



August 07, 2018

Service Request No:R1806659

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

**Laboratory Results for: LCI 2018**

Dear Ms.Onion,

Enclosed are the results of the sample(s) submitted to our laboratory July 17, 2018  
For your reference, these analyses have been assigned our service request number **R1806659**.

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](mailto: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](http://www.alsglobal.com)



**Client:** New York State DEC  
**Project:** LCI 2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Received:** 07/17/2018

### 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:

Twenty four water samples were received for analysis at ALS Environmental on 07/17/2018. 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 351.2, 07/25/2018: The Method Blank contained a low level of one or more analytes at concentrations above the Method Reporting Limit (MRL), but less than ten times the concentration in the associated samples. Contamination is deemed insignificant relative to the reported samples and the data is reported with no further corrective action required.

A handwritten signature in black ink, appearing to read "Samanta".

Approved by \_\_\_\_\_

Date 08/07/2018



## 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](http://www.alsglobal.com)

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018

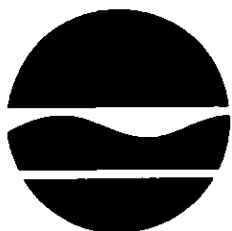
**Service Request:**R1806659

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1806659-001	18LHB111	7/16/2018	1255
R1806659-002	18LHB111 Diss	7/16/2018	1255
R1806659-003	18LHB112	7/16/2018	1310
R1806659-004	18LHB112 Diss	7/16/2018	1310
R1806659-005	18LHB119	7/16/2018	1044
R1806659-006	18LHB119 Diss	7/16/2018	1044
R1806659-007	18LHB120	7/16/2018	1054
R1806659-008	18LHB120 Diss	7/16/2018	1054
R1806659-009	18LHB133	7/16/2018	0800
R1806659-010	18LHB133 Diss	7/16/2018	0800
R1806659-011	18LHB134	7/16/2018	0815
R1806659-012	18LHB134 Diss	7/16/2018	0815
R1806659-013	18LHB109	7/16/2018	0950
R1806659-014	18LHB109 Diss	7/16/2018	0950
R1806659-015	18LHB110	7/16/2018	0955
R1806659-016	18LHB110 Diss	7/16/2018	0955
R1806659-017	18LHB117	7/16/2018	1215
R1806659-018	18LHB117 Diss	7/16/2018	1215
R1806659-019	18LHB118	7/16/2018	1220
R1806659-020	18LHB118 Diss	7/16/2018	1220
R1806659-021	18LHB005	7/16/2018	1350
R1806659-022	18LHB005 Diss	7/16/2018	1350
R1806659-023	18LHB123	7/16/2018	1444
R1806659-024	18LHB123 Diss	7/16/2018	1444

# 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:**

**Sampler Signature:**

**Sampler Phone No.:**

**Project Manager:** Alene Onion

**X Report to Project Manager**

☐ **Bill to Project Manager**

**Report to:**

**Bill to:** Jason Fagel

**Address:** 625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-3502

**Address:**

**Address:** 625 Broadway, 4<sup>th</sup> 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 \_\_\_\_\_

## Analyses Ordered (list)

## Preservative Codes:

0 = Cool to < 6°C  
1 = HCL  
2 = HNO<sub>3</sub>  
3 = H<sub>2</sub>SO<sub>4</sub>  
4 = NaOH  
5 = Zn. Acetate  
6 = MeOH  
7 = NaHSO<sub>4</sub>  
8 = Other \_\_\_\_\_

**NYSDEC  
LCI Sample ID**

**Collection Date**

**Collection Time**

**Matrix Code**

**No. of Containers**

3

ANC

3

ANC

2

ANC

0

3

ANC

0

ANC

0

ANC

0

ANC

0

ANC

0

ANC

0

ANC

0

ANC

TP, NH<sub>4</sub>, NO<sub>x</sub>, TKN

TP, NH<sub>4</sub>, NO<sub>x</sub>, TKN, NO<sub>3</sub>

Dissolved TOP4

Fe, Mn, As,

Ca, Mg, Na, K

Fe, Mn, As, Ca, Mg, Na, K

Color

TOC

DOC

Alkalinity

SO<sub>4</sub> & UV-254

SO<sub>4</sub>, Cl

SO<sub>4</sub>, Cl, UV-254

Chlorophyll a

Vol (ml)

**Location Info**

18LHB111	7/16/18	12:55	AW	7	X		X				X		X		X		X		✓	250mL	Coxsackie Res - LHR-epi
18LHB112	7/16/18	13:10	AW	6	X		X	X			X		X		X		X				Coxsackie Res - hypo
18LHB119	7/16/18	10:44	AW	7	X		X				X		X		X		X		✓	250mL	Hollister Lake - epi
18LHB120	7/16/18	10:54	AW	6	X		X	X			X		X		X		X				Hollister Lake - hypo
18LHB133	7/16/18	08:00	AW	7	X		X				X		X		X		X		✓	500mL	Troy Res - epi
18LHB134	7/16/18	08:15	AW	6	X		X	X			X		X		X		X				Troy Res - hypo

**R1806659**

**5**

New York State DEC  
LCI 2018



## Special Analysis Instructions:

*Class 1A - U254 Samples*

**Relinquished by Sampler:**

**Date:**

**Time:**

**Received by:**

**Date:**

**Time:**

**Laboratory Receipt Notes:**

**Relinquished by:**

**Date:**

**Time:**

**Received by:**

**Date:**

**Time:**

**Sample Temp.:** \_\_\_\_\_ °C

**Relinquished by:**

**Date:**

**Time:**

**Received by Laboratory:**

**Date:**

**Time:**

**Properly Preserved:** Y / N

**Samples Intact:** Y / N



## Cooler Receipt and Preservation Check Form

R1806659

5

New York State DEC  
LCI 2018Project/Client LCT Folder Number \_\_\_\_\_Cooler received on 7/17/18 by: QCOURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<input checked="" type="radio"/> Y	<input type="radio"/> N
2	Custody papers properly completed (ink, signed)?	<input checked="" type="radio"/> Y	<input type="radio"/> N
3	Did all bottles arrive in good condition (unbroken)?	<input checked="" type="radio"/> Y	<input type="radio"/> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<input checked="" type="radio"/> Y	<input type="radio"/> N

5a	Perchlorate samples have required headspace?	Y	<input checked="" type="radio"/> N	<input checked="" type="radio"/> NA
5b	Did VOA vials, <u>Alk</u> , or Sulfide have sig* bubbles?	Y	<input checked="" type="radio"/> N	<input type="radio"/> NA
6	Where did the bottles originate?	<u>ALS/ROC</u>	CLIENT	
7	Soil VOA received as:	Bulk	Encore	5035set <input checked="" type="radio"/> NA

8. Temperature Readings Date: 7/17/18 Time: 0855 ID: IR#7 IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	3.1						
Correction Factor (°C)	-						
Corrected Temp (°C)	3.1						
Temp from:Type of bottle	-						
Within 0-6°C?	<input checked="" type="radio"/> Y N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	<input type="radio"/> 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

&amp; Client Approval to Run Samples: \_\_\_\_\_ Standing Approval Client aware at drop-off Client notified by: \_\_\_\_\_

All samples held in storage location: R-002 by Q on 7/17/18 at 0900  
5035 samples placed in storage location: \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_Cooler Breakdown/Preservation Check\*\*: Date: 7/17/18 Time: 1355 by: Sh

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 N/A Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	<u>204578</u>	HNO <sub>3</sub>	<input checked="" type="checkbox"/>		<u>1117092</u>	<u>7/19</u>				
≤2	<u>↓</u>	H <sub>2</sub> SO <sub>4</sub>	<input checked="" type="checkbox"/>		<u>190642</u>	<u>6/19</u>				
<4		NaHSO <sub>4</sub>								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (625, 608, CN), ascorbic (phenol).					
		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>								
		ZnAcetate	-	-						
		HCl	**	**						

\*\*VOAs and 1664 Not to be tested before analysis.  
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 8-072-ccl, 170417-ZAW

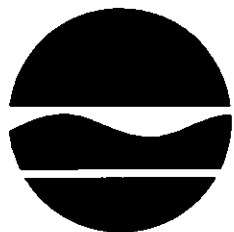
Explain all Discrepancies/ Other Comments:

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

Labels secondary reviewed by: ORPC Secondary Review: MM 7/17/18 \*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

# CHAIN OF CUSTODY

Page 1 of 1



New York State Department of  
Environmental Conservation -  
Division of Water

<b>Project Name:</b> LCI	<b>Project Number:</b> LCI2018	<b>NYSDEC SDG:</b>
<b>Sampler Collector:</b> Sara Gonzalez	<b>Sampler Signature:</b> <i>Sara Gonzalez</i>	<b>Sampler Phone No.:</b> 845-216-9575
<b>Project Manager:</b> Alene Onion	<input checked="" type="checkbox"/> <b>Report to Project Manager</b>	<input type="checkbox"/> <b>Bill to Project Manager</b>
<b>Address:</b> 625 Broadway, 4 <sup>th</sup> Floor Albany, NY 12233-3502	<b>Report to:</b>	<b>Bill to:</b> Jason Fagel
<b>Phone:</b> (518) 402-8166	<b>Address:</b>	<b>Address:</b> 625 Broadway, 4 <sup>th</sup> Floor Albany, NY 12233-3502
<b>Email:</b> alene.onion@dec.ny.gov	<b>Phone:</b>	<b>Phone:</b> 518-402-8156
	<b>Email:</b>	<b>Email:</b> Jason.fagel@dec.ny.gov

Matrix Codes: WW = Wastewater GW = Groundwater AW = Ambient Water SE = Sediment SL = Sludge T = Tissue O = Other _____	Collection Date	Collection Time	Matrix Code	No. of Containers	Analyses Ordered (list)												Preservative Codes:		Location Info
					3			2		0	3		0		0		Chlorophyll a   Vol (ml)	0 = Cool to < 6°C 1 = HCL 2 = HNO <sub>3</sub> 3 = H <sub>2</sub> SO <sub>4</sub> 4 = NaOH 5 = Zn. Acetate 6 = MeOH 7 = NaHSO <sub>4</sub> 8 = Other _____	
					TP, NH <sub>4</sub> , NO <sub>x</sub> , TKN	TP, NH <sub>4</sub> , NO <sub>x</sub> , TKN, NO <sub>3</sub>	Dissolved TOP4	Fe, Mn, As,	Ca, Mg, Na, K	Fe, Mn, As, Ca, Mg, Na, K	Color	TOC	DOC	Alkalinity	SO <sub>4</sub> & UV-254	SO <sub>4</sub> , Cl			
<b>NYSDEC LCI Sample ID</b>																			
18LMB 109	07/16	9:50	AW	7	X		X				X		X	X	X		X	150	Chodi-keel, epi
18LMB 110	07/16	9:55	AW	6	X		X	X			X		X	X	X				Chodi-keel L, hypo
18LMB 117	07/16	12:15	AW	7	X		X				X		X	X	X		X	250	Goshen R, epi
18LMB 118	07/16	12:20	AW	6	X		X	X			X		X	X	X				Goshen R, hypo
18LMB005	07/16	13:50	AW	6	X		X				X	X	X	X	X		X	250	Binnewaters, epi
18LMB 123	07/16	14:44	AW	8	X		X	X			X		X	X	X		X	250	Mill Pond, epi
<del>18LMB 129</del>	<del>07/16</del>	<del></del>	<del>AW</del>	<del>6</del>	<del>X</del>		<del>X</del>				<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>		<del>X</del>		<del>Washing Hills, epi</del>

R1806659

5

New York State DEC  
LCI 2018



## Special Analysis Instructions:

<b>Relinquished by Sampler:</b> Jesse Koltz	<b>Date:</b> 7/16/18	<b>Time:</b> 4:00pm	<b>Received by:</b>	<b>Date:</b>	<b>Time:</b>	<b>Laboratory Receipt Notes:</b>  <b>Sample Temp.:</b> _____ °C <b>Properly Preserved:</b> Y / N <b>Samples Intact:</b> Y / N
<b>Relinquished by:</b>	<b>Date:</b>	<b>Time:</b>	<b>Received by:</b>	<b>Date:</b>	<b>Time:</b>	
<b>Relinquished by:</b>	<b>Date:</b>	<b>Time:</b>	<b>Received by Laboratory:</b> <i>Stephen Gymbal</i>	<b>Date:</b> 7/17/18	<b>Time:</b> 0945	





## Cooler Receipt and Preservation Check Form

R1806659

5

New York State DEC  
LCI 2018

Project/Client \_\_\_\_\_ Folder Number \_\_\_\_\_

Cooler received on 7/17/18 by: SLCOURIER: ALS UPS FEDEX VELOCITY CLIENT

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

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

8. Temperature Readings Date: 7/17/18 Time: 0950 ID: IR#7 IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>3.1</u>						
Correction Factor (°C)	<u>11.0</u>						
Corrected Temp (°C)	<u>4.1</u>						
Temp from: Type of bottle	<u>Centurion</u>						
Within 0-6°C?	<u>Y</u> 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

&amp; Client Approval to Run Samples: \_\_\_\_\_ Standing Approval Client aware at drop-off Client notified by: \_\_\_\_\_

All samples held in storage location: ROZ by SL on 7/17/18 at 0955  
 5035 samples placed in storage location: \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_

Cooler Breakdown/Preservation Check\*\*: Date: \_\_\_\_\_ Time: \_\_\_\_\_ 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?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO <sub>3</sub>								
≤2		H <sub>2</sub> SO <sub>4</sub>								
<4		NaHSO <sub>4</sub>								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (625, 608, CN), ascorbic (phenol).					
		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>								
		ZnAcetate	-	-						
		HCl	**	**						

\*\*VOAs and 1664 Not to be tested before analysis.  
 Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: \* See 1<sup>st</sup> temp sheet.

Explain all Discrepancies/ Other Comments:

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 &gt; 5-6 mm : WC &gt; 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](http://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.	+	Correlation coefficient for MSA is <0.995.
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/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
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.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the öNotesö column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an öimmediateö hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (×100% Difference between two GC columns).
#	Spike was diluted out.	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<sup>1</sup>

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

<sup>1</sup> Analyses were performed according to our laboratory's 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  
**Project:** LCI 2018/LCI2018

**Service Request:** R1806659

**Non-Certified Analytes**

**Certifying Agency:** New York Department of Health

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

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018

**Service Request:** R1806659

**Sample Name:** 18LHB111  
**Lab Code:** R1806659-001  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
300.0		AMOSSES
351.2	NSMITH	CWOODS
353.2		NMANSEN
365.1	KMENGS	NMANSEN
ASTM D6919-09		AMOSSES
SM 2120 B-2001(2011)		SCYMBAL
SM 2320 B-1997(2011)		CWOODS
SM 5910 B		NMANSEN
SM20 10200 H		NSMITH

**Sample Name:** 18LHB111 Diss  
**Lab Code:** R1806659-002  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KMENGS	NMANSEN
SM 5310 C-2000(2011)		CWOODS

**Sample Name:** 18LHB112  
**Lab Code:** R1806659-003  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
300.0		AMOSSES
351.2	NSMITH	CWOODS
353.2		NMANSEN
365.1	KMENGS	NMANSEN
ASTM D6919-09		AMOSSES
SM 2120 B-2001(2011)		SCYMBAL
SM 5910 B		NMANSEN

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018

**Service Request:** R1806659

**Sample Name:** 18LHB112 Diss  
**Lab Code:** R1806659-004  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

365.1  
SM 5310 C-2000(2011)

**Extracted/Digested By**

KMENGs

**Analyzed By**

NMANSEN  
CWOODS

**Sample Name:** 18LHB119  
**Lab Code:** R1806659-005  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

300.0  
351.2  
353.2  
365.1  
ASTM D6919-09

**Extracted/Digested By**

NSMITH  
  
KMENGs

**Analyzed By**

AMOSEs  
CWOODS  
NMANSEN  
NMANSEN  
AMOSEs

SM 2120 B-2001(2011)  
SM 2320 B-1997(2011)  
SM 5910 B  
SM20 10200 H

SCYMBAL  
CWOODS  
NMANSEN  
NSMITH

**Sample Name:** 18LHB119 Diss  
**Lab Code:** R1806659-006  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

365.1  
SM 5310 C-2000(2011)

**Extracted/Digested By**

KMENGs

**Analyzed By**

NMANSEN  
CWOODS

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018

**Service Request:** R1806659

**Sample Name:** 18LHB120  
**Lab Code:** R1806659-007  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
300.0		AMOSSES
351.2	NSMITH	CWOODS
353.2		NMANSEN
365.1	KMENGS	NMANSEN
ASTM D6919-09		AMOSSES
SM 2120 B-2001(2011)		SCYMBAL
SM 5910 B		NMANSEN

**Sample Name:** 18LHB120 Diss  
**Lab Code:** R1806659-008  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KMENGS	NMANSEN
SM 5310 C-2000(2011)		CWOODS

**Sample Name:** 18LHB133  
**Lab Code:** R1806659-009  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
300.0		AMOSSES
351.2	NSMITH	CWOODS
353.2		NMANSEN
365.1	KMENGS	NMANSEN
ASTM D6919-09		AMOSSES
SM 2120 B-2001(2011)		SCYMBAL
SM 2320 B-1997(2011)		CWOODS
SM 5910 B		NMANSEN
SM20 10200 H		NSMITH



ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018

**Service Request:** R1806659

**Sample Name:** 18LHB133 Diss  
**Lab Code:** R1806659-010  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

365.1  
SM 5310 C-2000(2011)

**Extracted/Digested By**

KMENGs

**Analyzed By**

NMANSEN  
CWOODS

**Sample Name:** 18LHB134  
**Lab Code:** R1806659-011  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

300.0  
351.2  
353.2  
365.1  
ASTM D6919-09

**Extracted/Digested By**

NSMITH  
  
KMENGs

**Analyzed By**

AMOSSES  
CWOODS  
NMANSEN  
NMANSEN  
AMOSSES

SM 2120 B-2001(2011)  
SM 5910 B

SCYMBAL  
NMANSEN

**Sample Name:** 18LHB134 Diss  
**Lab Code:** R1806659-012  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

365.1  
SM 5310 C-2000(2011)

**Extracted/Digested By**

KMENGs

**Analyzed By**

NMANSEN  
CWOODS

**Sample Name:** 18LHB109  
**Lab Code:** R1806659-013  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

300.0  
351.2

**Extracted/Digested By**

NSMITH

**Analyzed By**

AMOSSES  
CWOODS

**ALS Group USA, Corp.**

dba ALS Environmental

## Analyst Summary report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018

**Service Request:** R1806659

**Sample Name:** 18LHB109  
**Lab Code:** R1806659-013  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
353.2		NMANSEN
365.1	KMENGS	NMANSEN
ASTM D6919-09		AMOSEs
SM 2120 B-2001(2011)		SCYMBAL
SM 2320 B-1997(2011)		CWOODS
SM 5910 B		NMANSEN
SM20 10200 H		NSMITH

**Sample Name:** 18LHB109 Diss  
**Lab Code:** R1806659-014  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KMENGS	NMANSEN
SM 5310 C-2000(2011)		CWOODS

**Sample Name:** 18LHB110  
**Lab Code:** R1806659-015  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
300.0		AMOSEs
351.2	NSMITH	CWOODS
353.2		NMANSEN
365.1	KMENGS	NMANSEN
ASTM D6919-09		AMOSEs
SM 2120 B-2001(2011)		SCYMBAL
SM 5910 B		NMANSEN

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018

**Service Request:** R1806659

**Sample Name:** 18LHB110 Diss  
**Lab Code:** R1806659-016  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

365.1  
SM 5310 C-2000(2011)

**Extracted/Digested By**

KMENGs

**Analyzed By**

NMANSEN  
CWOODS

**Sample Name:** 18LHB117  
**Lab Code:** R1806659-017  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

300.0  
351.2  
353.2  
365.1  
ASTM D6919-09

**Extracted/Digested By**

NSMITH  
  
KMENGs

**Analyzed By**

AMOSEs  
CWOODS  
NMANSEN  
NMANSEN  
AMOSEs

SM 2120 B-2001(2011)  
SM 2320 B-1997(2011)  
SM 5910 B  
SM20 10200 H

SCYMBAL  
CWOODS  
NMANSEN  
NSMITH

**Sample Name:** 18LHB117 Diss  
**Lab Code:** R1806659-018  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

365.1  
SM 5310 C-2000(2011)

**Extracted/Digested By**

KMENGs

**Analyzed By**

NMANSEN  
CWOODS

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018

**Service Request:** R1806659

**Sample Name:** 18LHB118  
**Lab Code:** R1806659-019  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
300.0		AMOSSES
351.2	NSMITH	CWOODS
353.2		NMANSEN
365.1	KMENGS	NMANSEN
ASTM D6919-09		AMOSSES
SM 2120 B-2001(2011)		SCYMBAL
SM 5910 B		NMANSEN

**Sample Name:** 18LHB118 Diss  
**Lab Code:** R1806659-020  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KMENGS	NMANSEN
SM 5310 C-2000(2011)		CWOODS

**Sample Name:** 18LHB005  
**Lab Code:** R1806659-021  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

Analysis Method	Extracted/Digested By	Analyzed By
351.2	NSMITH	CWOODS
353.2		NMANSEN
365.1	KMENGS	NMANSEN
ASTM D6919-09		AMOSSES
SM 2120 B-2001(2011)		SCYMBAL
SM 2320 B-1997(2011)		CWOODS
SM 5310 C-2000(2011)		CWOODS

**ALS Group USA, Corp.**

dba ALS Environmental

## Analyst Summary report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018

**Service Request:** R1806659

**Sample Name:** 18LHB005 Diss  
**Lab Code:** R1806659-022  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

365.1

**Extracted/Digested By**

KMENGs

**Analyzed By**

NMANSEN

**Sample Name:** 18LHB123  
**Lab Code:** R1806659-023  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

300.0

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5910 B

SM20 10200 H

**Extracted/Digested By**

NSMITH

KMENGs

**Analyzed By**

AMOSSES

CWOODS

NMANSEN

NMANSEN

AMOSSES

SCYMBAL

CWOODS

NMANSEN

NSMITH

**Sample Name:** 18LHB123 Diss  
**Lab Code:** R1806659-024  
**Sample Matrix:** Water

**Date Collected:** 07/16/18  
**Date Received:** 07/17/18

**Analysis Method**

365.1

SM 5310 C-2000(2011)

**Extracted/Digested By**

KMENGs

**Analyzed By**

NMANSEN

CWOODS



## INORGANIC PREPARATION METHODS

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

**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](http://www.alsglobal.com)



## Metals

**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](http://www.alsglobal.com)



**METALS**  
**- 1 -**  
**INORGANIC ANALYSIS DATA PACKAGE**

Client: New York State DEC

Service Request: LCI0716

Project No.: R1806659

Date Collected: 7/16/2018

Project Name:

Date Received: 7/17/2018

Matrix: WATER

Units: ug/L

Basis:

Sample Name: 18LHB112

Lab Code: R1806659-003

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Arsenic	200.8	1.0	0.39	1.0	0.59	J	
Iron	200.7	100	13.0	1.0	484		
Manganese	200.7	10.0	1.7	1.0	2050		

% Solids: 0.0

Comments:

**METALS**  
**- 1 -**  
**INORGANIC ANALYSIS DATA PACKAGE**

**Client:** New York State DEC

**Service Request:** LCI0716

**Project No.:** R1806659

**Date Collected:** 7/16/2018

**Project Name:**

**Date Received:** 7/17/2018

**Matrix:** WATER

**Units:** ug/L

**Basis:**

**Sample Name:** 18LHB120

**Lab Code:** R1806659-007

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Arsenic	200.8	1.0	0.39	1.0	0.62	J	
Iron	200.7	100	13.0	1.0	180		
Manganese	200.7	10.0	1.7	1.0	2200		

**% Solids:** 0.0

**Comments:**

**METALS**  
**- 1 -**  
**INORGANIC ANALYSIS DATA PACKAGE**

Client: New York State DEC

Service Request: LCI0716

Project No.: R1806659

Date Collected: 7/16/2018

Project Name:

Date Received: 7/17/2018

Matrix: WATER

Units: ug/L

Basis:

Sample Name: 18LHB134

Lab Code: R1806659-011

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Arsenic	200.8	1.0	0.39	1.0	0.71	J	
Iron	200.7	100	13.0	1.0	258		
Manganese	200.7	10.0	1.7	1.0	3020		

% Solids: 0.0

Comments:

**METALS**  
**- 1 -**  
**INORGANIC ANALYSIS DATA PACKAGE**

**Client:** New York State DEC

**Service Request:** LCI0716

**Project No.:** R1806659

**Date Collected:** 7/16/2018

**Project Name:**

**Date Received:** 7/17/2018

**Matrix:** WATER

**Units:** ug/L

**Basis:**

**Sample Name:** 18LHB110

**Lab Code:** R1806659-015

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Arsenic	200.8	1.0	0.39	1.0	1.8		
Iron	200.7	100	13.0	1.0	2660		
Manganese	200.7	10.0	1.7	1.0	2660		

**% Solids:** 0.0

**Comments:**

**METALS**  
**- 1 -**  
**INORGANIC ANALYSIS DATA PACKAGE**

Client: New York State DEC

Service Request: LCI0716

Project No.: R1806659

Date Collected: 7/16/2018

Project Name:

Date Received: 7/17/2018

Matrix: WATER

Units: ug/L

Basis:

Sample Name: 18LHB118

Lab Code: R1806659-019

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Arsenic	200.8	1.0	0.39	1.0	1.1		
Iron	200.7	100	13.0	1.0	265		
Manganese	200.7	10.0	1.7	1.0	218		

% Solids: 0.0

Comments:

**METALS**  
**- 1 -**  
**INORGANIC ANALYSIS DATA PACKAGE**

**Client:** New York State DEC

**Service Request:** LCI0716

**Project No.:** R1806659

**Date Collected:** 7/16/2018

**Project Name:**

**Date Received:** 7/17/2018

**Matrix:** WATER

**Units:** ug/L

**Basis:**

**Sample Name:** 18LHB123

**Lab Code:** R1806659-023

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Arsenic	200.8	1.0	0.39	1.0	2.1		
Iron	200.7	100	13.0	1.0	1250		
Manganese	200.7	10.0	1.7	1.0	668		

**% Solids:** 0.0

**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

[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18 12:55  
**Date Received:** 07/17/18 08:50

**Sample Name:** 18LHB111  
**Lab Code:** R1806659-001

**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	18.4	mg/L	2.0	1	07/24/18 03:08	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	07/24/18 14:03	NA	
Chlorophyll A	SM20 10200 H	1.95	ug/L	0.16	1	07/26/18 12:00	NA	
Color, True	SM 2120 B-2001(2011)	23.0	ColorUnits	1.0	1	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	mg/L	0.0020	1	07/27/18 17:41	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.40	mg/L	0.10	1	07/30/18 10:45	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.65	pH Units	1.0	1	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0097	mg/L	0.0050	1	07/25/18 19:39	07/20/18	
Sulfate	300.0	6.6	mg/L	2.0	10	07/19/18 23:03	NA	
UV254	SM 5910 B	0.0760	cm-1	-	1	07/17/18 18:03	NA	



ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB111 Diss  
**Lab Code:** R1806659-002

**Service Request:** R1806659  
**Date Collected:** 07/16/18 12:55  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date	Q
							Extracted	
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	4.7	mg/L	1.0	1	07/18/18 20:42	NA	
Phosphorus, Dissolved	365.1	0.0052	mg/L	0.0050	1	07/25/18 17:54	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB112  
**Lab Code:** R1806659-003

**Service Request:** R1806659  
**Date Collected:** 07/16/18 13:10  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

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	07/24/18 14:19	NA	
Color, True	SM 2120 B-2001(2011)	26.0	ColorUnits	1.0	1	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0031	mg/L	0.0020	1	07/27/18 17:45	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.09	mg/L	0.10	1	07/30/18 10:46	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.62	pH Units	1.0	1	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0445	mg/L	0.0050	1	07/25/18 19:40	07/20/18	
Sulfate	300.0	5.1	mg/L	2.0	10	07/19/18 23:20	NA	
UV254	SM 5910 B	0.0770	cm-1	-	1	07/17/18 18:03	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB112 Diss  
**Lab Code:** R1806659-004

**Service Request:** R1806659  
**Date Collected:** 07/16/18 13:10  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	4.1	mg/L	1.0	1	07/18/18 21:03	NA	
Phosphorus, Dissolved	365.1	0.0087	mg/L	0.0050	1	07/25/18 17:57	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18 10:44  
**Date Received:** 07/17/18 08:50

**Sample Name:** 18LHB119  
**Lab Code:** R1806659-005

**Basis:** NA

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	07/24/18 03:13	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	07/24/18 14:35	NA	
Chlorophyll A	SM20 10200 H	18.8	ug/L	0.80	5	07/26/18 12:00	NA	
Color, True	SM 2120 B-2001(2011)	80.0	ColorUnits	5.0	5	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	mg/L	0.0020	1	07/27/18 17:46	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.87	mg/L	0.10	1	07/30/18 10:49	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.60	pH Units	1.0	5	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0369	mg/L	0.0050	1	07/25/18 19:41	07/20/18	
Sulfate	300.0	7.1	mg/L	2.0	10	07/19/18 23:26	NA	
UV254	SM 5910 B	0.123	cm-1	-	1	07/17/18 18:03	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB119 Diss  
**Lab Code:** R1806659-006

**Service Request:** R1806659  
**Date Collected:** 07/16/18 10:44  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	5.9	mg/L	1.0	1	07/18/18 21:24	NA	
Phosphorus, Dissolved	365.1	0.0099	mg/L	0.0050	1	07/25/18 17:58	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB120  
**Lab Code:** R1806659-007

**Service Request:** R1806659  
**Date Collected:** 07/16/18 10:54  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.113	mg/L	0.0050	1	07/24/18 14:51	NA	
Color, True	SM 2120 B-2001(2011)	33.0	ColorUnits	1.0	1	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0021	mg/L	0.0020	1	07/27/18 17:48	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.96	mg/L	0.10	1	07/30/18 10:50	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.51	pH Units	1.0	1	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0452	mg/L	0.0050	1	07/25/18 19:45	07/20/18	
Sulfate	300.0	6.2	mg/L	2.0	10	07/19/18 23:32	NA	
UV254	SM 5910 B	0.0890	cm-1	-	1	07/17/18 18:03	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
**Sample Name:** 18LHB120 Diss  
**Lab Code:** R1806659-008

**Service Request:** R1806659  
**Date Collected:** 07/16/18 10:54  
**Date Received:** 07/17/18 08:50  
**Basis:** NA

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	07/18/18 21:45	NA	
Phosphorus, Dissolved	365.1	0.0094	mg/L	0.0050	1	07/25/18 17:59	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18 08:00  
**Date Received:** 07/17/18 08:50

**Sample Name:** 18LHB133  
**Lab Code:** R1806659-009

**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO <sub>3</sub>	SM 2320 B-1997(2011)	85.2	mg/L	2.0	1	07/24/18 03:19	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	07/24/18 15:07	NA	
Chlorophyll A	SM20 10200 H	2.38	ug/L	0.080	1	07/26/18 12:00	NA	
Color, True	SM 2120 B-2001(2011)	25.0	ColorUnits	1.0	1	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	mg/L	0.0020	1	07/27/18 17:49	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.40	mg/L	0.10	1	07/30/18 10:50	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.99	pH Units	1.0	1	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0141	mg/L	0.0050	1	07/25/18 19:46	07/20/18	
Sulfate	300.0	16.9	mg/L	2.0	10	07/19/18 23:38	NA	
UV254	SM 5910 B	0.0505	cm-1	-	1	07/17/18 18:03	NA	



ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB133 Diss  
**Lab Code:** R1806659-010

**Service Request:** R1806659  
**Date Collected:** 07/16/18 08:00  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	3.7	mg/L	1.0	1	07/18/18 22:06	NA	
Phosphorus, Dissolved	365.1	0.0066	mg/L	0.0050	1	07/25/18 18:01	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18 08:15  
**Date Received:** 07/17/18 08:50

**Sample Name:** 18LHB134  
**Lab Code:** R1806659-011

**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0159	mg/L	0.0050	1	07/24/18 16:43	NA	
Color, True	SM 2120 B-2001(2011)	36.0	ColorUnits	1.0	1	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0032	mg/L	0.0020	1	07/27/18 17:50	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.69	mg/L	0.10	1	07/30/18 10:51	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.58	pH Units	1.0	1	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0411	mg/L	0.0050	1	07/25/18 19:49	07/20/18	
Sulfate	300.0	11.1	mg/L	2.0	10	07/19/18 23:44	NA	
UV254	SM 5910 B	0.0630	cm-1	-	1	07/17/18 18:03	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB134 Diss  
**Lab Code:** R1806659-012

**Service Request:** R1806659  
**Date Collected:** 07/16/18 08:15  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	3.7	mg/L	1.0	1	07/18/18 23:50	NA	
Phosphorus, Dissolved	365.1	0.0133	mg/L	0.0050	1	07/25/18 18:02	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18 09:50  
**Date Received:** 07/17/18 08:50

**Sample Name:** 18LHB109  
**Lab Code:** R1806659-013

**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO <sub>3</sub>	SM 2320 B-1997(2011)	92.4	mg/L	2.0	1	07/24/18 03:25	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0085	mg/L	0.0050	1	07/24/18 17:31	NA	
Chlorophyll A	SM20 10200 H	71.3	ug/L	2.7	10	07/26/18 12:00	NA	
Color, True	SM 2120 B-2001(2011)	120	ColorUnits	10	10	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0021	mg/L	0.0020	1	07/27/18 17:52	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.23	mg/L	0.10	1	07/30/18 10:52	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	8.52	pH Units	1.0	10	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0396	mg/L	0.0050	1	07/25/18 19:50	07/20/18	
Sulfate	300.0	7.1	mg/L	2.0	10	07/19/18 23:50	NA	
UV254	SM 5910 B	0.177	cm-1	-	1	07/17/18 18:03	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB109 Diss  
**Lab Code:** R1806659-014

**Service Request:** R1806659  
**Date Collected:** 07/16/18 09:50  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	7.2	mg/L	1.0	1	07/19/18 00:53	NA	
Phosphorus, Dissolved	365.1	0.0115	mg/L	0.0050	1	07/25/18 18:03	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18 09:55  
**Date Received:** 07/17/18 08:50

**Sample Name:** 18LHB110  
**Lab Code:** R1806659-015

**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	ASTM D6919-09	1.22	mg/L	0.0050	1	07/24/18 17:47	NA	
Color, True	SM 2120 B-2001(2011)	160	ColorUnits	10	10	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0117	mg/L	0.0020	1	07/27/18 17:56	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	2.34	mg/L	0.10	1	07/25/18 15:52	07/24/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.44	pH Units	1.0	10	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.49	mg/L	0.10	20	07/25/18 20:26	07/20/18	
Sulfate	300.0	4.2	mg/L	2.0	10	07/19/18 23:56	NA	
UV254	SM 5910 B	0.243	cm-1	-	1	07/17/18 18:03	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB110 Diss  
**Lab Code:** R1806659-016

**Service Request:** R1806659  
**Date Collected:** 07/16/18 09:55  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date	Q
							Extracted	
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	8.8	mg/L	1.0	1	07/19/18 01:14	NA	
Phosphorus, Dissolved	365.1	0.197	mg/L	0.050	10	07/25/18 19:59	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18 12:15  
**Date Received:** 07/17/18 08:50

**Sample Name:** 18LHB117  
**Lab Code:** R1806659-017

**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO <sub>3</sub>	SM 2320 B-1997(2011)	46.4	mg/L	2.0	1	07/24/18 03:31	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	07/24/18 18:03	NA	
Chlorophyll A	SM20 10200 H	16.1	ug/L	1.6	10	07/26/18 12:00	NA	
Color, True	SM 2120 B-2001(2011)	140	ColorUnits	10	10	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0022	mg/L	0.0020	1	07/27/18 17:57	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.64	mg/L	0.10	1	07/30/18 10:53	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.86	pH Units	1.0	10	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0310	mg/L	0.0050	1	07/25/18 19:52	07/20/18	
Sulfate	300.0	8.5	mg/L	2.0	10	07/20/18 00:19	NA	
UV254	SM 5910 B	0.0790	cm-1	-	1	07/17/18 18:03	NA	



ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB117 Diss  
**Lab Code:** R1806659-018

**Service Request:** R1806659  
**Date Collected:** 07/16/18 12:15  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	5.2	mg/L	1.0	1	07/19/18 01:35	NA	
Phosphorus, Dissolved	365.1	0.0109	mg/L	0.0050	1	07/25/18 18:09	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18 12:20  
**Date Received:** 07/17/18 08:50

**Sample Name:** 18LHB118  
**Lab Code:** R1806659-019

**Basis:** NA

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	07/24/18 18:19	NA	
Color, True	SM 2120 B-2001(2011)	150	ColorUnits	10	10	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0065	mg/L	0.0020	1	07/27/18 17:58	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.58	mg/L	0.10	1	07/30/18 10:53	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.77	pH Units	1.0	10	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0293	mg/L	0.0050	1	07/25/18 19:53	07/20/18	
Sulfate	300.0	8.6	mg/L	2.0	10	07/20/18 00:25	NA	
UV254	SM 5910 B	0.0785	cm-1	-	1	07/17/18 18:03	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB118 Diss  
**Lab Code:** R1806659-020

**Service Request:** R1806659  
**Date Collected:** 07/16/18 12:20  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	4.8	mg/L	1.0	1	07/19/18 01:56	NA	
Phosphorus, Dissolved	365.1	0.0087	mg/L	0.0050	1	07/25/18 18:11	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB005  
**Lab Code:** R1806659-021

**Service Request:** R1806659  
**Date Collected:** 07/16/18 13:50  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	23.6	mg/L	2.0	1	07/24/18 03:44	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0105	mg/L	0.0050	1	07/24/18 18:35	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	8.8	mg/L	1.0	1	07/19/18 02:37	NA	
Color, True	SM 2120 B-2001(2011)	130	ColorUnits	10	10	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0030	mg/L	0.0020	1	07/27/18 18:00	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.80	mg/L	0.10	1	07/30/18 10:57	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.12	pH Units	1.0	10	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0913	mg/L	0.0050	1	07/25/18 19:55	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB005 Diss  
**Lab Code:** R1806659-022

**Service Request:** R1806659  
**Date Collected:** 07/16/18 13:50  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0129	mg/L	0.0050	1	07/25/18 18:12	07/20/18	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18 14:44  
**Date Received:** 07/17/18 08:50

**Sample Name:** 18LHB123  
**Lab Code:** R1806659-023

**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	76.0	mg/L	2.0	1	07/24/18 03:50	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0082	mg/L	0.0050	1	07/24/18 20:12	NA	
Chlorophyll A	SM20 10200 H	20.8	ug/L	3.2	20	07/26/18 12:00	NA	
Color, True	SM 2120 B-2001(2011)	275	ColorUnits	25	25	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0071	mg/L	0.0020	1	07/27/18 18:01	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.13	mg/L	0.10	1	07/30/18 13:13	07/27/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.74	pH Units	1.0	25	07/17/18 13:20	NA	
Phosphorus, Total	365.1	0.0278	mg/L	0.0050	1	07/25/18 19:58	07/20/18	
Sulfate	300.0	2.0 U	mg/L	2.0	10	07/20/18 00:31	NA	
UV254	SM 5910 B	0.296	cm-1	-	1	07/17/18 18:03	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** 18LHB123 Diss  
**Lab Code:** R1806659-024

**Service Request:** R1806659  
**Date Collected:** 07/16/18 14:44  
**Date Received:** 07/17/18 08:50  
  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	9.9	mg/L	1.0	1	07/19/18 02:17	NA	
Phosphorus, Dissolved	365.1	0.0215	mg/L	0.0050	1	07/25/18 18:13	07/20/18	



## QC Summary 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](http://www.alsglobal.com)





## Metals

**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](http://www.alsglobal.com)

METALS  
-3-  
BLANKS

Contract: R1806659

Lab Code: Case No.: SAS No.: SDG NO.: LCI0716

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		M
		1	2	3						
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:

METALS  
-3-  
BLANKS

Contract: R1806659

Lab Code: Case No.: SAS No.: SDG NO.: LCI0716

Preparation Blank Matrix (soil/water): WATER

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

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

Comments:

METALS  
-3-  
BLANKS

Contract: R1806659

Lab Code: Case No.: SAS No.: SDG NO.: LCI0716

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		
		1	2	3						
Iron		13.00								P
Manganese		1.70								P

Comments:

METALS

-3-

BLANKS

Contract: R1806659

Lab Code: Case No.: SAS No.: SDG NO.: LCI0716

Preparation Blank Matrix (soil/water): WATER

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

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

Comments:

METALS

-3-

BLANKS

Contract: R1806659

Lab Code: Case No.: SAS No.: SDG NO.: LCI0716

Preparation Blank Matrix (soil/water): WATER

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

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

Comments:

METALS

-7-

LABORATORY CONTROL SAMPLE

Contract: R1806659

Lab Code: Case No.: SAS No.: SDG NO.: LCI0716

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	20.8	104						
Iron	1000	1020	102						
Manganese	500	503	101						

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

[www.alsglobal.com](http://www.alsglobal.com)



**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** Method Blank  
**Lab Code:** R1806659-MB1

**Service Request:** R1806659  
**Date Collected:** NA  
**Date Received:** NA  
  
**Basis:** NA

**Inorganic Parameters**

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Date Extracted</b>	<b>Q</b>
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1	07/24/18 01:30	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	07/24/18 13:15	NA	
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	07/18/18 11:22	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	07/18/18 20:21	NA	
Chlorophyll A	SM20 10200 H	0.40 U	ug/L	0.40	1	07/26/18 12:00	NA	
Color, True	SM 2120 B-2001(2011)	<b>1.0</b>	ColorUnits	1.0	1	07/17/18 14:30	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	mg/L	0.0020	1	07/27/18 17:38	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	<b>0.14</b>	mg/L	0.10	1	07/25/18 15:43	07/24/18	
Phosphorus, Dissolved	365.1	0.0050 U	mg/L	0.0050	1	07/25/18 17:13	07/20/18	
Phosphorus, Total	365.1	0.0050 U	mg/L	0.0050	1	07/25/18 17:24	07/20/18	
Sulfate	300.0	0.20 U	mg/L	0.20	1	07/19/18 21:47	NA	
UV254	SM 5910 B	<b>0.00100</b>	cm-1	-	1	07/17/18 18:03	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
  
**Sample Name:** Method Blank  
**Lab Code:** R1806659-MB2

**Service Request:** R1806659  
**Date Collected:** NA  
**Date Received:** NA  
  
**Basis:** NA

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	07/24/18 19:40	NA	
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	07/18/18 20:21	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.10 U	mg/L	0.10	1	07/30/18 10:32	07/27/18	
Phosphorus, Dissolved	365.1	0.0050 U	mg/L	0.0050	1	07/25/18 17:17	07/20/18	
Phosphorus, Total	365.1	0.0050 U	mg/L	0.0050	1	07/25/18 17:29	07/20/18	
Sulfate	300.0	0.20 U	mg/L	0.20	1	07/20/18 00:07	NA	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** R1806659-MB3

**Service Request:** R1806659  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Nitrogen, Total Kjeldahl (TKN)	351.2	0.10 U	mg/L	0.10	1	07/30/18 10:54	07/27/18	

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:**R1806659  
**Date Collected:**07/16/18  
**Date Received:**07/17/18  
**Date Analyzed:**07/19/18 - 07/27/18

**Duplicate Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** 18LHB111 **Units:**mg/L  
**Lab Code:** R1806659-001 **Basis:**NA

**Matrix Spike**  
R1806659-001MS

**Duplicate Matrix Spike**  
R1806659-001DMS

<b>Analyte Name</b>	<b>Method</b>	<b>Sample Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	0.455	0.500	91	0.457	0.500	91	75-125	<1	20
Sulfate	300.0	6.6	25.9	20.0	97	25.6	20.0	95	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.  
dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18  
**Date Received:** 07/17/18  
**Date Analyzed:** 07/25/18  
**Date Extracted:** 07/20/18

**Duplicate Matrix Spike Summary**  
**Phosphorus, Dissolved**

**Sample Name:** 18LHB111 Diss  
**Lab Code:** R1806659-002  
**Analysis Method:** 365.1  
**Prep Method:** Method

**Units:** mg/L  
**Basis:** NA

Analyte Name	Sample Result	Result	Matrix Spike		Duplicate Matrix Spike		% Rec	Limits	RPD	RPD Limit
			Spike Amount	% Rec	Result	Spike Amount	% Rec			
Phosphorus, Dissolved	0.0052	0.0263	0.0250	84	0.0269	0.0250	87	75-125	2	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.  
dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18  
**Date Received:** 07/17/18  
**Date Analyzed:** 07/30/18  
**Date Extracted:** 07/27/18

**Duplicate Matrix Spike Summary**  
**Nitrogen, Total Kjeldahl (TKN)**

**Sample Name:** 18LHB112  
**Lab Code:** R1806659-003  
**Analysis Method:** 351.2  
**Prep Method:** Method

**Units:** mg/L  
**Basis:** NA

Analyte Name	Sample Result	Matrix Spike R1806659-003MS			Duplicate Matrix Spike R1806659-003DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Nitrogen, Total Kjeldahl (TKN)	1.09	3.25	2.50	87	3.21	2.50	85	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.  
dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18  
**Date Received:** 07/17/18  
**Date Analyzed:** 07/25/18  
**Date Extracted:** 07/20/18

**Duplicate Matrix Spike Summary**  
**Phosphorus, Total**

**Sample Name:** 18LHB133  
**Lab Code:** R1806659-009  
**Analysis Method:** 365.1  
**Prep Method:** Method

**Units:** mg/L  
**Basis:** NA

Analyte Name	Sample Result	Result	Matrix Spike		Result	Duplicate Matrix Spike		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Phosphorus, Total	0.0141	0.0369	0.0250	91	0.0353	0.0250	85	75-125	4	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.  
dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18  
**Date Received:** 07/17/18  
**Date Analyzed:** 07/24/18

**Duplicate Matrix Spike Summary**  
**Ammonia as Nitrogen, undistilled**

**Sample Name:** 18LHB134  
**Lab Code:** R1806659-011  
**Analysis Method:** ASTM D6919-09

**Units:** mg/L  
**Basis:** NA

Analyte Name	Sample Result	Matrix Spike R1806659-011MS			Duplicate Matrix Spike R1806659-011DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Ammonia as Nitrogen, undistilled	0.0159	0.511	0.500	99	0.508	0.500	98	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.  
dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18  
**Date Received:** 07/17/18  
**Date Analyzed:** 07/30/18  
**Date Extracted:** 07/27/18

**Duplicate Matrix Spike Summary**  
**Nitrogen, Total Kjeldahl (TKN)**

**Sample Name:** 18LHB123  
**Lab Code:** R1806659-023  
**Analysis Method:** 351.2  
**Prep Method:** Method

**Units:** mg/L  
**Basis:** NA

Analyte Name	Sample Result	Matrix Spike R1806659-023MS			Duplicate Matrix Spike R1806659-023DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Nitrogen, Total Kjeldahl (TKN)	1.13	3.51	2.50	95	3.53	2.50	96	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.**

dba ALS Environmental

## QA/QC Report

**Client:** New York State DEC  
**Project** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18  
**Date Received:** 07/17/18  
**Date Analyzed:** 07/17/18

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** 18LHB111  
**Lab Code:** R1806659-001

**Units:** cm-1  
**Basis:** NA

				Duplicate Sample R1806659- 001DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
UV254	SM 5910 B	-	0.0760	0.0785	0.0773	3	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.**

dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18  
**Date Received:** 07/17/18  
**Date Analyzed:** 07/17/18

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** 18LHB133  
**Lab Code:** R1806659-009

**Units:** cm-1  
**Basis:** NA

				Duplicate Sample R1806659- 009DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
UV254	SM 5910 B	-	0.0505	0.0520	0.0513	3	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.**

dba ALS Environmental

## QA/QC Report

**Client:** New York State DEC  
**Project** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18  
**Date Received:** 07/17/18  
**Date Analyzed:** 07/17/18

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** 18LHB123  
**Lab Code:** R1806659-023

**Units:** ColorUnits  
**Basis:** NA

				Duplicate Sample R1806659- 023DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Color, True	SM 2120 B-2001(2011)	25	275	275	275	<1	5

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.**

dba ALS Environmental

## QA/QC Report

**Client:** New York State DEC  
**Project** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Collected:** 07/16/18  
**Date Received:** 07/17/18  
**Date Analyzed:** 07/17/18

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** 18LHB123  
**Lab Code:** R1806659-023

**Units:** pH Units  
**Basis:** NA

				Duplicate Sample R1806659- 023DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
pH of Color Analysis	SM 2120 B-2001(2011)	1.0	7.74	7.74	7.74	<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.  
dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Analyzed:** 07/18/18 - 07/27/18

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
R1806659-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO <sub>3</sub>	SM 2320 B-1997(2011)	18.8	20.0	94	70-130
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.504	0.500	101	70-130
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	9.74	10.0	97	70-130
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.4	10.0	104	70-130
Nitrate+Nitrite as Nitrogen	353.2	0.485	0.500	97	70-130
Nitrogen, Total Kjeldahl (TKN)	351.2	2.30	2.50	92	70-130
Phosphorus, Dissolved	365.1	0.0232	0.0250	93	70-130
Phosphorus, Total	365.1	0.0237	0.0250	95	70-130
Sulfate	300.0	2.00	2.00	100	70-130

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Analyzed:** 07/18/18 - 07/30/18

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
R1806659-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.494	0.500	99	70-130
Carbon, Dissolved Organic (DOC)	SM 5310 C-2000(2011)	10.4	10.0	104	70-130
Nitrogen, Total Kjeldahl (TKN)	351.2	2.28	2.50	91	70-130
Phosphorus, Dissolved	365.1	0.0235	0.0250	94	70-130
Phosphorus, Total	365.1	0.0243	0.0250	97	70-130
Sulfate	300.0	2.00	2.00	100	70-130

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** New York State DEC  
**Project:** LCI 2018/LCI2018  
**Sample Matrix:** Water

**Service Request:** R1806659  
**Date Analyzed:** 07/30/18

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
R1806659-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Nitrogen, Total Kjeldahl (TKN)	351.2	2.33	2.50	93	70-130