Periodic Review Report

FORMER BUFFALO SERVICE CENTER, BURA WEST & 4 NEW SEVENTH STREET SITES (BCP SITE NOS. C915194, C915195, & C915203)

BUFFALO, NEW YORK

June 2017

0235-017-001

Prepared By:

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PERIODIC REVIEW REPORT
for the

FORMER BUFFALO SERVICE CENTER, BURA WEST PROPERTY & 4 NEW SEVENTH STREET SITES
(BCP SITE NOS. C915194, C915195 & C915203)

BUFFALO, NEW YORK

June 2017 0235-017-001

Prepared for:

257 W. GENESEE, LLC

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1.0 INTRODUCTION

Benchmark Environmental Engineering & Science, PLLC (Benchmark) has prepared this Periodic Review Report (PRR) on behalf of 257 W. Genesee, LLC to summarize the post-remedial status of New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site Nos. C915194, C915195, and C915203.

This PRR has been prepared in accordance with NYSDEC's DER-10 *Technical Guidance for Site Investigation and Remediation* (Ref. 1), whereby one PRR is prepared when multiple parcels comprise the redeveloped Site. The NYSDEC's Institutional and Engineering Controls Certification Forms have been prepared for each individual Site (see Appendix C). This PRR and the associated inspections forms have been completed for the June 15, 2016 to June 15, 2017 reporting period.

1.1 Background

The 257 W. Genesee, LLC property (Site) encompasses three adjoining BCP Sites. The three parcels include: (1) the Former Buffalo Service Center Site (C915194); (2) the Buffalo Urban Renewal Agency (BURA) West Site (C915195); and (3) the 4 New Seventh Street Site (C915203) (see Figures 1 and 2).

The Former Buffalo Service Center (C915194) and the BURA West (C915195) parcels were the former location of the Buffalo Gas Light Company's (predecessor to National Fuel Gas) Manufactured Gas Plant (MGP), which operated from approximately 1848 to 1948. Site investigations revealed that the century of industrial use on these parcels resulted in contamination of the soil/fill and groundwater with certain petroleum organics and cyanide. The 4 New Seventh Street (C915203) parcel was the location of a former coal storage yard until approximately 1900; a gasoline service station from 1927-1966; and various commercial/industrial operations. Impacts at this parcel were primarily related to former petroleum storage and distribution operations.

The three parcels were remediated concurrently under the NYSDEC BCP for redevelopment as an office building complex (HealthNow). Additional details relative to the history and remedial activities conducted at each of the parcels are discussed in Section 2.0.

2.0 SITE OVERVIEW

The Site is comprised of three former industrial/commercial properties located in the City of Buffalo, New York (see Figure 1). The Site is bordered by Fourth Street to the west, West Genessee Street to the south, and Seventh Street to the east; the Waterfront School borders the Site to the north (see Figure 2). A brief description of the three parcels is presented below.

2.1 Former Buffalo Service Center & BURA West Properties

The former Buffalo Service Center (BSC) property (BCP Site No. C915194) is an approximately 4.9-acre parcel located at the corner of West Genesee and Seventh Streets. The BURA West property (BCP Site No. C915195) is an approximately 1.7-acre parcel located west of the BSC property along Fourth Street. The BSC and BURA West properties were the location of the former Buffalo Gas Light Company MGP that operated from approximately 1848 to 1948.

Previous environmental site investigations revealed the presence of: volatile organic compounds (VOCs), specifically benzene, toluene, ethylbenzene, and xylene (BTEX); semi-volatile organic compounds (SVOCs), primarily polycyclic aromatic hydrocarbons (PAHs); and cyanide in on-site soil and groundwater.

In June 2005, remedial efforts under the BCP began with the excavation and off-site disposal of approximately 153,000 tons of contaminated soil/fill followed by backfilling the excavation with clean material. Remedial activities at the former BSC and BURA West properties were completed in September 2006. All impacted soil/fill above cleanup levels was removed, and in 2006 the NYSDEC determined that the Site "no longer poses a significant threat to the environment." Certificates of Completion (COCs) were issued for the two properties in November 2006.

2.2 New Seventh Street Property

The 4 New Seventh Street property (BCP Site No. C915203) is comprised of an approximate 1.7-acre parcel located east of the BSC property along Seventh Street. The New Seventh Street parcel was formerly a coal shed and storage yard until approximately 1900.

From 1927-1966, this parcel housed gasoline service stations. Various other commercial/industrial operations have also been located on the property. Environmental site investigations conducted on-site revealed the presence of petroleum-based VOCs and SVOCs in soil/fill and groundwater.

Remedial activities under the BCP began in May 2006 with excavation and off-site disposal of approximately 6,600 tons of contaminated soil/fill followed by backfilling the excavation with clean material. All impacted soil/fill within the property boundaries was removed to meet cleanup levels. A COC was issued for the Site in December 2006.

3.0 SITE MANAGEMENT PLAN

A combined Site Management Plan (SMP) was prepared by ESC Engineering of New York, P.C., for the Buffalo Service Center and BURA West properties and approved by the NYSDEC in October 2006. A separate SMP was prepared by Lender Consulting Services (LCS) for the 4 New Seventh Street Site in December 2006. The SMPs include a Groundwater Monitoring Plan, a Soil/Fill Management Plan, and a copy of the Environmental Easements. A brief description of the components of the SMP is presented below.

3.1 Groundwater Monitoring Plan

As a component of the NYSDEC-approved SMPs, post-remedial groundwater monitoring was required for the Site on a quarterly basis for two years following completion of the remedial activites. A total of 10 montioring wells on and outside of the Site were sampled and analyzed for petroleum-based organic compounds per the SMP requirements, with quarterly groundwater monitoring results forwarded to the NYSDEC following each event. Groundwater monitoring began in August 2007, and the eighth quarterly groundwater monitoring event was completed by WSP Enginering (WSP) in May 2009. Wells MW-03 and MW-09 were slated for sampling under both the ESC SMP for the former BSC and BURA West parcels as well as the LCS SMP for the 4 New Seventh Street parcel; therefore, they were sampled under both programs. As such, duplicate samples were collected from these well locations each quarter. MW-04 exhibited a thin layer of light non-aqueous phase liquid (LNAPL) during the initial monitoring event and was therefore excluded from subsequent sampling due to the likelihood for positive bias from this layer. The LNAPL is believed to be attributable to residual off-site impact west of the property boundary which was addressed through offsite remedial excavation work by other responsible parties.

The Eighth Quarterly Groundwater Monitoring Report (prepared by WSP) presented trend analyses for wells MW-01, MW-03, BCP-MW-04, BCP-MW-05, and MW-09. Excluding MW-04, the remaining locations exhibited non-detectable or sufficiently low concentrations to preclude the need for trend evaluation. In general, concentrations dropped over the 2-year period at most locations, with notable exception at off-site well MW-09 where the concentration trend analysis showed an increase in the benzene concentration.

Based on the MW-09 results, a Pre-Design Investigation Report and Chemical Oxidation Enhanced Bioremediated Work Plan (July 2009) was prepared by WSP. The Work Plan proposed the injection of Klozer CR® in the vicinity of MW-09. NYSDEC approved the subsequent Work Plan, and the injection was performed in August 2009. Post-injection groundwater monitoring was initiated as part of the Work Plan, including quarterly monitoring for one year at MW-09 and semi-annual monitoring for one year at MW-01 and MW-03. WSP conducted the first round of groundwater monitoring for MW-09, MW-01, and MW-03 in November 2009. The final round of groundwater monitoring was performed in August 2010. A performance monitoring report was prepared by WSP in October 2010. Based on the monitoring data, WSP recommended two additional quarters of data from MW-09, and no further action from monitoring wells MW-01 and MW-03.

Concurrently, BCP-MW-02 was decommissioned with NYSDEC approval in January 2010. Monitoring wells BCP-MW-05 and PZ-10 were decommissioned with NYSDEC approval in June 2010. Due to the results of the quarterly groundwater monitoring previously conducted and ongoing remediation at MW-09, the NYSDEC requested additional sampling of BCP-MW-04. Monitoring well BCP-MW-04 was sampled in May 2011. Since all concentrations were non-detect during the May 2011 monitoring event, the NYSDEC approved termination of monitoring at BCP-MW-04.

Sampling at off-site well MW-09 was performed by WSP in June, September, and November 2011. The November 2011 sampling event followed redevelopment of the well, as reduced yield and inconsistent results in September indicated that the well screen was partially clogged. Redevelopment was unsuccessful and in December 2011 well MW-09 was replaced with a well MW-09R. Well MW-09R was sampled by WSP in February 2012, however concentrations did not improve.

In November of 2012 WSP transmitted correspondence to the NYSDEC which proposed an additional two years of annual groundwater monitoring at wells MW-09R and MW-03 for petroleum-based volatile organics. The samples were collected in February 2013 and February 2014. Results are summarized in Appendix A with prior historic data for those monitoring locations. In general, the data indicate fairly consistent concentrations remaining above the groundwater quality standards, most notably for benzene in MW-09R.

In June of 2015 Benchmark was notified by the NYSDEC that annual groundwater monitoring would need to continue at wells MW-09R and MW-03. Following discussions with the remedial parties and 257 W. Genesee, LLC, it was agreed that Duke Realty (the original member of 257 W. Genesee, LLC) would assume responsibility for the monitoring. Benchmark was retained to perform the sampling, which was undertaken in November of 2015 and 2016.

Sample results for the November 2016 event are presented on Table 1 (these data were previously transmitted to the Department following receipt last fall). The laboratory analytical report is included as Appendix B. A comparison to prior (2012-2015) results is presented as Table 2. As indicated, 2016 concentrations at MW-09R continued to trend downward, with benzene concentrations reported approximately 17% lower than 2015 results. Conversely, an uptick in concentrations was noted at MW-03, inconsistent with prior trending. Sampling work is scheduled to be repeated in fall of 2017. The data will provide an indication as to whether MW-03 concentrations have returned to levels consistent with prior sampling.

3.2 Soil/Fill Management Plan

A Soil/Fill Management Plan (SFMP) was included in the NYSDEC-approved SMPs for the Site. The SFMP provides guidelines for the management of soil and fill material during any future intrusive actives that disturb soil/fill greater than 12 inches below surface-grade. A passive vapor barrier was installed into the foundation slab of the office buildings during construction.

No intrusive activities requiring management of on-site soil or fill material occurred during the monitoring period, however minor placement of backfill materials occurred as further discussed in Section 3.3 below.

3.3 Institutional Control Requirements and Compliance

As detailed in the Environmental Easements filed with the Erie County, New York, several Institutional Controls (ICs) need to be maintained as a requirmement of the BCAs for the Site. All three properties encompassing the Site are subject to the same ICs:

- Land-Use Restriction: The controlled property may be used for commercial and/or industrial use;

- Implementation of the SMP including the Groundwater Monitoring Plan, Soil/Fill Management Plan, and Monitoring Plan; and

- Groundwater-Use Restriction: The use of groundwater for potable and non-potable purposes is prohibited.

Benchmark conducted a Site Inspection of the exterior of the property on May 22, 2017. At the time of the Site Inspection the property was being used as a large office building complex with an elevated parking ramp, surface parking, paved walkways, and landscaped grassy areas consistent with prior use. The office complex is on municipal water supply, and no observable use of groundwater was noted during the Site Inspection. In addition no observable indication of ground-intrusive activities below the topsoil was noted during the Site Inspection, however landscaping was undergoing maintenance and the facility grounds manager informed Benchmark that a small quantity (less than 5 cubic yards) of topsoil had been recently imported to the site to re-dress some eroded areas. The material reportedly originated from CJ Krantz, a commercial topsoil provider in Clarence, NY. Benchmark contact the NYSDEC Project manager and it was agreed that a representative sample of the topsoil would be obtained from the re-dressed areas (which had not yet germinated and were visibly evident) for analysis of full EPA Target Compound List/Target Analyte List (TCL/TAL) parameters. Benchmark collected the soil samples at the time of the walkover and arranged for third party analysis through TestAmerica Laboratories, Inc. a third party NYSDOH-approved facility. The sample data are summarized on Table 2; the full lab report is included as Appendix C. As indicated all detected parameter concentrations fall below the import criteria for restricted commercial use sites per DER-10 Appendix 5.

Appendix D includes completed Institutional and Engineering Controls Certification Forms for the Site. Appendix E presents a photographic log of the Sites as of the 2017 Site Inspection.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Benchmark has made the following conclusions and recommendations for the reporting period June 15, 2016 to June 15, 2017:

- At the time of the Site Inspection (May 22, 2017), the Site was in compliance with both SMPs.

5.0 DECLARATION/LIMITATION

Benchmark Environmental Engineering & Science, PLLC personnel conducted the annual site inspections for BCP Site Nos. C915194, C915195, and C915203 in Buffalo, New York in accordance with generally accepted practices. This report complies with the scope of work provided to 257 W. Genesee, LLC by Benchmark Environmental Engineering and Science, PLLC.

This report has been prepared for the exclusive use of 257 W. Genesee, LLC. The contents of this report are limited to information available at the time of the Site Inspection. The findings herein may be relied upon only at the discretion of 257 W. Genesee, LLC. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Benchmark Environmental Engineering and Science, PLLC.

6.0 REFERENCES

1. New York State Department of Environmental Conservation. *DER-10; Technical Guidance for Site Investigation and Remediation.* May 2010.

2. *Pre-Design Investigation Report, Buffalo Service Center, Buffalo, NY*, dated February 2004, prepared by The RETEC Group, Inc.

3. *Limited and Focused Subsurface Investigation, Seventh Street Site and Fourth Street Site, Buffalo, New York*, dated February 2005, prepared by LCS, Inc.

4. *Limited and Focused Subsurface Investigation, Seventh Street Site and Fourth Street Site, Buffalo, New York*, dated April 2005, prepared by LCS, Inc.

5. *Remedial Investigation Work Plan for 4 New Seventh Street, Buffalo, New York*, prepared by LCS, Inc. and Benchmark Environmental Engineering & Science, PLLC, January 2006.

6. *Interim Remedial Measures Work Plan for Brownfield Cleanup Program - 4 New Seventh Street, Buffalo, New York*, prepared by LCS, Inc. and Benchmark Environmental Engineering & Science, PLLC, February 2006.

7. *Final Engineering Report for Interim Remedial Measures - 4 New Seventh Street, Buffalo, New York*, prepared by LCS, Inc. and Benchmark Environmental Engineering & Science, PLLC, August 2006

8. *Final Remedial Action Report Brownfield Cleanup Program – Former Buffalo Service Center Site (C915194), Buffalo Urban Renewal Agency West Site (C915195) Buffalo, New York,* prepared by ESC Engineering of New York, P.C., October 2006

9. *Final Site Management Plan – Former Buffalo Service Center Site (C915194), Buffalo Urban Renewal Agency West Site (C915195), Fourth and West Genesee Streets, Buffalo, New York,* prepared by ESC Engineering of New York, P.C., October 2006

10. *Site Management Plan - 4 New Seventh Street, Buffalo, New York*, prepared by LCS, Inc. and Benchmark Environmental Engineering & Science, PLLC, December 2006.

FIGURES

F:\CAD\Benchmark\Cole Real Estate\2016 PRR\Figure 1; Site Location and Vicinity Map.dwg

FIGURE 1

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PROJECT NO.: 0235-013-001

DATE: APRIL 2017

DRAFTED BY: JGT/KRR

SITE LOCATION AND VICINITY MAP

PERIODIC REVIEW REPORT

FORMER BUFFALO SERVICE CENTER, BURA WEST
AND NEW SEVENTH STREET SITES
BUFFALO, NEW YORK

PREPARED FOR

257 WEST GENESEE STREET, LLC

F:\CAD\Benchmark\Cole Real Estate\2016 PRR\Figure 2; Site Plan.dwg

Note:
Base Map per WSP Engineering of New York, P.C.

DATE: MARCH 2016
DRAFTED BY: NTM/KRR

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
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JOB NO.: 0235-014-001

SITE PLAN

PERIODIC REVIEW REPORT
FORMER BUFFALO SERVICE CENTER, BURA WEST AND NEW SEVENTH STREET SITES
BUFFALO, NEW YORK
PREPARED FOR
257 W. GENESEE STREET, LLC

FIGURE 2

TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
11-Nov-16

257 West Genesse, LLC
New Seventh St.
Buffalo, New York

Parameter [1]	Monitoring Well			Class GA GWQS
	MW-03	MW-09R	Trip Blank	
NYSDEC STARS LIST VOCs (ug/L)				
Acetone				
Benzene	840	1900	ND	1
sec-Butylbenzene	ND	ND	ND	5
p-Cymene				5
Ethylbenzene	360	ND	ND	5
Isopropylbenzene	40 J	ND	ND	5
n-Propylbenzene	ND	ND	ND	5
Toluene	18 J	ND	ND	5
1,2,4-Trimethylbenzene	160	ND	ND	5
1,3,5-Trimethylbenzene	ND	ND	ND	5
o-Xylene	65	ND	ND	5
m/p- Xylene	20 J	ND	ND	5
Field Parameters				
Temperature (ºC)	14.5	11	-	-
Specific Conductance (uS)	4449	2612	-	-
Dissolved Oxygen (mg/L)	1.36	2.88	-	-
pH (s.u.)	7.25	7.33	-	-
ORP (mV)	-228	-175	-	-
Turbidity (NTUs)	154	121	-	-
Purge volume (gal)	6	6.75	-	-

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.

Definitions:

D03 = Dilution required due to excess foaming.

ND = Not Detected

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 2

SUMMARY OF HISTORICAL RESULTS
2/8/2012 TO 11/11/2016

257 West Genesse, LLC
New Seventh St.
Buffalo, New York

Parameter [1]	Monitoring Well											
	MW-03 2/14/2013	MW-03 2/14/2013	MW-03 2/19/2014	MW-03 2/19/2014	MW-03 11/27/2015	MW-03 11/11/2016	MW-09R 2/8/2012	MW-09R 2/8/2012	MW-09R 2/14/2013	MW-09R 2/14/2013	MW-09R 11/27/2015	MW-09R 11/11/2016
NYSDEC STARS LIST VOCs (ug/L)												
Acetone	50 U	10 U	-	-	-	-	250 U	250 U	800 U	-	-	-
Benzene	**260**	**250**	**330**	**310**	**170**	**840**	**6,100**	**5,000**	**6,800**	**4,000**	**2,300**	**1900**
2-Butanone	50 U	10 UF	-	-	-	-	250 U	250 U	800 UF	-	-	-
Ethylbenzene	**40**	**36**	**45**	**43**	**20**	**360**	**110**	**72**	**150**	80 U	18 U	28 U
Isopropylbenzene	-	-	-	-	3 J	**40 J**	-	-	-	-	-	-
Toluene	5 U	1 U	5 U	2.4 J	10 U	**18 J**	25 U	25 U	80 U	80 U	18 U	28 U
1,2,4-Trimethylbenzene					5 U	**160**						
o-Xylene					5 U	**65**						
m/p- Xylene					5 U	**20 J**						
Field Parameters												
Temperature (ºC)	11.47	-	10.01	-	14.7	14.5	5.4	-	4.98	7.03	13.1	11
Specific Conductance (umho/cm)	2.61	-	2.46	-	3028	4449	3.25	-	3.79	3.31	3061	2612
Dissolved Oxygen (mg/L)	7.91	-	8.38	-	2.27	1.36	1.05	-	13.78	9.32	2.55	2.88
pH (s.u.)	6.84	-	7.39	-	7.02	7.25	7.07	-	6.92	7.47	7.09	7.33
ORP (mV)	-82	-	-116	-	-103	-228	36	-	-81	-86	-81	-175
Turbidity (NTUs)	55.4	-	-	-	31.3	154	49.2	-	105	-	71000	121
Purge volume (gal)	5.28	-	6.96	-	6	6	1.2	-	6.54	8.84	6.75	6.75

Notes:
1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.

Definitions:
J = Analyte detected at less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limt (MDL).
ND = Not Detected
U= constituent not detected at reported detection limit
"-" indicates standard not developed or constituent not analyzed
Highlighted, bolded implies Class GA exceedances

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 2

SUMMARY OF SOIL ANALYTICAL RESULTS

IMPORTED TOPSOIL (CJ KRANTZ)
MAY 2017

257 WEST GENESEE SITE

BUFFALO, NEW YORK

Parameter[1]	Restricted Commercial Use Import Criteria[2]	CJ KRANTZ NURSERY IMPORTED TOPSOIL
		05/22/17
Volatile Organic Compounds (VOCs) - mg/Kg [3]		
Ethylbenzene	**1**	0.0011 J
Toluene	**0.7**	0.0011 J
Total Xylene	**1.6**	0.0081 J
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg [3]		
Benzo(a)anthracene	**1**	0.17 J
Benzo(b)fluoranthene	**1.7**	0.27 J
Fluoranthene	**500**	0.32 J
Pyrene	**500**	0.28 J
Metals - mg/Kg		
Aluminum	**--**	19900
Antimony	**--**	2.1 J
Arsenic	**16**	3.9
Barium	**400**	96.6
Beryllium	**47**	0.58
Cadmium	**7.5**	0.41
Calcium	**--**	10800 B
Chromium	**1500**	23.1
Cobalt	**--**	5.4
Copper	**270**	18.3
Iron	**--**	17300
Lead	**450**	24.7
Magnesium	**--**	4370
Manganese	**2000**	207 B
Mercury	**0.73**	0.075
Nickel	**130**	15.3
Potassium	**--**	5010
Selenium	**4**	1.7 J
Sodium	**--**	161 J
Vanadium	**--**	32.4
Zinc	**2480**	93.9
Pesticides- mg/Kg [3]		
4,4'-DDE	**17**	0.013 J

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC DER-10 Appendix 5: Allowable Constituent Levels for Imported Soil or Fill
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparison to SCOs.

Definitions:

ND = Parameter not detected above laboratory detection limit.
"--" = Sample not analyzed for parameter or no SCO available for the parameter.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.

APPENDIX A

HISTORICAL GROUNDWATER SAMPLE RESULTS: MW-03 & MW-09/MW-09R

Table 1

Summary of MW-09 and MW-09R
Results
QLT Buffalo
Buffalo, New York (a)

Well I.D.:		**MW-09**									
Event:		**Quarterly Monitoring**									
Sample Date:		**08/20/07 (e)**	**08/21/07**	**11/27/07**	**03/03/08**	**05/27/08**	**08/25/08**	**11/20/08**	**12/18/2008 (f)**	**02/24/09**	**05/19/09**
Parameters	**NSYDEC Standards (c)**										
Volatile Organic Compounds (µg/l)											
Acetone	50	-	-	-	-	-	-	-	-	-	-
Benzene	1	**4,000 D (d)**	**980**	**1,700**	**3,300**	**12,000**	**7,600**	**3,600**	**670**	**13,000**	**10,000**
2-Butanone	50	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	**6**	1.3	10 U	20 U	40 U	100 U	50 U	0.73 J	**12 J**	**8.2 J**
Toluene	5	2	0.74 J	10 U	20 U	40 U	100 U	50 U	1 U	4.7 J	20 U
Total Xylenes	5	120 U	300 U	150 U	**12 J**	40 U	30 U	60 U	3 U	120 U	**96 J**
Field Parameters											
Temperature (^{o}C)	-	-	-	-	-	-	-	-	-	-	-
Specific Conductance (mS/cm)	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (mg/l)	-	-	-	-	-	-	-	-	-	-	-
pH (s.u.)	-	-	-	-	-	-	-	-	-	-	-
ORP (mV)	-	-	-	-	-	-	-	-	-	-	-
Turbidity (NTUs)	-	-	-	-	-	-	-	-	-	-	-
Purge Volume (gal)	-	-	-	-	-	-	-	-	-	-	-

Boxed value greater than the NYSDEC standards

Table 1

Summary of MW-09 and MW-09R Results
QLT Buffalo
Buffalo, New York

Well I.D.:		MW-09									
Event:		Baseline	Performance Monitoring (Post-Injection)								
Sample Date:		06/26/09	11/24/09 (b)	11/24/09 (b)	02/18/10 (b)	02/18/10 (b)	05/19/10 (b)	05/19/10 (b)	08/17/10 (b)	08/17/10 (b)	06/03/11 (b)
Parameters	**NSYDEC Standards (c)**										
Volatile Organic Compounds (µg/l)											
Acetone	50	-	-	-	**63**	**62**	35	35	31	33	14
Benzene	1	-	**2,200 D**	**2,000 D**	**1,500**	**1,800**	**2,400 D08**	**2,000 D08**	**730 D08**	**720 D08**	**420**
2-Butanone	50	-	-	-	7.8	7.6	5.4	5	5 J	5.6 J	1.7 J
Ethylbenzene	5	-	4.2 D	3.9 JD	3.8	4	4.9	3.6	3.1	2.7	0.77 J
Toluene	5	-	4 U	4 U	0.92 J	0.98 J	0.6 J	0.57 J	1 U	1 U	1 U
Total Xylenes	5	-	3.7 JD	3.2 JD	**6.1**	**6.2**	2.7	1.4 J	3	2.3	2 U
Field Parameters											
Temperature (^{o}C)	-	22.04	11.75	-	3.94	-	17.24	-	17.7	-	15.95
Specific Conductance (mS/cm)	-	1.74	11.7	-	9.31	-	5.64	-	5.98	-	4.63
Dissolved Oxygen (mg/l)	-	0.28	9.39	-	37.43	-	38.17	-	23.99	-	26.32
pH (s.u.)	-	6.89	13.40	-	13.67	-	12.96	-	12.67	-	10.54
ORP (mV)	-	-96	-25	-	-24	-	-58	-	30	-	64
Turbidity (NTUs)	-	9.6	69 (c)	-	136	-	18.2	-	87.1	-	39.2
Purge Volume (gal)	-	2	1	-	1	-	0.8	-	1	-	0.6

Boxed value greater than the NYSDEC standards

Table 1

Summary of MW-09 and MW-09R Results
QLT Buffalo
Buffalo, New York

Parameters	NSYDEC Standards (c)	MW-09 Performance Monitoring (Post-Injection) 06/03/11 (b)	MW-09 Performance Monitoring (Post-Injection) 09/06/11 (b)	MW-09 Performance Monitoring (Post-Injection) 09/06/11 (b)	MW-09 Performance Monitoring (Post-Injection) 11/06/11 (b)	MW-09 Performance Monitoring (Post-Injection) 11/06/11 (b)	MW-09R Performance Monitoring (Post-Injection) 2/8/2012 (b)	MW-09R Performance Monitoring (Post-Injection) 2/8/2012 (b)	MW-09R Performance Monitoring (Post-Injection) 2/14/2013 (g)	MW-09R Performance Monitoring (Post-Injection) 2/19/2014 (g)
Volatile Organic Compounds (µg/l)										
Acetone	50	13	25	28	-	-	250 U	250 U	800 U	-
Benzene	1	**430**	**1,400**	**970**	**2,100**	**2,100**	**6,100**	**5,000**	**6,800**	**4,000**
2-Butanone	50	1.7 J	3.5 J	3.9 J	-	-	250 U	250 U	800 UF	-
Ethylbenzene	5	0.79 J	1.4	1.4	2.1	2.2	**110**	**72**	**150**	80 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	25 U	25 U	80 U	80 U
Total Xylenes	5	2 U	2 U	2 U	0.88 J	0.95 J	**37 J**	**31 J**	160 U	160 U
Field Parameters										
Temperature (^{o}C)	-	-	15.46	-	8.32	-	5.4	-	4.98	7.03
Specific Conductance (mS/cm)	-	-	4.38	-	4.35	-	3.25	-	3.79	3.31
Dissolved Oxygen (mg/l)	-	-	35.27	-	25.34	-	1.05	-	13.78	9.32
pH (s.u.)	-	-	10.06	-	11.79	-	7.07	-	6.92	7.47
ORP (mV)	-	-	32	-	103	-	36	-	-81	-86
Turbidity (NTUs)	-	-	18.9	-	15.2	-	49.2	-	105	-
Purge Volume (gal)	-	-	0.2	-	0.1	-	1.2	-	6.54	8.84

Boxed value greater than the NYSDEC standards

a/ I.D. = identification; NYSDEC = New York State Department of Environmental Conservation; µg/l = micrograms per liter; mg/l = milligrams per liter; ^{o}C = degrees Celcius; mS/cm = microSiemens per centimeter; s.u. = standard units; mV = millivolts; NTU = nephlometric turbidity units; gal = gallons; $^{o}/_{oo}$ = part per thousand; $\delta^{13}C$ = delta carbon-13; ND = not detected; '-' = standard not developed or constituent not analyzed.

b/ Sample and duplicate.

c/ NYSDEC Ambient Water Quality Standards and Guidance Values. Technical and Operational Guidance Series (1.1.1). June 1998 and as updated.

d/ Data Qualifiers:
U = constituent not detected at reported detection limit
J = estimated concentration
B = analyte detected in associated method blank
D, D08 = result from diluted aliquot
H = sample was analyzed after hold time
F = matrix spike or matrix spike duplicate exceeds control limits

e/ Results from sample collected by the NYSDEC.

f/ Supplemental Investigation

g/ Samples collected with a bailer.

Table 2

Summary of MW-03
Historical Results
QLT Buffalo
Buffalo, New York (a)

	Well I.D.:	MW-03									
	Event:	Quarterly Monitoring									
	Sample Date:	08/21/07	11/28/07 (b)	11/28/07 (b)	03/03/08 (b)	03/03/08 (b)	05/27/08 (b)	05/27/08 (b)	08/25/08 (b)	08/25/08 (b)	11/20/08
Parameters	**NSYDEC Values (c)**										
Volatile Organic Compounds (µg/l)											
Acetone	50	-	-	-	-	-	-	-	-	-	-
Benzene	1	**21**	**1,800**	**1,800 J**	**520**	**490**	**48**	**42**	**1,600**	**1,800**	**1,500**
2-Butanone	50	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5	**13**	**960**	**980 J**	**250**	**230**	**26**	**22**	**920**	**1,000**	**870**
Toluene	5	0.67 J	**100**	**110**	**20**	**19 J**	1 U	1 U	**72**	**73**	**53**
Total Xylenes	5	**8.5**	**850**	**870**	**190**	**170**	**7.7**	**6.9**	**650**	**710**	**530**
Field Parameters											
Temperature (^{o}C)	-	-	-	-	-	-	-	-	-	-	-
Specific Conductance (mS/cm)	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (mg/l)	-	-	-	-	-	-	-	-	-	-	-
pH (s.u.)	-	-	-	-	-	-	-	-	-	-	-
ORP (mV)	-	-	-	-	-	-	-	-	-	-	-
Turbidity (NTUs)	-	-	-	-	-	-	-	-	-	-	-
Purge Volume (gal)	-	-	-	-	-	-	-	-	-	-	-

Boxed value greater than the NYSDEC values

Table 2

Summary of MW-03
Historical Results
QLT Buffalo
Buffalo, New York

Parameters	NSYDEC Values (c)	Well I.D.:									
		Supplemental				Performance Monitoring					
		Event: Investigation		Quarterly Monitoring		(Post-Injection)					
		Sample Date: 12/17/08 (b)	12/17/08 (b)	02/24/09	05/19/09	11/24/09	05/19/10	2/14/2013 (b,g)	2/14/2013 (b,g)	2/19/2014 (b,g)	2/19/2014 (b,g)
Volatile Organic Compounds (µg/l)											
Acetone	50	-	-	-	-	-	-	50 U	10 U	-	-
Benzene	1	**610**	**600**	**420**	**220**	**1,300 D**	**26**	**260**	**250**	**330**	**310**
2-Butanone	50	-	-	-	-	-	-	50 U	10 UF	-	-
Ethylbenzene	5	**340**	**330**	**240**	**44**	**620 D**	1.2	**40**	**36**	**45**	**43**
Toluene	5	**22**	**22**	1.6	1.9	**35 D**	1 U	5 U	1 U	5 U	2.4 J
Total Xylenes	5	**200 J**	**190**	**17**	**5.5**	**370 D**	2 U	10 U	2.5	3.8 J	3.2 J
Field Parameters											
Temperature (^{o}C)	-	-	-	-	-	13.61	18.41	11.47	-	10.01	-
Specific Conductance (mS/cm)	-	-	-	-	-	3.61	2.32	2.61	-	2.46	-
Dissolved Oxygen (mg/l)	-	-	-	-	-	2.64	0	7.91	-	8.38	-
pH (s.u.)	-	-	-	-	-	6.90	7.22	6.84	-	7.39	-
ORP (mV)	-	-	-	-	-	-21	-134	-82	-	-116	-
Turbidity (NTUs)	-	-	-	-	-	5.9	5.21	55.4	-	-	-
Purge Volume (gal)	-	-	-	-	-	2	0.6	5.28	-	6.96	-

Boxed value greater than the NYSDEC values

a/ I.D. = identification; NYSDEC = New York State Department of Environmental Conservation;
µg/l = micrograms per liter; ND = not detected; '-' indicates standard not developed or constituent not analyzed.
b/ Sample and duplicate.
c/ NYSDEC Ambient Water Quality Standards and Guidance Values. Technical and Operational Guidance Series (1.1.1).
June 1998 and as updated.
d/ Data Qualifiers:
U = constituent not detected at reported detection limit
J = estimated concentration
B = analyte detected in associated method blank
D, D08 = result from diluted aliquot
F = matrix spike or matrix spike duplicate exceeds control limits
e/ Results from sample collected by the NYSDEC.
f/ Samples collected during the February 14, 2013 sampling event were collected with a bailer.
g/ Samples collected with a bailer.

APPENDIX B

LABORATORY ANALYTICAL REPORT:
MW-03 & MW-09R

NOVEMBER 2016

ANALYTICAL REPORT

Lab Number:	L1636774
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Tom Forbes
Phone:	(716) 856-0599
Project Name:	DUKE REALITY
Project Number:	0235-015-001
Report Date:	11/18/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DUKE REALITY
Project Number: 0235-015-001

Lab Number: L1636774
Report Date: 11/18/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1636774-01	MW-03	WATER	BUFFALO, NY	11/11/16 12:05	11/11/16
L1636774-02	MW-9R	WATER	BUFFALO, NY	11/11/16 13:06	11/11/16
L1636774-03	TRIP BLANK	WATER	BUFFALO, NY	11/11/16 00:00	11/11/16

Project Name: DUKE REALITY
Project Number: 0235-015-001

Lab Number: L1636774
Report Date: 11/18/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	DUKE REALITY	**Lab Number:**	L1636774
Project Number:	0235-015-001	**Report Date:**	11/18/16

Case Narrative (continued)

Report Submission

The project number and requested analyses were provided by the client.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 11/18/16

ORGANICS

VOLATILES

Project Name: DUKE REALITY
Project Number: 0235-015-001

Lab Number: L1636774
Report Date: 11/18/16

SAMPLE RESULTS

Lab ID: L1636774-01 D
Client ID: MW-03
Sample Location: BUFFALO, NY
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/15/16 18:44
Analyst: KD

Date Collected: 11/11/16 12:05
Date Received: 11/11/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	840		ug/l	10	3.2	20
Toluene	18	J	ug/l	50	14.	20
Ethylbenzene	360		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	20	J	ug/l	50	14.	20
o-Xylene	65		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
Isopropylbenzene	40	J	ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
n-Propylbenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	160		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	102		70-130

Project Name: DUKE REALITY
Project Number: 0235-015-001

Lab Number: L1636774
Report Date: 11/18/16

SAMPLE RESULTS

Lab ID: L1636774-02 D
Client ID: MW-9R
Sample Location: BUFFALO, NY
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/15/16 19:12
Analyst: KD

Date Collected: 11/11/16 13:06
Date Received: 11/11/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	1900		ug/l	20	6.4	40
Toluene	ND		ug/l	100	28.	40
Ethylbenzene	ND		ug/l	100	28.	40
Methyl tert butyl ether	ND		ug/l	100	28.	40
p/m-Xylene	ND		ug/l	100	28.	40
o-Xylene	ND		ug/l	100	28.	40
n-Butylbenzene	ND		ug/l	100	28.	40
sec-Butylbenzene	ND		ug/l	100	28.	40
tert-Butylbenzene	ND		ug/l	100	28.	40
Isopropylbenzene	ND		ug/l	100	28.	40
p-Isopropyltoluene	ND		ug/l	100	28.	40
n-Propylbenzene	ND		ug/l	100	28.	40
1,3,5-Trimethylbenzene	ND		ug/l	100	28.	40
1,2,4-Trimethylbenzene	ND		ug/l	100	28.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	101		70-130

Project Name: DUKE REALITY
Project Number: 0235-015-001
Lab Number: L1636774
Report Date: 11/18/16

SAMPLE RESULTS

Lab ID: L1636774-03
Client ID: TRIP BLANK
Sample Location: BUFFALO, NY
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/15/16 18:16
Analyst: KD

Date Collected: 11/11/16 00:00
Date Received: 11/11/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	100		70-130

Project Name: DUKE REALITY
Project Number: 0235-015-001

Lab Number: L1636774
Report Date: 11/18/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/15/16 09:51
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG952498-5					
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	128		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: DUKE REALITY

Project Number: 0235-015-001

Lab Number: L1636774

Report Date: 11/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG952498-3 WG952498-4								
Methylene chloride	94		96		70-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	97		96		70-130	1		20
2-Chloroethylvinyl ether	98		85		70-130	14		20
Carbon tetrachloride	97		95		63-132	2		20
1,2-Dichloropropane	100		99		70-130	1		20
Dibromochloromethane	98		94		63-130	4		20
1,1,2-Trichloroethane	94		95		70-130	1		20
Tetrachloroethene	96		94		70-130	2		20
Chlorobenzene	89		89		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	94		95		67-130	1		20
Bromodichloromethane	97		98		67-130	1		20
trans-1,3-Dichloropropene	92		92		70-130	0		20
cis-1,3-Dichloropropene	94		91		70-130	3		20
1,1-Dichloropropene	94		94		70-130	0		20
Bromoform	92		94		54-136	2		20
1,1,2,2-Tetrachloroethane	90		91		67-130	1		20
Benzene	85		85		70-130	0		20
Toluene	87		86		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DUKE REALITY

Project Number: 0235-015-001

Lab Number: L1636774

Report Date: 11/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG952498-3 WG952498-4								
Ethylbenzene	86		87		70-130	1		20
Chloromethane	110		110		64-130	0		20
Bromomethane	110		100		39-139	10		20
Vinyl chloride	110		100		55-140	10		20
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	87		88		61-145	1		20
trans-1,2-Dichloroethene	86		86		70-130	0		20
Trichloroethene	88		87		70-130	1		20
1,2-Dichlorobenzene	82		83		70-130	1		20
1,3-Dichlorobenzene	83		82		70-130	1		20
1,4-Dichlorobenzene	84		81		70-130	4		20
Methyl tert butyl ether	96		96		63-130	0		20
p/m-Xylene	85		85		70-130	0		20
o-Xylene	80		80		70-130	0		20
cis-1,2-Dichloroethene	90		86		70-130	5		20
Dibromomethane	98		99		70-130	1		20
1,2,3-Trichloropropane	92		88		64-130	4		20
Acrylonitrile	100		99		70-130	1		20
Isopropyl Ether	120		120		70-130	0		20
tert-Butyl Alcohol	108		120		70-130	11		20
Styrene	80		80		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DUKE REALITY

Project Number: 0235-015-001

Lab Number: L1636774

Report Date: 11/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG952498-3 WG952498-4								
Dichlorodifluoromethane	120		120		36-147	0		20
Acetone	130		110		58-148	17		20
Carbon disulfide	79		76		51-130	4		20
2-Butanone	120		120		63-138	0		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	96		88		59-130	9		20
2-Hexanone	100		100		57-130	0		20
Acrolein	110		100		40-160	10		20
Bromochloromethane	96		96		70-130	0		20
2,2-Dichloropropane	99		98		63-133	1		20
1,2-Dibromoethane	92		90		70-130	2		20
1,3-Dichloropropane	95		94		70-130	1		20
1,1,1,2-Tetrachloroethane	91		93		64-130	2		20
Bromobenzene	96		96		70-130	0		20
n-Butylbenzene	88		85		53-136	3		20
sec-Butylbenzene	85		84		70-130	1		20
tert-Butylbenzene	85		83		70-130	2		20
o-Chlorotoluene	85		84		70-130	1		20
p-Chlorotoluene	86		85		70-130	1		20
1,2-Dibromo-3-chloropropane	87		82		41-144	6		20
Hexachlorobutadiene	110		120		63-130	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DUKE REALITY

Project Number: 0235-015-001

Lab Number: L1636774

Report Date: 11/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG952498-3 WG952498-4								
Isopropylbenzene	88		87		70-130	1		20
p-Isopropyltoluene	84		82		70-130	2		20
Naphthalene	80		82		70-130	2		20
n-Propylbenzene	86		86		69-130	0		20
1,2,3-Trichlorobenzene	90		98		70-130	9		20
1,2,4-Trichlorobenzene	95		96		70-130	1		20
1,3,5-Trimethylbenzene	85		84		64-130	1		20
1,2,4-Trimethylbenzene	88		86		70-130	2		20
Methyl Acetate	110		110		70-130	0		20
Ethyl Acetate	110		100		70-130	10		20
Cyclohexane	100		100		70-130	0		20
Ethyl-Tert-Butyl-Ether	110		110		70-130	0		20
Tertiary-Amyl Methyl Ether	97		95		66-130	2		20
1,4-Dioxane	86		112		56-162	**26**	Q	20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		100		70-130	0		20
p-Diethylbenzene	94		91		70-130	3		20
p-Ethyltoluene	91		91		70-130	0		20
1,2,4,5-Tetramethylbenzene	86		86		70-130	0		20
Tetrahydrofuran	130		120		58-130	8		20
Ethyl ether	95		95		59-134	0		20
trans-1,4-Dichloro-2-butene	110		100		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DUKE REALITY

Project Number: 0235-015-001

Lab Number: L1636774

Report Date: 11/18/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG952498-3 WG952498-4								
Iodomethane	**68**	Q	**68**	Q	70-130	0		20
Methyl cyclohexane	94		96		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	130		123		70-130
Toluene-d8	100		102		70-130
4-Bromofluorobenzene	103		104		70-130
Dibromofluoromethane	108		109		70-130

Project Name: DUKE REALITY
Project Number: 0235-015-001

Lab Number: L1636774
Report Date: 11/18/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1636774-01A	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYCP51-8260-G(14)
L1636774-01B	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYCP51-8260-G(14)
L1636774-01C	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYCP51-8260-G(14)
L1636774-02A	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYCP51-8260-G(14)
L1636774-02B	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYCP51-8260-G(14)
L1636774-02C	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYCP51-8260-G(14)
L1636774-03A	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYCP51-8260-G(14)

*Values in parentheses indicate holding time in days

Project Name:	DUKE REALITY	**Lab Number:**	L1636774
Project Number:	0235-015-001	**Report Date:**	11/18/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name:	DUKE REALITY	**Lab Number:**	L1636774
Project Number:	0235-015-001	**Report Date:**	11/18/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	DUKE REALITY	**Lab Number:**	L1636774
Project Number:	0235-015-001	**Report Date:**	11/18/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 11/12/16

ALPHA Job #: L1636774

Client Information

Client: Benchmark Eng
Address: 2558 Hamburg Turnpike Lackawanna NJ
Phone: (716) 856-0635
Fax: (716) 856-0583
Email: TBarrett@Turnkeyllc.com

Project Information

Project Name: Duke Realty
Project Location: Buffalo, NY
Project #
(Use Project name as Project #) ☒
Project Manager: Tom Forbes
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

CP-51 VOC 8260

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CP-51 VOC 8260	Total Bottle
36774-01	MW-03	11/11/16	1205	Water	TAB	3	
02	MW-9R	↓	1306	↓		3	
03	Trip Blank	ZF					

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type: V
Preservative: B

Relinquished By:	Date/Time	Received By:	Date/Time
	11/11/16 1600		11-11-16 1600
	11/11/16		11/12/16 01:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX C

LABORATORY ANALYTICAL REPORT: IMPORTED TOPSOIL

MAY 2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-118401-1
Client Project/Site: Benchmark - 256 W. Genesee site

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Tom Forbes

Authorized for release by:
5/31/2017 3:56:00 PM

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
vs	Reported analyte concentrations are below 200 ug/kg and may be biased low due to the sample not being collected according to 5035A-L low-level specifications.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

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)

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

Job ID: 480-118401-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-118401-1

Comments
No additional comments.

Receipt
The sample was received on 5/23/2017 5:10 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The following sample was diluted due to appearance and viscosity: TOPSOIL COMP (480-118401-1). Elevated reporting limits (RL) are provided.

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

GC Semi VOA
Method(s) 8081B: The following sample was diluted due to the nature of the sample matrix: TOPSOIL COMP (480-118401-1). As such, surrogate recoveries are below the calibration range,estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8082A: The matrix spike duplicate (MSD) recoveries for preparation batch 480-358826 and analytical batch 480-358923 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Metals
Method(s) 6010C: The continuing calibration blank (CCB 480-359164/31) for analytical batch 480-359164 contained Total Iron above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples TOPSOIL COMP (480-118401-1), (LCSSRM 480-358953/2-), and (MB 480-358953/1-A) was not performed.

Method(s) 6010C: The Low Level Continuing Calibration Verification, (CCVL 480-359164/32) associated with batch 480-359164, contained Total Iron and Manganese above the upper quality control limit. The associated sample was either below the reporting limit (RL) for the affected analytes or contained these analytes at concentrations greater than 10X the values found in the CCVL; therefore, re-analysis of samples TOPSOIL COMP (480-118401-1), (LCSSRM 480-358953/2-) and (MB 480-358953/1-A) was not performed.

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

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

Organic Prep
Method(s) 3550C: The following sample required a Florisil clean-up, via 3620C, to reduce matrix interferences: TOPSOIL COMP (480-118401-1).

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

Client Sample ID: TOPSOIL COMP

Lab Sample ID: 480-118401-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.1	J vs	8.2	0.57	ug/Kg	1	☼	8260C	Total/NA
Toluene	1.1	J vs	8.2	0.62	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	8.1	J vs	16	1.4	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	170	J	1400	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	270	J	1400	220	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	320	J	1400	150	ug/Kg	5	☼	8270D	Total/NA
Pyrene	280	J	1400	170	ug/Kg	5	☼	8270D	Total/NA
4,4'-DDE	13	J	28	5.8	ug/Kg	10	☼	8081B	Total/NA
Aluminum	19900		15.9	7.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	2.1	J	23.8	0.63	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.9		3.2	0.63	mg/Kg	1	☼	6010C	Total/NA
Barium	96.6		0.79	0.17	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.58		0.32	0.044	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.41		0.32	0.048	mg/Kg	1	☼	6010C	Total/NA
Calcium	10800	B	79.3	5.2	mg/Kg	1	☼	6010C	Total/NA
Chromium	23.1		0.79	0.32	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.4		0.79	0.079	mg/Kg	1	☼	6010C	Total/NA
Copper	18.3		1.6	0.33	mg/Kg	1	☼	6010C	Total/NA
Iron	17300	^	15.9	5.5	mg/Kg	1	☼	6010C	Total/NA
Lead	24.7		1.6	0.38	mg/Kg	1	☼	6010C	Total/NA
Magnesium	4370		31.7	1.5	mg/Kg	1	☼	6010C	Total/NA
Manganese	207	B	0.32	0.051	mg/Kg	1	☼	6010C	Total/NA
Nickel	15.3		7.9	0.36	mg/Kg	1	☼	6010C	Total/NA
Potassium	5010		47.6	31.7	mg/Kg	1	☼	6010C	Total/NA
Selenium	1.7	J	6.3	0.63	mg/Kg	1	☼	6010C	Total/NA
Sodium	161	J	222	20.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	32.4		0.79	0.17	mg/Kg	1	☼	6010C	Total/NA
Zinc	93.9		3.2	1.0	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.075		0.033	0.013	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

Client Sample ID: TOPSOIL COMP
Date Collected: 05/22/17 14:00
Date Received: 05/23/17 17:10

Lab Sample ID: 480-118401-1
Matrix: Solid
Percent Solids: 59.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	vs	8.2	0.60	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,1,2,2-Tetrachloroethane	ND	vs	8.2	1.3	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,1,2-Trichloroethane	ND	vs	8.2	1.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	vs	8.2	1.9	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,1-Dichloroethane	ND	vs	8.2	1.0	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,1-Dichloroethene	ND	vs	8.2	1.0	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,2,4-Trichlorobenzene	ND	vs	8.2	0.50	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,2-Dibromo-3-Chloropropane	ND	vs	8.2	4.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,2-Dichlorobenzene	ND	vs	8.2	0.64	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,2-Dichloroethane	ND	vs	8.2	0.41	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,2-Dichloropropane	ND	vs	8.2	4.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,3-Dichlorobenzene	ND	vs	8.2	0.42	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,4-Dichlorobenzene	ND	vs	8.2	1.2	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
2-Butanone (MEK)	ND	vs	41	3.0	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
2-Hexanone	ND	vs	41	4.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
4-Methyl-2-pentanone (MIBK)	ND	vs	41	2.7	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Acetone	ND	vs	41	6.9	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Benzene	ND	vs	8.2	0.40	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Bromodichloromethane	ND	vs	8.2	1.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Bromoform	ND	vs	8.2	4.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Bromomethane	ND	vs	8.2	0.74	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Carbon disulfide	ND	vs	8.2	4.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Carbon tetrachloride	ND	vs	8.2	0.80	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Chlorobenzene	ND	vs	8.2	1.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Dibromochloromethane	ND	vs	8.2	1.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Chloroethane	ND	vs	8.2	1.9	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Chloroform	ND	vs	8.2	0.51	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Chloromethane	ND	vs	8.2	0.50	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
cis-1,2-Dichloroethene	ND	vs	8.2	1.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
cis-1,3-Dichloropropene	ND	vs	8.2	1.2	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Cyclohexane	ND	vs	8.2	1.2	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Dichlorodifluoromethane	ND	vs	8.2	0.68	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Ethylbenzene	**1.1**	**J vs**	8.2	0.57	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
1,2-Dibromoethane	ND	vs	8.2	1.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Isopropylbenzene	ND	vs	8.2	1.2	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Methyl acetate	ND	vs	41	5.0	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Methyl tert-butyl ether	ND	vs	8.2	0.81	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Methylcyclohexane	ND	vs	8.2	1.3	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Methylene Chloride	ND	vs	8.2	3.8	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Styrene	ND	vs	8.2	0.41	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Tetrachloroethene	ND	vs	8.2	1.1	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Toluene	**1.1**	**J vs**	8.2	0.62	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
trans-1,2-Dichloroethene	ND	vs	8.2	0.85	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
trans-1,3-Dichloropropene	ND	vs	8.2	3.6	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Trichloroethene	ND	vs	8.2	1.8	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Trichlorofluoromethane	ND	vs	8.2	0.78	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Vinyl chloride	ND	vs	8.2	1.0	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1
Xylenes, Total	**8.1**	**J vs**	16	1.4	ug/Kg	☼	05/31/17 09:26	05/31/17 13:21	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

Client Sample ID: TOPSOIL COMP
Date Collected: 05/22/17 14:00
Date Received: 05/23/17 17:10

Lab Sample ID: 480-118401-1
Matrix: Solid
Percent Solids: 59.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	114		71 - 125	05/31/17 09:26	05/31/17 13:21	1
1,2-Dichloroethane-d4 (Surr)	103		64 - 126	05/31/17 09:26	05/31/17 13:21	1
4-Bromofluorobenzene (Surr)	85		72 - 126	05/31/17 09:26	05/31/17 13:21	1
Dibromofluoromethane (Surr)	103		60 - 140	05/31/17 09:26	05/31/17 13:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		1400	210	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
bis (2-chloroisopropyl) ether	ND		1400	280	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2,4,5-Trichlorophenol	ND		1400	380	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2,4,6-Trichlorophenol	ND		1400	280	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2,4-Dichlorophenol	ND		1400	150	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2,4-Dimethylphenol	ND		1400	340	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2,4-Dinitrophenol	ND		14000	6500	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2,4-Dinitrotoluene	ND		1400	290	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2,6-Dinitrotoluene	ND		1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2-Chloronaphthalene	ND		1400	230	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2-Chlorophenol	ND		1400	260	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2-Methylnaphthalene	ND		1400	280	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2-Methylphenol	ND		1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2-Nitroaniline	ND		2700	210	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
2-Nitrophenol	ND		1400	400	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
3,3'-Dichlorobenzidine	ND		2700	1700	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
3-Nitroaniline	ND		2700	390	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
4,6-Dinitro-2-methylphenol	ND		2700	1400	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
4-Bromophenyl phenyl ether	ND		1400	200	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
4-Chloro-3-methylphenol	ND		1400	350	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
4-Chloroaniline	ND		1400	350	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
4-Chlorophenyl phenyl ether	ND		1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
4-Methylphenol	ND		2700	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
4-Nitroaniline	ND		2700	740	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
4-Nitrophenol	ND		2700	990	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Acenaphthene	ND		1400	210	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Acenaphthylene	ND		1400	180	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Acetophenone	ND		1400	190	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Anthracene	ND		1400	350	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Atrazine	ND		1400	490	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Benzaldehyde	ND		1400	1100	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Benzo[a]anthracene	**170**	**J**	1400	140	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Benzo[a]pyrene	ND		1400	210	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Benzo[b]fluoranthene	**270**	**J**	1400	220	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Benzo[g,h,i]perylene	ND		1400	150	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Benzo[k]fluoranthene	ND		1400	180	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Bis(2-chloroethoxy)methane	ND		1400	300	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Bis(2-chloroethyl)ether	ND		1400	180	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Bis(2-ethylhexyl) phthalate	ND		1400	480	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Butyl benzyl phthalate	ND		1400	230	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Caprolactam	ND		1400	420	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Carbazole	ND		1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Chrysene	ND		1400	310	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

Client Sample ID: TOPSOIL COMP
Date Collected: 05/22/17 14:00
Date Received: 05/23/17 17:10

Lab Sample ID: 480-118401-1
Matrix: Solid
Percent Solids: 59.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		1400	240	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Di-n-octyl phthalate	ND		1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Dibenz(a,h)anthracene	ND		1400	250	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Dibenzofuran	ND		1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Diethyl phthalate	ND		1400	180	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Dimethyl phthalate	ND		1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Fluoranthene	**320**	**J**	1400	150	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Fluorene	ND		1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Hexachlorobenzene	ND		1400	190	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Hexachlorobutadiene	ND		1400	210	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Hexachlorocyclopentadiene	ND		1400	190	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Hexachloroethane	ND		1400	180	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Indeno[1,2,3-cd]pyrene	ND		1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Isophorone	ND		1400	300	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
N-Nitrosodi-n-propylamine	ND		1400	240	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
N-Nitrosodiphenylamine	ND		1400	1100	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Naphthalene	ND		1400	180	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Nitrobenzene	ND		1400	160	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Pentachlorophenol	ND		2700	1400	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Phenanthrene	ND		1400	210	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Phenol	ND		1400	220	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5
Pyrene	**280**	**J**	1400	170	ug/Kg	☼	05/24/17 10:03	05/25/17 11:51	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*93*		*54 - 120*	*05/24/17 10:03*	*05/25/17 11:51*	*5*
2-Fluorobiphenyl	*81*		*60 - 120*	*05/24/17 10:03*	*05/25/17 11:51*	*5*
2-Fluorophenol	*74*		*52 - 120*	*05/24/17 10:03*	*05/25/17 11:51*	*5*
Nitrobenzene-d5	*75*		*53 - 120*	*05/24/17 10:03*	*05/25/17 11:51*	*5*
p-Terphenyl-d14	*88*		*65 - 121*	*05/24/17 10:03*	*05/25/17 11:51*	*5*
Phenol-d5	*79*		*54 - 120*	*05/24/17 10:03*	*05/25/17 11:51*	*5*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		28	5.4	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
4,4'-DDE	**13**	**J**	28	5.8	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
4,4'-DDT	ND		28	6.4	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Aldrin	ND		28	6.8	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
alpha-BHC	ND		28	5.0	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
alpha-Chlordane	ND		28	14	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
beta-BHC	ND		28	5.0	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
delta-BHC	ND		28	5.1	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Dieldrin	ND		28	6.6	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Endosulfan I	ND		28	5.3	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Endosulfan II	ND		28	5.0	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Endosulfan sulfate	ND		28	5.1	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Endrin	ND		28	5.5	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Endrin aldehyde	ND		28	7.0	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Endrin ketone	ND		28	6.8	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
gamma-BHC (Lindane)	ND		28	5.1	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
gamma-Chlordane	ND		28	8.8	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10

Client Sample ID: TOPSOIL COMP
Date Collected: 05/22/17 14:00
Date Received: 05/23/17 17:10

Lab Sample ID: 480-118401-1
Matrix: Solid
Percent Solids: 59.5

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		28	6.0	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Heptachlor epoxide	ND		28	7.1	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Methoxychlor	ND		28	5.6	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10
Toxaphene	ND		280	160	ug/Kg	☼	05/25/17 06:43	05/25/17 16:48	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*45 - 120*	*05/25/17 06:43*	*05/25/17 16:48*	*10*
Tetrachloro-m-xylene	*83*		*30 - 124*	*05/25/17 06:43*	*05/25/17 16:48*	*10*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	F2	0.29	0.056	mg/Kg	☼	05/24/17 07:54	05/24/17 15:57	1
PCB-1221	ND		0.29	0.056	mg/Kg	☼	05/24/17 07:54	05/24/17 15:57	1
PCB-1232	ND		0.29	0.056	mg/Kg	☼	05/24/17 07:54	05/24/17 15:57	1
PCB-1242	ND		0.29	0.056	mg/Kg	☼	05/24/17 07:54	05/24/17 15:57	1
PCB-1248	ND		0.29	0.056	mg/Kg	☼	05/24/17 07:54	05/24/17 15:57	1
PCB-1254	ND		0.29	0.13	mg/Kg	☼	05/24/17 07:54	05/24/17 15:57	1
PCB-1260	ND	F2	0.29	0.13	mg/Kg	☼	05/24/17 07:54	05/24/17 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*101*		*60 - 154*	*05/24/17 07:54*	*05/24/17 15:57*	*1*
DCB Decachlorobiphenyl	*89*		*65 - 174*	*05/24/17 07:54*	*05/24/17 15:57*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19900**		15.9	7.0	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Antimony	**2.1**	**J**	23.8	0.63	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Arsenic	**3.9**		3.2	0.63	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Barium	**96.6**		0.79	0.17	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Beryllium	**0.58**		0.32	0.044	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Cadmium	**0.41**		0.32	0.048	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Calcium	**10800**	**B**	79.3	5.2	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Chromium	**23.1**		0.79	0.32	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Cobalt	**5.4**		0.79	0.079	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Copper	**18.3**		1.6	0.33	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Iron	**17300**	**^**	15.9	5.5	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Lead	**24.7**		1.6	0.38	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Magnesium	**4370**		31.7	1.5	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Manganese	**207**	**B**	0.32	0.051	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Nickel	**15.3**		7.9	0.36	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Potassium	**5010**		47.6	31.7	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Selenium	**1.7**	**J**	6.3	0.63	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Silver	ND		0.95	0.32	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Sodium	**161**	**J**	222	20.6	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Thallium	ND		9.5	0.48	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Vanadium	**32.4**		0.79	0.17	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1
Zinc	**93.9**		3.2	1.0	mg/Kg	☼	05/24/17 15:56	05/25/17 12:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.075**		0.033	0.013	mg/Kg	☼	05/24/17 10:15	05/24/17 14:15	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.7	0.81	mg/Kg	☼	05/25/17 11:40	05/25/17 15:14	1

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	12DCE	BFB	DBFM
Lab Sample ID	Client Sample ID	(71-125)	(64-126)	(72-126)	(60-140)
480-118401-1	TOPSOIL COMP	114	103	85	103
LCS 480-359750/1-A	Lab Control Sample	105	104	110	108
MB 480-359750/2-A	Method Blank	102	103	105	104

Surrogate Legend

TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPH	PHL
Lab Sample ID	Client Sample ID	(54-120)	(60-120)	(52-120)	(53-120)	(65-121)	(54-120)
480-118401-1	TOPSOIL COMP	93	81	74	75	88	79
LCS 480-358878/2-A	Lab Control Sample	91	85	78	77	93	82
MB 480-358878/1-A	Method Blank	83	78	77	72	90	80

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14
PHL = Phenol-d5

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB2	TCX2
Lab Sample ID	Client Sample ID	(45-120)	(30-124)
480-118401-1	TOPSOIL COMP	98	83
LCS 480-359031/2-A	Lab Control Sample	85	59
MB 480-359031/1-A	Method Blank	81	59

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(60-154)	(65-174)
480-118401-1	TOPSOIL COMP	101	89
480-118401-1 MS	TOPSOIL COMP	143	127

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		TCX1	DCB1								
Lab Sample ID	Client Sample ID	(60-154)	(65-174)								
480-118401-1 MSD	TOPSOIL COMP	106	100								
LCS 480-358826/2-A	Lab Control Sample	147	144								
MB 480-358826/1-A	Method Blank	119	115								

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

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

Lab Sample ID: MB 480-359750/2-A
Matrix: Solid
Analysis Batch: 359727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359750

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
2-Hexanone	ND		25	2.5	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Acetone	ND		25	4.2	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Benzene	ND		5.0	0.25	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Bromoform	ND		5.0	2.5	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Bromomethane	ND		5.0	0.45	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Chloroethane	ND		5.0	1.1	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Chloroform	ND		5.0	0.31	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Chloromethane	ND		5.0	0.30	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Cyclohexane	ND		5.0	0.70	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Methyl acetate	ND		25	3.0	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Styrene	ND		5.0	0.25	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Toluene	ND		5.0	0.38	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Trichloroethene	ND		5.0	1.1	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		05/31/17 09:26	05/31/17 12:46	1
Xylenes, Total	ND		10	0.84	ug/Kg		05/31/17 09:26	05/31/17 12:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		71 - 125	05/31/17 09:26	05/31/17 12:46	1
1,2-Dichloroethane-d4 (Surr)	103		64 - 126	05/31/17 09:26	05/31/17 12:46	1
4-Bromofluorobenzene (Surr)	105		72 - 126	05/31/17 09:26	05/31/17 12:46	1
Dibromofluoromethane (Surr)	104		60 - 140	05/31/17 09:26	05/31/17 12:46	1

Lab Sample ID: LCS 480-359750/1-A
Matrix: Solid
Analysis Batch: 359727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359750

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	46.2		ug/Kg		92	77 - 121
1,1,2,2-Tetrachloroethane	50.0	48.2		ug/Kg		96	80 - 120
1,1,2-Trichloroethane	50.0	49.1		ug/Kg		98	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	42.9		ug/Kg		86	60 - 140
1,1-Dichloroethane	50.0	45.8		ug/Kg		92	73 - 126
1,1-Dichloroethene	50.0	44.5		ug/Kg		89	59 - 125
1,2,4-Trichlorobenzene	50.0	46.3		ug/Kg		93	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	52.3		ug/Kg		105	63 - 124
1,2-Dichlorobenzene	50.0	46.8		ug/Kg		94	75 - 120
1,2-Dichloroethane	50.0	46.9		ug/Kg		94	77 - 122
1,2-Dichloropropane	50.0	47.0		ug/Kg		94	75 - 124
1,3-Dichlorobenzene	50.0	45.9		ug/Kg		92	74 - 120
1,4-Dichlorobenzene	50.0	46.1		ug/Kg		92	73 - 120
2-Butanone (MEK)	250	255		ug/Kg		102	70 - 134
2-Hexanone	250	258		ug/Kg		103	59 - 130
4-Methyl-2-pentanone (MIBK)	250	256		ug/Kg		102	65 - 133
Acetone	250	248		ug/Kg		99	61 - 137
Benzene	50.0	46.2		ug/Kg		92	79 - 127
Bromodichloromethane	50.0	49.9		ug/Kg		100	80 - 122
Bromoform	50.0	53.9		ug/Kg		108	68 - 126
Bromomethane	50.0	50.9		ug/Kg		102	37 - 149
Carbon disulfide	50.0	45.0		ug/Kg		90	64 - 131
Carbon tetrachloride	50.0	49.1		ug/Kg		98	75 - 135
Chlorobenzene	50.0	48.2		ug/Kg		96	76 - 124
Dibromochloromethane	50.0	54.9		ug/Kg		110	76 - 125
Chloroethane	50.0	47.8		ug/Kg		96	69 - 135
Chloroform	50.0	45.5		ug/Kg		91	80 - 120
Chloromethane	50.0	46.3		ug/Kg		93	63 - 127
cis-1,2-Dichloroethene	50.0	47.4		ug/Kg		95	81 - 120
cis-1,3-Dichloropropene	50.0	51.8		ug/Kg		104	80 - 120
Cyclohexane	50.0	41.7		ug/Kg		83	65 - 120
Dichlorodifluoromethane	50.0	48.5		ug/Kg		97	57 - 142
Ethylbenzene	50.0	46.7		ug/Kg		93	80 - 120
1,2-Dibromoethane	50.0	50.7		ug/Kg		101	78 - 120
Isopropylbenzene	50.0	44.9		ug/Kg		90	72 - 120
Methyl acetate	250	248		ug/Kg		99	55 - 136
Methyl tert-butyl ether	50.0	51.0		ug/Kg		102	63 - 125
Methylcyclohexane	50.0	41.6		ug/Kg		83	60 - 140
Methylene Chloride	50.0	47.6		ug/Kg		95	61 - 127
Styrene	50.0	47.5		ug/Kg		95	80 - 120
Tetrachloroethene	50.0	46.8		ug/Kg		94	74 - 122
Toluene	50.0	45.8		ug/Kg		92	74 - 128
trans-1,2-Dichloroethene	50.0	45.8		ug/Kg		92	78 - 126

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

Lab Sample ID: LCS 480-359750/1-A
Matrix: Solid
Analysis Batch: 359727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359750

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	50.0	52.2		ug/Kg		104	73 - 123
Trichloroethene	50.0	45.1		ug/Kg		90	77 - 129
Trichlorofluoromethane	50.0	49.0		ug/Kg		98	65 - 146
Vinyl chloride	50.0	47.1		ug/Kg		94	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*105*		*71 - 125*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 126*
4-Bromofluorobenzene (Surr)	*110*		*72 - 126*
Dibromofluoromethane (Surr)	*108*		*60 - 140*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-358878/1-A
Matrix: Solid
Analysis Batch: 359053

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 358878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	25	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2,4-Dinitrophenol	ND		1700	780	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2-Chloronaphthalene	ND		170	28	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2-Chlorophenol	ND		170	31	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2-Methylnaphthalene	ND		170	34	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2-Methylphenol	ND		170	20	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2-Nitroaniline	ND		330	25	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
2-Nitrophenol	ND		170	48	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
3-Nitroaniline	ND		330	47	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
4-Chloroaniline	ND		170	42	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
4-Methylphenol	ND		330	20	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
4-Nitroaniline	ND		330	88	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
4-Nitrophenol	ND		330	120	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Acenaphthene	ND		170	25	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Acenaphthylene	ND		170	22	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Acetophenone	ND		170	23	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Anthracene	ND		170	42	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Atrazine	ND		170	59	ug/Kg		05/24/17 10:03	05/25/17 09:38	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-358878/1-A
Matrix: Solid
Analysis Batch: 359053

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 358878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		170	130	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Benzo[a]anthracene	ND		170	17	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Benzo[a]pyrene	ND		170	25	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Caprolactam	ND		170	51	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Carbazole	ND		170	20	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Chrysene	ND		170	38	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Dibenzofuran	ND		170	20	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Diethyl phthalate	ND		170	22	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Dimethyl phthalate	ND		170	20	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Fluoranthene	ND		170	18	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Fluorene	ND		170	20	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Hexachlorobenzene	ND		170	23	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Hexachlorobutadiene	ND		170	25	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Hexachloroethane	ND		170	22	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Isophorone	ND		170	36	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Naphthalene	ND		170	22	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Nitrobenzene	ND		170	19	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Pentachlorophenol	ND		330	170	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Phenanthrene	ND		170	25	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Phenol	ND		170	26	ug/Kg		05/24/17 10:03	05/25/17 09:38	1
Pyrene	ND		170	20	ug/Kg		05/24/17 10:03	05/25/17 09:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*54 - 120*	*05/24/17 10:03*	*05/25/17 09:38*	*1*
2-Fluorobiphenyl	*78*		*60 - 120*	*05/24/17 10:03*	*05/25/17 09:38*	*1*
2-Fluorophenol	*77*		*52 - 120*	*05/24/17 10:03*	*05/25/17 09:38*	*1*
Nitrobenzene-d5	*72*		*53 - 120*	*05/24/17 10:03*	*05/25/17 09:38*	*1*
p-Terphenyl-d14	*90*		*65 - 121*	*05/24/17 10:03*	*05/25/17 09:38*	*1*
Phenol-d5	*80*		*54 - 120*	*05/24/17 10:03*	*05/25/17 09:38*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-358878/2-A
Matrix: Solid
Analysis Batch: 359053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	1660	1450		ug/Kg		87	59 - 120
bis (2-chloroisopropyl) ether	1660	1480		ug/Kg		89	44 - 120
2,4,5-Trichlorophenol	1660	1470		ug/Kg		88	59 - 126
2,4,6-Trichlorophenol	1660	1450		ug/Kg		87	59 - 123
2,4-Dichlorophenol	1660	1430		ug/Kg		86	61 - 120
2,4-Dimethylphenol	1660	1440		ug/Kg		87	59 - 120
2,4-Dinitrophenol	3320	2820		ug/Kg		85	41 - 146
2,4-Dinitrotoluene	1660	1470		ug/Kg		88	63 - 120
2,6-Dinitrotoluene	1660	1470		ug/Kg		89	66 - 120
2-Chloronaphthalene	1660	1470		ug/Kg		88	57 - 120
2-Chlorophenol	1660	1320		ug/Kg		79	53 - 120
2-Methylnaphthalene	1660	1420		ug/Kg		86	59 - 120
2-Methylphenol	1660	1370		ug/Kg		82	54 - 120
2-Nitroaniline	1660	1490		ug/Kg		90	61 - 120
2-Nitrophenol	1660	1340		ug/Kg		81	56 - 120
3,3'-Dichlorobenzidine	3320	2770		ug/Kg		83	54 - 120
3-Nitroaniline	1660	1280		ug/Kg		77	48 - 120
4,6-Dinitro-2-methylphenol	3320	2760		ug/Kg		83	49 - 122
4-Bromophenyl phenyl ether	1660	1500		ug/Kg		90	58 - 120
4-Chloro-3-methylphenol	1660	1410		ug/Kg		85	61 - 120
4-Chloroaniline	1660	1180		ug/Kg		71	38 - 120
4-Chlorophenyl phenyl ether	1660	1510		ug/Kg		91	63 - 124
4-Methylphenol	1660	1410		ug/Kg		85	55 - 120
4-Nitroaniline	1660	1410		ug/Kg		85	56 - 120
4-Nitrophenol	3320	2950		ug/Kg		89	43 - 147
Acenaphthene	1660	1520		ug/Kg		92	62 - 120
Acenaphthylene	1660	1490		ug/Kg		90	58 - 121
Acetophenone	1660	1320		ug/Kg		79	54 - 120
Anthracene	1660	1580		ug/Kg		95	62 - 120
Atrazine	3320	3040		ug/Kg		92	60 - 127
Benzaldehyde	3320	2780		ug/Kg		84	10 - 150
Benzo[a]anthracene	1660	1580		ug/Kg		95	65 - 120
Benzo[a]pyrene	1660	1610		ug/Kg		97	64 - 120
Benzo[b]fluoranthene	1660	1650		ug/Kg		99	64 - 120
Benzo[g,h,i]perylene	1660	1470		ug/Kg		89	45 - 145
Benzo[k]fluoranthene	1660	1630		ug/Kg		98	65 - 120
Bis(2-chloroethoxy)methane	1660	1400		ug/Kg		85	55 - 120
Bis(2-chloroethyl)ether	1660	1270		ug/Kg		77	45 - 120
Bis(2-ethylhexyl) phthalate	1660	1580		ug/Kg		95	61 - 133
Butyl benzyl phthalate	1660	1600		ug/Kg		96	61 - 129
Caprolactam	3320	2870		ug/Kg		86	47 - 120
Carbazole	1660	1580		ug/Kg		95	65 - 120
Chrysene	1660	1590		ug/Kg		95	64 - 120
Di-n-butyl phthalate	1660	1580		ug/Kg		95	58 - 130
Di-n-octyl phthalate	1660	1540		ug/Kg		93	57 - 133
Dibenz(a,h)anthracene	1660	1510		ug/Kg		91	54 - 132
Dibenzofuran	1660	1490		ug/Kg		90	63 - 120
Diethyl phthalate	1660	1510		ug/Kg		91	66 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-358878/2-A
Matrix: Solid
Analysis Batch: 359053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	1660	1530		ug/Kg		92	65 - 124
Fluoranthene	1660	1530		ug/Kg		92	62 - 120
Fluorene	1660	1510		ug/Kg		91	63 - 120
Hexachlorobenzene	1660	1590		ug/Kg		96	60 - 120
Hexachlorobutadiene	1660	1290		ug/Kg		77	45 - 120
Hexachlorocyclopentadiene	1660	1410		ug/Kg		85	47 - 120
Hexachloroethane	1660	1200		ug/Kg		72	41 - 120
Indeno[1,2,3-cd]pyrene	1660	1530		ug/Kg		92	56 - 134
Isophorone	1660	1440		ug/Kg		86	56 - 120
N-Nitrosodi-n-propylamine	1660	1360		ug/Kg		82	52 - 120
Naphthalene	1660	1320		ug/Kg		80	55 - 120
Nitrobenzene	1660	1330		ug/Kg		80	54 - 120
Pentachlorophenol	3320	2860		ug/Kg		86	51 - 120
Phenanthrene	1660	1600		ug/Kg		97	60 - 120
Phenol	1660	1340		ug/Kg		81	53 - 120
Pyrene	1660	1630		ug/Kg		98	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*91*		*54 - 120*
2-Fluorobiphenyl	*85*		*60 - 120*
2-Fluorophenol	*78*		*52 - 120*
Nitrobenzene-d5	*77*		*53 - 120*
p-Terphenyl-d14	*93*		*65 - 121*
Phenol-d5	*82*		*54 - 120*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-359031/1-A
Matrix: Solid
Analysis Batch: 359070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359031

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.6	0.32	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
4,4'-DDE	ND		1.6	0.34	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
4,4'-DDT	ND		1.6	0.38	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Aldrin	ND		1.6	0.40	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
alpha-BHC	ND		1.6	0.29	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
alpha-Chlordane	ND		1.6	0.81	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
beta-BHC	ND		1.6	0.29	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
delta-BHC	ND		1.6	0.30	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Dieldrin	ND		1.6	0.39	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Endosulfan I	ND		1.6	0.31	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Endosulfan II	ND		1.6	0.29	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Endosulfan sulfate	ND		1.6	0.30	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Endrin	ND		1.6	0.32	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Endrin aldehyde	ND		1.6	0.42	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Endrin ketone	ND		1.6	0.40	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
gamma-BHC (Lindane)	ND		1.6	0.30	ug/Kg		05/25/17 06:43	05/25/17 15:10	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-359031/1-A
Matrix: Solid
Analysis Batch: 359070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359031

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-Chlordane	ND		1.6	0.52	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Heptachlor	ND		1.6	0.35	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Heptachlor epoxide	ND		1.6	0.42	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Methoxychlor	ND		1.6	0.33	ug/Kg		05/25/17 06:43	05/25/17 15:10	1
Toxaphene	ND		16	9.5	ug/Kg		05/25/17 06:43	05/25/17 15:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*45 - 120*	*05/25/17 06:43*	*05/25/17 15:10*	*1*
Tetrachloro-m-xylene	*59*		*30 - 124*	*05/25/17 06:43*	*05/25/17 15:10*	*1*

Lab Sample ID: LCS 480-359031/2-A
Matrix: Solid
Analysis Batch: 359070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.4	12.9		ug/Kg		79	56 - 120
4,4'-DDE	16.4	11.7		ug/Kg		71	44 - 120
4,4'-DDT	16.4	12.5		ug/Kg		76	38 - 120
Aldrin	16.4	8.36		ug/Kg		51	38 - 120
alpha-BHC	16.4	9.89		ug/Kg		60	39 - 120
alpha-Chlordane	16.4	11.1		ug/Kg		68	47 - 120
beta-BHC	16.4	10.5		ug/Kg		64	40 - 120
delta-BHC	16.4	11.4		ug/Kg		69	45 - 120
Dieldrin	16.4	12.1		ug/Kg		74	58 - 120
Endosulfan I	16.4	10.6		ug/Kg		65	49 - 120
Endosulfan II	16.4	11.7		ug/Kg		71	55 - 120
Endosulfan sulfate	16.4	12.8		ug/Kg		78	49 - 124
Endrin	16.4	12.4		ug/Kg		76	58 - 120
Endrin aldehyde	16.4	12.0		ug/Kg		73	37 - 121
Endrin ketone	16.4	12.1		ug/Kg		73	46 - 123
gamma-BHC (Lindane)	16.4	10.7		ug/Kg		65	50 - 120
gamma-Chlordane	16.4	11.1		ug/Kg		68	48 - 120
Heptachlor	16.4	11.5		ug/Kg		70	50 - 120
Heptachlor epoxide	16.4	11.8		ug/Kg		72	50 - 120
Methoxychlor	16.4	13.9		ug/Kg		85	58 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*85*		*45 - 120*
Tetrachloro-m-xylene	*59*		*30 - 124*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-358826/1-A
Matrix: Solid
Analysis Batch: 358923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 358826

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.047	mg/Kg		05/24/17 07:54	05/24/17 14:54	1
PCB-1221	ND		0.24	0.047	mg/Kg		05/24/17 07:54	05/24/17 14:54	1
PCB-1232	ND		0.24	0.047	mg/Kg		05/24/17 07:54	05/24/17 14:54	1
PCB-1242	ND		0.24	0.047	mg/Kg		05/24/17 07:54	05/24/17 14:54	1
PCB-1248	ND		0.24	0.047	mg/Kg		05/24/17 07:54	05/24/17 14:54	1
PCB-1254	ND		0.24	0.11	mg/Kg		05/24/17 07:54	05/24/17 14:54	1
PCB-1260	ND		0.24	0.11	mg/Kg		05/24/17 07:54	05/24/17 14:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*119*		*60 - 154*	*05/24/17 07:54*	*05/24/17 14:54*	*1*
DCB Decachlorobiphenyl	*115*		*65 - 174*	*05/24/17 07:54*	*05/24/17 14:54*	*1*

Lab Sample ID: LCS 480-358826/2-A
Matrix: Solid
Analysis Batch: 358923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358826

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	2.40	3.45		mg/Kg		143	51 - 185
PCB-1260	2.40	3.20		mg/Kg		133	61 - 184

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*147*		*60 - 154*
DCB Decachlorobiphenyl	*144*		*65 - 174*

Lab Sample ID: 480-118401-1 MS
Matrix: Solid
Analysis Batch: 358923

Client Sample ID: TOPSOIL COMP
Prep Type: Total/NA
Prep Batch: 358826

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND	F2	3.80	4.12		mg/Kg	☼	108	50 - 177
PCB-1260	ND	F2	3.80	3.32		mg/Kg	☼	87	33 - 200

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*143*		*60 - 154*
DCB Decachlorobiphenyl	*127*		*65 - 174*

Lab Sample ID: 480-118401-1 MSD
Matrix: Solid
Analysis Batch: 358923

Client Sample ID: TOPSOIL COMP
Prep Type: Total/NA
Prep Batch: 358826

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND	F2	3.20	2.10	F2	mg/Kg	☼	66	50 - 177	65	50
PCB-1260	ND	F2	3.20	1.74	F2	mg/Kg	☼	54	33 - 200	63	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*106*		*60 - 154*
DCB Decachlorobiphenyl	*100*		*65 - 174*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-358953/1-A
Matrix: Solid
Analysis Batch: 359164

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 358953

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10	4.4	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Antimony	ND		14.9	0.40	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Arsenic	ND		2.0	0.40	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Barium	ND		0.50	0.11	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Beryllium	ND		0.20	0.028	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Cadmium	ND		0.20	0.030	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Calcium	3.95	J	49.8	3.3	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Chromium	ND		0.50	0.20	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Cobalt	ND		0.50	0.050	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Copper	ND		1.0	0.21	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Iron	ND	^	10	3.5	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Lead	ND		1.0	0.24	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Magnesium	ND		19.9	0.92	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Manganese	0.0547	J ^	0.20	0.032	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Nickel	ND		5.0	0.23	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Potassium	ND		29.9	19.9	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Selenium	ND		4.0	0.40	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Silver	ND		0.60	0.20	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Sodium	ND		139	12.9	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Thallium	ND		6.0	0.30	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Vanadium	ND		0.50	0.11	mg/Kg		05/24/17 15:56	05/25/17 11:14	1
Zinc	ND		2.0	0.64	mg/Kg		05/24/17 15:56	05/25/17 11:14	1

Lab Sample ID: LCSSRM 480-358953/2-A
Matrix: Solid
Analysis Batch: 359164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358953

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8080	8936		mg/Kg		110.6	39.6 - 160.9
Antimony	123	77.79		mg/Kg		63.2	19.9 - 252.0
Arsenic	145	121.1		mg/Kg		83.5	70.3 - 136.6
Barium	209	173.8		mg/Kg		83.2	73.7 - 126.8
Beryllium	97.3	81.24		mg/Kg		83.5	74.5 - 125.4
Cadmium	87.6	68.72		mg/Kg		78.4	73.3 - 126.7
Calcium	5690	4752		mg/Kg		83.5	73.5 - 126.5
Chromium	143	118.3		mg/Kg		82.7	69.9 - 129.4
Cobalt	154	145.6		mg/Kg		94.5	74.0 - 125.3
Copper	173	143.2		mg/Kg		82.8	75.1 - 124.3
Iron	15000	15300	^	mg/Kg		102.0	37.1 - 163.3

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-358953/2-A
Matrix: Solid
Analysis Batch: 359164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358953

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	146	137.2		mg/Kg		94.0	73.3 - 126.7
Magnesium	2640	2326		mg/Kg		88.1	64.4 - 136.0
Manganese	309	260.1	^	mg/Kg		84.2	74.8 - 125.2
Nickel	129	122.3		mg/Kg		94.8	73.0 - 127.1
Potassium	2400	2420		mg/Kg		100.8	60.4 - 140.0
Selenium	178	145.0		mg/Kg		81.5	68.0 - 131.5
Silver	31.3	24.74		mg/Kg		79.0	65.2 - 134.5
Sodium	869	716.4		mg/Kg		82.4	58.6 - 141.5
Thallium	141	135.1		mg/Kg		95.8	68.4 - 121.3
Vanadium	115	102.1		mg/Kg		88.8	67.5 - 122.6
Zinc	194	156.3		mg/Kg		80.6	69.6 - 118.0

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-358875/1-A
Matrix: Solid
Analysis Batch: 358977

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 358875

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0080	mg/Kg		05/24/17 10:15	05/24/17 14:12	1

Lab Sample ID: LCSSRM 480-358875/2-A ^10
Matrix: Solid
Analysis Batch: 358977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358875

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.6	14.15		mg/Kg		112.3	44.4 - 128.6

Lab Sample ID: 480-118401-1 MS
Matrix: Solid
Analysis Batch: 358977

Client Sample ID: TOPSOIL COMP
Prep Type: Total/NA
Prep Batch: 358875

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.075		0.519	0.580		mg/Kg	☼	97	80 - 120

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 480-118401-1 MSD
Matrix: Solid
Analysis Batch: 358977

Client Sample ID: TOPSOIL COMP
Prep Type: Total/NA
Prep Batch: 358875

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.075		0.567	0.674		mg/Kg	☼	106	80 - 120	15	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-359150/1-A
Matrix: Solid
Analysis Batch: 359205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.95	0.46	mg/Kg		05/25/17 11:40	05/25/17 15:06	1

Lab Sample ID: LCSSRM 480-359150/2-A
Matrix: Solid
Analysis Batch: 359205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359150

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	39.6	47.86		mg/Kg		120.9	33.3 - 195.2

GC/MS VOA

Analysis Batch: 359727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	8260C	359750
MB 480-359750/2-A	Method Blank	Total/NA	Solid	8260C	359750
LCS 480-359750/1-A	Lab Control Sample	Total/NA	Solid	8260C	359750

Prep Batch: 359750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	5035A_L	
MB 480-359750/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-359750/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

GC/MS Semi VOA

Prep Batch: 358878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	3550C	
MB 480-358878/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-358878/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 359053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	8270D	358878
MB 480-358878/1-A	Method Blank	Total/NA	Solid	8270D	358878
LCS 480-358878/2-A	Lab Control Sample	Total/NA	Solid	8270D	358878

GC Semi VOA

Prep Batch: 358826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	3550C	
MB 480-358826/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-358826/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-118401-1 MS	TOPSOIL COMP	Total/NA	Solid	3550C	
480-118401-1 MSD	TOPSOIL COMP	Total/NA	Solid	3550C	

Analysis Batch: 358923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	8082A	358826
MB 480-358826/1-A	Method Blank	Total/NA	Solid	8082A	358826
LCS 480-358826/2-A	Lab Control Sample	Total/NA	Solid	8082A	358826
480-118401-1 MS	TOPSOIL COMP	Total/NA	Solid	8082A	358826
480-118401-1 MSD	TOPSOIL COMP	Total/NA	Solid	8082A	358826

Prep Batch: 359031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	3550C	
MB 480-359031/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-359031/2-A	Lab Control Sample	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Analysis Batch: 359070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	8081B	359031
MB 480-359031/1-A	Method Blank	Total/NA	Solid	8081B	359031
LCS 480-359031/2-A	Lab Control Sample	Total/NA	Solid	8081B	359031

Metals

Prep Batch: 358875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	7471B	
MB 480-358875/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-358875/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	
480-118401-1 MS	TOPSOIL COMP	Total/NA	Solid	7471B	
480-118401-1 MSD	TOPSOIL COMP	Total/NA	Solid	7471B	

Prep Batch: 358953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	3050B	
MB 480-358953/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-358953/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 358977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	7471B	358875
MB 480-358875/1-A	Method Blank	Total/NA	Solid	7471B	358875
LCSSRM 480-358875/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	358875
480-118401-1 MS	TOPSOIL COMP	Total/NA	Solid	7471B	358875
480-118401-1 MSD	TOPSOIL COMP	Total/NA	Solid	7471B	358875

Analysis Batch: 359164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	6010C	358953
MB 480-358953/1-A	Method Blank	Total/NA	Solid	6010C	358953
LCSSRM 480-358953/2-A	Lab Control Sample	Total/NA	Solid	6010C	358953

General Chemistry

Analysis Batch: 358989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	Moisture	

Prep Batch: 359150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	9012B	
MB 480-359150/1-A	Method Blank	Total/NA	Solid	9012B	
LCSSRM 480-359150/2-A	Lab Control Sample	Total/NA	Solid	9012B	

Analysis Batch: 359205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-118401-1	TOPSOIL COMP	Total/NA	Solid	9012B	359150
MB 480-359150/1-A	Method Blank	Total/NA	Solid	9012B	359150

General Chemistry (Continued)

Analysis Batch: 359205 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 480-359150/2-A	Lab Control Sample	Total/NA	Solid	9012B	359150

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

Client Sample ID: TOPSOIL COMP

Lab Sample ID: 480-118401-1

Date Collected: 05/22/17 14:00

Matrix: Solid

Date Received: 05/23/17 17:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	358989	05/24/17 15:58	CMK	TAL BUF

Client Sample ID: TOPSOIL COMP

Lab Sample ID: 480-118401-1

Date Collected: 05/22/17 14:00

Matrix: Solid

Date Received: 05/23/17 17:10

Percent Solids: 59.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			359750	05/31/17 09:26	JAS	TAL BUF
Total/NA	Analysis	8260C		1	359727	05/31/17 13:21	JAS	TAL BUF
Total/NA	Prep	3550C			358878	05/24/17 10:03	RJS	TAL BUF
Total/NA	Analysis	8270D		5	359053	05/25/17 11:51	LMW	TAL BUF
Total/NA	Prep	3550C			359031	05/25/17 06:43	RJS	TAL BUF
Total/NA	Analysis	8081B		10	359070	05/25/17 16:48	MAN	TAL BUF
Total/NA	Prep	3550C			358826	05/24/17 07:54	NMC	TAL BUF
Total/NA	Analysis	8082A		1	358923	05/24/17 15:57	JMO	TAL BUF
Total/NA	Prep	3050B			358953	05/24/17 15:56	MJW	TAL BUF
Total/NA	Analysis	6010C		1	359164	05/25/17 12:54	AMH	TAL BUF
Total/NA	Prep	7471B			358875	05/24/17 10:15	JRK	TAL BUF
Total/NA	Analysis	7471B		1	358977	05/24/17 14:15	JRK	TAL BUF
Total/NA	Prep	9012B			359150	05/25/17 11:40	LAW	TAL BUF
Total/NA	Analysis	9012B		1	359205	05/25/17 15:14	KRT	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
TestAmerica Job ID: 480-118401-1
Project/Site: Benchmark - 256 W. Genesee site

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 256 W. Genesee site

TestAmerica Job ID: 480-118401-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-118401-1	TOPSOIL COMP	Solid	05/22/17 14:00	05/23/17 17:10

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Benchmark Environmental	Tom Forbes	5-22-17	190681
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page _____ of _____**
2558 Hamburg Tpk	716-856-0599		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Buffalo / NY / 14218	T. Forbes	B. Fischer	
Project Name and Location (State)	**Carrier/Waybill Number**		
257 W. Genesee			
Contract/Purchase Order/Quote No.			
B0235-017-001			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TCL Organics	TAL Metals	Cyanide	Special Instructions / Conditions of Receipt
Topsoil Comp	5-22-17	14:00				X	X						X	X	X	

480-118401 COC

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

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

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

QC Requirements (Specify)
N/A Internal Lab QC only

	Relinquished By	Date	Time	Received By	Date	Time
1.	[signature]	5-22-17	3:00 pm	[signature]	5-23-17	1130
2.	[signature]	5-23-17	1710	[signature]	5/23/17	1710
3.						

Comments

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

#1 2.4°C

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-118401-1

Login Number: 118401

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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	bmtk
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

APPENDIX D

INSTITUTIONAL & ENGINEERING CONTROL (IC/EC) CERTIFICATION FORMS

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. **C915194**

Site Name Former Buffalo Service Station

Site Address: 249 West Genesee Street Zip Code: 14202
City/Town: Buffalo
County: Erie
Site Acreage: 4.9

Reporting Period: June 15, 2016 to June 15, 2017

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

Box 2

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

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

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?	☐	☒

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

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

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. C915194 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
110.60-2-2.1	257 W. Genesee, LLC	Ground Water Use Restriction Soil Management Plan O&M Plan Landuse Restriction Site Management Plan

i) Use of groundwater for potable and non-potable purposes is prohibited.
ii) Implementation of Operation, Monitoring, and Maintenance Plan and Soil/Fill Management Plan.
iii) unrestricted or residential use is prohibited.

Box 4

Description of Engineering Controls

None Required

Not Applicable/No EC's

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. C915194

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 Shirley Hawley at 2325 E. Camelback Rd. #1100 Phoenix AZ 85016
print name print business address

am certifying as Authorized Officer (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

6-15-17
Date

Authorized Agent of Cole Reit Advisors III LLC Manager Cole HN Buffalo NY, LLC Sole Member of 257 W. Genesee, LLC

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 Thomas H. Forbes, P.E. at Benchmark Environmental Engineering & Science 2558 Hamburg Tpk, Buffalo NY 14218
print name print business address

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

STATE OF NEW YORK THOMAS H. FORBES No. 070960-1 LICENSED PROFESSIONAL ENGINEER

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

Stamp (Required for PE)

6-14-17
Date

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. **C915195**

Site Name Buffalo Urban Renewal Agency West Property

Site Address: 257 West Genesee Street Zip Code: 14202
City/Town: Buffalo
County: Erie
Site Acreage: 1.7

Reporting Period: June 15, 2016 to June 15, 2017

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

Box 2

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

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

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

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. C915195 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
110.60-2-2.1	257 W. Genesee, LLC	Ground Water Use Restriction Site Management Plan O&M Plan Landuse Restriction Soil Management Plan

i)Use of groundwater for potable and non-potable purposes is prohibited.
ii)Implementation of Operation, Monitoring, and Maintenance Plan and Soil/Fill Management Plan.
iii) Property shall remain as commercial/industrial use only

Box 4

Description of Engineering Controls

None Required

Not Applicable/No EC's

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. C915195

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 Shirley Hawley at 2325 E Camelback Rd #1100 Phoenix, AZ 85016
print name print business address

am certifying as Authorized Officer (Owner or Remedial Party)

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

Shirley Hawley 4-15-17
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification Date

Authorized Agent of Cole REIT Advisors III LLC Manager Cole HN Buffalo NY, LLC Sole Member of 257 W. Genesee, LLC

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 Thomas H. Forbes, P.E. at Benchmark Environmental Engineering & Science, 2558 Hamburg TPK, Buffalo NY 14218
print name print business address

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

STATE OF NEW YORK THOMAS H. FORBES No. 70950-1 LICENSED PROFESSIONAL ENGINEER

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

Stamp (Required for PE)

6-14-17
Date

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. **C915203**

Site Name 4 New Seventh Street Site

Site Address: 4 New Seventh Street Site Zip Code: 14202
City/Town: Buffalo
County: Erie
Site Acreage: 1.7

Reporting Period: June 15, 2016 to June 15, 2017

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

Box 2

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

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

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?	☐	☒

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

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

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. C915203

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
110.60-2-2.1	257 W. Genesee, LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan

i) Operation, Monitoring, and Maintenance Plan and Soil/Fill Management Plan
ii) Use of groundwater for potable and non-potable purposes is prohibited.
iii) unrestricted or residential use is prohibited.

Box 4

Description of Engineering Controls

None Required

Not Applicable/No EC's

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. C915203

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 Shirley Hawley (print name) at 2325 E Camelback Rd #1100 Phoenix AZ 85016 (print business address)

am certifying as Authorized Officer (Owner or Remedial Party)

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

Shirley Hawley — Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

6-15-17 — Date

Authorized Agent of Cole REIT Advisors III LLC Manager Cole HN Buffalo NY, LLC Sole Member of 257 W. Genesee, LLC

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 Thomas H. Forbes, P.E. at Benchmark Environmental Engineering & Science, 2558 Hamburg Turk, Buffalo, NY 14218
print name print business address

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

STATE OF NEW YORK
THOMAS H. FORBES
LICENSED PROFESSIONAL ENGINEER
NO. 70950-1

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

6-14-17
Date

Stamp (Required for PE)

APPENDIX E

SITE PHOTO LOG

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
257 W. Genesee, LLC	257 W Genesee Street, LLC Site Buffalo, NY	

Photo No.	Date
1	05/22/17

Direction Photo Taken:
South

Description:
Visitor Surface Lot (looking South)

Photo No.	Date
2	05/22/17

Direction Photo Taken:
West

Description:
East Side of Parking Garage

Prepared By: THF

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
257 W. Genesee, LLC	257 W Genesee Street, LLC Site Buffalo, NY	

Photo No.	Date
3	05/22/17

Direction Photo Taken:
North

Description:
Visitor Parking Area (looking North)

Photo No.	Date
4	05/22/17

Direction Photo Taken:
Southwest

Description:
Northern Property Boundary (looking Southwest from Court Street)

Prepared By: THF

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
257 W. Genesee, LLC	257 W Genesee Street, LLC Site Buffalo, NY	

Photo No.	Date
5	05/22/17

Direction Photo Taken:
West

Description:
Drive between Garage and Building Complex, Looking West

Photo No.	Date
6	05/22/17

Direction Photo Taken:
South

Description:
Berm area on 4th Street; looking south

Prepared By: THF

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
257 W. Genesee, LLC	257 W Genesee Street, LLC Site Buffalo, NY	

Photo No.	Date
7	05/22/17

Direction Photo Taken:
East

Description:
Site Conditions- Building façade looking east along W. Genesee St

Photo No.	Date
8	05/22/17

Direction Photo Taken:
East

Description:
Entrance Drive from Fourth Street

Prepared By: THF

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
257 W. Genesee, LLC	257 W Genesee Street, LLC Site Buffalo, NY	

Photo No.	Date
9	05/22/17

Direction Photo Taken:
North-Northeast

Description:
Site Conditions - Detention Pond Area Looking N-NE (Note Areas of Replaced Topsoil)

Photo No.	Date
10	05/22/17

Direction Photo Taken:
South

Description:
Site Conditions - Courtyard area on New 7th Street Looking South

Prepared By: THF