September 14, 2018 Service Request No:R1807889

Ms. Alene Onion
New York State DEC
625 Broadway
Albany, NY 12233-3502

Laboratory Results for: LCI

Dear Ms.Onion,

Enclosed are the results of the sample(s) submitted to our laboratory August 17, 2018
For your reference, these analyses have been assigned our service request number **R1807889.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Jason Fagel

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Environmental

Client: New York State DEC
Project: LCI
Sample Matrix: Water

Service Request: R1807889
Date Received: 08/17/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV, validation deliverables including all summary forms and associated raw data. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Eighteen water samples were received for analysis at ALS Environmental on 08/17/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

Method SM 2120 B-2001(2011), One or more samples were received past the recommended holding time. The customer was notified when the discrepancy was found and instructed the laboratory to proceed with processing. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time violation.

Approved by _____ Date 09/14/2018

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: New York State DEC **Service Request:**R1807889
Project: LCI/LCI2018

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1807889-001	18LHB201	8/15/2018	0925
R1807889-002	18LHB201 Diss	8/15/2018	0925
R1807889-003	18LHB233	8/15/2018	1130
R1807889-004	18LHB233 Diss	8/15/2018	1130
R1807889-005	18LHB234	8/15/2018	1135
R1807889-006	18LHB234 Diss	8/15/2018	1135
R1807889-007	18LHB229	8/15/2018	1308
R1807889-008	18LHB229 Diss	8/15/2018	1308
R1807889-009	18LHB230	8/15/2018	1317
R1807889-010	18LHB230 Diss	8/15/2018	1317
R1807889-011	18LHB235	8/15/2018	0820
R1807889-012	18LHB235 Diss	8/15/2018	0820
R1807889-013	18LHB213	8/15/2018	1000
R1807889-014	18LHB213 Diss	8/15/2018	1000
R1807889-015	18LHB237	8/15/2018	1200
R1807889-016	18LHB237 Diss	8/15/2018	1200
R1807889-017	18LHB231	8/15/2018	1410
R1807889-018	18LHB231 Diss	8/15/2018	1410

CHAIN OF CUSTODY

Page 1 of 1

New York State Department of Environmental Conservation – Division of Water

Project Name: LCI	**Project Number:** LCI2018	**NYSDEC SDG:**
Sampler Collector: Jesse Hall2	**Sampler Signature:**	**Sampler Phone No.:** (914) 960-0039
Project Manager: Alene Onion	**X Report to Project Manager** **Report to:**	☐ **Bill to Project Manager** **Bill to:** Jason Fagel
Address: 625 Broadway, 4th Floor Albany, NY 12233-3502	**Address:**	**Address:** 625 Broadway, 4th Floor Albany, NY 12233-3502
Phone: (518) 402-8166	**Phone:**	**Phone:** 518-402-8156
Email: alene.onion@dec.ny.gov	**Email:**	**Email:** Jason.fagel@dec.ny.gov

Matrix Codes:
WW = Wastewater
GW = Groundwater
AW = Ambient Water
SE = Sediment
SL = Sludge
T = Tissue
O = Other _____

Preservative Codes:
0 = Cool to < 6°C
1 = HCL
2 = HNO_3
3 = H_2SO_4
4 = NaOH
5 = Zn. Acetate
6 = MeOH
7 = NaHSO4
8 = Other_____

Analyses Ordered (list)

NYSDEC LCI Sample ID	Collection Date	Collection Time	Matrix Code	No. of Containers	3 TP, NH4, NOx, TKN	3 ANC TP, NH4, NOx, TKN, NO3	3 Dissolved TOP4	2 Fe, Mn, As,	2 ANC Ca, Mg, Na, K	2 Fe, Mn, As, Ca, Mg, Na, K	0 Color	3 TOC	3 ANC DOC	0 Alkalinity	0 SO4 & UV-254	0 ANC SO4, Cl	0 SO4, Cl, UV-254	0 Chlorophyll a | Vol (ml)		Location Info
18LHB201	8/15/18	9:25	AW	7	X		X		X		X		X	X	X			X	250	Basic Creek Epi
18LHB232	8/15/18	11:30	AW	7	X		X				X		X	X	X			X	500	Top Res Epi
18LHB234	8/15/18	11:35	AW	6	X		X	X			X		X		X					Top Res Hypo
18LHB229	8/15/18	13:08	AW	6	X		X				X	X		X				X	250	Rens. Lake Epi
18LHB230	8/15/18	13:17	AW	4	X		X				X	X								Rens. Lake Hypo

Special Analysis Instructions: metals added to 18LHB201 as per Alene Onion SMS 8/24/18

Relinquished by Sampler: Jesse Hall2	**Date:** 8-15-18	**Time:** 1410	**Received by:**	**Date:** 8/15/18	**Time:** 1410	**Laboratory Receipt Notes:**
Relinquished by:	**Date:** 8/15/18	**Time:** 1600	**Received by:**	**Date:** 8/17/18	**Time:** 0900	**Sa**
Relinquished by:	**Date:**	**Time:**	**Received by Laboratory:**	**Date:**	**Time:**	**Pr** **Sa**

R1807889 5
New York State DEC LCI

CHAIN OF CUSTODY

New York State Department of Environmental Conservation – Division of Water

Project Name: LCI	**Project Number:** LCI2018	**NYSDEC SDG:**
Sampler Collector: Sara Gonzalez	**Sampler Signature:** Sara M. Gonzalez	**Sampler Phone No.:** 845-216-9575
Project Manager: Alene Onion	**X Report to Project Manager** **Report to:**	☐ **Bill to Project Manager** **Bill to:** Jason Fagel
Address: 625 Broadway, 4th Floor Albany, NY 12233-3502	**Address:**	**Address:** 625 Broadway, 4th Floor Albany, NY 12233-3502
Phone: (518) 402-8166	**Phone:**	**Phone:** 518-402-8156
Email: alene.onion@dec.ny.gov	**Email:**	**Email:** Jason.fagel@dec.ny.gov

Matrix Codes:
WW = Wastewater
GW = Groundwater
AW = Ambient Water
SE = Sediment
SL = Sludge
T = Tissue
O = Other _____

Preservative Codes:
0 = Cool to < 6°C
1 = HCL
2 = HNO_3
3 = H_2SO_4
4 = NaOH
5 = Zn. Acetate
6 = MeOH
7 = NaHSO4
8 = Other_____

Analyses Ordered (list)

NYSDEC LCI Sample ID	Collection Date	Collection Time	Matrix Code	No. of Containers	3: TP, NH4, NOx, TKN	3: TP, NH4, NOx, TKN, NO3 ANC	3: Dissolved TOP4	2: Fe, Mn, As,	2: Ca, Mg, Na, K ANC	2: Fe, Mn, As, Ca, Mg, Na, K	0: Color	3: TOC	3: DOC ANC	0: Alkalinity	0: SO4 & UV-254	0: SO4, Cl ANC	0: SO4, Cl, UV-254	0: Chlorophyll a | Vol (ml)		Location Info
18LMB235	08/15	8:20	AW	6	X		X				X	X		X				X	250	Wappinger L, epi
18LMB213	08/15	10:00	AW	6	X		X				X	X		X				X	250	Fall Kill P, epi
18LMB2307	08/15	12:00	AW	6	X		X				X	X		X				X	250	Wilcox Park P, epi
18LMB231	08/15	14:10	AW	6	X		X				X	X		X				X	250	Southerland P, epi

Special Analysis Instructions:

	Date:	Time:		Date:	Time:
Relinquished by Sampler: Sara Gonzalez	08/15	3:00pm	**Received by:**	8/15/18	300
Relinquished by:	8/16/18	1600	**Received by:**	8/17/18	0900
Relinquished by:	**Date:**	**Time:**	**Received by Laboratory:**	**Date:**	**Time:**

Laboratory Receipt Notes:

Samp
Prope
Samp

R1807889 5
New York State DEC
LCI

Cooler Receipt and Preservation Check Form

R1807889 5
New York State DEC
LCI

Project/Client _____ Folder Number _____

Cooler received on 8/17/18 by: 2

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N
2	**Custody papers** properly completed (ink, signed)?	(Y) N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N
4	Circle: (Wet) Ice **Dry Ice** **Gel packs** present?	(Y) N

5a	**Perchlorate** samples have required headspace?	Y N (NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) (NA)
6	Where did the bottles originate?	ALS/ROC CLIENT
7	Soil VOA received as: Bulk Encore 5035set	NA

8. Temperature Readings Date: 8/17/18 Time: 09:10 ID: (IR#7) IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	1.8	10.8					
Correction Factor (°C)	+1.0	+1.0					
Corrected Temp (°C)	2.8	11.8					
Temp from:Type of bottle	(Cut Jar)	(Cut Jar)					
Within 0-6°C?	(Y) N	Y (N)	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: ✓ (Ice melted) Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R02 by [illegible] on 8/17/18 at 09:20
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 8/18/18 Time: 1203 by: @

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	204518	HNO_3	✓		B2F05E	6/19				
≤2	204518	H_2SO_4	✓		A0442, 2HB0071	2				
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**						

Bottle lot numbers: 8-072-CX1, 071618-2AA0, 070218-2AA0

Explain all Discrepancies/ Other Comments:

Rec'd labels for 1821B201 not in COC

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: @

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Approved	New Jersey ID # NY004	
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: New York State DEC **Service Request:** R1807889
Project: LCI/LCI2018

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
SM 5910 B	Water	UV254
SM20 10200 H	Water	Chlorophyll A

Client: New York State DEC **Service Request:** R1807889
Project: LCI/LCI2018

Sample Name: 18LHB201 **Date Collected:** 08/15/18
Lab Code: R1807889-001 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
300.0		BKALKMAN
351.2	NSMITH	GNITAJOUPPI
353.2		MROGERSON
365.1	AFELSER	MROGERSON
ASTM D6919-09		AMOSES
SM 2120 B-2001(2011)		BKALKMAN
SM 2320 B-1997(2011)		CWOODS
SM 5910 B		MROGERSON
SM20 10200 H		NSMITH

Sample Name: 18LHB201 Diss **Date Collected:** 08/15/18
Lab Code: R1807889-002 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI
SM 5310 C-2000(2011)		NSMITH

Sample Name: 18LHB233 **Date Collected:** 08/15/18
Lab Code: R1807889-003 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
300.0		BKALKMAN
351.2	NSMITH	GNITAJOUPPI
353.2		MROGERSON
365.1	AFELSER	MROGERSON
ASTM D6919-09		AMOSES
SM 2120 B-2001(2011)		BKALKMAN
SM 2320 B-1997(2011)		CWOODS
SM 5910 B		MROGERSON
SM20 10200 H		NSMITH

Client: New York State DEC **Service Request:** R1807889
Project: LCI/LCI2018

Sample Name: 18LHB233 Diss **Date Collected:** 08/15/18
Lab Code: R1807889-004 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI
SM 5310 C-2000(2011)		NSMITH

Sample Name: 18LHB234 **Date Collected:** 08/15/18
Lab Code: R1807889-005 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
300.0		BKALKMAN
351.2	NSMITH	GNITAJOUPPI
353.2		MROGERSON
365.1	AFELSER	MROGERSON
ASTM D6919-09		AMOSES
SM 2120 B-2001(2011)		BKALKMAN
SM 5910 B		MROGERSON

Sample Name: 18LHB234 Diss **Date Collected:** 08/15/18
Lab Code: R1807889-006 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI
SM 5310 C-2000(2011)		NSMITH

Sample Name: 18LHB229 **Date Collected:** 08/15/18
Lab Code: R1807889-007 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
351.2	NSMITH	GNITAJOUPPI
353.2		MROGERSON

Client: New York State DEC **Service Request:** R1807889
Project: LCI/LCI2018

Sample Name: 18LHB229 **Date Collected:** 08/15/18
Lab Code: R1807889-007 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	AFELSER	MROGERSON
ASTM D6919-09		AMOSES
SM 2120 B-2001(2011)		BKALKMAN
SM 2320 B-1997(2011)		CWOODS
SM 5310 C-2000(2011)		NSMITH
SM20 10200 H		NSMITH

Sample Name: 18LHB229 Diss **Date Collected:** 08/15/18
Lab Code: R1807889-008 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI

Sample Name: 18LHB230 **Date Collected:** 08/15/18
Lab Code: R1807889-009 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
351.2	NSMITH	GNITAJOUPPI
353.2		MROGERSON
365.1	AFELSER	MROGERSON
ASTM D6919-09		BKALKMAN
SM 2120 B-2001(2011)		BKALKMAN
SM 5310 C-2000(2011)		NSMITH

Client: New York State DEC **Service Request:** R1807889
Project: LCI/LCI2018

Sample Name: 18LHB230 Diss **Date Collected:** 08/15/18
Lab Code: R1807889-010 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI

Sample Name: 18LHB235 **Date Collected:** 08/15/18
Lab Code: R1807889-011 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
351.2	NSMITH	GNITAJOUPPI
353.2		MROGERSON
365.1	AFELSER	MROGERSON
ASTM D6919-09		AMOSES
SM 2120 B-2001(2011)		BKALKMAN
SM 2320 B-1997(2011)		CWOODS
SM 5310 C-2000(2011)		NSMITH
SM20 10200 H		NSMITH

Sample Name: 18LHB235 Diss **Date Collected:** 08/15/18
Lab Code: R1807889-012 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI

Sample Name: 18LHB213 **Date Collected:** 08/15/18
Lab Code: R1807889-013 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
351.2	NSMITH	GNITAJOUPPI
353.2		MROGERSON
365.1	AFELSER	MROGERSON

Client: New York State DEC **Service Request:** R1807889
Project: LCI/LCI2018

Sample Name: 18LHB213 **Date Collected:** 08/15/18
Lab Code: R1807889-013 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
ASTM D6919-09		AMOSES
SM 2120 B-2001(2011)		BKALKMAN
SM 2320 B-1997(2011)		CWOODS
SM 5310 C-2000(2011)		NSMITH
SM20 10200 H		NSMITH

Sample Name: 18LHB213 Diss **Date Collected:** 08/15/18
Lab Code: R1807889-014 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI

Sample Name: 18LHB237 **Date Collected:** 08/15/18
Lab Code: R1807889-015 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
351.2	NSMITH	GNITAJOUPPI
353.2		MROGERSON
365.1	AFELSER	MROGERSON
ASTM D6919-09		AMOSES
SM 2120 B-2001(2011)		BKALKMAN
SM 2320 B-1997(2011)		CWOODS
SM 5310 C-2000(2011)		NSMITH
SM20 10200 H		NSMITH

Client: New York State DEC **Service Request:** R1807889
Project: LCI/LCI2018

Sample Name: 18LHB237 Diss **Date Collected:** 08/15/18
Lab Code: R1807889-016 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI

Sample Name: 18LHB231 **Date Collected:** 08/15/18
Lab Code: R1807889-017 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
351.2	NSMITH	GNITAJOUPPI
353.2		MROGERSON
365.1	AFELSER	MROGERSON
ASTM D6919-09		AMOSES
SM 2120 B-2001(2011)		BKALKMAN
SM 2320 B-1997(2011)		CWOODS
SM 5310 C-2000(2011)		NSMITH
SM20 10200 H		NSMITH

Sample Name: 18LHB231 Diss **Date Collected:** 08/15/18
Lab Code: R1807889-018 **Date Received:** 08/17/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

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Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	New York State DEC	**Service Request:**	LCI0813
Project No.:	R1807889	**Date Collected:**	8/15/2018
Project Name:		**Date Received:**	8/17/2018
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: **18LHB201** **Lab Code:** **R1807889-001**

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Arsenic	**200.8**	**1.0**	**0.39**	**1.0**	**1.9**		
Iron	**200.7**	**100**	**13.0**	**1.0**	**201**		
Manganese	**200.7**	**10.0**	**1.7**	**1.0**	**122**		

% Solids: **0.0**

Comments:

METALS

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INORGANIC ANALYSIS DATA PACKAGE

Client:	New York State DEC	**Service Request:**	LCI0813
Project No.:	R1807889	**Date Collected:**	8/15/2018
Project Name:		**Date Received:**	8/17/2018
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: **18LHB234** **Lab Code:** **R1807889-005**

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Arsenic	**200.8**	**1.0**	**0.39**	**1.0**	**0.65**	**J**	
Iron	**200.7**	**100**	**13.0**	**1.0**	**87.7**	**J**	
Manganese	**200.7**	**10.0**	**1.7**	**1.0**	**1110**		

% Solids: **0.0**

Comments:

General Chemistry

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Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 09:25
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB201	**Basis:**	NA
Lab Code:	R1807889-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	**66.0**	mg/L	2.0	1	08/27/18 23:07	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	**0.101**	mg/L	0.0050	1	09/01/18 07:47	NA	
Chlorophyll A	SM20 10200 H	**11.4**	ug/L	0.64	4	08/29/18 11:45	NA	
Color, True	SM 2120 B-2001(2011)	**28.0**	ColorUnits	1.0	1	08/17/18 11:00	NA	*
Nitrate+Nitrite as Nitrogen	353.2	**0.0102**	mg/L	0.0020	1	09/06/18 17:42	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.68**	mg/L	0.10	1	09/07/18 13:53	09/06/18	
pH of Color Analysis	SM 2120 B-2001(2011)	**7.86**	pH Units	-	1	08/21/18 15:00	NA	*
Phosphorus, Total	365.1	**0.0298**	mg/L	0.0050	1	09/04/18 17:06	08/28/18	
Sulfate	300.0	**4.8**	mg/L	2.0	10	08/30/18 02:18	NA	
UV254	SM 5910 B	**0.115**	cm-1	-	1	08/17/18 21:20	NA	*

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 09:25
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB201 Diss	**Basis:**	NA
Lab Code:	R1807889-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	**5.8**	mg/L	1.0	1	08/19/18 23:29	NA	
Phosphorus, Dissolved	365.1	**0.0068**	mg/L	0.0050	1	08/27/18 16:15	08/23/18	

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 11:30
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB233	**Basis:**	NA
Lab Code:	R1807889-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	**78.4**		mg/L	2.0	1	08/27/18 23:12	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050	U	mg/L	0.0050	1	09/01/18 08:03	NA	
Chlorophyll A	SM20 10200 H	**5.72**		ug/L	0.32	4	08/29/18 11:45	NA	
Color, True	SM 2120 B-2001(2011)	**22.0**		ColorUnits	1.0	1	08/17/18 11:00	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020	U	mg/L	0.0020	1	09/06/18 17:43	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.47**		mg/L	0.10	1	09/07/18 13:55	09/06/18	
pH of Color Analysis	SM 2120 B-2001(2011)	**8.04**		pH Units	-	1	08/21/18 15:00	NA	*
Phosphorus, Total	365.1	**0.0212**		mg/L	0.0050	1	09/04/18 17:10	08/28/18	
Sulfate	300.0	**13.1**		mg/L	2.0	10	08/30/18 02:23	NA	
UV254	SM 5910 B	**0.0740**		cm-1	-	1	08/17/18 21:20	NA	*

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 11:30
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB233 Diss	**Basis:**	NA
Lab Code:	R1807889-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	**4.0**	mg/L	1.0	1	08/19/18 23:50	NA	
Phosphorus, Dissolved	365.1	**0.0052**	mg/L	0.0050	1	08/27/18 16:16	08/23/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 11:35
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB234	**Basis:**	NA
Lab Code:	R1807889-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	ASTM D6919-09	**0.0077**		mg/L	0.0050	1	09/01/18 08:19	NA	
Color, True	SM 2120 B-2001(2011)	**29.0**		ColorUnits	1.0	1	08/17/18 11:00	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020	U	mg/L	0.0020	1	09/06/18 17:45	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.77**		mg/L	0.10	1	09/07/18 13:56	09/06/18	
pH of Color Analysis	SM 2120 B-2001(2011)	**8.05**		pH Units	-	1	08/21/18 15:00	NA	*
Phosphorus, Total	365.1	**0.0449**		mg/L	0.0050	1	09/04/18 17:11	08/28/18	
Sulfate	300.0	**9.6**		mg/L	2.0	10	08/30/18 02:39	NA	
UV254	SM 5910 B	**0.0920**		cm-1	-	1	08/17/18 21:20	NA	*

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 11:35
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB234 Diss	**Basis:**	NA
Lab Code:	R1807889-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	**4.3**	mg/L	1.0	1	08/20/18 00:11	NA	
Phosphorus, Dissolved	365.1	**0.0076**	mg/L	0.0050	1	08/27/18 16:17	08/23/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 13:08
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB229	**Basis:**	NA
Lab Code:	R1807889-007		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	**122**	mg/L	2.0	1	08/27/18 23:18	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	**0.0920**	mg/L	0.0050	1	09/05/18 03:46	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**5.2**	mg/L	1.0	1	08/20/18 00:31	NA	
Chlorophyll A	SM20 10200 H	**57.5**	ug/L	3.2	20	08/29/18 11:45	NA	
Color, True	SM 2120 B-2001(2011)	**24.0**	ColorUnits	1.0	1	08/17/18 11:00	NA	
Nitrate+Nitrite as Nitrogen	353.2	**0.0460**	mg/L	0.0020	1	09/06/18 17:46	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.90**	mg/L	0.10	1	09/07/18 13:56	09/06/18	
pH of Color Analysis	SM 2120 B-2001(2011)	**8.09**	pH Units	-	1	08/21/18 15:00	NA	*
Phosphorus, Total	365.1	**0.0380**	mg/L	0.0050	1	09/04/18 17:15	08/28/18	

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 13:08
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB229 Diss	**Basis:**	NA
Lab Code:	R1807889-008		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	**0.0184**	mg/L	0.0050	1	08/27/18 16:31	08/23/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 13:17
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB230	**Basis:**	NA
Lab Code:	R1807889-009		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	ASTM D6919-09	**4.00**	mg/L	0.050	10	09/07/18 14:22	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**10.1**	mg/L	1.0	1	08/20/18 00:52	NA	
Color, True	SM 2120 B-2001(2011)	**140**	ColorUnits	5.0	5	08/17/18 11:00	NA	
Nitrate+Nitrite as Nitrogen	353.2	**0.0346**	mg/L	0.0020	1	09/06/18 17:47	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**5.09**	mg/L	0.10	1	09/07/18 13:57	09/06/18	
pH of Color Analysis	SM 2120 B-2001(2011)	**7.89**	pH Units	-	5	08/21/18 15:00	NA	*
Phosphorus, Total	365.1	**0.295**	mg/L	0.050	10	09/04/18 18:14	08/28/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 13:17
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB230 Diss	**Basis:**	NA
Lab Code:	R1807889-010		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	**0.0064**	mg/L	0.0050	1	08/27/18 16:19	08/23/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 08:20
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB235	**Basis:**	NA
Lab Code:	R1807889-011		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	**113**	mg/L	2.0	1	08/27/18 23:24	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	**0.0363**	mg/L	0.0050	1	09/05/18 04:18	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**5.6**	mg/L	1.0	1	08/20/18 01:55	NA	
Chlorophyll A	SM20 10200 H	**3.00**	ug/L	0.16	1	08/29/18 11:45	NA	
Color, True	SM 2120 B-2001(2011)	**44.0**	ColorUnits	1.0	1	08/17/18 11:00	NA	*
Nitrate+Nitrite as Nitrogen	353.2	**0.376**	mg/L	0.0020	1	09/06/18 17:49	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.60**	mg/L	0.10	1	09/07/18 13:58	09/06/18	
pH of Color Analysis	SM 2120 B-2001(2011)	**7.92**	pH Units	-	1	08/21/18 15:00	NA	*
Phosphorus, Total	365.1	**0.0592**	mg/L	0.0050	1	09/04/18 17:19	08/28/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 08:20
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB235 Diss	**Basis:**	NA
Lab Code:	R1807889-012		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	**0.0361**	mg/L	0.0050	1	08/27/18 16:23	08/23/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 10:00
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB213	**Basis:**	NA
Lab Code:	R1807889-013		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	**111**	mg/L	2.0	1	08/27/18 23:29	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	**0.0492**	mg/L	0.0050	1	09/05/18 03:14	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**7.8**	mg/L	1.0	1	08/20/18 02:16	NA	
Chlorophyll A	SM20 10200 H	**22.4**	ug/L	0.80	5	08/29/18 11:45	NA	
Color, True	SM 2120 B-2001(2011)	**53.0**	ColorUnits	1.0	1	08/17/18 11:00	NA	*
Nitrate+Nitrite as Nitrogen	353.2	**0.0353**	mg/L	0.0020	1	09/06/18 17:54	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.84**	mg/L	0.10	1	09/07/18 14:00	09/06/18	
pH of Color Analysis	SM 2120 B-2001(2011)	**7.89**	pH Units	-	1	08/21/18 15:00	NA	*
Phosphorus, Total	365.1	**0.127**	mg/L	0.025	5	09/04/18 18:15	08/28/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 10:00
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB213 Diss	**Basis:**	NA
Lab Code:	R1807889-014		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	**0.0638**	mg/L	0.0050	1	08/27/18 16:24	08/23/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 12:00
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB237	**Basis:**	NA
Lab Code:	R1807889-015		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	**33.6**		mg/L	2.0	1	08/27/18 23:33	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	**0.0095**		mg/L	0.0050	1	09/05/18 02:26	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**3.5**		mg/L	1.0	1	08/20/18 02:37	NA	
Chlorophyll A	SM20 10200 H	**12.1**		ug/L	0.64	4	08/29/18 11:45	NA	
Color, True	SM 2120 B-2001(2011)	**17.0**		ColorUnits	1.0	1	08/17/18 11:00	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020	U	mg/L	0.0020	1	09/06/18 17:58	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.61**		mg/L	0.10	1	09/07/18 14:01	09/06/18	
pH of Color Analysis	SM 2120 B-2001(2011)	**7.59**		pH Units	-	1	08/21/18 15:00	NA	*
Phosphorus, Total	365.1	**0.0213**		mg/L	0.0050	1	09/04/18 17:21	08/28/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 12:00
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB237 Diss	**Basis:**	NA
Lab Code:	R1807889-016		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	**0.0058**	mg/L	0.0050	1	08/27/18 16:25	08/23/18	

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 14:10
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB231	**Basis:**	NA
Lab Code:	R1807889-017		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	**39.2**	mg/L	2.0	1	08/27/18 23:47	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	**0.182**	mg/L	0.0050	1	09/05/18 02:42	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**9.8**	mg/L	1.0	1	08/20/18 02:58	NA	
Chlorophyll A	SM20 10200 H	**60.5**	ug/L	1.6	10	08/29/18 11:45	NA	
Color, True	SM 2120 B-2001(2011)	**47.0**	ColorUnits	1.0	1	08/17/18 11:00	NA	
Nitrate+Nitrite as Nitrogen	353.2	**0.0076**	mg/L	0.0020	1	09/06/18 18:00	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**1.87**	mg/L	0.10	1	09/07/18 14:01	09/06/18	
pH of Color Analysis	SM 2120 B-2001(2011)	**7.58**	pH Units	-	1	08/21/18 15:00	NA	*
Phosphorus, Total	365.1	**0.0817**	mg/L	0.0050	1	09/04/18 17:23	08/28/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18 14:10
Sample Matrix:	Water	**Date Received:**	08/17/18 09:00
Sample Name:	18LHB231 Diss	**Basis:**	NA
Lab Code:	R1807889-018		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	**0.0354**	mg/L	0.0050	1	08/27/18 16:26	08/23/18	

QC Summary Forms

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BLANKS

Contract: R1807889

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: LCI0813

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	MS
Iron	13.00	U	13.00	U	13.00	U	13.00	U	13.000	U	P
Manganese	1.70	U	1.70	U	1.70	U	1.70	U	1.700	U	P

Comments:

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BLANKS

Contract: R1807889

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: LCI0813

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			0.39	U	0.39	U					MS
Iron			13.00	U	13.00	U					P
Manganese			1.70	U	1.70	U					P

Comments:

METALS

-3-

BLANKS

Contract: R1807889

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: LCI0813

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	MS

Comments:

METALS

-3-

BLANKS

Contract: R1807889

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: LCI0813

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			0.39	U							MS

Comments:

METALS

-7-

LABORATORY CONTROL SAMPLE

Contract: R1807889

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: LCI0813

Solid LCS Source: _____

Aqueous LCS Source: ACCUSTANDARD

Analyte	Aqueous (ug/L			Solid (mg/K				
	True	Found	%R	True	Found	C	Limits	%R
Arsenic	20.0	22.2	111					
Iron	1000	1020	102					
Manganese	500	526	105					

Comments: _____

METALS

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LABORATORY CONTROL SAMPLE

Contract: R1807889

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: LCI0813

Solid LCS Source: _____

Aqueous LCS Source: ACCUSTANDARD

Analyte	Aqueous (ug/L			Solid (mg/K				
	True	Found	%R	True	Found	C	Limits	%R
Arsenic	20.0	21.2	106					

Comments: _____

General Chemistry

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1807889-MB1		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0	U	mg/L	2.0	1	08/27/18 22:41	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050	U	mg/L	0.0050	1	09/01/18 06:27	NA	
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	1.0	U	mg/L	1.0	1	08/19/18 16:52	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0	U	mg/L	1.0	1	08/19/18 16:52	NA	
Chlorophyll A	SM20 10200 H	0.40	U	ug/L	0.40	1	08/29/18 11:45	NA	
Color, True	SM 2120 B-2001(2011)	**1.0**		ColorUnits	1.0	1	08/17/18 11:00	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020	U	mg/L	0.0020	1	09/06/18 17:02	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.10	U	mg/L	0.10	1	09/07/18 13:48	09/06/18	
Phosphorus, Dissolved	365.1	0.0050	U	mg/L	0.0050	1	08/27/18 15:50	08/23/18	
Phosphorus, Total	365.1	0.0050	U	mg/L	0.0050	1	09/04/18 16:09	08/28/18	
Sulfate	300.0	0.20	U	mg/L	0.20	1	08/30/18 00:50	NA	
UV254	SM 5910 B	**0.00**		cm-1	-	1	08/17/18 21:20	NA	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1807889-MB2		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050	U	mg/L	0.0050	1	09/04/18 19:45	NA	
Chlorophyll A	SM20 10200 H	0.40	U	ug/L	0.40	1	08/29/18 11:45	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020	U	mg/L	0.0020	1	09/06/18 17:52	NA	
Phosphorus, Total	365.1	0.0050	U	mg/L	0.0050	1	09/04/18 17:07	08/28/18	

Analytical Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1807889-MB3		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	09/07/18 10:05	

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18
Sample Matrix:	Water	**Date Received:**	08/17/18
		Date Analyzed:	09/7/18
		Date Extracted:	09/6/18

Duplicate Matrix Spike Summary
Nitrogen, Total Kjeldahl (TKN)

Sample Name:	18LHB201	**Units:**	mg/L
Lab Code:	R1807889-001	**Basis:**	NA
Analysis Method:	351.2		
Prep Method:	Method		

		Matrix Spike R1807889-001MS			Duplicate Matrix Spike R1807889-001DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Nitrogen, Total Kjeldahl (TKN)	0.68	3.23	2.50	102	3.22	2.50	101	75-125	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18
Sample Matrix:	Water	**Date Received:**	08/17/18
		Date Analyzed:	08/30/18

Duplicate Matrix Spike Summary
Sulfate

Sample Name:	18LHB233	**Units:**	mg/L
Lab Code:	R1807889-003	**Basis:**	NA
Analysis Method:	300.0		

		Matrix Spike			Duplicate Matrix Spike					
		R1807889-003MS			R1807889-003DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfate	13.1	31.3	20.0	91	31.5	20.0	92	75-125	<1	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18
Sample Matrix:	Water	**Date Received:**	08/17/18
		Date Analyzed:	09/4/18
		Date Extracted:	08/28/18

Duplicate Matrix Spike Summary
Phosphorus, Total

Sample Name:	18LHB234	**Units:**	mg/L
Lab Code:	R1807889-005	**Basis:**	NA
Analysis Method:	365.1		
Prep Method:	Method		

		Matrix Spike			Duplicate Matrix Spike					
		R1807889-005MS			R1807889-005DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Phosphorus, Total	0.0449	0.0723	0.0250	110	0.0770	0.0250	129 *	75-125	6	20

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	New York State DEC	**Service Request:**	R1807889
Project:	LCI/LCI2018	**Date Collected:**	08/15/18
Sample Matrix:	Water	**Date Received:**	08/17/18
		Date Analyzed:	09/6/18

Duplicate Matrix Spike Summary
Nitrate+Nitrite as Nitrogen

Sample Name:	18LHB213	**Units:**	mg/L
Lab Code:	R1807889-013	**Basis:**	NA
Analysis Method:	353.2		

		Matrix Spike R1807889-013MS			Duplicate Matrix Spike R1807889-013DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Nitrate+Nitrite as Nitrogen	0.0353	0.523	0.500	98	0.524	0.500	98	75-125	<1	20

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	New York State DEC	**Service Request:**	R1807889
Project	LCI/LCI2018	**Date Collected:**	08/15/18
Sample Matrix:	Water	**Date Received:**	08/17/18
		Date Analyzed:	08/17/18

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	18LHB201	**Units:**	cm-1
Lab Code:	R1807889-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample R1807889-001DUP Result	Average	RPD	RPD Limit
UV254	SM 5910 B	-	0.115	0.118	0.116	3	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	New York State DEC	**Service Request:**	R1807889
Project	LCI/LCI2018	**Date Collected:**	08/15/18
Sample Matrix:	Water	**Date Received:**	08/17/18
		Date Analyzed:	08/17/18

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	18LHB213	**Units:**	ColorUnits
Lab Code:	R1807889-013	**Basis:**	NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample R1807889-013DUP Result	Average	RPD	RPD Limit
Color, True	SM 2120 B-2001(2011)	1.0	53.0	53.0	53.0	<1	5

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client:	New York State DEC	**Service Request:**	R1807889
Project	LCI/LCI2018	**Date Collected:**	08/15/18
Sample Matrix:	Water	**Date Received:**	08/17/18
		Date Analyzed:	08/21/18

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	18LHB213	**Units:**	pH Units
Lab Code:	R1807889-013	**Basis:**	NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample R1807889-013DUP Result	Average	RPD	RPD Limit
pH of Color Analysis	SM 2120 B-2001(2011)	-	7.89	7.89	7.89	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: New York State DEC
Project: LCI/LCI2018
Sample Matrix: Water

Service Request: R1807889
Date Analyzed: 08/19/18 - 09/07/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1807889-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	18.4	20.0	92	70-130
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.496	0.500	99	70-130
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	10.6	10.0	106	70-130
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.6	10.0	106	70-130
Nitrate+Nitrite as Nitrogen	353.2	0.518	0.500	104	70-130
Nitrogen, Total Kjeldahl (TKN)	351.2	2.40	2.50	96	70-130
Phosphorus, Dissolved	365.1	0.0233	0.0250	93	70-130
Phosphorus, Total	365.1	0.0244	0.0250	98	70-130
Sulfate	300.0	1.92	2.00	96	70-130

Client: New York State DEC
Project: LCI/LCI2018
Sample Matrix: Water

Service Request: R1807889
Date Analyzed: 09/04/18 - 09/06/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1807889-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.525	0.500	105	70-130
Nitrate+Nitrite as Nitrogen	353.2	0.519	0.500	104	70-130
Phosphorus, Total	365.1	0.0251	0.0250	100	70-130

Client: New York State DEC
Project: LCI/LCI2018
Sample Matrix: Water

Service Request: R1807889
Date Analyzed: 09/07/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1807889-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.511	0.500	102	70-130