	2000
Bromodichloromethane	ND		2000	780	ug/L			06/25/19 14:37	2000
Bromoform	ND		2000	520	ug/L			06/25/19 14:37	2000
Bromomethane	ND		2000	1400	ug/L			06/25/19 14:37	2000
Carbon disulfide	ND		2000	380	ug/L			06/25/19 14:37	2000
Carbon tetrachloride	ND		2000	540	ug/L			06/25/19 14:37	2000
Chlorobenzene	ND		2000	1500	ug/L			06/25/19 14:37	2000
Dibromochloromethane	ND		2000	640	ug/L			06/25/19 14:37	2000
Chloroethane	ND		2000	640	ug/L			06/25/19 14:37	2000
Chloroform	ND		2000	680	ug/L			06/25/19 14:37	2000
Chloromethane	ND		2000	700	ug/L			06/25/19 14:37	2000
cis-1,2-Dichloroethene	ND		2000	1600	ug/L			06/25/19 14:37	2000
cis-1,3-Dichloropropene	ND		2000	720	ug/L			06/25/19 14:37	2000
Cyclohexane	ND		2000	360	ug/L			06/25/19 14:37	2000
Dichlorodifluoromethane	ND		2000	1400	ug/L			06/25/19 14:37	2000
Ethylbenzene	ND		2000	1500	ug/L			06/25/19 14:37	2000
1,2-Dibromoethane	ND		2000	1500	ug/L			06/25/19 14:37	2000
Isopropylbenzene	ND		2000	1600	ug/L			06/25/19 14:37	2000
Methyl acetate	ND		5000	2600	ug/L			06/25/19 14:37	2000
Methyl tert-butyl ether	ND		2000	320	ug/L			06/25/19 14:37	2000
Methylcyclohexane	ND		2000	320	ug/L			06/25/19 14:37	2000
Methylene Chloride	ND		2000	880	ug/L			06/25/19 14:37	2000
Styrene	ND		2000	1500	ug/L			06/25/19 14:37	2000
Tetrachloroethene	**52000**		2000	720	ug/L			06/25/19 14:37	2000
Toluene	ND		2000	1000	ug/L			06/25/19 14:37	2000
trans-1,2-Dichloroethene	ND		2000	1800	ug/L			06/25/19 14:37	2000
trans-1,3-Dichloropropene	ND		2000	740	ug/L			06/25/19 14:37	2000
Trichloroethene	ND		2000	920	ug/L			06/25/19 14:37	2000
Trichlorofluoromethane	ND		2000	1800	ug/L			06/25/19 14:37	2000
Vinyl chloride	ND		2000	1800	ug/L			06/25/19 14:37	2000
Xylenes, Total	ND		4000	1300	ug/L			06/25/19 14:37	2000

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-4
Lab Sample ID: 480-155317-4
Date Collected: 06/21/19 14:50
Matrix: Water
Date Received: 06/21/19 16:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	88		80 - 120		06/25/19 14:37	2000
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		06/25/19 14:37	2000
4-Bromofluorobenzene (Surr)	80		73 - 120		06/25/19 14:37	2000
Dibromofluoromethane (Surr)	98		75 - 123		06/25/19 14:37	2000

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-5
Lab Sample ID: 480-155317-5
Date Collected: 06/21/19 15:00
Matrix: Water
Date Received: 06/21/19 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.0	6.6	ug/L			06/25/19 15:00	8
1,1,2,2-Tetrachloroethane	ND		8.0	1.7	ug/L			06/25/19 15:00	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			06/25/19 15:00	8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.0	2.5	ug/L			06/25/19 15:00	8
1,1-Dichloroethane	ND		8.0	3.0	ug/L			06/25/19 15:00	8
1,1-Dichloroethene	ND		8.0	2.3	ug/L			06/25/19 15:00	8
1,2,4-Trichlorobenzene	ND		8.0	3.3	ug/L			06/25/19 15:00	8
1,2-Dibromo-3-Chloropropane	ND		8.0	3.1	ug/L			06/25/19 15:00	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			06/25/19 15:00	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			06/25/19 15:00	8
1,2-Dichloropropane	ND		8.0	5.8	ug/L			06/25/19 15:00	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			06/25/19 15:00	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			06/25/19 15:00	8
2-Butanone (MEK)	ND		80	11	ug/L			06/25/19 15:00	8
2-Hexanone	ND		40	9.9	ug/L			06/25/19 15:00	8
4-Methyl-2-pentanone (MIBK)	ND		40	17	ug/L			06/25/19 15:00	8
Acetone	ND		80	24	ug/L			06/25/19 15:00	8
Benzene	ND		8.0	3.3	ug/L			06/25/19 15:00	8
Bromodichloromethane	ND		8.0	3.1	ug/L			06/25/19 15:00	8
Bromoform	ND		8.0	2.1	ug/L			06/25/19 15:00	8
Bromomethane	ND		8.0	5.5	ug/L			06/25/19 15:00	8
Carbon disulfide	ND		8.0	1.5	ug/L			06/25/19 15:00	8
Carbon tetrachloride	ND		8.0	2.2	ug/L			06/25/19 15:00	8
Chlorobenzene	ND		8.0	6.0	ug/L			06/25/19 15:00	8
Dibromochloromethane	ND		8.0	2.6	ug/L			06/25/19 15:00	8
Chloroethane	ND		8.0	2.6	ug/L			06/25/19 15:00	8
Chloroform	ND		8.0	2.7	ug/L			06/25/19 15:00	8
Chloromethane	ND		8.0	2.8	ug/L			06/25/19 15:00	8
cis-1,2-Dichloroethene	**580**		8.0	6.5	ug/L			06/25/19 15:00	8
cis-1,3-Dichloropropene	ND		8.0	2.9	ug/L			06/25/19 15:00	8
Cyclohexane	ND		8.0	1.4	ug/L			06/25/19 15:00	8
Dichlorodifluoromethane	ND		8.0	5.4	ug/L			06/25/19 15:00	8
Ethylbenzene	ND		8.0	5.9	ug/L			06/25/19 15:00	8
1,2-Dibromoethane	ND		8.0	5.8	ug/L			06/25/19 15:00	8
Isopropylbenzene	ND		8.0	6.3	ug/L			06/25/19 15:00	8
Methyl acetate	ND		20	10	ug/L			06/25/19 15:00	8
Methyl tert-butyl ether	ND		8.0	1.3	ug/L			06/25/19 15:00	8
Methylcyclohexane	ND		8.0	1.3	ug/L			06/25/19 15:00	8
Methylene Chloride	ND		8.0	3.5	ug/L			06/25/19 15:00	8
Styrene	ND		8.0	5.8	ug/L			06/25/19 15:00	8
Tetrachloroethene	**200**		8.0	2.9	ug/L			06/25/19 15:00	8
Toluene	ND		8.0	4.1	ug/L			06/25/19 15:00	8
trans-1,2-Dichloroethene	**18**		8.0	7.2	ug/L			06/25/19 15:00	8
trans-1,3-Dichloropropene	ND		8.0	3.0	ug/L			06/25/19 15:00	8
Trichloroethene	**130**		8.0	3.7	ug/L			06/25/19 15:00	8
Trichlorofluoromethane	ND		8.0	7.0	ug/L			06/25/19 15:00	8
Vinyl chloride	ND		8.0	7.2	ug/L			06/25/19 15:00	8
Xylenes, Total	ND		16	5.3	ug/L			06/25/19 15:00	8

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-5
Lab Sample ID: 480-155317-5
Date Collected: 06/21/19 15:00
Matrix: Water
Date Received: 06/21/19 16:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/25/19 15:00	8
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		06/25/19 15:00	8
4-Bromofluorobenzene (Surr)	81		73 - 120		06/25/19 15:00	8
Dibromofluoromethane (Surr)	96		75 - 123		06/25/19 15:00	8

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: HIGHLAND GW DUP
Lab Sample ID: 480-155317-6
Date Collected: 06/21/19 00:00
Matrix: Water
Date Received: 06/21/19 16:45

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			06/25/19 15:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/25/19 15:24	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/25/19 15:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/25/19 15:24	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/19 15:24	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/25/19 15:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/25/19 15:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/25/19 15:24	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/25/19 15:24	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/25/19 15:24	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/25/19 15:24	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/25/19 15:24	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/25/19 15:24	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/19 15:24	1
2-Hexanone	ND		5.0	1.2	ug/L			06/25/19 15:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/25/19 15:24	1
Acetone	ND		10	3.0	ug/L			06/25/19 15:24	1
Benzene	ND		1.0	0.41	ug/L			06/25/19 15:24	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/25/19 15:24	1
Bromoform	ND		1.0	0.26	ug/L			06/25/19 15:24	1
Bromomethane	ND		1.0	0.69	ug/L			06/25/19 15:24	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/25/19 15:24	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/25/19 15:24	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/25/19 15:24	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/25/19 15:24	1
Chloroethane	ND		1.0	0.32	ug/L			06/25/19 15:24	1
Chloroform	ND		1.0	0.34	ug/L			06/25/19 15:24	1
Chloromethane	ND		1.0	0.35	ug/L			06/25/19 15:24	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/19 15:24	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/25/19 15:24	1
Cyclohexane	ND		1.0	0.18	ug/L			06/25/19 15:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/25/19 15:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/25/19 15:24	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/25/19 15:24	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/25/19 15:24	1
Methyl acetate	ND		2.5	1.3	ug/L			06/25/19 15:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/25/19 15:24	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/25/19 15:24	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/19 15:24	1
Styrene	ND		1.0	0.73	ug/L			06/25/19 15:24	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/19 15:24	1
Toluene	ND		1.0	0.51	ug/L			06/25/19 15:24	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/25/19 15:24	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/25/19 15:24	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/19 15:24	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/25/19 15:24	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/25/19 15:24	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/25/19 15:24	1

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: HIGHLAND GW DUP
Lab Sample ID: 480-155317-6
Date Collected: 06/21/19 00:00
Matrix: Water
Date Received: 06/21/19 16:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87		80 - 120		06/25/19 15:24	1
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		06/25/19 15:24	1
4-Bromofluorobenzene (Surr)	80		73 - 120		06/25/19 15:24	1
Dibromofluoromethane (Surr)	101		75 - 123		06/25/19 15:24	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Highland Plaza - OffSite C915293A

Job ID: 480-155317-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-155317-1	MW-1	90	103	81	103
480-155317-2	MW-2	88	96	79	91
480-155317-3	MW-3	89	96	81	98
480-155317-3 MS	MW-3	95	95	92	94
480-155317-3 MSD	MW-3	92	95	86	93
480-155317-4	MW-4	88	99	80	98
480-155317-5	MW-5	90	96	81	96
480-155317-6	HIGHLAND GW DUP	87	105	80	101
LCS 480-479411/5	Lab Control Sample	92	94	84	93
MB 480-479411/7	Method Blank	90	100	82	94

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Lab Sample ID: MB 480-479411/7
Matrix: Water
Analysis Batch: 479411

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			06/25/19 11:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/25/19 11:11	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/25/19 11:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/25/19 11:11	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/19 11:11	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/25/19 11:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/25/19 11:11	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/25/19 11:11	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/25/19 11:11	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/25/19 11:11	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/25/19 11:11	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/25/19 11:11	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/25/19 11:11	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/19 11:11	1
2-Hexanone	ND		5.0	1.2	ug/L			06/25/19 11:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/25/19 11:11	1
Acetone	ND		10	3.0	ug/L			06/25/19 11:11	1
Benzene	ND		1.0	0.41	ug/L			06/25/19 11:11	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/25/19 11:11	1
Bromoform	ND		1.0	0.26	ug/L			06/25/19 11:11	1
Bromomethane	ND		1.0	0.69	ug/L			06/25/19 11:11	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/25/19 11:11	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/25/19 11:11	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/25/19 11:11	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/25/19 11:11	1
Chloroethane	ND		1.0	0.32	ug/L			06/25/19 11:11	1
Chloroform	ND		1.0	0.34	ug/L			06/25/19 11:11	1
Chloromethane	ND		1.0	0.35	ug/L			06/25/19 11:11	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/19 11:11	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/25/19 11:11	1
Cyclohexane	ND		1.0	0.18	ug/L			06/25/19 11:11	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/25/19 11:11	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/25/19 11:11	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/25/19 11:11	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/25/19 11:11	1
Methyl acetate	ND		2.5	1.3	ug/L			06/25/19 11:11	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/25/19 11:11	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/25/19 11:11	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/19 11:11	1
Styrene	ND		1.0	0.73	ug/L			06/25/19 11:11	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/19 11:11	1
Toluene	ND		1.0	0.51	ug/L			06/25/19 11:11	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/25/19 11:11	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/25/19 11:11	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/19 11:11	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/25/19 11:11	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/25/19 11:11	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/25/19 11:11	1

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

Lab Sample ID: MB 480-479411/7
Matrix: Water
Analysis Batch: 479411

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*90*		*80 - 120*		*06/25/19 11:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*06/25/19 11:11*	*1*
4-Bromofluorobenzene (Surr)	*82*		*73 - 120*		*06/25/19 11:11*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 123*		*06/25/19 11:11*	*1*

Lab Sample ID: LCS 480-479411/5
Matrix: Water
Analysis Batch: 479411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.8		ug/L		107	76 - 120
1,1,2-Trichloroethane	25.0	23.1		ug/L		92	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.2		ug/L		89	61 - 148
1,1-Dichloroethane	25.0	26.0		ug/L		104	77 - 120
1,1-Dichloroethene	25.0	23.5		ug/L		94	66 - 127
1,2,4-Trichlorobenzene	25.0	26.1		ug/L		104	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	26.8		ug/L		107	56 - 134
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	80 - 124
1,2-Dichloroethane	25.0	25.6		ug/L		102	75 - 120
1,2-Dichloropropane	25.0	27.3		ug/L		109	76 - 120
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	77 - 120
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	80 - 120
2-Butanone (MEK)	125	129		ug/L		103	57 - 140
2-Hexanone	125	125		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	125	115		ug/L		92	71 - 125
Acetone	125	118		ug/L		95	56 - 142
Benzene	25.0	26.2		ug/L		105	71 - 124
Bromodichloromethane	25.0	24.9		ug/L		100	80 - 122
Bromoform	25.0	22.3		ug/L		89	61 - 132
Bromomethane	25.0	22.6		ug/L		91	55 - 144
Carbon disulfide	25.0	24.2		ug/L		97	59 - 134
Carbon tetrachloride	25.0	23.6		ug/L		94	72 - 134
Chlorobenzene	25.0	23.6		ug/L		94	80 - 120
Dibromochloromethane	25.0	21.6		ug/L		86	75 - 125
Chloroethane	25.0	22.9		ug/L		91	69 - 136
Chloroform	25.0	24.5		ug/L		98	73 - 127
Chloromethane	25.0	24.2		ug/L		97	68 - 124
cis-1,2-Dichloroethene	25.0	24.1		ug/L		97	74 - 124
cis-1,3-Dichloropropene	25.0	25.4		ug/L		102	74 - 124
Cyclohexane	25.0	24.7		ug/L		99	59 - 135
Dichlorodifluoromethane	25.0	23.0		ug/L		92	59 - 135
Ethylbenzene	25.0	23.6		ug/L		94	77 - 123
1,2-Dibromoethane	25.0	22.8		ug/L		91	77 - 120
Isopropylbenzene	25.0	26.0		ug/L		104	77 - 122
Methyl acetate	50.0	52.9		ug/L		106	74 - 133
Methyl tert-butyl ether	25.0	25.5		ug/L		102	77 - 120
Methylcyclohexane	25.0	24.1		ug/L		96	68 - 134

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

Lab Sample ID: LCS 480-479411/5
Matrix: Water
Analysis Batch: 479411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	25.0	25.4		ug/L		102	75 - 124
Styrene	25.0	21.6		ug/L		86	80 - 120
Tetrachloroethene	25.0	22.2		ug/L		89	74 - 122
Toluene	25.0	23.9		ug/L		96	80 - 122
trans-1,2-Dichloroethene	25.0	25.7		ug/L		103	73 - 127
trans-1,3-Dichloropropene	25.0	25.7		ug/L		103	80 - 120
Trichloroethene	25.0	25.1		ug/L		100	74 - 123
Trichlorofluoromethane	25.0	21.9		ug/L		88	62 - 150
Vinyl chloride	25.0	23.5		ug/L		94	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*92*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*
4-Bromofluorobenzene (Surr)	*84*		*73 - 120*
Dibromofluoromethane (Surr)	*93*		*75 - 123*

Lab Sample ID: 480-155317-3 MS
Matrix: Water
Analysis Batch: 479411

Client Sample ID: MW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		25.0	27.2		ug/L		109	73 - 126
1,1,2,2-Tetrachloroethane	ND		25.0	25.9		ug/L		104	76 - 120
1,1,2-Trichloroethane	ND		25.0	24.1		ug/L		96	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	26.4		ug/L		106	61 - 148
1,1-Dichloroethane	ND		25.0	26.1		ug/L		104	77 - 120
1,1-Dichloroethene	ND		25.0	25.3		ug/L		101	66 - 127
1,2,4-Trichlorobenzene	ND	F1	25.0	19.2	F1	ug/L		77	79 - 122
1,2-Dibromo-3-Chloropropane	ND		25.0	27.0		ug/L		108	56 - 134
1,2-Dichlorobenzene	ND		25.0	21.9		ug/L		87	80 - 124
1,2-Dichloroethane	ND		25.0	25.6		ug/L		102	75 - 120
1,2-Dichloropropane	ND		25.0	25.9		ug/L		104	76 - 120
1,3-Dichlorobenzene	ND		25.0	21.9		ug/L		87	77 - 120
1,4-Dichlorobenzene	ND		25.0	21.8		ug/L		87	78 - 124
2-Butanone (MEK)	ND		125	134		ug/L		107	57 - 140
2-Hexanone	ND		125	140		ug/L		112	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		125	129		ug/L		103	71 - 125
Acetone	ND		125	118		ug/L		94	56 - 142
Benzene	ND		25.0	25.6		ug/L		103	71 - 124
Bromodichloromethane	ND		25.0	24.5		ug/L		98	80 - 122
Bromoform	ND		25.0	24.4		ug/L		97	61 - 132
Bromomethane	ND		25.0	25.6		ug/L		103	55 - 144
Carbon disulfide	ND		25.0	24.3		ug/L		97	59 - 134
Carbon tetrachloride	ND		25.0	25.2		ug/L		101	72 - 134
Chlorobenzene	ND		25.0	22.7		ug/L		91	80 - 120
Dibromochloromethane	ND		25.0	21.8		ug/L		87	75 - 125
Chloroethane	ND		25.0	29.5		ug/L		118	69 - 136
Chloroform	ND		25.0	24.2		ug/L		97	73 - 127

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

Lab Sample ID: 480-155317-3 MS
Matrix: Water
Analysis Batch: 479411

Client Sample ID: MW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	ND		25.0	28.2		ug/L		113	68 - 124
cis-1,2-Dichloroethene	ND		25.0	23.6		ug/L		94	74 - 124
cis-1,3-Dichloropropene	ND		25.0	24.0		ug/L		96	74 - 124
Cyclohexane	ND		25.0	29.3		ug/L		117	59 - 135
Dichlorodifluoromethane	ND		25.0	31.0		ug/L		124	59 - 135
Ethylbenzene	ND		25.0	24.5		ug/L		98	77 - 123
1,2-Dibromoethane	ND		25.0	23.9		ug/L		96	77 - 120
Isopropylbenzene	ND		25.0	23.3		ug/L		93	77 - 122
Methyl acetate	ND		50.0	57.4		ug/L		115	74 - 133
Methyl tert-butyl ether	ND		25.0	24.8		ug/L		99	77 - 120
Methylcyclohexane	ND		25.0	28.8		ug/L		115	68 - 134
Methylene Chloride	ND		25.0	24.4		ug/L		98	75 - 124
Styrene	ND		25.0	22.0		ug/L		88	80 - 120
Tetrachloroethene	0.47	J	25.0	21.5		ug/L		84	74 - 122
Toluene	ND		25.0	24.7		ug/L		99	80 - 122
trans-1,2-Dichloroethene	ND		25.0	26.3		ug/L		105	73 - 127
trans-1,3-Dichloropropene	ND		25.0	24.9		ug/L		100	80 - 120
Trichloroethene	ND		25.0	24.1		ug/L		96	74 - 123
Trichlorofluoromethane	ND		25.0	28.2		ug/L		113	62 - 150
Vinyl chloride	ND		25.0	29.8		ug/L		119	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*95*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*
Dibromofluoromethane (Surr)	*94*		*75 - 123*

Lab Sample ID: 480-155317-3 MSD
Matrix: Water
Analysis Batch: 479411

Client Sample ID: MW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	28.8		ug/L		115	73 - 126	5	15
1,1,2,2-Tetrachloroethane	ND		25.0	28.3		ug/L		113	76 - 120	9	15
1,1,2-Trichloroethane	ND		25.0	26.7		ug/L		107	76 - 122	10	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.7		ug/L		95	61 - 148	11	20
1,1-Dichloroethane	ND		25.0	29.7		ug/L		119	77 - 120	13	20
1,1-Dichloroethene	ND		25.0	26.7		ug/L		107	66 - 127	5	16
1,2,4-Trichlorobenzene	ND	F1	25.0	22.2		ug/L		89	79 - 122	15	20
1,2-Dibromo-3-Chloropropane	ND		25.0	25.9		ug/L		104	56 - 134	4	15
1,2-Dichlorobenzene	ND		25.0	25.1		ug/L		100	80 - 124	14	20
1,2-Dichloroethane	ND		25.0	27.8		ug/L		111	75 - 120	8	20
1,2-Dichloropropane	ND		25.0	28.8		ug/L		115	76 - 120	10	20
1,3-Dichlorobenzene	ND		25.0	25.4		ug/L		101	77 - 120	15	20
1,4-Dichlorobenzene	ND		25.0	24.7		ug/L		99	78 - 124	12	20
2-Butanone (MEK)	ND		125	140		ug/L		112	57 - 140	4	20
2-Hexanone	ND		125	137		ug/L		109	65 - 127	2	15
4-Methyl-2-pentanone (MIBK)	ND		125	128		ug/L		103	71 - 125	0	35

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

Lab Sample ID: 480-155317-3 MSD
Matrix: Water
Analysis Batch: 479411

Client Sample ID: MW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		125	122		ug/L		98	56 - 142	4	15
Benzene	ND		25.0	28.8		ug/L		115	71 - 124	11	13
Bromodichloromethane	ND		25.0	26.5		ug/L		106	80 - 122	8	15
Bromoform	ND		25.0	24.8		ug/L		99	61 - 132	2	15
Bromomethane	ND		25.0	24.7		ug/L		99	55 - 144	4	15
Carbon disulfide	ND		25.0	26.2		ug/L		105	59 - 134	7	15
Carbon tetrachloride	ND		25.0	27.5		ug/L		110	72 - 134	9	15
Chlorobenzene	ND		25.0	24.7		ug/L		99	80 - 120	9	25
Dibromochloromethane	ND		25.0	23.6		ug/L		94	75 - 125	8	15
Chloroethane	ND		25.0	28.1		ug/L		112	69 - 136	5	15
Chloroform	ND		25.0	26.5		ug/L		106	73 - 127	9	20
Chloromethane	ND		25.0	29.2		ug/L		117	68 - 124	4	15
cis-1,2-Dichloroethene	ND		25.0	26.6		ug/L		107	74 - 124	12	15
cis-1,3-Dichloropropene	ND		25.0	25.8		ug/L		103	74 - 124	7	15
Cyclohexane	ND		25.0	27.5		ug/L		110	59 - 135	6	20
Dichlorodifluoromethane	ND		25.0	26.1		ug/L		104	59 - 135	17	20
Ethylbenzene	ND		25.0	26.9		ug/L		108	77 - 123	10	15
1,2-Dibromoethane	ND		25.0	24.8		ug/L		99	77 - 120	4	15
Isopropylbenzene	ND		25.0	26.0		ug/L		104	77 - 122	11	20
Methyl acetate	ND		50.0	56.5		ug/L		113	74 - 133	2	20
Methyl tert-butyl ether	ND		25.0	25.9		ug/L		104	77 - 120	4	37
Methylcyclohexane	ND		25.0	25.2		ug/L		101	68 - 134	13	20
Methylene Chloride	ND		25.0	27.1		ug/L		108	75 - 124	10	15
Styrene	ND		25.0	23.8		ug/L		95	80 - 120	8	20
Tetrachloroethene	0.47	J	25.0	22.5		ug/L		88	74 - 122	5	20
Toluene	ND		25.0	26.9		ug/L		108	80 - 122	9	15
trans-1,2-Dichloroethene	ND		25.0	28.2		ug/L		113	73 - 127	7	20
trans-1,3-Dichloropropene	ND		25.0	27.3		ug/L		109	80 - 120	9	15
Trichloroethene	ND		25.0	27.7		ug/L		111	74 - 123	14	16
Trichlorofluoromethane	ND		25.0	26.5		ug/L		106	62 - 150	6	20
Vinyl chloride	ND		25.0	29.8		ug/L		119	65 - 133	0	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*92*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*
Dibromofluoromethane (Surr)	*93*		*75 - 123*

QC Association Summary

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

GC/MS VOA

Analysis Batch: 479411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-155317-1	MW-1	Total/NA	Water	8260C	
480-155317-2	MW-2	Total/NA	Water	8260C	
480-155317-3	MW-3	Total/NA	Water	8260C	
480-155317-4	MW-4	Total/NA	Water	8260C	
480-155317-5	MW-5	Total/NA	Water	8260C	
480-155317-6	HIGHLAND GW DUP	Total/NA	Water	8260C	
MB 480-479411/7	Method Blank	Total/NA	Water	8260C	
LCS 480-479411/5	Lab Control Sample	Total/NA	Water	8260C	
480-155317-3 MS	MW-3	Total/NA	Water	8260C	
480-155317-3 MSD	MW-3	Total/NA	Water	8260C	

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Client Sample ID: MW-1
Lab Sample ID: 480-155317-1
Date Collected: 06/21/19 12:00
Matrix: Water
Date Received: 06/21/19 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	479411	06/25/19 13:25	OMI	TAL BUF

Client Sample ID: MW-2
Lab Sample ID: 480-155317-2
Date Collected: 06/21/19 13:10
Matrix: Water
Date Received: 06/21/19 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	479411	06/25/19 13:48	OMI	TAL BUF

Client Sample ID: MW-3
Lab Sample ID: 480-155317-3
Date Collected: 06/21/19 13:35
Matrix: Water
Date Received: 06/21/19 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	479411	06/25/19 14:12	OMI	TAL BUF

Client Sample ID: MW-4
Lab Sample ID: 480-155317-4
Date Collected: 06/21/19 14:50
Matrix: Water
Date Received: 06/21/19 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2000	479411	06/25/19 14:37	OMI	TAL BUF

Client Sample ID: MW-5
Lab Sample ID: 480-155317-5
Date Collected: 06/21/19 15:00
Matrix: Water
Date Received: 06/21/19 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		8	479411	06/25/19 15:00	OMI	TAL BUF

Client Sample ID: HIGHLAND GW DUP
Lab Sample ID: 480-155317-6
Date Collected: 06/21/19 00:00
Matrix: Water
Date Received: 06/21/19 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	479411	06/25/19 15:24	OMI	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

Method Summary

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
5030C	Purge and Trap	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 = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: New York State D.E.C.
Job ID: 480-155317-1
Project/Site: Highland Plaza - OffSite C915293A

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-155317-1	MW-1	Water	06/21/19 12:00	06/21/19 16:45	
480-155317-2	MW-2	Water	06/21/19 13:10	06/21/19 16:45	
480-155317-3	MW-3	Water	06/21/19 13:35	06/21/19 16:45	
480-155317-4	MW-4	Water	06/21/19 14:50	06/21/19 16:45	
480-155317-5	MW-5	Water	06/21/19 15:00	06/21/19 16:45	
480-155317-6	HIGHLAND GW DUP	Water	06/21/19 00:00	06/21/19 16:45	

CHAIN OF CUSTODY

Client: New York State Dept. of Environmental Conservation

FED-EX Tracking #	Bottle Order Control #
Lab Quote #	Lab Job #

NYSDEC Kennedy, Spill Number 1611473 GES Project #0901627

CLIENT/REPORTING INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
Groundwater & Environmental Services, Inc. 495 Aero Drive, Cheektowaga, NY 14225 **Project Manager:** Eric D. Popken **Phone #:** 800-287-7857 **Email:** epopken@gesonline.com **Fax #:** 866-902-2187	**Project Name:** NYSDEC/Tonawanda/NY/HighlandPkwy/215 **Project Address:** 215 Highland Parkway, Tonawanda, NY **Project PSID #:** 785876	**NYSDEC Region 8** **NYSDEC Project Manager:** Francine Gallego **Phone #:** 716-851-7200 **Invoice Instructions** **NYSDEC Spill No.** 1611473 **Lab Project Manager:** Orlette Johnson

Sampler(s) Name: Sampler(s) Name:

Lab Sample #	Field ID / Point of Collection (Sys_loc_code)	Depth Interval (ft)	Date Sampled	Time Sampled	Sampler	Matrix	Total # Bottles	number of preserved bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	Methanol	ENCORE	Amber	TCL List VOCs via Method 8260C	REQUESTED ANALYSIS (see Test Code sheet)	LAB USE ONLY
	MW-1	NA	6-21-19	1200	PC	GW	3										X		
	MW-2	NA		1310		GW	2										X		
	MW-3	NA		1335		GW	3										X		
	MW-4	NA		1450		GW	3										X		
	MW-5	NA		1800		GW	3										X		
	Highland GW Dup	NA		—		GW	2										X		
	MS/MSD	NA		1335		GW	6										X		

480-155317 Chain of Custody

Turnaround Time (Business Days) **Approved By (Lab PM) / Date**

- ☐ Standard ____/____
- ☐ 1 day RUSH ____/____
- ☑ Other 14 day TA ____/____

Laboratory Information

Lab: TestAmerica Buffalo
Address: 10 Hazelwood Drive, Amherst, NY 14228-2298
Phone: 716-691-2600
Lab PM: Orlette Johnson 484-685-0864
Lab PM Email: orlette.johnson@testamericainc.com

Data Deliverable Information

- ☐ Commercial 'A' (Level 1) = Results Only
- ☐ Commercial 'B" (Level 2) = Results + QC Summary
- ☐ FULLT1 (Level 3 & 4)
- ☐ NJ Reduced = Results + QC Summary + Partial Raw Data
- ☐ Commercial 'C'
- ☐ *NJ Data of Known Quality Protocol Reporting*
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☑ EQEDD (for GES)
- ☑ NYDEC EDD (for NYSDEC)

Please Email the EQ EDD Package to ges@equisonline.com

EQEDD Name: NYSDEC/Tonawanda/NY/HighlandPkwy/215_LabReport#.28739.EQEDD.zip

Sample Custody must be documented below each time samples change possession, including courier.

	Relinquished By Sampler:	Date / Time:	Received By:
1		6-21-19 1645	1 6/21/19 1645
2	Relinquished By :	Date / Time:	Received By:
3	Relinquished By :	Date / Time:	Received By:

Custody Seal Number: ☐ Intact ☐ Not Intact ☐ Preserved where applicable ☐ On Ice **Cooler Temp** 2.9 #1 ICE

Turnaround Time (Business Days) ____/____

☑ **Data Deliverable Information** [illegible] Raw Data

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-155317-1

Login Number: 155317

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Kolb, Chris M

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 (Excluding tests with immediate HTs)..	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	True	
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	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

APPENDIX D

CERTIFICATION OF SUB-SLAB DEPRESSURIZATION SYSTEMS

studio T3

2495 Main Street, Suite 301
Buffalo, NY 14214
phone: (716) 803-6400
fax: (716) 810-9504

December 18, 2018

Buffalo Business Park
ATTN: Gary Crewson
1800 Broadway, Bldg. 1D
Buffalo, New York 14212
Reference: **SSDS System Site Inspections**

Dear Mr. Crewson,

I completed an inspection of all four (4) sub-slab depressurization systems (SSDS) at the Highland Plaza in Tonawanda, New York on Monday, December 18, 2018. The inspection results are summarized in the table below:

HIGHLAND PLAZA SSDS INSPECTIONS - 12/18/18						
ADDRESS	REFERENCE #	VACUUM	ELECTRIC POWER	PIPING	DRAW	SUCTION
231 HIGHLAND PARKWAY	B-1	OPERATIONAL	ON	INTACT	SATISFACTORY	AUDIBLE
235 HIGHLAND PARKWAY	B-2	OPERATIONAL	ON	INTACT	SATISFACTORY	AUDIBLE
237 HIGHLAND PARKWAY	B-3	OPERATIONAL	ON	INTACT	SATISFACTORY	AUDIBLE
237 HIGHLAND PARKWAY	B-4	OPERATIONAL	ON	INTACT	SATISFACTORY	AUDIBLE

Based on the results all four of the soil vapor extraction systems are functional and operating optimally.

Please do not hesitate to contact me with any questions regarding the above.

Andrew Terragnoli, P.E.