Appendix D12

Environmental Subsurface Materials Investigation and Analytical Letter Report

Watts Architects &Engineers
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Environmental Subsurface Materials Investigation and Analytical Letter Report

To: Steve Gauthier, PE
Senior Structural Engineer
LaBella Associates
300 State Street – Suite 201
Rochester, New York 14614

From: Matthew E. Holquist, CHMM

Date: December 1, 2023

Subject: PIN 5512.52 Kensington Expressway
Watts Project # 20220255
Environmental Subsurface Materials Investigation and Analytical Letter Report

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Watts Architects & Engineers (Watts) is part of the Engineering Design team along with LaBella Associates (LaBella), the Prime Design Engineers for the New York State Department of Transportation (NYSDOT) Kensington Expressway (Rt. 33) Project (NYSDOT PIN 5512.52, D038277) within the City of Buffalo, Erie County, New York. Watts and MJW Companies (MJW) accompanied LaBella and CME Associates (CME) during the geotechnical drilling program to conduct an environmental subsurface investigation at select boring locations along the Route 33 roadway. Labella retained C.P. Ward to conduct the Work Zone Traffic Control (WZTC) during the geotechnical drilling program.

All exploratory borings conducted in support of the environmental investigation were completed by drilling through the Kensington pavement surface. Watts and MJW screened the returned upper 10 feet of the subsurface materials at each location (unless bedrock refusal was encountered) to identify concerns within the subsurface materials that could affect their handling, transportation, and disposal. Watts examined each location for petroleum contamination, evidence of fill, discoloration, odors, and the presence of slag. MJW examined each location for the presence of slag and associated elevated gamma readings indicative of potential radioactivity.

While the overall geotechnical drilling program involved a large number of drilling locations along the Route 33 roadway and the adjacent surface street areas, the environmental subsurface investigation was initially only inclusive of five (5) geotechnical boring locations. The five locations screened for environmental concerns and subsequently sampled included (from north to south along Route 33) FH-X-34e, FH-X-32e, FH-X-27e, FH-X-23e, and FH-X-07e. It was subsequently requested that Watts and MJW screen one additional location, FH-X-36, which was located west of the Route 33 Kensington Expressway roadway, along Riley Street. No evidence of contamination, slag, or radioactivity were observed at this additional location, thus no samples were collected, and no further actions were warranted.

MJW's scope of work included screening the returned materials for radioactivity when compared to background levels and the collection of bulk samples for analysis to determine if any of the slag materials present would be considered Technologically Enhanced Naturally Occurring Radioactive Material (TENORM). TENORM requires special disposal considerations when identified in New York State. MJW's interpretation associated with the analyzed samples can be found in a separate report.

Watts' scope of work included screening the returned soils for volatile organic compound vapors (VOCs) with a photoionization detector (PID) and assessing evidence of contamination based upon the PID readings or supported

by visual and olfactory observations. Watts collected samples of the subsurface materials and submitted the samples to a laboratory for analysis and comparison to United States Environmental Protection Agency (USEPA) Resource Conservation and Recovery Act (RCRA) regulatory criteria for disposal purposes. Details regarding observations and the analytical results are discussed below. The analytical results are also summarized in **Table 1 - Analytical Detections and Comparison to RCRA Criteria of the Expressway Roadway Subsurface Materials**, which is attached to this letter report.

In general, the following observations, interval sampled, and analytical results were noted for each of the five (5) boring locations that were part of the original work plan:

FH-X-34e
Road materials (asphalt and concrete) were approximately 1.1' thick. Roadway sub-base materials that included engineered gravel fill and/or blast rock from the original Kensington Expressway construction with mixed Silt and Sand fines were observed down to a depth of approximately 5.3' below ground surface. A few trace pieces of asphalt and slag were observed within the roadway sub-base layer. Bedrock was encountered at approximately 5.3' below ground surface. Sample 20220255-FH-X-34e was composited from 1.0' to 5.5' below ground surface (bgs) with the VOC portion collected from the bottom of the interval. Based upon the analytical results, the subsurface material associated with this sample would not be considered hazardous waste when disposed of.

FH-X-32e
Road materials (asphalt and concrete) were approximately 1.1' thick. Roadway sub-base materials that included engineered gravel fill and/or blast rock from the original Kensington Expressway construction with mixed Silt and Sand fines were observed down to a depth of approximately 2.9' below ground surface. No foreign fill materials were observed within the roadway sub-base layer. Bedrock was encountered at approximately 2.9' below ground surface. Sample 20220255-FH-X-32e was composited from 1.1' to 2.9' bgs with the VOC portion collected from the bottom of the interval. Based upon the analytical results, the subsurface material associated with this sample would not be considered hazardous waste when disposed of.

FH-X-27e
Road materials (asphalt and concrete) were approximately 1.1' thick. Roadway sub-base materials that included engineered gravel fill and/or blast rock from the original Kensington Expressway construction with mixed Silt and Sand fines were observed down to a depth of approximately 5.5' below ground surface. A few trace pieces of slag were observed within the roadway sub-base layer. Bedrock was encountered at approximately 6.2' below ground surface. Due to a large piece of gravel retrieved at the bottom of the split spoon sampler, the materials between 5.5' and 6.2' below ground surface could not be recovered for observation, however, all materials that were brought up during auguring were consistent with those materials observed from the boring above. Sample 20220255-FH-X-27e was composited from 1.1' to 5.5' bgs with the VOC portion collected from the bottom of the interval. Based upon the analytical results, the subsurface material associated with this sample would not be considered hazardous waste when disposed of.

FH-X-23e
Road materials (asphalt and concrete) were approximately 1.2' thick. Roadway sub-base materials that included engineered gravel fill and/or blast rock from the original Kensington Expressway construction with mixed Silt and Sand fines were observed down to a depth of approximately 4.5' below ground surface. No foreign fill materials were observed within the roadway sub-base layer. Native glacial till consisting of silty Clay with gravel was observed between 4.5' and 6.0' below ground surface. Bedrock was encountered at approximately 6.0' below ground surface. Sample 20220255-FH-X-23e was composited from 1.8' to 5.0' bgs with the VOC portion collected from the bottom of the interval. Based upon the analytical results, the subsurface material associated with this sample would not be considered hazardous waste when disposed of.

FH-X-07e
Road materials (asphalt and concrete) were approximately 1.1' thick. Approximately 0.9' of brown Sand roadway sub-base was observed directly beneath the roadway materials. A 0.4' thick layer of fine Sand, gravel, and slag fill was observed beneath that. From approximately 2.4' to 9.1' below ground surface, native glacial till materials were layered. Some of the native glacial till materials were potentially reworked, however no evidence of contamination was observed. A confining layer of glacial silty Clay was observed at the bottom of the boring between 8.0' and 9.1' below ground surface. Sample 20220255-FH-X-07e was composited from 1.1' to 8.0' bgs with the VOC portion collected from the bottom of the interval. Based upon the analytical results, the subsurface material associated with this sample would not be considered hazardous waste when disposed of.

There were no identified concerns or observations of elevated volatile vapor readings, obvious odors, signs of contamination, or widespread slag deposits during this limited investigation of the materials that were returned to the surface for characterization. See the **Photos Pages** attached to this letter report which includes photos taken by Watts during the subsurface sampling event. Refer to the **Field Boring Logs and Field Notes** for additional boring information and the complete **Alpha Analytical Laboratory Report** that is also attached to this letter report.

Sincerely,

WATTS ARCHITECTS & ENGINEERS, D.P.C.

Matthew E. Holquist, CHMM
Associate, Sr. Environmental Consultant

Attachments:

- Table 1 - Analytical Detections and Comparison to RCRA Criteria of the Expressway Roadway Subsurface Materials
- Photo Pages
- Field Boring Logs and Field Notes
- Complete Laboratory Analytical Report

Table 1 - Analytical Detections and Comparison to RCRA Criteria of the Expressway Roadway Subsurface Materials
Kensington Expressway (Rt. 33) Project (NYSDOT PIN 5512.52, D038277)
City of Buffalo, Erie County, New York

Sample ID		20220255-FH-X-27e		20220255-FH-X-23e		20220255-FH-X-32e		20220255-FH-X-34e		20220255-FH-X-07e		Units	Resource Conservation Recovery Act (RCRA) Toxicity Characteristic Leachate Procedure (TCLP) Hazardous Waste Criteria
Lab Sample ID		L2351522-01		L2351914-01		L2352639-01		L2352639-02		L2353274-01			
Sample Location		FH-X-27		FH-X-23		FH-X-32		FH-X-34		FH-X-07			
Sample Depth:		1.1' - 5.5'		1.8' - 5.0'		1.1' - 2.9'		1.0' - 5.5'		1.1' - 8.0'			
Sample Date:		9/6/2023		9/7/2023		9/11/2023		9/11/2023		9/13/2023			Regulatory Level (mg/L)
Analyte	CAS Number	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual		
Volatiles (parts per million)													
None Detected													
Semivolatiles (parts per million)													
None Detected													
Pesticides (parts per million)													
None Detected													
Chlorinated Herbicides													
None Detected													
Metals (parts per million)													
Arsenic, Total	7440-38-2	-		0.0346	J	-		-		-		mg/L	5
Barium, Total	7440-39-3	0.435	J	0.753		0.285	J	0.328	J	0.715		mg/L	100
Cadmium, Total	7440-43-9	-		-		-		-		-		mg/L	1
Chromium, Total	7440-47-3	-		-		-		-		-		mg/L	5
Lead, Total	7439-92-1	-		-		-		-		-		mg/L	5
Mercury, Total	7439-97-6	-		-		-		-		-		mg/L	0.2
Selenium, Total	7782-49-2	-		-		-		0.0354	J	-		mg/L	1
Silver, Total	7440-22-4	-		-		-		-		-		mg/L	5
General Chemistry													
Solids, Total	NONE	97.8		96.4		89		89.9		88.4		%	N Sp
Corrosivity (pH)*	12408-02-5	9.96		9.48		10.9		11		9.44		SU	pH ≤ 2.0 or pH ≥ 12.5
Sulfide, Reactive	NONE	NR		NR		NR		51		NR		mg/kg	N Sp
Cyanide, Reactive	57-12-5	NR		NR		NR		NR		NR		mg/kg	N Sp
Ignitability	NONE	NI		NI		NI		NI		NI			Flashpoint < 60 °C

Reference Standard based on Resource Conservation Recovery Act (RCRA) Hazardous Waste Criteria

Bold and Colored - exceeds the applicable regulatory standard, see applicable color within Regulatory Level column.

Laboratory Code: J = Estimated value. The target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL).

Notes: - = Not Detected N Sp = Not Specified

*Reference Standard Based on Resource Conservation Recovery Act (RCRA) Hazardous Waste Criteria for Corrosivity.

NI = Non-Ignitable

NR = Non-Reactive

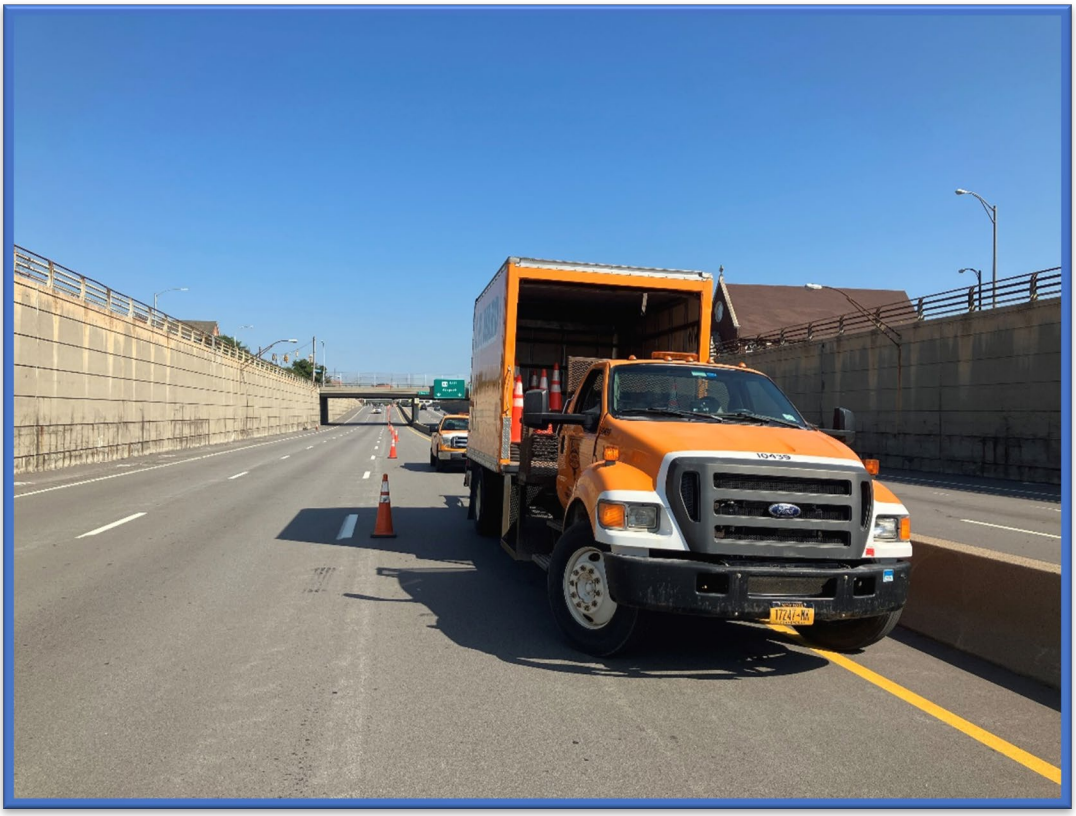

Photo 1 – Work Zone Traffic Control (WZTC) was conducted by C.P. Ward.

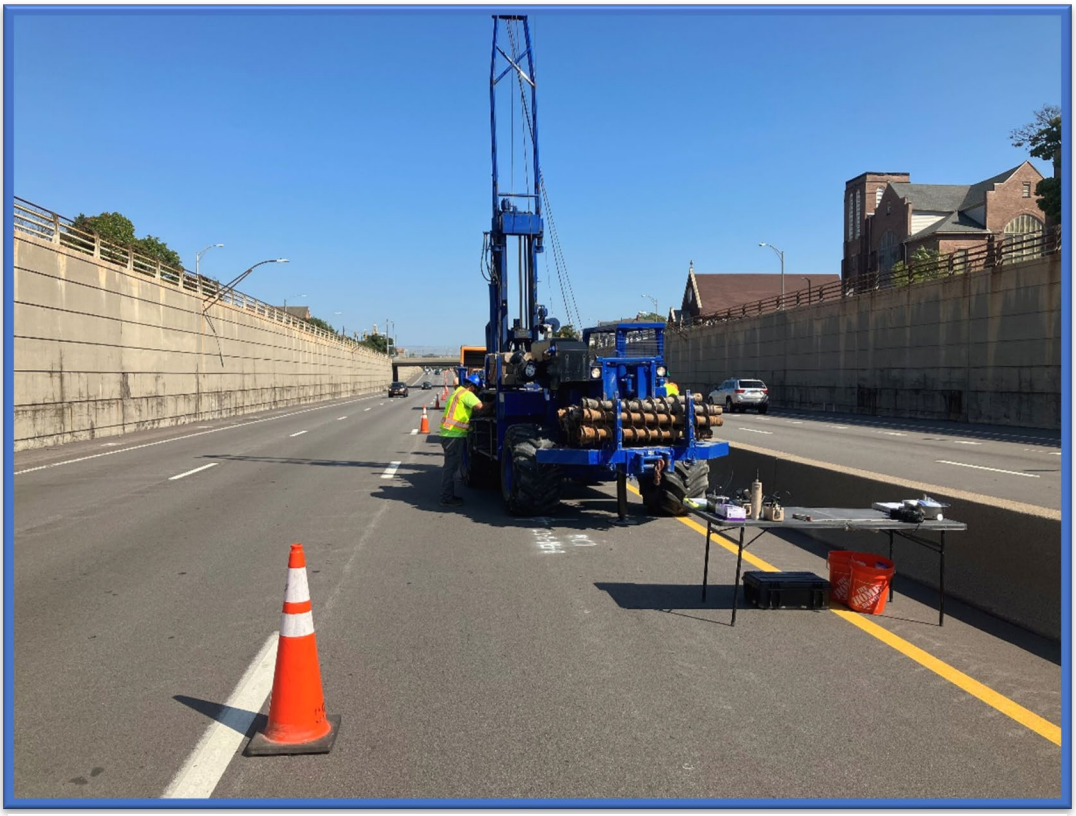

Photo 2 – CME setting up the drill rig within the left lane of the westbound traffic (with WZTC) along Route 33, Kensington Expressway for the geotechnical and environmental investigation.

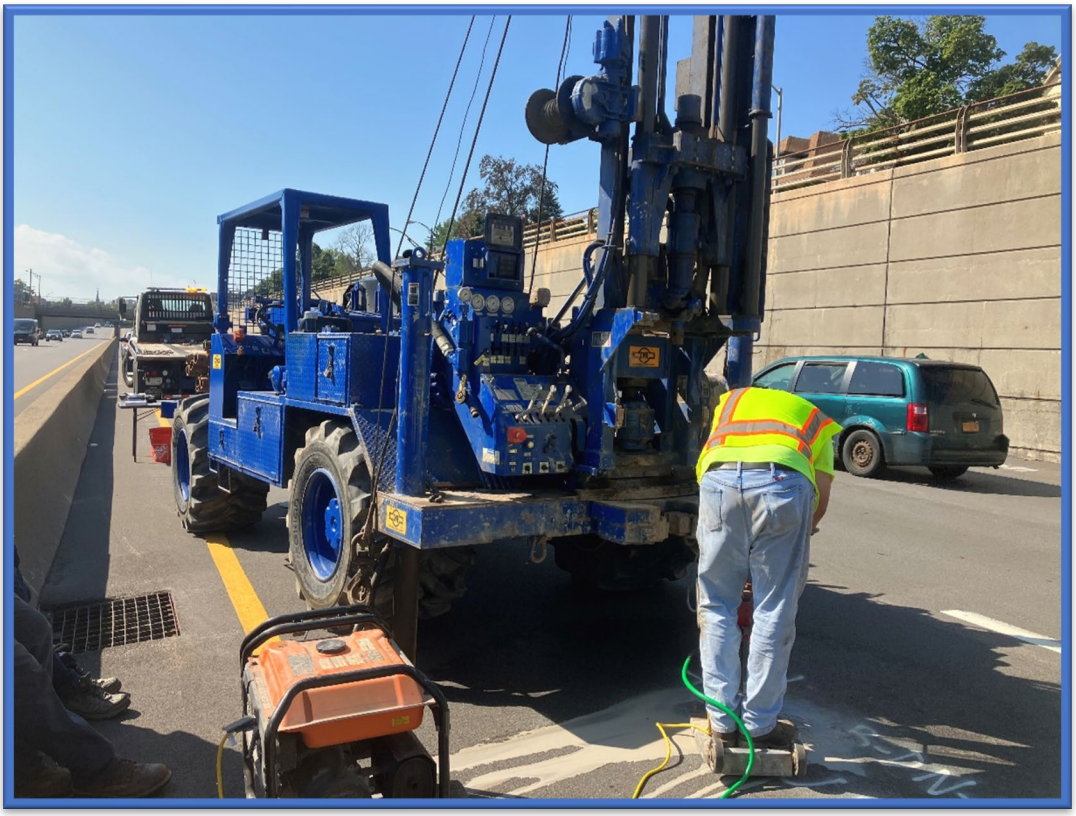

Photo 3 – CME coring through the asphalt/concrete roadway layer prior to utilizing the hollow-stem drilling augers and split-spoon sampler to retrieve the subsurface soils.

Photo 4 – Engineered fill / blast rock present beneath the asphalt/concrete roadway surface at FH-X-27e.

BORING LOG

Rig: CME-550S | Date Drilled: 9/6/23 | Logged By: MEH / NY

Dia: 3" split spoon | Boring Number: ~~DAT~~ FH-X-27

Sample	Depth (feet)	Blow Counts	PID (ppm)	Recovery	USCS Symbol	Description (Add 1.1' bgs to each spoon (1st spoon - 1.1' to 3.1'))
		15				0'-0.4' - asphalt
	1	24	0	1.4'		0.4-1.1' concrete
		46				0-1.4' - brown silty fines, trace sand, and fine to med gravel slabbage. trace slag (Engineered Fill / Blast Rock)
	2	61				~~spoon refusal @ 1.1'~~
		23				0-1.1' grey/brown silts fines, trace sands, and gravels (Engineered Fill / Blast rock) Spoon refusal @ 1.1'
	3	21	0	1.1'		
		50/1"				
	4					
		60/5"				few large pieces of gravel, course
	5		0	0.2'		Spoon refusal @ 0.5'
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					

Site Drawing:

Completion Notes:
After clearing augers for coring, depth to bedrock determined to be 6.2' bgs
Engineered Fill / Blast rock throughout
#2 - #3 composite sample 20220255 - ~~DAT~~ FH-X-27 from 1.1' to 5.5'

Site:
NYS 33 Kensington WB lanes

Project No: 20220255 | Page 1

WATTS ARCHITECTS & ENGINEERS
95 PERRY STREET BUFFALO, NY 14203
PHONE (716) 206-5100 FAX (716) 206-5199

BORING LOG

Rig: CME-550 S | Date Drilled: 9-7-23 | Logged By: NY

Dia: | Boring Number: ~~DW~~ FH-23

Sample	Depth (feet)	Blow Counts	PID (ppm)	Recovery	USCS Symbol	Description
	0.4 asphalt 1.2 concrete					
	1.2	19	0	1.3		0-1.3 engineered fill mixed with brown silt & trace sand
	1.8	37				
		50/3"				
	3.2					
	~~3.5~~ 4	6	0	2.0		start at ~~4.0~~ had to get thru 0-0.5 same as above 0.5-2 - native clay w/ pebbles
	5	9				
		13				
	6	16				glacial deposit - stiff bedrock
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					

Site Drawing:

Completion Notes:
- at end of first sleeve (3.2) was concrete debris had to be augured out before starting again - started 2nd sleeve at 4 ft
- bedrock at 6'
- soil sample taken 1.8' to ~~5.0~~ 5'

Site:

Project No: 20220255 | Page 2

WATTS ARCHITECTS & ENGINEERS
95 PERRY STREET BUFFALO, NY 14203
PHONE (716) 206-5100 FAX (716) 206-5199

BORING LOG

Rig: CME-550-S | Date Drilled: 9/11/23 | Logged By: MEH

Dia: 3" | Boring Number: ~~B-AN~~ FH-X-32

Sample	Depth (feet)	Blow Counts	PID (ppm)	Recovery	USCS Symbol	Description
		17	0	1.4'		add 1'1" = 0.4'-asphalt 1.1-concrete
	1	23				0-1.4 - grey sand & silt and gravel Engineered Fill subbase
		50/2"				
	2					Bedrock @ 2.9' bgs
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					

Site Drawing:

Completion Notes:
Bedrock @ 2.9' bgs
Asphalt & concrete to 1.1' bgs.
Engineered fill below
Sample the engineered fill (20220255-FH-X-32 from 1.1'-2.9' VOC from bottom of splitspoon.

Site: NYS Rt 33 - Kensington WB, N of Ferry St. Bridge

Project No: 20220255 | Page 3

WATTS ARCHITECTS & ENGINEERS
95 PERRY STREET BUFFALO, NY 14203
PHONE (716) 206-5100 FAX (716) 206-5199

BORING LOG

Rig: CME-550-S | Date Drilled: 9/11/23 | Logged By: MEH

Dia: 3" split spoon | Boring Number: FH-X-34

Sample	Depth (feet)	Blow Counts	PID (ppm)	Recovery	USCS Symbol	Description
						0.4 - asphalt Add 1' to split spoon bgs 0.4 - 1.0' - concrete
		21				0.0 - 1.3' Engineered Fill / Blast Rock grey silts & Sands and gravel (fine to 2")
	1	43	0	1.3		
		26/2" 10/0'				split spoon refusal @ 14". Then auger to 3'
	2					
		19				0.0 - 1.2' same w/ some FILL mixed in (asphalt pieces, trace slag) some brown sand.
	3	18	0	1.2		
		50/4"				split spoon refusal @ 16". Then auger to 5'
	4					
		50/5"				0.0 - 0.5' Same. Fill had trace granite? mica gravel, some brown sand.
	5		0	0.5		
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					

Site Drawing:

Completion Notes:

Bedrock at 5.5' bgs.

11:30 Sample 20220255-FH-X-34 from 1.0' - 5.3' bgs w/ VOC from bottom

Engineered Fill / Blast Rock throughout generally w/ little/trace Fill items

Site: NYS Rt 33 Kensington, North of E. Ferry St.

Project No: 20220255 | Page 4

WATTS ARCHITECTS & ENGINEERS
95 PERRY STREET BUFFALO, NY 14203
PHONE (716) 206-5100 FAX (716) 206-5199

BORING LOG

Rig: CME-550-S | Date Drilled: 9/13/23 | Logged By: MEH

Dia: 3" split spoon | Boring Number: ~~DN~~ FH-X-07

Sample	Depth (feet)	Blow Counts	PID (ppm)	Recovery	USCS Symbol	Description
		11				0-0.4' - asphalt 0.4-1.1' - concrete Add 1.1' bgs to spoon depths.
	1	36	0	2.0		0.0-0.9 - brown F-M sand, moist 0.9-1.3 - Fine sand & Gravel and slag fill
		21				1.3-2.0 - reddish brown silty Clay till trace gravels, mottled, harsh
	2	22				
		22				0.0-0.3 - same 0.3-1.3 - reddish brown silts & clayey silts, trace coarse gravel. difficult to tell if native in-situ or potentially reworked imported native or glacial outwash.
	3	16	0	1.3		
		15				
	4	13				
		8				0.0-0.4 - same 0.4-1.9 - brown very fine silty sand, trace fine gravels appears native in-situ.
	5	13	0	1.9		
		10				
	6	15				
		6				0.0-0.7 - brown silt & course-fine gravels glacial outwash? 0.7-0.8 - reddish brown silty Clay soft 0.8-0.9 - ~~reddish~~ brown sandy silt
	7	6	0	2.0		
		7				
	8	12				
						0.9-2.0 - silt silty Clay, brown to reddish brown.
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					

Site Drawing:

Note that 'DN' in naming structure changed to 'FH' by DOT & add 'e' afterwards

New ID for this location: 'FH-X-07e'

11:15
Sample 20220255-FH-X-07e.

Completion Notes:

Boring was anticipated to 10' bgs, however with the driller/Geotech spoon intervals chosen completion to 9.1' bgs, which is fine, given the native materials observed & confining layer observed from 8.0' - 9.1' bgs.

Sample 20220255-FH-X-07e collected from composite 1.1' to 8.0' bgs, VOC grab from bottom.

Site: NYS Rt. 33 Kensington WB, LT lane between Dodge & Northampton Bridges

Project No: 20220255 | Page 5

WATTS ARCHITECTS & ENGINEERS
95 PERRY STREET BUFFALO, NY 14203
PHONE (716) 206-5100 FAX (716) 206-5199

@ 9/6/23 20220255 Kensington

~9:00 Load Watts truck and mobilize @ Rally Point. Discuss scope of work & plan for the 5 "Environmental Borings". Today will include DN-X-27 located within NYS Rt 33 WB between E. Ferry & E. Utica bridges. Meet w/ Alex Bartels, Paul Koch from MJW, Al Linstruth & ~~10:15 MPT~~ Ryan Casatelli from CME & Dave Keller w/ LaBella. MPT provided by CP Ward. Calibrate PID.

10:15 MPT zone set up. All mobilize to DN-X-27.

10:55 CME begins coring with 6" coring tool through asphalt & concrete.

12:30 clean equipment, demobilize from site. Sample 20220255-DN-X-27 @ 12:00 from 1.5' to 5.5'.

13:55 Pick up supplies & drop sample off at Alpha Analytical.

Scale: 1 square = _____

NYS Rt 33 Sunny 80's @

14:15 Finish and return to office. LaBella & CME plans on starting the next "environmental hole" tomorrow (9/7/23) and meeting at Best Museum rally point @ 9:30. Will advise if changes.

Matthew Hoff

Scale: 1 square = _____

Rite in the Rain

 9-1-23 20220255 kensington

~1030 load watts truck & meet hole on kensington between Best st exit & utica bridge. met w/ paul koch, Ryan & dave. hole DN-X-23

1115 arrived & drillers almost cored thru asphat & concrete

1200 clear equipment
sample 20220255-DN-X-23
at 1200

1330 drop off paul at office & drop samples at alpha

1430 finish, labella & CME plans on starting next boring on monday (9-11-23), meet at rally point

Scale: 1 square = ______

NYS route 33 Cloudy 70's

Scale: 1 square = ______

(12) 9/11/2023 20220255 Kensington high 60's partly cloudy

08:30 Mobilize equipment then pick up MJW equipment at colleagues house who is taking the Watts truck to Syracuse for the week. MJW & N.Y left the MJW equipment in the Watts truck. MH depart for project.

09:15 Arrive at Rally Point @ Buffalo Science Museum. Calibrate PID & prep equipment.

10:10 Mobilize @ DN-X-32 within MPT area north of E. Ferry St. bridge.

10:35 Sample 20220255-DN-X-32 from 1.1'-2.9'. VOC from bottom.

10:55 - Mobilize to DN-X-34, in WB lanes north of E. Ferry St.

11:30 Sample 20220255-DN-X-34 from 1.0' - 5.5' bgs w/ VOC from bottom.

13:20 Clean equipment, demobilize, finalize reporting, drop off Paul Koch (MJW), deliver samples to Alpha Analytical.

Scale: 1 square = _____

NYS 33 Kensington

9/13/23 Clear high 60's (13)

8:30 Mobilize equipment & go to rally point (9:20) & meet w/ Paul Koch, CME, & Dave w/ LaBella to prep to complete last 'environmental hole' - DN-X-07

10:00 MPT ready. Depart rally point for DN-X-07, located between Northampton & Dodge St. bridges in LT lane of WB traffic. Naming structure was changed by DOT, all 'DN' becomes 'FH' which means hollow stem auger & add a lowercase 'e' after the sample. New ID for this location: 'FH-X-07e'.

11:20 Sample 20220255-FH-X-07e: Composite 1.1'-8.0' bgs, VOC grab from bottom.

11:35 Clean equipment, demobilize from site. Drive Paul from MJW back. Finalize reporting and complete COC.

12:25 Drop off sample @ Alpha Analytical.

12:50 Return to Watts. Demobilize equipment.

Scale: 1 square = _____

Rite in the Rain

(23) 10/17/23

20220255 Kensington Cloudy

~12:50 PM.

Matt Holquist from Watts onsite at the request of David Keller (DK) from LaBella (Geotechnical Engineer) due to potential slag. FH-X-36 located along surface streets at the west side of Kensington at Riley St. DK previously observed potential slag at a nearby geotechnical boring and wanted Watts & MJW to double check the subsurface conditions.

0.0 - 0.3 asphalt
0.3 - 0.8 subbase with gravel & trace slag. (no radioactivity identified by MJW)

- split spoon 1'-3' bgs
1-3 Fill (trace slag, asphalt pieces, gravel dark grey silty sandy clay) typical
- 3'-5' split spoon
3.0'-3.5' same
3.5'-5.0' red brown silty clay till, mottled, trace organics, appears native/in-situ.

PID = 0 for all.

No significant contamination observed; Very trace slag & typical Urban Fill.

- MH offsite

Scale: 1 square = _____

Rite in the Rain

ANALYTICAL REPORT

Lab Number:	L2351522
Client:	Watts Architecture & Engineering P.C 95 Perry Street Suite 300 Buffalo, NY 14203
ATTN:	Andrew Klimek
Phone:	(716) 206-5100
Project Name:	KENSINGTON, NYS RT. 33.
Project Number:	20220255
Report Date:	09/20/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: KENSINGTON, NYS RT. 33.
Project Number: 20220255

Lab Number: L2351522
Report Date: 09/20/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2351522-01	20220255-FH-X-27E	SOIL	BUFFALO, NY	09/06/23 12:00	09/06/23

Project Name:	KENSINGTON, NYS RT. 33.	**Lab Number:**	L2351522
Project Number:	20220255	**Report Date:**	09/20/23

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	KENSINGTON, NYS RT. 33.	**Lab Number:**	L2351522
Project Number:	20220255	**Report Date:**	09/20/23

Case Narrative (continued)

Report Submission

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

Sample Receipt

L2351522-01: The Client ID was specified by the client.

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: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 09/20/23

ORGANICS

VOLATILES

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2351522-01
Client ID: 20220255-FH-X-27E
Sample Location: BUFFALO, NY

Date Collected: 09/06/23 12:00
Date Received: 09/06/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 09/20/23 08:05
Analyst: MCM
Percent Solids: 98%
TCLP/SPLP Ext. Date: 09/19/23 06:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	2.2	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.71	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	102		70-130
dibromofluoromethane	94		70-130

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 09/20/23 04:53
Analyst: MCM
TCLP/SPLP Extraction Date: 09/19/23 06:48

Extraction Date: 09/19/23 06:48

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1829690-5					
Chloroform	ND		ug/l	7.5	2.2
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	0.71
1,1-Dichloroethene	ND		ug/l	5.0	1.7
Trichloroethene	ND		ug/l	5.0	1.8
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	105		70-130
dibromofluoromethane	93		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT. 33.
Project Number: 20220255

Lab Number: L2351522
Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1829690-3 WG1829690-4								
Chloroform	93		89		70-130	4		20
Carbon tetrachloride	87		86		63-132	1		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		25
1,2-Dichloroethane	84		84		70-130	0		20
Benzene	98		97		70-130	1		25
Vinyl chloride	**47**	Q	**46**	Q	55-140	2		20
1,1-Dichloroethene	90		92		61-145	2		25
Trichloroethene	89		89		70-130	0		25
1,4-Dichlorobenzene	100		100		70-130	0		20
2-Butanone	98		110		63-138	12		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	75		76		70-130
Toluene-d8	99		97		70-130
4-Bromofluorobenzene	105		102		70-130
dibromofluoromethane	90		87		70-130

SEMIVOLATILES

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2351522-01
Client ID: 20220255-FH-X-27E
Sample Location: BUFFALO, NY

Date Collected: 09/06/23 12:00
Date Received: 09/06/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270E
Analytical Date: 09/13/23 00:47
Analyst: IM
Percent Solids: 98%
TCLP/SPLP Ext. Date: 09/07/23 18:56

Extraction Method: EPA 3510C
Extraction Date: 09/11/23 22:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	10	3.4	1
2,4-Dinitrotoluene	ND		ug/l	25	1.9	1
Hexachlorobutadiene	ND		ug/l	10	3.0	1
Hexachloroethane	ND		ug/l	10	2.2	1
Nitrobenzene	ND		ug/l	10	3.3	1
2,4,6-Trichlorophenol	ND		ug/l	25	2.5	1
Pentachlorophenol	ND		ug/l	50	9.8	1
2-Methylphenol	ND		ug/l	25	5.5	1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8	1
2,4,5-Trichlorophenol	ND		ug/l	25	1.9	1
Pyridine	ND		ug/l	18	4.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		21-120
Phenol-d6	72		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	87		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	85		33-120

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 09/12/23 23:10
Analyst: IM
TCLP/SPLP Extraction Date: 09/07/23 18:56

Extraction Method: EPA 3510C
Extraction Date: 09/11/23 22:12

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Semivolatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1826211-1					
Hexachlorobenzene	ND		ug/l	10	3.4
2,4-Dinitrotoluene	ND		ug/l	25	1.9
Hexachlorobutadiene	ND		ug/l	10	3.0
Hexachloroethane	ND		ug/l	10	2.2
Nitrobenzene	ND		ug/l	10	3.3
2,4,6-Trichlorophenol	ND		ug/l	25	2.5
Pentachlorophenol	ND		ug/l	50	9.8
2-Methylphenol	ND		ug/l	25	5.5
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8
2,4,5-Trichlorophenol	ND		ug/l	25	1.9
Pyridine	ND		ug/l	18	4.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	92		21-120
Phenol-d6	82		10-120
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	100		15-120
2,4,6-Tribromophenol	106		10-120
4-Terphenyl-d14	98		33-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT. 33.
Project Number: 20220255

Lab Number: L2351522
Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Semivolatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1826211-2 WG1826211-3								
Hexachlorobenzene	74		85		40-140	14		30
2,4-Dinitrotoluene	85		99		40-132	15		30
Hexachlorobutadiene	81		92		28-111	13		30
Hexachloroethane	64		70		21-105	9		30
Nitrobenzene	72		85		40-140	17		30
2,4,6-Trichlorophenol	88		102		30-130	15		30
Pentachlorophenol	90		**108**	Q	9-103	18		30
2-Methylphenol	66		79		30-130	18		30
3-Methylphenol/4-Methylphenol	68		80		30-130	16		30
2,4,5-Trichlorophenol	88		102		30-130	15		30
Pyridine	43		33		10-66	26		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	74		86		21-120
Phenol-d6	65		78		10-120
Nitrobenzene-d5	76		91		23-120
2-Fluorobiphenyl	77		92		15-120
2,4,6-Tribromophenol	83		96		10-120
4-Terphenyl-d14	73		87		33-120

PESTICIDES

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2351522-01
Client ID: 20220255-FH-X-27E
Sample Location: BUFFALO, NY

Date Collected: 09/06/23 12:00
Date Received: 09/06/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/12/23 10:42
Analyst: AKM
Percent Solids: 98%
TCLP/SPLP Ext. Date: 09/07/23 18:56

Extraction Method: EPA 3510C
Extraction Date: 09/11/23 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Pesticides by EPA 1311 - Westborough Lab							
Lindane	ND		ug/l	0.100	0.022	1	A
Heptachlor	ND		ug/l	0.100	0.016	1	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	1	A
Endrin	ND		ug/l	0.200	0.021	1	A
Methoxychlor	ND		ug/l	1.00	0.034	1	A
Toxaphene	ND		ug/l	1.00	0.314	1	A
Chlordane	ND		ug/l	1.00	0.232	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	91		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	98		30-150	B

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2351522-01
Client ID: 20220255-FH-X-27E
Sample Location: BUFFALO, NY

Date Collected: 09/06/23 12:00
Date Received: 09/06/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/10/23 13:28
Analyst: EJL
Percent Solids: 98%
TCLP/SPLP Ext. Date: 09/07/23 18:56
Methylation Date: 09/09/23 05:50

Extraction Method: EPA 8151A
Extraction Date: 09/08/23 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	55		30-150	A
DCAA	52		30-150	B

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 09/10/23 12:32
Analyst: EJL
TCLP/SPLP Extraction Date: 09/06/23 23:02
Methylation Date: 09/09/23 05:50

Extraction Method: EPA 8151A
Extraction Date: 09/08/23 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Herbicides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1825329-1						
2,4-D	ND		mg/l	0.025	0.001	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	48		30-150	A
DCAA	44		30-150	B

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/12/23 10:06
Analyst: AKM
TCLP/SPLP Extraction Date: 09/06/23 23:02

Extraction Method: EPA 3510C
Extraction Date: 09/11/23 21:44

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Pesticides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1826208-1						
Lindane	ND		ug/l	0.100	0.022	A
Heptachlor	ND		ug/l	0.100	0.016	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	A
Endrin	ND		ug/l	0.200	0.021	A
Methoxychlor	ND		ug/l	1.00	0.034	A
Toxaphene	ND		ug/l	1.00	0.314	A
Chlordane	ND		ug/l	1.00	0.232	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	94		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON, NYS RT. 33.

Project Number: 20220255

Lab Number: L2351522

Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Herbicides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1825329-2 WG1825329-3									
2,4-D	99		100		30-150	1		25	A
2,4,5-TP (Silvex)	43		43		30-150	0		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	48		48		30-150	A
DCAA	45		45		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT. 33.
Project Number: 20220255

Lab Number: L2351522
Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Pesticides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1826208-2 WG1826208-3									
Lindane	86		81		30-150	6		20	A
Heptachlor	80		77		30-150	4		20	A
Heptachlor epoxide	78		74		30-150	5		20	A
Endrin	78		74		30-150	5		20	A
Methoxychlor	81		76		30-150	6		20	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		74		30-150	A
Decachlorobiphenyl	82		83		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		74		30-150	B
Decachlorobiphenyl	84		84		30-150	B

METALS

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2351522-01 Date Collected: 09/06/23 12:00

Client ID: 20220255-FH-X-27E Date Received: 09/06/23

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth: TCLP/SPLP Ext. Date: 09/07/23 18:56

Matrix: Soil

Percent Solids: 98%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	09/09/23 07:54	09/11/23 15:55	EPA 3015	1,6010D	DHL
Barium, TCLP	0.435	J	mg/l	0.500	0.0210	1	09/09/23 07:54	09/11/23 15:55	EPA 3015	1,6010D	DHL
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	09/09/23 07:54	09/11/23 15:55	EPA 3015	1,6010D	DHL
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	09/09/23 07:54	09/11/23 15:55	EPA 3015	1,6010D	DHL
Lead, TCLP	ND		mg/l	0.500	0.0270	1	09/09/23 07:54	09/11/23 15:55	EPA 3015	1,6010D	DHL
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	09/13/23 06:46	09/19/23 10:40	EPA 7470A	1,7470A	GMG
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	09/09/23 07:54	09/11/23 15:55	EPA 3015	1,6010D	DHL
Silver, TCLP	ND		mg/l	0.100	0.0280	1	09/09/23 07:54	09/11/23 15:55	EPA 3015	1,6010D	DHL

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1825332-1										
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	09/09/23 07:54	09/11/23 15:46	1,6010D	DHL
Barium, TCLP	ND		mg/l	0.500	0.0210	1	09/09/23 07:54	09/11/23 15:46	1,6010D	DHL
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	09/09/23 07:54	09/11/23 15:46	1,6010D	DHL
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	09/09/23 07:54	09/11/23 15:46	1,6010D	DHL
Lead, TCLP	ND		mg/l	0.500	0.0270	1	09/09/23 07:54	09/11/23 15:46	1,6010D	DHL
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	09/09/23 07:54	09/11/23 15:46	1,6010D	DHL
Silver, TCLP	ND		mg/l	0.100	0.0280	1	09/09/23 07:54	09/11/23 15:46	1,6010D	DHL

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 09/06/23 23:02

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1826581-1										
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	09/13/23 06:46	09/19/23 10:33	1,7470A	GMG

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 09/06/23 23:02

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON, NYS RT. 33.

Project Number: 20220255

Lab Number: L2351522

Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1825332-2								
Arsenic, TCLP	99		-		75-125	-		20
Barium, TCLP	108		-		75-125	-		20
Cadmium, TCLP	100		-		75-125	-		20
Chromium, TCLP	105		-		75-125	-		20
Lead, TCLP	101		-		75-125	-		20
Selenium, TCLP	102		-		75-125	-		20
Silver, TCLP	102		-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1826581-2								
Mercury, TCLP	93		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT. 33.
Project Number: 20220255

Lab Number: L2351522
Report Date: 09/20/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1825332-3 QC Sample: L2351522-01 Client ID: 20220255-FH-X-27E												
Arsenic, TCLP	ND	1.2	1.24	103		-	-		75-125	-		20
Barium, TCLP	0.435J	20	21.9	110		-	-		75-125	-		20
Cadmium, TCLP	ND	0.53	0.533	100		-	-		75-125	-		20
Chromium, TCLP	ND	2	2.06	103		-	-		75-125	-		20
Lead, TCLP	ND	5.3	5.32	100		-	-		75-125	-		20
Selenium, TCLP	ND	1.2	1.28	107		-	-		75-125	-		20
Silver, TCLP	ND	0.5	0.517	103		-	-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1826581-3 QC Sample: L2351522-01 Client ID: 20220255-FH-X-27E												
Mercury, TCLP	ND	0.025	0.0235	94		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT. 33.
Project Number: 20220255

Lab Number: L2351522
Report Date: 09/20/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1825332-4 QC Sample: L2351522-01 Client ID: 20220255-FH-X-27E						
Arsenic, TCLP	ND	ND	mg/l	NC		20
Barium, TCLP	0.435J	0.435J	mg/l	NC		20
Cadmium, TCLP	ND	ND	mg/l	NC		20
Chromium, TCLP	ND	ND	mg/l	NC		20
Lead, TCLP	ND	ND	mg/l	NC		20
Selenium, TCLP	ND	ND	mg/l	NC		20
Silver, TCLP	ND	ND	mg/l	NC		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1826581-4 QC Sample: L2351522-01 Client ID: 20220255-FH-X-27E						
Mercury, TCLP	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: KENSINGTON, NYS RT. 33.
Project Number: 20220255
Lab Number: L2351522
Report Date: 09/20/23

SAMPLE RESULTS

Lab ID: L2351522-01
Client ID: 20220255-FH-X-27E
Sample Location: BUFFALO, NY

Date Collected: 09/06/23 12:00
Date Received: 09/06/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	09/11/23 19:11	1,1030	GEF

Project Name: KENSINGTON, NYS RT. 33.
Project Number: 20220255

Lab Number: L2351522
Report Date: 09/20/23

SAMPLE RESULTS

Lab ID: L2351522-01
Client ID: 20220255-FH-X-27E
Sample Location: BUFFALO, NY

Date Collected: 09/06/23 12:00
Date Received: 09/06/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97.8		%	0.100	NA	1	-	09/08/23 09:29	121,2540G	ROI
pH (H)	9.96		SU	-	NA	1	-	09/11/23 19:10	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:12	125,7.3	QJM
Sulfide, Reactive	ND		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:26	125,7.3	QJM

Project Name: KENSINGTON, NYS RT. 33. **Lab Number:** L2351522

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1827663-1										
Sulfide, Reactive	ND		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:25	125,7.3	QJM
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1827664-1										
Cyanide, Reactive	ND		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:11	125,7.3	QJM

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON, NYS RT. 33.

Project Number: 20220255

Lab Number: L2351522

Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1826190-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1827663-2								
Sulfide, Reactive	88		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1827664-2								
Cyanide, Reactive	70		-		30-125	-		40

Lab Duplicate Analysis

Batch Quality Control

Project Name: KENSINGTON, NYS RT. 33.

Project Number: 20220255

Lab Number: L2351522

Report Date: 09/20/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1825064-1 QC Sample: L2351451-08 Client ID: DUP Sample						
Solids, Total	24.9	24.6	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1826190-2 QC Sample: L2351421-01 Client ID: DUP Sample						
pH	6.93	7.01	SU	1		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1827663-3 QC Sample: L2353315-01 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1827664-3 QC Sample: L2353315-01 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40

Project Name: KENSINGTON, NYS RT. 33.
Project Number: 20220255

Lab Number: L2351522
Report Date: 09/20/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2351522-01A	Plastic 2oz unpreserved for TS	A	NA		2.3	Y	Absent		TS(7)
L2351522-01B	Vial Large Septa unpreserved (4oz)	A	NA		2.3	Y	Absent		TCLP-EXT-ZHE(14)
L2351522-01C	Glass 500ml/16oz unpreserved	A	NA		2.3	Y	Absent		IGNIT-1030(14),REACTS(14),PH-9045(1),REACTCN(14)
L2351522-01W	Amber 1000ml unpreserved Extracts	A	NA		2.3	Y	Absent		TCLP-8270(14),HERB-TCLP*(14),PEST-TCLP*(14)
L2351522-01X	Plastic 120ml HNO3 preserved Extracts	A	NA		2.3	Y	Absent		CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180)
L2351522-01X9	Tumble Vessel	A	NA		2.3	Y	Absent		-
L2351522-01Y	Vial unpreserved Extracts	A	NA		2.3	Y	Absent		TCLP-VOA(14)
L2351522-01Z	Vial unpreserved Extracts	A	NA		2.3	Y	Absent		TCLP-VOA(14)

*Values in parentheses indicate holding time in days

Project Name:	KENSINGTON, NYS RT. 33.	**Lab Number:**	L2351522
Project Number:	20220255	**Report Date:**	09/20/23

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	KENSINGTON, NYS RT. 33.	**Lab Number:**	L2351522
Project Number:	20220255	**Report Date:**	09/20/23

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

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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.

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	KENSINGTON, NYS RT. 33.	**Lab Number:**	L2351522
Project Number:	20220255	**Report Date:**	09/20/23

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

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

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

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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	KENSINGTON, NYS RT. 33.	**Lab Number:**	L2351522
Project Number:	20220255	**Report Date:**	09/20/23

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

125 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates IIIA, April 1998.

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 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
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: Chloride, 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, SM4500NO2-B**
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: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, 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 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, 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 1 of 1

Date Rec'd in Lab: 9/7/23

ALPHA Job #: L2351522

Client Information
Client: Watts A&E
Address: 95 Perry St. Suite300
Buffalo, NY 14203
Phone: 716-206-5100
Fax: 716-206-5199
Email: aklimek@watts-acon

Project Information
Project Name: Kensington, NYS Rt. 33
Project Location: Buffalo, NY
Project # 20220255
(Use Project name as Project #) ☐
Project Manager: A. Klimek
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

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

Billing Information
☒ Same as Client Info
PO # Per Quote
BottleOrder # 434891

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Full TCLP	TS, R, I, C							Sample Specific Comments	Total Bottle
51522-01	20220255-DN-X-27	9/6/23	12:00	Soil	NAG	X	X								3

Container Type: A | P/A
Preservative: A | A/A

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

Relinquished By:	Date/Time	Received By:	Date/Time
[signature] AKL	9/6/2023 - 13:50	[signature] AKL	9/6/23 1350
[signature] AKL	9/6/23 1350	[signature]	9/7/23 0920

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)

ANALYTICAL REPORT

Lab Number:	L2351914
Client:	Watts Architecture & Engineering P.C 95 Perry Street Suite 300 Buffalo, NY 14203
ATTN:	Andrew Klimek
Phone:	(716) 206-5100
Project Name:	NYSDOT KENSINGTON EXPRESSWAY
Project Number:	20220255
Report Date:	09/21/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: NYSDOT KENSINGTON EXPRESSWAY
Project Number: 20220255

Lab Number: L2351914
Report Date: 09/21/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2351914-01	20220255-FH-X-23E	SOIL	Not Specified	09/07/23 12:00	09/07/23

Project Name:	NYSDOT KENSINGTON EXPRESSWAY	**Lab Number:**	L2351914
Project Number:	20220255	**Report Date:**	09/21/23

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	NYSDOT KENSINGTON EXPRESSWAY	**Lab Number:**	L2351914
Project Number:	20220255	**Report Date:**	09/21/23

Case Narrative (continued)

Report Submission

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

Sample Receipt

L2351914-01: The project name, project number, and client ID were specified by the client.

TCLP Semivolatiles

The WG1826191-3 LCSD recovery, associated with L2351914-01, is below the acceptance criteria for pyridine (8%); however, it has been identified as a "difficult" analyte. The results of the associated sample are reported.

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: Kelly O'Neill

Title: Technical Director/Representative Date: 09/21/23

ORGANICS

VOLATILES

Project Name: NYSDOT KENSINGTON EXPRESSWAY **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

SAMPLE RESULTS

Lab ID: L2351914-01
Client ID: 20220255-FH-X-23E
Sample Location: Not Specified

Date Collected: 09/07/23 12:00
Date Received: 09/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 09/20/23 12:54
Analyst: MCM
Percent Solids: 96%
TCLP/SPLP Ext. Date: 09/19/23 06:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	2.2	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.71	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
dibromofluoromethane	98		70-130

Project Name: NYSDOT KENSINGTON EXPRESSWAY **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 09/20/23 04:53
Analyst: MCM
TCLP/SPLP Extraction Date: 09/19/23 06:48

Extraction Date: 09/19/23 06:48

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1829690-5					
Chloroform	ND		ug/l	7.5	2.2
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	0.71
1,1-Dichloroethene	ND		ug/l	5.0	1.7
Trichloroethene	ND		ug/l	5.0	1.8
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	105		70-130
dibromofluoromethane	93		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: NYSDOT KENSINGTON EXPRESSWAY

Project Number: 20220255

Lab Number: L2351914

Report Date: 09/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1829690-3 WG1829690-4								
Chloroform	93		89		70-130	4		20
Carbon tetrachloride	87		86		63-132	1		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		25
1,2-Dichloroethane	84		84		70-130	0		20
Benzene	98		97		70-130	1		25
Vinyl chloride	**47**	Q	**46**	Q	55-140	2		20
1,1-Dichloroethene	90		92		61-145	2		25
Trichloroethene	89		89		70-130	0		25
1,4-Dichlorobenzene	100		100		70-130	0		20
2-Butanone	98		110		63-138	12		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	75		76		70-130
Toluene-d8	99		97		70-130
4-Bromofluorobenzene	105		102		70-130
dibromofluoromethane	90		87		70-130

SEMIVOLATILES

Project Name: NYSDOT KENSINGTON EXPRESSWAY **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

SAMPLE RESULTS

Lab ID: L2351914-01
Client ID: 20220255-FH-X-23E
Sample Location: Not Specified

Date Collected: 09/07/23 12:00
Date Received: 09/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270E
Analytical Date: 09/12/23 10:48
Analyst: SZ
Percent Solids: 96%
TCLP/SPLP Ext. Date: 09/09/23 12:10

Extraction Method: EPA 3510C
Extraction Date: 09/11/23 18:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	10	3.4	1
2,4-Dinitrotoluene	ND		ug/l	25	1.9	1
Hexachlorobutadiene	ND		ug/l	10	3.0	1
Hexachloroethane	ND		ug/l	10	2.2	1
Nitrobenzene	ND		ug/l	10	3.3	1
2,4,6-Trichlorophenol	ND		ug/l	25	2.5	1
Pentachlorophenol	ND		ug/l	50	9.8	1
2-Methylphenol	ND		ug/l	25	5.5	1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8	1
2,4,5-Trichlorophenol	ND		ug/l	25	1.9	1
Pyridine	ND		ug/l	18	4.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	57		15-120
2,4,6-Tribromophenol	80		10-120
4-Terphenyl-d14	57		33-120

Project Name: NYSDOT KENSINGTON EXPRESSWAY **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 09/12/23 08:03
Analyst: IM
TCLP/SPLP Extraction Date: 09/09/23 12:10

Extraction Method: EPA 3510C
Extraction Date: 09/11/23 18:50

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Semivolatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1826191-1					
Hexachlorobenzene	ND		ug/l	10	3.4
2,4-Dinitrotoluene	ND		ug/l	25	1.9
Hexachlorobutadiene	ND		ug/l	10	3.0
Hexachloroethane	ND		ug/l	10	2.2
Nitrobenzene	ND		ug/l	10	3.3
2,4,6-Trichlorophenol	ND		ug/l	25	2.5
Pentachlorophenol	ND		ug/l	50	9.8
2-Methylphenol	ND		ug/l	25	5.5
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8
2,4,5-Trichlorophenol	ND		ug/l	25	1.9
Pyridine	ND		ug/l	18	4.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	59		15-120
2,4,6-Tribromophenol	79		10-120
4-Terphenyl-d14	57		33-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: NYSDOT KENSINGTON EXPRESSWAY

Project Number: 20220255

Lab Number: L2351914

Report Date: 09/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Semivolatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1826191-2 WG1826191-3								
Hexachlorobenzene	62		57		40-140	8		30
2,4-Dinitrotoluene	61		58		40-132	5		30
Hexachlorobutadiene	53		54		28-111	2		30
Hexachloroethane	49		50		21-105	2		30
Nitrobenzene	55		54		40-140	2		30
2,4,6-Trichlorophenol	66		62		30-130	6		30
Pentachlorophenol	69		65		9-103	6		30
2-Methylphenol	53		52		30-130	2		30
3-Methylphenol/4-Methylphenol	57		54		30-130	5		30
2,4,5-Trichlorophenol	64		60		30-130	6		30
Pyridine	13		**8**	Q	10-66	**46**	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	54		53		21-120
Phenol-d6	50		49		10-120
Nitrobenzene-d5	58		57		23-120
2-Fluorobiphenyl	53		53		15-120
2,4,6-Tribromophenol	76		72		10-120
4-Terphenyl-d14	53		50		33-120

PESTICIDES

Project Name: NYSDOT KENSINGTON EXPRESSWAY
Lab Number: L2351914
Project Number: 20220255
Report Date: 09/21/23

SAMPLE RESULTS

Lab ID: L2351914-01
Client ID: 20220255-FH-X-23E
Sample Location: Not Specified

Date Collected: 09/07/23 12:00
Date Received: 09/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/12/23 08:54
Analyst: AKM
Percent Solids: 96%
TCLP/SPLP Ext. Date: 09/09/23 12:10

Extraction Method: EPA 3510C
Extraction Date: 09/11/23 19:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Pesticides by EPA 1311 - Westborough Lab							
Lindane	ND		ug/l	0.100	0.022	1	A
Heptachlor	ND		ug/l	0.100	0.016	1	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	1	A
Endrin	ND		ug/l	0.200	0.021	1	A
Methoxychlor	ND		ug/l	1.00	0.034	1	A
Toxaphene	ND		ug/l	1.00	0.314	1	A
Chlordane	ND		ug/l	1.00	0.232	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: NYSDOT KENSINGTON EXPRESSWAY **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

SAMPLE RESULTS

Lab ID: L2351914-01
Client ID: 20220255-FH-X-23E
Sample Location: Not Specified

Date Collected: 09/07/23 12:00
Date Received: 09/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/11/23 15:57
Analyst: MMG
Percent Solids: 96%
TCLP/SPLP Ext. Date: 09/09/23 12:10
Methylation Date: 09/11/23 06:30

Extraction Method: EPA 8151A
Extraction Date: 09/10/23 15:33

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	43		30-150	A
DCAA	46		30-150	B

Project Name: NYSDOT KENSINGTON EXPRESSWAY **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 09/11/23 14:24
Analyst: MMG
TCLP/SPLP Extraction Date: 09/09/23 12:10
Methylation Date: 09/11/23 06:30

Extraction Method: EPA 8151A
Extraction Date: 09/10/23 15:33

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Herbicides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1825743-1						
2,4-D	ND		mg/l	0.025	0.001	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	35		30-150	A
DCAA	33		30-150	B

Project Name: NYSDOT KENSINGTON EXPRESSWAY **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/12/23 08:06
Analyst: AKM
TCLP/SPLP Extraction Date: 09/09/23 12:10

Extraction Method: EPA 3510C
Extraction Date: 09/11/23 19:01

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Pesticides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1826197-1						
Lindane	ND		ug/l	0.100	0.022	A
Heptachlor	ND		ug/l	0.100	0.016	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	A
Endrin	ND		ug/l	0.200	0.021	A
Methoxychlor	ND		ug/l	1.00	0.034	A
Toxaphene	ND		ug/l	1.00	0.314	A
Chlordane	ND		ug/l	1.00	0.232	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	102		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: NYSDOT KENSINGTON EXPRESSWAY

Project Number: 20220255

Lab Number: L2351914

Report Date: 09/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Herbicides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1825743-2 WG1825743-3									
2,4-D	78		74		30-150	5		25	A
2,4,5-TP (Silvex)	30		33		30-150	10		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	38		42		30-150	A
DCAA	39		38		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: NYSDOT KENSINGTON EXPRESSWAY

Project Number: 20220255

Lab Number: L2351914

Report Date: 09/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Pesticides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1826197-2 WG1826197-3									
Lindane	76		90		30-150	0		20	A
Heptachlor	70		82		30-150	0		20	A
Heptachlor epoxide	70		81		30-150	0		20	A
Endrin	69		80		30-150	0		20	A
Methoxychlor	70		83		30-150	0		20	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		79		30-150	A
Decachlorobiphenyl	73		92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		79		30-150	B
Decachlorobiphenyl	81		99		30-150	B

METALS

Project Name: NYSDOT KENSINGTON EXPRESSWAY **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

SAMPLE RESULTS

Lab ID: L2351914-01 Date Collected: 09/07/23 12:00

Client ID: 20220255-FH-X-23E Date Received: 09/07/23

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth: TCLP/SPLP Ext. Date: 09/09/23 12:10

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Arsenic, TCLP	0.0346	J	mg/l	1.00	0.0190	1	09/12/23 01:05	09/12/23 08:35	EPA 3015	1,6010D	DMB
Barium, TCLP	0.753		mg/l	0.500	0.0210	1	09/12/23 01:05	09/12/23 08:35	EPA 3015	1,6010D	DMB
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	09/12/23 01:05	09/12/23 08:35	EPA 3015	1,6010D	DMB
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	09/12/23 01:05	09/12/23 08:35	EPA 3015	1,6010D	DMB
Lead, TCLP	ND		mg/l	0.500	0.0270	1	09/12/23 01:05	09/12/23 08:35	EPA 3015	1,6010D	DMB
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	09/11/23 23:26	09/12/23 13:06	EPA 7470A	1,7470A	GMG
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	09/12/23 01:05	09/12/23 08:35	EPA 3015	1,6010D	DMB
Silver, TCLP	ND		mg/l	0.100	0.0280	1	09/12/23 01:05	09/12/23 08:35	EPA 3015	1,6010D	DMB

Project Name: NYSDOT KENSINGTON EXPRESSWAY **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1825872-1										
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	09/12/23 01:05	09/12/23 08:12	1,6010D	DMB
Barium, TCLP	ND		mg/l	0.500	0.0210	1	09/12/23 01:05	09/12/23 08:12	1,6010D	DMB
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	09/12/23 01:05	09/12/23 08:12	1,6010D	DMB
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	09/12/23 01:05	09/12/23 08:12	1,6010D	DMB
Lead, TCLP	ND		mg/l	0.500	0.0270	1	09/12/23 01:05	09/12/23 08:12	1,6010D	DMB
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	09/12/23 01:05	09/12/23 08:12	1,6010D	DMB
Silver, TCLP	ND		mg/l	0.100	0.0280	1	09/12/23 01:05	09/12/23 08:12	1,6010D	DMB

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 09/09/23 12:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1825873-1										
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	09/11/23 23:26	09/12/23 13:00	1,7470A	GMG

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 09/09/23 12:10

Lab Control Sample Analysis

Batch Quality Control

Project Name: NYSDOT KENSINGTON EXPRESSWAY

Project Number: 20220255

Lab Number: L2351914

Report Date: 09/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1825872-2								
Arsenic, TCLP	91		-		75-125	-		20
Barium, TCLP	82		-		75-125	-		20
Cadmium, TCLP	87		-		75-125	-		20
Chromium, TCLP	94		-		75-125	-		20
Lead, TCLP	89		-		75-125	-		20
Selenium, TCLP	88		-		75-125	-		20
Silver, TCLP	89		-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1825873-2								
Mercury, TCLP	101		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: NYSDOT KENSINGTON EXPRESSWAY
Project Number: 20220255
Lab Number: L2351914
Report Date: 09/21/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1825872-3 QC Sample: L2351914-01 Client ID: 20220255-FH-X-23E												
Arsenic, TCLP	0.0346J	1.2	1.13	94		-	-		75-125	-		20
Barium, TCLP	0.753	20	19.4	93		-	-		75-125	-		20
Cadmium, TCLP	ND	0.53	0.465	88		-	-		75-125	-		20
Chromium, TCLP	ND	2	1.92	96		-	-		75-125	-		20
Lead, TCLP	ND	5.3	4.69	88		-	-		75-125	-		20
Selenium, TCLP	ND	1.2	1.04	87		-	-		75-125	-		20
Silver, TCLP	ND	0.5	0.453	91		-	-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1825873-3 QC Sample: L2351914-01 Client ID: 20220255-FH-X-23E												
Mercury, TCLP	ND	0.025	0.0242	97		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: NYSDOT KENSINGTON EXPRESSWAY
Project Number: 20220255

Lab Number: L2351914
Report Date: 09/21/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1825872-4 QC Sample: L2351914-01 Client ID: 20220255-FH-X-23E						
Arsenic, TCLP	0.0346J	0.0392J	mg/l	NC		20
Barium, TCLP	0.753	0.773	mg/l	3		20
Cadmium, TCLP	ND	ND	mg/l	NC		20
Chromium, TCLP	ND	ND	mg/l	NC		20
Lead, TCLP	ND	ND	mg/l	NC		20
Selenium, TCLP	ND	ND	mg/l	NC		20
Silver, TCLP	ND	ND	mg/l	NC		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1825873-4 QC Sample: L2351914-01 Client ID: 20220255-FH-X-23E						
Mercury, TCLP	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: NYSDOT KENSINGTON EXPRESSWA
Project Number: 20220255
Lab Number: L2351914
Report Date: 09/21/23

SAMPLE RESULTS

Lab ID: L2351914-01
Client ID: 20220255-FH-X-23E
Sample Location: Not Specified

Date Collected: 09/07/23 12:00
Date Received: 09/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	09/11/23 19:11	1,1030	GEF

Project Name: NYSDOT KENSINGTON EXPRESSWAY
Project Number: 20220255
Lab Number: L2351914
Report Date: 09/21/23

SAMPLE RESULTS

Lab ID: L2351914-01
Client ID: 20220255-FH-X-23E
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 09/07/23 12:00
Date Received: 09/07/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.4		%	0.100	NA	1	-	09/09/23 10:50	121,2540G	ROI
pH (H)	9.48		SU	-	NA	1	-	09/08/23 20:11	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	10.	1	09/15/23 19:30	09/15/23 20:56	125,7.3	QJM
Sulfide, Reactive	ND		mg/kg	10	10.	1	09/15/23 19:30	09/15/23 21:14	125,7.3	QJM

Project Name: NYSDOT KENSINGTON EXPRESSWA **Lab Number:** L2351914

Project Number: 20220255 **Report Date:** 09/21/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1828098-1										
Sulfide, Reactive	ND		mg/kg	10	10.	1	09/15/23 19:30	09/15/23 21:13	125,7.3	QJM
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1828099-1										
Cyanide, Reactive	ND		mg/kg	10	10.	1	09/15/23 19:30	09/15/23 20:55	125,7.3	QJM

Lab Control Sample Analysis

Batch Quality Control

Project Name: NYSDOT KENSINGTON EXPRESSWAY

Project Number: 20220255

Lab Number: L2351914

Report Date: 09/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1825422-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1828098-2								
Sulfide, Reactive	74		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1828099-2								
Cyanide, Reactive	70		-		30-125	-		40

Lab Duplicate Analysis

Batch Quality Control

Project Name: NYSDOT KENSINGTON EXPRESSWAY

Project Number: 20220255

Lab Number: L2351914

Report Date: 09/21/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1825422-2 QC Sample: L2348757-03 Client ID: DUP Sample						
pH	7.54	7.68	SU	2		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1825530-1 QC Sample: L2351876-01 Client ID: DUP Sample						
Solids, Total	51.6	47.8	%	8		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1828098-3 QC Sample: L2353480-07 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1828099-3 QC Sample: L2353480-07 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40

Project Name: NYSDOT KENSINGTON EXPRESSWAY
Project Number: 20220255

Lab Number: L2351914
Report Date: 09/21/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2351914-01A	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L2351914-01B	Vial Large Septa unpreserved (4oz)	A	NA		2.4	Y	Absent		TCLP-EXT-ZHE(14)
L2351914-01C	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		IGNIT-1030(14),REACTS(14),PH-9045(1),REACTCN(14)
L2351914-01W	Amber 1000ml unpreserved Extracts	A	NA		2.4	Y	Absent		TCLP-8270(14),PEST-TCLP*(14),HERB-TCLP*(14)
L2351914-01X	Plastic 120ml HNO3 preserved Extracts	A	NA		2.4	Y	Absent		CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)
L2351914-01X9	Tumble Vessel	A	NA		2.4	Y	Absent		-
L2351914-01Y	Vial unpreserved Extracts	A	NA		2.4	Y	Absent		TCLP-VOA(14)
L2351914-01Z	Vial unpreserved Extracts	A	NA		2.4	Y	Absent		TCLP-VOA(14)

*Values in parentheses indicate holding time in days

Project Name:	NYSDOT KENSINGTON EXPRESSWAY	**Lab Number:**	L2351914
Project Number:	20220255	**Report Date:**	09/21/23

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	NYSDOT KENSINGTON EXPRESSWAY	**Lab Number:**	L2351914
Project Number:	20220255	**Report Date:**	09/21/23

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

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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.

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	NYSDOT KENSINGTON EXPRESSWAY	**Lab Number:**	L2351914
Project Number:	20220255	**Report Date:**	09/21/23

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

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

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

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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	NYSDOT KENSINGTON EXPRESSWAY	**Lab Number:**	L2351914
Project Number:	20220255	**Report Date:**	09/21/23

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

125 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates IIIA, April 1998.

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 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
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: Chloride, 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, SM4500NO2-B**
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: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, 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 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, 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

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Page 1 of 1

Date Rec'd in Lab: 9/8/23

ALPHA Job #: L2351914

Client Information
Client: Watts A+E
Address: 95 Perry St suite 308
Buffalo, NY 14203
Phone: 716-206-5100
Fax: 716-206-5199
Email: aklimek@watts-ae.com

Project Information
Project Name:
Project Location:
Project #
(Use Project name as Project #) ☐
Project Manager:
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

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

Billing Information
☒ Same as Client Info
PO # per quote
bottle order #434891

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Full TCLP	TS, R, I, C							Sample Specific Comments	Total Bottle
51914-01	20220255-DN-X-23	9-7-23	12:00	Soil	NY	X	X								

Container Type: A | P/A
Preservative: A | A/A

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

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	9-7-23 13:10	Jaclyn Foley (AAL)	9/7/23 13:10
Jaclyn Foley (AAL)	9/7/23 13:10	[signature]	9/8/23 0840

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)

ANALYTICAL REPORT

Lab Number:	L2352639
Client:	Watts Architecture & Engineering P.C 95 Perry Street Suite 300 Buffalo, NY 14203
ATTN:	Andrew Klimek
Phone:	(716) 206-5100
Project Name:	KENSINGTON EXPRESSWAY,NYS RT33
Project Number:	20220255
Report Date:	09/20/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: KENSINGTON EXPRESSWAY,NYS RT33
Project Number: 20220255

Lab Number: L2352639
Report Date: 09/20/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2352639-01	20220255-FH-X-32E	SOIL	BUFFALO, NY 14203	09/11/23 10:35	09/11/23
L2352639-02	20220255-FH-X-34E	SOIL	BUFFALO, NY 14203	09/11/23 11:30	09/11/23

Project Name:	KENSINGTON EXPRESSWAY,NYS RT33	**Lab Number:**	L2352639
Project Number:	20220255	**Report Date:**	09/20/23

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	KENSINGTON EXPRESSWAY,NYS RT33	**Lab Number:**	L2352639
Project Number:	20220255	**Report Date:**	09/20/23

Case Narrative (continued)

Report Submission

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

Sample Receipt

L2352639-01 and -02: The Client ID was specified by the client.

TCLP Semivolatiles

The WG1828125-3 LCSD recovery, associated with L2352639-01 and -02, is below the acceptance criteria for pyridine (8%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

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: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 09/20/23

ORGANICS

VOLATILES

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-01
Client ID: 20220255-FH-X-32E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 10:35
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 09/20/23 06:05
Analyst: MCM
Percent Solids: 89%
TCLP/SPLP Ext. Date: 09/19/23 06:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	2.2	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.71	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	103		70-130
dibromofluoromethane	93		70-130

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-02
Client ID: 20220255-FH-X-34E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 11:30
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 09/20/23 06:29
Analyst: MCM
Percent Solids: 90%
TCLP/SPLP Ext. Date: 09/19/23 06:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	2.2	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.71	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	103		70-130
dibromofluoromethane	90		70-130

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 09/20/23 04:53
Analyst: MCM
TCLP/SPLP Extraction Date: 09/19/23 06:48

Extraction Date: 09/19/23 06:48

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG1829690-5					
Chloroform	ND		ug/l	7.5	2.2
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	0.71
1,1-Dichloroethene	ND		ug/l	5.0	1.7
Trichloroethene	ND		ug/l	5.0	1.8
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	105		70-130
dibromofluoromethane	93		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON EXPRESSWAY,NYS RT33

Project Number: 20220255

Lab Number: L2352639

Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG1829690-3 WG1829690-4								
Chloroform	93		89		70-130	4		20
Carbon tetrachloride	87		86		63-132	1		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		25
1,2-Dichloroethane	84		84		70-130	0		20
Benzene	98		97		70-130	1		25
Vinyl chloride	**47**	Q	**46**	Q	55-140	2		20
1,1-Dichloroethene	90		92		61-145	2		25
Trichloroethene	89		89		70-130	0		25
1,4-Dichlorobenzene	100		100		70-130	0		20
2-Butanone	98		110		63-138	12		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	75		76		70-130
Toluene-d8	99		97		70-130
4-Bromofluorobenzene	105		102		70-130
dibromofluoromethane	90		87		70-130

SEMIVOLATILES

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-01
Client ID: 20220255-FH-X-32E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 10:35
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270E
Analytical Date: 09/17/23 20:34
Analyst: CMM
Percent Solids: 89%
TCLP/SPLP Ext. Date: 09/13/23 06:26

Extraction Method: EPA 3510C
Extraction Date: 09/15/23 20:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	10	3.4	1
2,4-Dinitrotoluene	ND		ug/l	25	1.9	1
Hexachlorobutadiene	ND		ug/l	10	3.0	1
Hexachloroethane	ND		ug/l	10	2.2	1
Nitrobenzene	ND		ug/l	10	3.3	1
2,4,6-Trichlorophenol	ND		ug/l	25	2.5	1
Pentachlorophenol	ND		ug/l	50	9.8	1
2-Methylphenol	ND		ug/l	25	5.5	1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8	1
2,4,5-Trichlorophenol	ND		ug/l	25	1.9	1
Pyridine	ND		ug/l	18	4.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		21-120
Phenol-d6	68		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	65		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	70		33-120

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-02
Client ID: 20220255-FH-X-34E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 11:30
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270E
Analytical Date: 09/17/23 20:57
Analyst: CMM
Percent Solids: 90%
TCLP/SPLP Ext. Date: 09/13/23 06:26

Extraction Method: EPA 3510C
Extraction Date: 09/15/23 20:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	10	3.4	1
2,4-Dinitrotoluene	ND		ug/l	25	1.9	1
Hexachlorobutadiene	ND		ug/l	10	3.0	1
Hexachloroethane	ND		ug/l	10	2.2	1
Nitrobenzene	ND		ug/l	10	3.3	1
2,4,6-Trichlorophenol	ND		ug/l	25	2.5	1
Pentachlorophenol	ND		ug/l	50	9.8	1
2-Methylphenol	ND		ug/l	25	5.5	1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8	1
2,4,5-Trichlorophenol	ND		ug/l	25	1.9	1
Pyridine	ND		ug/l	18	4.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		21-120
Phenol-d6	73		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	66		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	73		33-120

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 09/17/23 19:22
Analyst: CMM
TCLP/SPLP Extraction Date: 09/13/23 06:26

Extraction Method: EPA 3510C
Extraction Date: 09/15/23 20:36

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Semivolatiles by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG1828125-1					
Hexachlorobenzene	ND		ug/l	10	3.4
2,4-Dinitrotoluene	ND		ug/l	25	1.9
Hexachlorobutadiene	ND		ug/l	10	3.0
Hexachloroethane	ND		ug/l	10	2.2
Nitrobenzene	ND		ug/l	10	3.3
2,4,6-Trichlorophenol	ND		ug/l	25	2.5
Pentachlorophenol	ND		ug/l	50	9.8
2-Methylphenol	ND		ug/l	25	5.5
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8
2,4,5-Trichlorophenol	ND		ug/l	25	1.9
Pyridine	ND		ug/l	18	4.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	96		21-120
Phenol-d6	86		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	105		10-120
4-Terphenyl-d14	90		33-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON EXPRESSWAY,NYS RT33

Project Number: 20220255

Lab Number: L2352639

Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Semivolatiles by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG1828125-2 WG1828125-3								
Hexachlorobenzene	71		82		40-140	14		30
2,4-Dinitrotoluene	75		87		40-132	15		30
Hexachlorobutadiene	54		66		28-111	20		30
Hexachloroethane	62		75		21-105	19		30
Nitrobenzene	66		80		40-140	19		30
2,4,6-Trichlorophenol	66		79		30-130	18		30
Pentachlorophenol	74		88		9-103	17		30
2-Methylphenol	71		88		30-130	21		30
3-Methylphenol/4-Methylphenol	74		87		30-130	16		30
2,4,5-Trichlorophenol	69		80		30-130	15		30
Pyridine	39		**8**	Q	10-66	**132**	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	88		102		21-120
Phenol-d6	80		93		10-120
Nitrobenzene-d5	74		86		23-120
2-Fluorobiphenyl	72		83		15-120
2,4,6-Tribromophenol	85		95		10-120
4-Terphenyl-d14	78		90		33-120

PESTICIDES

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-01
Client ID: 20220255-FH-X-32E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 10:35
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/18/23 14:45
Analyst: EJL
Percent Solids: 89%
TCLP/SPLP Ext. Date: 09/13/23 06:26

Extraction Method: EPA 3510C
Extraction Date: 09/15/23 20:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Pesticides by EPA 1311 - Westborough Lab							
Lindane	ND		ug/l	0.100	0.022	1	A
Heptachlor	ND		ug/l	0.100	0.016	1	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	1	A
Endrin	ND		ug/l	0.200	0.021	1	A
Methoxychlor	ND		ug/l	1.00	0.034	1	A
Toxaphene	ND		ug/l	1.00	0.314	1	A
Chlordane	ND		ug/l	1.00	0.232	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	103		30-150	A
2,4,5,6-Tetrachloro-m-xylene	106		30-150	B
Decachlorobiphenyl	101		30-150	B

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-01
Client ID: 20220255-FH-X-32E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 10:35
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/17/23 13:21
Analyst: EJL
Percent Solids: 89%
TCLP/SPLP Ext. Date: 09/13/23 06:26
Methylation Date: 09/15/23 20:09

Extraction Method: EPA 8151A
Extraction Date: 09/14/23 15:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	33		30-150	A
DCAA	33		30-150	B

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-02
Client ID: 20220255-FH-X-34E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 11:30
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/18/23 14:56
Analyst: EJL
Percent Solids: 90%
TCLP/SPLP Ext. Date: 09/13/23 06:26

Extraction Method: EPA 3510C
Extraction Date: 09/15/23 20:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Pesticides by EPA 1311 - Westborough Lab							
Lindane	ND		ug/l	0.100	0.022	1	A
Heptachlor	ND		ug/l	0.100	0.016	1	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	1	A
Endrin	ND		ug/l	0.200	0.021	1	A
Methoxychlor	ND		ug/l	1.00	0.034	1	A
Toxaphene	ND		ug/l	1.00	0.314	1	A
Chlordane	ND		ug/l	1.00	0.232	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	104		30-150	A
Decachlorobiphenyl	119		30-150	A
2,4,5,6-Tetrachloro-m-xylene	112		30-150	B
Decachlorobiphenyl	115		30-150	B

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-02
Client ID: 20220255-FH-X-34E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 11:30
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/17/23 13:40
Analyst: EJL
Percent Solids: 90%
TCLP/SPLP Ext. Date: 09/13/23 06:26
Methylation Date: 09/15/23 20:09

Extraction Method: EPA 8151A
Extraction Date: 09/14/23 15:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	45		30-150	A
DCAA	43		30-150	B

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 09/17/23 12:26
Analyst: EJL
TCLP/SPLP Extraction Date: 09/13/23 06:26
Methylation Date: 09/15/23 20:09

Extraction Method: EPA 8151A
Extraction Date: 09/14/23 15:34

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Herbicides by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG1827626-1						
2,4-D	ND		mg/l	0.025	0.001	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	128		30-150	A
DCAA	119		30-150	B

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/18/23 14:12
Analyst: EJL
TCLP/SPLP Extraction Date: 09/13/23 06:26

Extraction Method: EPA 3510C
Extraction Date: 09/15/23 20:40

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Pesticides by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG1828129-1						
Lindane	ND		ug/l	0.100	0.022	A
Heptachlor	ND		ug/l	0.100	0.016	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	A
Endrin	ND		ug/l	0.200	0.021	A
Methoxychlor	ND		ug/l	1.00	0.034	A
Toxaphene	ND		ug/l	1.00	0.314	A
Chlordane	ND		ug/l	1.00	0.232	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	101		30-150	B
Decachlorobiphenyl	87		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON EXPRESSWAY,NYS RT33

Project Number: 20220255

Lab Number: L2352639

Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Herbicides by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG1827626-2 WG1827626-3									
2,4-D	**164**	Q	115		30-150	**35**	Q	25	A
2,4,5-TP (Silvex)	52		47		30-150	10		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	59		58		30-150	A
DCAA	57		53		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON EXPRESSWAY,NYS RT33

Project Number: 20220255

Lab Number: L2352639

Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Pesticides by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG1828129-2 WG1828129-3									
Lindane	102		104		30-150	2		20	A
Heptachlor	102		110		30-150	8		20	A
Heptachlor epoxide	100		102		30-150	2		20	A
Endrin	102		105		30-150	3		20	A
Methoxychlor	103		106		30-150	3		20	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		110		30-150	A
Decachlorobiphenyl	95		110		30-150	A
2,4,5,6-Tetrachloro-m-xylene	103		117		30-150	B
Decachlorobiphenyl	92		103		30-150	B

METALS

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-01 Date Collected: 09/11/23 10:35

Client ID: 20220255-FH-X-32E Date Received: 09/11/23

Sample Location: BUFFALO, NY 14203 Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/13/23 06:26

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	09/15/23 08:39	09/15/23 15:28	EPA 3015	1,6010D	JMF
Barium, TCLP	0.285	J	mg/l	0.500	0.0210	1	09/15/23 08:39	09/15/23 15:28	EPA 3015	1,6010D	JMF
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	09/15/23 08:39	09/15/23 15:28	EPA 3015	1,6010D	JMF
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	09/15/23 08:39	09/15/23 15:28	EPA 3015	1,6010D	JMF
Lead, TCLP	ND		mg/l	0.500	0.0270	1	09/15/23 08:39	09/15/23 15:28	EPA 3015	1,6010D	JMF
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	09/14/23 16:25	09/18/23 21:31	EPA 7470A	1,7470A	MJR
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	09/15/23 08:39	09/15/23 15:28	EPA 3015	1,6010D	JMF
Silver, TCLP	ND		mg/l	0.100	0.0280	1	09/15/23 08:39	09/15/23 15:28	EPA 3015	1,6010D	JMF

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-02 Date Collected: 09/11/23 11:30

Client ID: 20220255-FH-X-34E Date Received: 09/11/23

Sample Location: BUFFALO, NY 14203 Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

TCLP/SPLP Ext. Date: 09/13/23 06:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	09/15/23 08:39	09/15/23 15:25	EPA 3015	1,6010D	JMF
Barium, TCLP	0.328	J	mg/l	0.500	0.0210	1	09/15/23 08:39	09/15/23 15:25	EPA 3015	1,6010D	JMF
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	09/15/23 08:39	09/15/23 15:25	EPA 3015	1,6010D	JMF
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	09/15/23 08:39	09/15/23 15:25	EPA 3015	1,6010D	JMF
Lead, TCLP	ND		mg/l	0.500	0.0270	1	09/15/23 08:39	09/15/23 15:25	EPA 3015	1,6010D	JMF
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	09/14/23 16:25	09/18/23 21:41	EPA 7470A	1,7470A	MJR
Selenium, TCLP	0.0354	J	mg/l	0.500	0.0350	1	09/15/23 08:39	09/15/23 15:25	EPA 3015	1,6010D	JMF
Silver, TCLP	ND		mg/l	0.100	0.0280	1	09/15/23 08:39	09/15/23 15:25	EPA 3015	1,6010D	JMF

Project Name: KENSINGTON EXPRESSWAY,NYS RT33 **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-02 Batch: WG1827475-1										
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	09/15/23 08:39	09/15/23 15:19	1,6010D	JMF
Barium, TCLP	ND		mg/l	0.500	0.0210	1	09/15/23 08:39	09/15/23 15:19	1,6010D	JMF
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	09/15/23 08:39	09/15/23 15:19	1,6010D	JMF
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	09/15/23 08:39	09/15/23 15:19	1,6010D	JMF
Lead, TCLP	ND		mg/l	0.500	0.0270	1	09/15/23 08:39	09/15/23 15:19	1,6010D	JMF
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	09/15/23 08:39	09/15/23 15:19	1,6010D	JMF
Silver, TCLP	ND		mg/l	0.100	0.0280	1	09/15/23 08:39	09/15/23 15:19	1,6010D	JMF

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 09/13/23 06:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-02 Batch: WG1827476-1										
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	09/14/23 16:25	09/18/23 21:25	1,7470A	MJR

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 09/13/23 06:26

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON EXPRESSWAY,NYS RT33

Project Number: 20220255

Lab Number: L2352639

Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1827475-2								
Arsenic, TCLP	97		-		75-125	-		20
Barium, TCLP	98		-		75-125	-		20
Cadmium, TCLP	97		-		75-125	-		20
Chromium, TCLP	104		-		75-125	-		20
Lead, TCLP	99		-		75-125	-		20
Selenium, TCLP	101		-		75-125	-		20
Silver, TCLP	101		-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1827476-2								
Mercury, TCLP	90		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: KENSINGTON EXPRESSWAY,NYS RT33
Project Number: 20220255
Lab Number: L2352639
Report Date: 09/20/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1827475-3 QC Sample: L2352639-01 Client ID: 20220255-FH-X-32E												
Arsenic, TCLP	ND	1.2	1.16	97		-	-		75-125	-		20
Barium, TCLP	0.285J	20	19.2	96		-	-		75-125	-		20
Cadmium, TCLP	ND	0.53	0.458	86		-	-		75-125	-		20
Chromium, TCLP	ND	2	1.85	92		-	-		75-125	-		20
Lead, TCLP	ND	5.3	4.95	93		-	-		75-125	-		20
Selenium, TCLP	ND	1.2	1.20	100		-	-		75-125	-		20
Silver, TCLP	ND	0.5	0.474	95		-	-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1827476-3 QC Sample: L2352639-01 Client ID: 20220255-FH-X-32E												
Mercury, TCLP	ND	0.025	0.0222	89		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: KENSINGTON EXPRESSWAY,NYS RT33

Project Number: 20220255

Lab Number: L2352639

Report Date: 09/20/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1827475-4 QC Sample: L2352639-01 Client ID: 20220255-FH-X-32E						
Arsenic, TCLP	ND	ND	mg/l	NC		20
Barium, TCLP	0.285J	0.292J	mg/l	NC		20
Cadmium, TCLP	ND	ND	mg/l	NC		20
Chromium, TCLP	ND	ND	mg/l	NC		20
Lead, TCLP	ND	ND	mg/l	NC		20
Selenium, TCLP	ND	ND	mg/l	NC		20
Silver, TCLP	ND	ND	mg/l	NC		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1827476-4 QC Sample: L2352639-01 Client ID: 20220255-FH-X-32E						
Mercury, TCLP	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: KENSINGTON EXPRESSWAY,NYS RT
Project Number: 20220255
Lab Number: L2352639
Report Date: 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-01
Client ID: 20220255-FH-X-32E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 10:35
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	09/18/23 15:39	1,1030	GEF

Project Name: KENSINGTON EXPRESSWAY,NYS RT
Project Number: 20220255
Lab Number: L2352639
Report Date: 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-02
Client ID: 20220255-FH-X-34E
Sample Location: BUFFALO, NY 14203

Date Collected: 09/11/23 11:30
Date Received: 09/11/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	09/18/23 15:39	1,1030	GEF

Project Name: KENSINGTON EXPRESSWAY,NYS RT33
Project Number: 20220255
Lab Number: L2352639
Report Date: 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-01
Client ID: 20220255-FH-X-32E
Sample Location: BUFFALO, NY 14203
Sample Depth:
Matrix: Soil

Date Collected: 09/11/23 10:35
Date Received: 09/11/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.0		%	0.100	NA	1	-	09/12/23 12:05	121,2540G	ROI
pH (H)	10.9		SU	-	NA	1	-	09/12/23 20:03	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:13	125,7.3	QJM
Sulfide, Reactive	ND		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:28	125,7.3	QJM

Project Name: KENSINGTON EXPRESSWAY,NYS RT33
Project Number: 20220255
Lab Number: L2352639
Report Date: 09/20/23

SAMPLE RESULTS

Lab ID: L2352639-02
Client ID: 20220255-FH-X-34E
Sample Location: BUFFALO, NY 14203
Sample Depth:
Matrix: Soil

Date Collected: 09/11/23 11:30
Date Received: 09/11/23
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.9		%	0.100	NA	1	-	09/12/23 12:05	121,2540G	ROI
pH (H)	11.0		SU	-	NA	1	-	09/12/23 20:03	1,9045D	AAS
Cyanide, Reactive	ND		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:13	125,7.3	QJM
Sulfide, Reactive	51		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:28	125,7.3	QJM

Project Name: KENSINGTON EXPRESSWAY,NYS RT **Lab Number:** L2352639

Project Number: 20220255 **Report Date:** 09/20/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1827663-1										
Sulfide, Reactive	ND		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:25	125,7.3	QJM
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1827664-1										
Cyanide, Reactive	ND		mg/kg	10	10.	1	09/14/23 19:10	09/14/23 21:11	125,7.3	QJM

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON EXPRESSWAY,NYS RT33

Project Number: 20220255

Lab Number: L2352639

Report Date: 09/20/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1826701-1								
pH	99		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1827663-2								
Sulfide, Reactive	88		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1827664-2								
Cyanide, Reactive	70		-		30-125	-		40

Lab Duplicate Analysis

Batch Quality Control

Project Name: KENSINGTON EXPRESSWAY,NYS RT33

Project Number: 20220255

Lab Number: L2352639

Report Date: 09/20/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1826356-1 QC Sample: L2352695-01 Client ID: DUP Sample						
Solids, Total	75.3	75.3	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1826701-2 QC Sample: L2350303-01 Client ID: DUP Sample						
pH	4.36	4.37	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1827663-3 QC Sample: L2353315-01 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1827664-3 QC Sample: L2353315-01 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40

Project Name: KENSINGTON EXPRESSWAY,NYS RT33
Project Number: 20220255

Lab Number: L2352639
Report Date: 09/20/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2352639-01A	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2352639-01B	Vial Large Septa unpreserved (4oz)	A	NA		2.8	Y	Absent		TCLP-EXT-ZHE(14)
L2352639-01C	Glass 500ml/16oz unpreserved	A	NA		2.8	Y	Absent		IGNIT-1030(14),REACTS(14),PH-9045(1),REACTCN(14)
L2352639-01W	Amber 1000ml unpreserved Extracts	A	NA		2.8	Y	Absent		TCLP-8270(14),HERB-TCLP*(14),PEST-TCLP*(14)
L2352639-01X	Plastic 120ml HNO3 preserved Extracts	A	NA		2.8	Y	Absent		CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180)
L2352639-01X9	Tumble Vessel	A	NA		2.8	Y	Absent		-
L2352639-01Y	Vial unpreserved Extracts	A	NA		2.8	Y	Absent		TCLP-VOA(14)
L2352639-01Z	Vial unpreserved Extracts	A	NA		2.8	Y	Absent		TCLP-VOA(14)
L2352639-02A	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2352639-02B	Vial Large Septa unpreserved (4oz)	A	NA		2.8	Y	Absent		TCLP-EXT-ZHE(14)
L2352639-02C	Glass 500ml/16oz unpreserved	A	NA		2.8	Y	Absent		REACTS(14),IGNIT-1030(14),PH-9045(1),REACTCN(14)
L2352639-02W	Amber 1000ml unpreserved Extracts	A	NA		2.8	Y	Absent		TCLP-8270(14),HERB-TCLP*(14),PEST-TCLP*(14)
L2352639-02X	Plastic 120ml HNO3 preserved Extracts	A	NA		2.8	Y	Absent		CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180)
L2352639-02X9	Tumble Vessel	A	NA		2.8	Y	Absent		-
L2352639-02Y	Vial unpreserved Extracts	A	NA		2.8	Y	Absent		TCLP-VOA(14)
L2352639-02Z	Vial unpreserved Extracts	A	NA		2.8	Y	Absent		TCLP-VOA(14)

*Values in parentheses indicate holding time in days

Project Name:	KENSINGTON EXPRESSWAY,NYS RT33	**Lab Number:**	L2352639
Project Number:	20220255	**Report Date:**	09/20/23

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	KENSINGTON EXPRESSWAY,NYS RT33	**Lab Number:**	L2352639
Project Number:	20220255	**Report Date:**	09/20/23

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

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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.

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	KENSINGTON EXPRESSWAY,NYS RT33	**Lab Number:**	L2352639
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Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

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

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

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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	KENSINGTON EXPRESSWAY,NYS RT33	**Lab Number:**	L2352639
Project Number:	20220255	**Report Date:**	09/20/23

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

125 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates IIIA, April 1998.

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 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
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: Chloride, 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, SM4500NO2-B**
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: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, 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 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, 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

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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 1 of 1

Date Rec'd in Lab: 9/12/23

ALPHA Job #: L2352639

Client Information
Client: Watts A&E
Address: 95 Perry St. Suite 300
Buffalo NY 14203
Phone: 716-206-5100
Fax: 716-206-5199
Email: aklimek@watts-ae.com

Project Information
Project Name: Kensington Expressway, NYS Rt 33
Project Location: Buffalo NY 14203
Project #: 20220255
(Use Project name as Project #) ☐
Project Manager: A. Klimek
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

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

Billing Information
☒ Same as Client Info
PO # Per Quote, Bottle Order # 434891

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Full TCLP	TS, R, I, C.	Sample Specific Comments	Total Bottle
52639-01	20220255-DW-X-32	9/11/23	10:35	Water	SOIL	X	X		3
-02	20220255-DN-X-34	9/11/23	11:30	Water	SOIL	X	X		3

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	A	P/A							
Preservative	A	A/A							

Relinquished By:	Date/Time	Received By:	Date/Time
Matthew E Hayes	9-11-23/13:20	Jaclyn Foley (AAL)	9/11/23 13:20
Jaclyn Foley (AAL)	9/11/23 13:20	[signature]	9/12/23 0030

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)

ANALYTICAL REPORT

Lab Number:	L2353274
Client:	Watts Architecture & Engineering P.C 95 Perry Street Suite 300 Buffalo, NY 14203
ATTN:	Andrew Klimek
Phone:	(716) 206-5100
Project Name:	KENSINGTON, NYS RT 33
Project Number:	20220255
Report Date:	09/22/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: KENSINGTON, NYS RT 33
Project Number: 20220255

Lab Number: L2353274
Report Date: 09/22/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2353274-01	20220255-FH-X-07E	SOIL	BUFFALO, NY	09/13/23 11:20	09/13/23

Project Name:	KENSINGTON, NYS RT 33	**Lab Number:**	L2353274
Project Number:	20220255	**Report Date:**	09/22/23

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	KENSINGTON, NYS RT 33	**Lab Number:**	L2353274
Project Number:	20220255	**Report Date:**	09/22/23

Case Narrative (continued)

Report Submission

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: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 09/22/23

ORGANICS

VOLATILES

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

SAMPLE RESULTS

Lab ID: L2353274-01
Client ID: 20220255-FH-X-07E
Sample Location: BUFFALO, NY

Date Collected: 09/13/23 11:20
Date Received: 09/13/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 09/21/23 10:40
Analyst: MCM
Percent Solids: 88%
TCLP/SPLP Ext. Date: 09/20/23 11:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	2.2	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	0.71	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	79		70-130
dibromofluoromethane	116		70-130

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 09/21/23 07:37
Analyst: MCM
TCLP/SPLP Extraction Date: 09/20/23 11:01

Extraction Date: 09/20/23 11:01

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1830248-5					
Chloroform	ND		ug/l	7.5	2.2
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	0.71
1,1-Dichloroethene	ND		ug/l	5.0	1.7
Trichloroethene	ND		ug/l	5.0	1.8
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	80		70-130
dibromofluoromethane	115		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT 33
Project Number: 20220255
Lab Number: L2353274
Report Date: 09/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1830248-3 WG1830248-4								
Chloroform	98		95		70-130	3		20
Carbon tetrachloride	100		98		63-132	2		20
Tetrachloroethene	120		110		70-130	9		20
Chlorobenzene	100		100		75-130	0		25
1,2-Dichloroethane	89		86		70-130	3		20
Benzene	99		95		70-130	4		25
Vinyl chloride	98		93		55-140	5		20
1,1-Dichloroethene	110		110		61-145	0		25
Trichloroethene	95		91		70-130	4		25
1,4-Dichlorobenzene	100		97		70-130	3		20
2-Butanone	82		84		63-138	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		97		70-130
Toluene-d8	97		97		70-130
4-Bromofluorobenzene	78		80		70-130
dibromofluoromethane	107		104		70-130

SEMIVOLATILES

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

SAMPLE RESULTS

Lab ID: L2353274-01
Client ID: 20220255-FH-X-07E
Sample Location: BUFFALO, NY

Date Collected: 09/13/23 11:20
Date Received: 09/13/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270E
Analytical Date: 09/20/23 01:00
Analyst: MG
Percent Solids: 88%
TCLP/SPLP Ext. Date: 09/16/23 04:35

Extraction Method: EPA 3510C
Extraction Date: 09/18/23 20:57

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Semivolatiles by EPA 1311 - Westborough Lab						
Hexachlorobenzene	ND		ug/l	10	3.4	1
2,4-Dinitrotoluene	ND		ug/l	25	1.9	1
Hexachlorobutadiene	ND		ug/l	10	3.0	1
Hexachloroethane	ND		ug/l	10	2.2	1
Nitrobenzene	ND		ug/l	10	3.3	1
2,4,6-Trichlorophenol	ND		ug/l	25	2.5	1
Pentachlorophenol	ND		ug/l	50	9.8	1
2-Methylphenol	ND		ug/l	25	5.5	1
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8	1
2,4,5-Trichlorophenol	ND		ug/l	25	1.9	1
Pyridine	ND		ug/l	18	4.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	56		15-120
2,4,6-Tribromophenol	69		10-120
4-Terphenyl-d14	63		33-120

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 09/19/23 14:05
Analyst: AH
TCLP/SPLP Extraction Date: 09/16/23 04:35

Extraction Method: EPA 3510C
Extraction Date: 09/18/23 20:57

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Semivolatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1828933-1					
Hexachlorobenzene	ND		ug/l	10	3.4
2,4-Dinitrotoluene	ND		ug/l	25	1.9
Hexachlorobutadiene	ND		ug/l	10	3.0
Hexachloroethane	ND		ug/l	10	2.2
Nitrobenzene	ND		ug/l	10	3.3
2,4,6-Trichlorophenol	ND		ug/l	25	2.5
Pentachlorophenol	ND		ug/l	50	9.8
2-Methylphenol	ND		ug/l	25	5.5
3-Methylphenol/4-Methylphenol	ND		ug/l	25	2.8
2,4,5-Trichlorophenol	ND		ug/l	25	1.9
Pyridine	ND		ug/l	18	4.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		21-120
Phenol-d6	59		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	69		15-120
2,4,6-Tribromophenol	88		10-120
4-Terphenyl-d14	71		33-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT 33
Project Number: 20220255
Lab Number: L2353274
Report Date: 09/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Semivolatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1828933-2 WG1828933-3								
Hexachlorobenzene	75		68		40-140	10		30
2,4-Dinitrotoluene	77		70		40-132	10		30
Hexachlorobutadiene	62		58		28-111	7		30
Hexachloroethane	58		51		21-105	13		30
Nitrobenzene	64		57		40-140	12		30
2,4,6-Trichlorophenol	84		76		30-130	10		30
Pentachlorophenol	**112**	Q	100		9-103	11		30
2-Methylphenol	73		65		30-130	12		30
3-Methylphenol/4-Methylphenol	75		66		30-130	13		30
2,4,5-Trichlorophenol	81		75		30-130	8		30
Pyridine	53		27		10-66	**65**	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	75		68		21-120
Phenol-d6	65		58		10-120
Nitrobenzene-d5	65		57		23-120
2-Fluorobiphenyl	71		68		15-120
2,4,6-Tribromophenol	92		87		10-120
4-Terphenyl-d14	72		66		33-120

PESTICIDES

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

SAMPLE RESULTS

Lab ID: L2353274-01
Client ID: 20220255-FH-X-07E
Sample Location: BUFFALO, NY

Date Collected: 09/13/23 11:20
Date Received: 09/13/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/20/23 11:25
Analyst: AKM
Percent Solids: 88%
TCLP/SPLP Ext. Date: 09/16/23 04:35

Extraction Method: EPA 3510C
Extraction Date: 09/19/23 19:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Pesticides by EPA 1311 - Westborough Lab							
Lindane	ND		ug/l	0.100	0.022	1	A
Heptachlor	ND		ug/l	0.100	0.016	1	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	1	A
Endrin	ND		ug/l	0.200	0.021	1	A
Methoxychlor	ND		ug/l	1.00	0.034	1	A
Toxaphene	ND		ug/l	1.00	0.314	1	A
Chlordane	ND		ug/l	1.00	0.232	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	90		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	99		30-150	B

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

SAMPLE RESULTS

Lab ID: L2353274-01
Client ID: 20220255-FH-X-07E
Sample Location: BUFFALO, NY

Date Collected: 09/13/23 11:20
Date Received: 09/13/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/20/23 13:18
Analyst: MMG
Percent Solids: 88%
TCLP/SPLP Ext. Date: 09/16/23 04:35
Methylation Date: 09/19/23 20:01

Extraction Method: EPA 8151A
Extraction Date: 09/18/23 23:23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	40		30-150	A
DCAA	37		30-150	B

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 09/19/23 09:12
Analyst: MMG
TCLP/SPLP Extraction Date: 09/16/23 04:35
Methylation Date: 09/19/23 05:55

Extraction Method: EPA 8151A
Extraction Date: 09/18/23 11:11

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Herbicides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1828712-1						
2,4-D	ND		mg/l	0.025	0.001	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	65		30-150	A
DCAA	63		30-150	B

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/20/23 10:49
Analyst: AKM
TCLP/SPLP Extraction Date: 09/16/23 04:35

Extraction Method: EPA 3510C
Extraction Date: 09/19/23 19:46

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Pesticides by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG1829426-1						
Lindane	ND		ug/l	0.100	0.022	A
Heptachlor	ND		ug/l	0.100	0.016	A
Heptachlor epoxide	ND		ug/l	0.100	0.021	A
Endrin	ND		ug/l	0.200	0.021	A
Methoxychlor	ND		ug/l	1.00	0.034	A
Toxaphene	ND		ug/l	1.00	0.314	A
Chlordane	ND		ug/l	1.00	0.232	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	106		30-150	A
2,4,5,6-Tetrachloro-m-xylene	97		30-150	B
Decachlorobiphenyl	114		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON, NYS RT 33

Project Number: 20220255

Lab Number: L2353274

Report Date: 09/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Herbicides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1828712-2 WG1828712-3									
2,4-D	100		92		30-150	8		25	A
2,4,5-TP (Silvex)	48		48		30-150	0		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	59		57		30-150	A
DCAA	61		59		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT 33
Project Number: 20220255
Lab Number: L2353274
Report Date: 09/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Pesticides by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG1829426-2 WG1829426-3									
Lindane	102		112		30-150	9		20	A
Heptachlor	106		122		30-150	14		20	A
Heptachlor epoxide	105		116		30-150	10		20	A
Endrin	106		118		30-150	11		20	A
Methoxychlor	132		**158**	Q	30-150	18		20	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	91		101		30-150	A
Decachlorobiphenyl	101		113		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		103		30-150	B
Decachlorobiphenyl	111		124		30-150	B

METALS

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

SAMPLE RESULTS

Lab ID: L2353274-01 Date Collected: 09/13/23 11:20

Client ID: 20220255-FH-X-07E Date Received: 09/13/23

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth: TCLP/SPLP Ext. Date: 09/16/23 04:35

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab											
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	09/19/23 10:53	09/19/23 17:21	EPA 3015	1,6010D	JMF
Barium, TCLP	0.715		mg/l	0.500	0.0210	1	09/19/23 10:53	09/19/23 17:21	EPA 3015	1,6010D	JMF
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	09/19/23 10:53	09/19/23 17:21	EPA 3015	1,6010D	JMF
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	09/19/23 10:53	09/19/23 17:21	EPA 3015	1,6010D	JMF
Lead, TCLP	ND		mg/l	0.500	0.0270	1	09/19/23 10:53	09/19/23 17:21	EPA 3015	1,6010D	JMF
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	09/19/23 12:12	09/19/23 15:44	EPA 7470A	1,7470A	GMG
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	09/19/23 10:53	09/19/23 17:21	EPA 3015	1,6010D	JMF
Silver, TCLP	ND		mg/l	0.100	0.0280	1	09/19/23 10:53	09/19/23 17:21	EPA 3015	1,6010D	JMF

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1828877-1										
Arsenic, TCLP	ND		mg/l	1.00	0.0190	1	09/19/23 10:53	09/19/23 16:18	1,6010D	JMF
Barium, TCLP	ND		mg/l	0.500	0.0210	1	09/19/23 10:53	09/19/23 16:18	1,6010D	JMF
Cadmium, TCLP	ND		mg/l	0.100	0.0100	1	09/19/23 10:53	09/19/23 16:18	1,6010D	JMF
Chromium, TCLP	ND		mg/l	0.200	0.0210	1	09/19/23 10:53	09/19/23 16:18	1,6010D	JMF
Lead, TCLP	0.0626	J	mg/l	0.500	0.0270	1	09/19/23 10:53	09/19/23 16:18	1,6010D	JMF
Selenium, TCLP	ND		mg/l	0.500	0.0350	1	09/19/23 10:53	09/19/23 16:18	1,6010D	JMF
Silver, TCLP	ND		mg/l	0.100	0.0280	1	09/19/23 10:53	09/19/23 16:18	1,6010D	JMF

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 09/16/23 04:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01 Batch: WG1828881-1										
Mercury, TCLP	ND		mg/l	0.0010	0.0005	1	09/19/23 12:12	09/19/23 15:18	1,7470A	GMG

Prep Information

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 09/16/23 04:35

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON, NYS RT 33

Project Number: 20220255

Lab Number: L2353274

Report Date: 09/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1828877-2								
Arsenic, TCLP	95		-		75-125	-		20
Barium, TCLP	94		-		75-125	-		20
Cadmium, TCLP	90		-		75-125	-		20
Chromium, TCLP	90		-		75-125	-		20
Lead, TCLP	93		-		75-125	-		20
Selenium, TCLP	101		-		75-125	-		20
Silver, TCLP	92		-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 Batch: WG1828881-2								
Mercury, TCLP	105		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT 33
Project Number: 20220255
Lab Number: L2353274
Report Date: 09/22/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1828877-3 QC Sample: L2353896-01 Client ID: MS Sample												
Arsenic, TCLP	ND	1.2	1.23	102		-	-		75-125	-		20
Barium, TCLP	0.208J	20	19.0	95		-	-		75-125	-		20
Cadmium, TCLP	ND	0.53	0.514	97		-	-		75-125	-		20
Chromium, TCLP	ND	2	1.96	98		-	-		75-125	-		20
Lead, TCLP	ND	5.3	5.12	97		-	-		75-125	-		20
Selenium, TCLP	ND	1.2	1.30	108		-	-		75-125	-		20
Silver, TCLP	ND	0.5	0.510	102		-	-		75-125	-		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1828881-3 QC Sample: L2354078-01 Client ID: MS Sample												
Mercury, TCLP	ND	0.025	0.0260	104		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: KENSINGTON, NYS RT 33
Project Number: 20220255

Lab Number: L2353274
Report Date: 09/22/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1828877-4 QC Sample: L2353896-01 Client ID: DUP Sample						
Arsenic, TCLP	ND	ND	mg/l	NC		20
Barium, TCLP	0.208J	0.215J	mg/l	NC		20
Cadmium, TCLP	ND	ND	mg/l	NC		20
Chromium, TCLP	ND	ND	mg/l	NC		20
Lead, TCLP	ND	ND	mg/l	NC		20
Selenium, TCLP	ND	ND	mg/l	NC		20
Silver, TCLP	ND	ND	mg/l	NC		20
TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1828881-4 QC Sample: L2354078-01 Client ID: DUP Sample						
Mercury, TCLP	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: KENSINGTON, NYS RT 33
Project Number: 20220255
Lab Number: L2353274
Report Date: 09/22/23

SAMPLE RESULTS

Lab ID: L2353274-01
Client ID: 20220255-FH-X-07E
Sample Location: BUFFALO, NY

Date Collected: 09/13/23 11:20
Date Received: 09/13/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Damp Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	09/21/23 15:18	1,1030	GEF

Project Name: KENSINGTON, NYS RT 33
Project Number: 20220255
Lab Number: L2353274
Report Date: 09/22/23

SAMPLE RESULTS

Lab ID: L2353274-01
Client ID: 20220255-FH-X-07E
Sample Location: BUFFALO, NY
Date Collected: 09/13/23 11:20
Date Received: 09/13/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.4		%	0.100	NA	1	-	09/15/23 09:36	121,2540G	ROI
pH (H)	9.44		SU	-	NA	1	-	09/22/23 10:42	1,9045D	KEP
Cyanide, Reactive	ND		mg/kg	10	10.	1	09/19/23 09:39	09/19/23 11:30	125,7.3	JLB
Sulfide, Reactive	ND		mg/kg	10	10.	1	09/19/23 09:39	09/19/23 11:50	125,7.3	JLB

Project Name: KENSINGTON, NYS RT 33 **Lab Number:** L2353274

Project Number: 20220255 **Report Date:** 09/22/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1829082-1										
Cyanide, Reactive	ND		mg/kg	10	10.	1	09/19/23 09:39	09/19/23 11:29	125,7.3	JLB
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1829084-1										
Sulfide, Reactive	ND		mg/kg	10	10.	1	09/19/23 09:39	09/19/23 11:49	125,7.3	JLB

Lab Control Sample Analysis

Batch Quality Control

Project Name: KENSINGTON, NYS RT 33

Project Number: 20220255

Lab Number: L2353274

Report Date: 09/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1829082-2								
Cyanide, Reactive	122		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1829084-2								
Sulfide, Reactive	92		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1830527-1								
pH	100		-		99-101	-		

Lab Duplicate Analysis

Batch Quality Control

Project Name: KENSINGTON, NYS RT 33

Project Number: 20220255

Lab Number: L2353274

Report Date: 09/22/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1827827-1 QC Sample: L2353159-01 Client ID: DUP Sample						
Solids, Total	59.6	52.5	%	13		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1829082-3 QC Sample: L2354033-01 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1829084-3 QC Sample: L2354033-01 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1830527-2 QC Sample: L2349316-05 Client ID: DUP Sample						
pH	4.88	4.94	SU	1		5

Project Name: KENSINGTON, NYS RT 33
Project Number: 20220255

Lab Number: L2353274
Report Date: 09/22/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2353274-01A	Vial Large Septa unpreserved (4oz)	A	NA		3.9	Y	Absent		TCLP-EXT-ZHE(14)
L2353274-01B	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)
L2353274-01C	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		IGNIT-1030(14),REACTS(14),PH-9045(1),REACTCN(14)
L2353274-01W	Amber 1000ml unpreserved Extracts	A	NA		3.9	Y	Absent		TCLP-8270(14),HERB-TCLP*(14),PEST-TCLP*(14)
L2353274-01X	Plastic 120ml HNO3 preserved Extracts	A	NA		3.9	Y	Absent		CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180)
L2353274-01X9	Tumble Vessel	A	NA		3.9	Y	Absent		-
L2353274-01Y	Vial unpreserved Extracts	A	NA		3.9	Y	Absent		TCLP-VOA(14)
L2353274-01Z	Vial unpreserved Extracts	A	NA		3.9	Y	Absent		TCLP-VOA(14)

*Values in parentheses indicate holding time in days

Project Name:	KENSINGTON, NYS RT 33	**Lab Number:**	L2353274
Project Number:	20220255	**Report Date:**	09/22/23

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	KENSINGTON, NYS RT 33	**Lab Number:**	L2353274
Project Number:	20220255	**Report Date:**	09/22/23

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

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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.

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	KENSINGTON, NYS RT 33	**Lab Number:**	L2353274
Project Number:	20220255	**Report Date:**	09/22/23

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

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

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

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.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	KENSINGTON, NYS RT 33	**Lab Number:**	L2353274
Project Number:	20220255	**Report Date:**	09/22/23

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

125 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates IIIA, April 1998.

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 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
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: Chloride, 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, SM4500NO2-B**
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: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, 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 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, 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

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

Page: 1 of 1

Date Rec'd in Lab: 9/14/23

ALPHA Job #: L2353274

Client Information
Client: Watts A&E
Address: 95 Perry St. Ste 300
Buffalo, NY 14203
Phone: 716-206-5100
Fax: 716-206-5199
Email: aklimek@watts-ae.com

Project Information
Project Name: Kensington, NYS RE 33
Project Location: Buffalo, NY
Project #: 20220255
(Use Project name as Project #) ☐
Project Manager: A. Klimek
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

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

Billing Information
☒ Same as Client Info
PO # Per Quote
Battlecreek 434891

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	FULTCLP	TS, R, I, C	Sample Specific Comments	Total Bottle
53274-01	20220255-FH-X-07e	9/13/23	11:20	Soil	MGM	X	X		3

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	A	P/A							
Preservative	A	A/A							

Relinquished By:	Date/Time	Received By:	Date/Time
Matthew Helgel	9/13/2023 / 12:25	[illegible]	9/13/23 1225
[illegible]	9/13/23 [illegible]	[illegible]	9/14/23 00:40

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)