



September 27, 2018

Service Request No:R1808598

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 September 06, 2018
For your reference, these analyses have been assigned our service request number **R1808598**.

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

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

Service Request: R1808598
Date Received: 09/06/2018

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 09/06/2018. 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.

General Chemistry:

No significant anomalies were noted with this analysis.



Approved by _____

Date 09/27/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: 18LMG303	Lab ID: R1808598-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO ₃	54.0		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0092		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	11.7		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	68.9			3.2	ug/L	SM20 10200 H
Color, True	100			5.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.0085		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	1.38		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.42				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.069		0.010	0.025	mg/L	365.1

CLIENT ID: 18LMG303 Diss	Lab ID: R1808598-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0119		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG313	Lab ID: R1808598-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO ₃	39.2		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0093		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	6.8		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	10.8			0.32	ug/L	SM20 10200 H
Color, True	36.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.0038		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	0.76		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.51				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0250		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG313 Diss	Lab ID: R1808598-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0112		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG305	Lab ID: R1808598-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO ₃	18.4		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0052		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	7.9		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	10.8			0.64	ug/L	SM20 10200 H
Color, True	30.0			1.0	ColorUnits	SM 2120 B-2001 (2011)

SAMPLE DETECTION SUMMARY

CLIENT ID: 18LMG305	Lab ID: R1808598-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Nitrate+Nitrite as Nitrogen	0.0076		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	0.80		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.46				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.116		0.010	0.025	mg/L	365.1

CLIENT ID: 18LMG305 Diss	Lab ID: R1808598-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0062		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG316	Lab ID: R1808598-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
Ammonia as Nitrogen, undistilled	0.545		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	6.9		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Color, True	38.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.0083		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	1.68		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.87				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0257		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG316 Diss	Lab ID: R1808598-008
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0445		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG315	Lab ID: R1808598-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO3	119		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0065		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	6.2		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	6.54			0.32	ug/L	SM20 10200 H
Color, True	28.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrogen, Total Kjeldahl (TKN)	0.64		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.74				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0131		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG315 Diss	Lab ID: R1808598-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0059		0.0020	0.0050	mg/L	365.1

SAMPLE DETECTION SUMMARY

CLIENT ID: 18LMG309	Lab ID: R1808598-011
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO ₃	34.0		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	10.0		0.09	2.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	93.5			3.2	ug/L	SM20 10200 H
Color, True	55.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.0030		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	1.07		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.42				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0357		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG309 Diss	Lab ID: R1808598-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0176		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG301	Lab ID: R1808598-013
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO ₃	53.6		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0227		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	13.0		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	45.4			3.2	ug/L	SM20 10200 H
Color, True	155			5.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.0083		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	1.01		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.48				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0543		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG301 Diss	Lab ID: R1808598-014
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0161		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG307	Lab ID: R1808598-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO ₃	136		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0111		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	7.7		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	18.7			1.6	ug/L	SM20 10200 H
Color, True	49.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.0031		0.0007	0.0020	mg/L	353.2

SAMPLE DETECTION SUMMARY

CLIENT ID: 18LMG307	Lab ID: R1808598-015
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Analyte	Results	Flag	MDL	MRL	Units	Method
Nitrogen, Total Kjeldahl (TKN)	0.96		0.08	0.10	mg/L	351.2
pH of Color Analysis	8.04				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0425		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG307 Diss	Lab ID: R1808598-016
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Analyte	Results	Flag	MDL	MRL	Units	Method
Phosphorus, Dissolved	0.0076		0.0020	0.0050	mg/L	365.1

CLIENT ID: 18LMG311	Lab ID: R1808598-017
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Analyte	Results	Flag	MDL	MRL	Units	Method
Alkalinity, Total as CaCO ₃	238		1.0	2.0	mg/L	SM 2320 B-1997 (2011)
Ammonia as Nitrogen, undistilled	0.0274		0.0008	0.0050	mg/L	ASTM D6919-09
Carbon, Total Organic (TOC)	4.7		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Chlorophyll A	15.6			3.2	ug/L	SM20 10200 H
Color, True	39.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrate+Nitrite as Nitrogen	0.516		0.0007	0.0020	mg/L	353.2
Nitrogen, Total Kjeldahl (TKN)	0.84		0.08	0.10	mg/L	351.2
pH of Color Analysis	7.97				pH Units	SM 2120 B-2001 (2011)
Phosphorus, Total	0.0208		0.0020	0.0050	mg/L	365.1



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
Project: LCI 2018/LCI2018

Service Request:R1808598

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1808598-001	18LMG303	9/4/2018	1120
R1808598-002	18LMG303 Diss	9/4/2018	1120
R1808598-003	18LMG313	9/4/2018	1330
R1808598-004	18LMG313 Diss	9/4/2018	1330
R1808598-005	18LMG305	9/4/2018	1455
R1808598-006	18LMG305 Diss	9/4/2018	1455
R1808598-007	18LMG316	9/4/2018	1605
R1808598-008	18LMG316 Diss	9/4/2018	1605
R1808598-009	18LMG315	9/4/2018	1600
R1808598-010	18LMG315 Diss	9/4/2018	1600
R1808598-011	18LMG309	9/5/2018	0720
R1808598-012	18LMG309 Diss	9/5/2018	0720
R1808598-013	18LMG301	9/5/2018	0920
R1808598-014	18LMG301 Diss	9/5/2018	0920
R1808598-015	18LMG307	9/5/2018	1050
R1808598-016	18LMG307 Diss	9/5/2018	1050
R1808598-017	18LMG311	9/5/2018	1215
R1808598-018	18LMG311 Diss	9/5/2018	1215

CHAIN OF CUSTODY

Page 1 of 1



New York State Department of
Environmental Conservation –
Division of Water

Project Name: LCI
Sampler Collector: Sara Gonzalez
Project Manager: Alene Onion
Address: 625 Broadway, 4th Floor
Albany, NY 12233-3502
Phone: (518) 402-8166
Email: alene.onion@dec.ny.gov

Project Number: LCI2018
Sampler Signature: [Signature]
X Report to Project Manager
Report to:
Address:
Phone:
Email:

NYSDEC SDG:
Sampler Phone No.: 845-216-9575
☐ **Bill to Project Manager**
Bill to: Jason Fagel
Address: 625 Broadway, 4th Floor
Albany, NY 12233-3502
Phone: 518-402-8156
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 = HNO₃
3 = H₂SO₄
4 = NaOH
5 = Zn. Acetate
6 = MeOH
7 = NaHSO₄
8 = Other _____

Matrix Codes:					Collection Date	Collection Time	Matrix Code	No. of Containers	3			2		0	3		0			0			Chlorophyll a Vol (ml)	Location Info	
WW = Wastewater	GW = Groundwater	AW = Ambient Water	SE = Sediment	SL = Sludge					T = Tissue	O = Other _____	TP, NH4, NOx, TKN	TP, NH4, NOx, TKN, NO3	Dissolved TOP4	Fe, Mn, As,	Ca, Mg, Na, K	Fe, Mn, As, Ca, Mg, Na, K	Color	TOC	DOC	Alkalinity	SO4 & UV-254	SO4, Cl			SO4, Cl, UV-254
									ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC	ANC			
NYSDEC LCI Sample ID																									
18CMG3043		09/04	11:20	AW	6	X		X					X	X		X					X	250	Erwin P, epi		
18CMG313		09/04	13:30	AW	6	X		X					X	X		X					X	250	Hoshy Bank P, epi		
18CMG305		09/04	14:55	AW	6	X		X					X	X		X					X	250	Birdseye Hollow		
18CMG316		09/04	16:05	AW	4	X		X					X	X		X							Sanford L, hyp		
18CMG315		09/04	16:08	AW	6	X		X					X	X		X					X	500	Sanford L, epi		
18CMG309		09/05	7:20	AW	6	X		X					X	X		X					X	250	A Levi Pond, epi		
18CMG301		09/05	9:20	AW	6	X		X					X	X		X					X	250	Amelia P, epi		
18CMG307		09/05	10:50	AW	6	X		X					X	X		X					X	250	Lower P, epi		
18CMG311		09/05	12:15	AW	6	X		X					X	X		X					X	250	Miller P, epi		

Special Analysis Instructions:

Relinquished by Sampler: Sara Gonzalez	Date: 09/05	Time: 14:00	Received by: [Signature]	Date: 9/6/18	Time: 0950	Laboratory Receipt Notes: R1808598 New York State DEC LCI 2018 5
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	
Relinquished by:	Date:	Time:	Received by Laboratory:	Date:	Time:	



Cooler Receipt and Preservation Check Form

R1808598

5

New York State DEC
LCI 2018

Project/Client _____ Folder Number _____

Cooler received on 7/6/18 by: SC COURIER: 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 N <u>NA</u>
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as:	Bulk Encore 5035set <u>NA</u>

8. Temperature Readings Date: 7/6/18 Time: 10:15 ID: IR#7 IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>4.1</u>							
Correction Factor (°C)	<u>11.0</u>							
Corrected Temp (°C)	<u>5.1</u>							
Temp from: Type of bottle	<u>CEN/100</u>							
Within 0-6°C?	<u>Y</u> N	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	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: REN by SC on 7/6/18 at 10:20
 5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 7/7/18 Time: 1332 by: D

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 NA
 13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated NA

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 ₃								
≤2	<u>209318</u>	H ₂ SO ₄	<u>✓</u>		<u>190642, 21180071</u>	<u>6/18</u>				
<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 ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		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: 8-077-001, 070318-0000

Explain all Discrepancies/ Other Comments:

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

Labels secondary reviewed by: D
 PC Secondary Review: SC 9/11/18 significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

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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 Certifications¹

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

¹ 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: R1808598

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
SM20 10200 H	Water	Chlorophyll A

ALS Group USA, Corp.

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Analyst Summary report

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

Service Request: R1808598

Sample Name: 18LMG303
Lab Code: R1808598-001
Sample Matrix: Water

Date Collected: 09/4/18
Date Received: 09/6/18

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

Sample Name: 18LMG303 Diss
Lab Code: R1808598-002
Sample Matrix: Water

Date Collected: 09/4/18
Date Received: 09/6/18

Analysis Method	Extracted/Digested By	Analyzed By
365.1	KWONG	GNITAJOUPPI

Sample Name: 18LMG313
Lab Code: R1808598-003
Sample Matrix: Water

Date Collected: 09/4/18
Date Received: 09/6/18

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

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

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

Service Request: R1808598

Sample Name: 18LMG313 Diss
Lab Code: R1808598-004
Sample Matrix: Water

Date Collected: 09/4/18**Date Received:** 09/6/18**Analysis Method**

365.1

Extracted/Digested By

KWONG

Analyzed By

GNITAJOUPPI

Sample Name: 18LMG305
Lab Code: R1808598-005
Sample Matrix: Water

Date Collected: 09/4/18**Date Received:** 09/6/18**Analysis Method**

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

Extracted/Digested By

NSMITH

MROGERSON

Analyzed By

GNITAJOUPPI

AMOSSES

MROGERSON

BKALKMAN

SCYMBAL

CWOODS

CWOODS

GNITAJOUPPI

Sample Name: 18LMG305 Diss
Lab Code: R1808598-006
Sample Matrix: Water

Date Collected: 09/4/18**Date Received:** 09/6/18**Analysis Method**

365.1

Extracted/Digested By

KWONG

Analyzed By

GNITAJOUPPI

Sample Name: 18LMG316
Lab Code: R1808598-007
Sample Matrix: Water

Date Collected: 09/4/18**Date Received:** 09/6/18**Analysis Method**

351.2

353.2

365.1

Extracted/Digested By

NSMITH

MROGERSON

Analyzed By

GNITAJOUPPI

AMOSSES

MROGERSON

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

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

Service Request: R1808598

Sample Name: 18LMG316
Lab Code: R1808598-007
Sample Matrix: Water

Date Collected: 09/4/18
Date Received: 09/6/18

Analysis Method

ASTM D6919-09
SM 2120 B-2001(2011)
SM 5310 C-2000(2011)

Extracted/Digested By

Analyzed By

BKALKMAN
SCYMBAL
CWOODS

Sample Name: 18LMG316 Diss
Lab Code: R1808598-008
Sample Matrix: Water

Date Collected: 09/4/18
Date Received: 09/6/18

Analysis Method

365.1

Extracted/Digested By

KWONG

Analyzed By

GNITAJOUPPI

Sample Name: 18LMG315
Lab Code: R1808598-009
Sample Matrix: Water

Date Collected: 09/4/18
Date Received: 09/6/18

Analysis Method

351.2
353.2
365.1
ASTM D6919-09
SM 2120 B-2001(2011)
SM 2320 B-1997(2011)
SM 5310 C-2000(2011)
SM20 10200 H

Extracted/Digested By

NSMITH

MROGERSON

Analyzed By

GNITAJOUPPI
AMOSE
MROGERSON
BKALKMAN
SCYMBAL
CWOODS
CWOODS
NSMITH

Sample Name: 18LMG315 Diss
Lab Code: R1808598-010
Sample Matrix: Water

Date Collected: 09/4/18
Date Received: 09/6/18

Analysis Method

365.1

Extracted/Digested By

KWONG

Analyzed By

GNITAJOUPPI

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

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

Service Request: R1808598

Sample Name: 18LMG309
Lab Code: R1808598-011
Sample Matrix: Water

Date Collected: 09/5/18
Date Received: 09/6/18

Analysis Method

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

Extracted/Digested By

NSMITH

MROGERSON

Analyzed By

GNITAJOUPPI

AMOSSES

MROGERSON

BKALKMAN

SCYMBAL

CWOODS

CWOODS

NSMITH

Sample Name: 18LMG309 Diss
Lab Code: R1808598-012
Sample Matrix: Water

Date Collected: 09/5/18
Date Received: 09/6/18

Analysis Method

365.1

Extracted/Digested By

KWONG

Analyzed By

GNITAJOUPPI

Sample Name: 18LMG301
Lab Code: R1808598-013
Sample Matrix: Water

Date Collected: 09/5/18
Date Received: 09/6/18

Analysis Method

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

Extracted/Digested By

NSMITH

MROGERSON

Analyzed By

GNITAJOUPPI

AMOSSES

MROGERSON

BKALKMAN

SCYMBAL

CWOODS

CWOODS

NSMITH

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

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

Service Request: R1808598

Sample Name: 18LMG301 Diss
Lab Code: R1808598-014
Sample Matrix: Water

Date Collected: 09/5/18
Date Received: 09/6/18

Analysis Method

365.1

Extracted/Digested By

KWONG

Analyzed By

GNITAJOUPPI

Sample Name: 18LMG307
Lab Code: R1808598-015
Sample Matrix: Water

Date Collected: 09/5/18
Date Received: 09/6/18

Analysis Method

351.2

353.2

365.1

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

Extracted/Digested By

NSMITH

MROGERSON

Analyzed By

GNITAJOUPPI

AMOSSES

MROGERSON

BKALKMAN

SCYMBAL

CWOODS

CWOODS

NSMITH

Sample Name: 18LMG307 Diss
Lab Code: R1808598-016
Sample Matrix: Water

Date Collected: 09/5/18
Date Received: 09/6/18

Analysis Method

365.1

Extracted/Digested By

KWONG

Analyzed By

GNITAJOUPPI

Sample Name: 18LMG311
Lab Code: R1808598-017
Sample Matrix: Water

Date Collected: 09/5/18
Date Received: 09/6/18

Analysis Method

351.2

353.2

365.1

Extracted/Digested By

NSMITH

MROGERSON

Analyzed By

GNITAJOUPPI

AMOSSES

MROGERSON

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Analyst Summary report

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

Service Request: R1808598

Sample Name: 18LMG311
Lab Code: R1808598-017
Sample Matrix: Water

Date Collected: 09/5/18
Date Received: 09/6/18

Analysis Method

ASTM D6919-09

SM 2120 B-2001(2011)

SM 2320 B-1997(2011)

SM 5310 C-2000(2011)

SM20 10200 H

Extracted/Digested By**Analyzed By**

BKALKMAN

SCYMBAL

CWOODS

CWOODS

NSMITH

Sample Name: 18LMG311 Diss
Lab Code: R1808598-018
Sample Matrix: Water

Date Collected: 09/5/18
Date Received: 09/6/18

Analysis Method

365.1

Extracted/Digested By

KWONG

Analyzed By

GNITAJOUPPI



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

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General Chemistry

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dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG303
Lab Code: R1808598-001

Service Request: R1808598
Date Collected: 09/04/18 11:20
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	54.0	mg/L	2.0	1	09/10/18 20:11	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0092	mg/L	0.0050	1	09/13/18 19:13	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	11.7	mg/L	1.0	1	09/12/18 07:45	NA	
Chlorophyll A	SM20 10200 H	68.9	ug/L	3.2	20	09/13/18 08:30	NA	
Color, True	SM 2120 B-2001(2011)	100	ColorUnits	5.0	5	09/06/18 18:10	NA	*
Nitrate+Nitrite as Nitrogen	353.2	0.0085	mg/L	0.0020	1	09/13/18 15:29	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.38	mg/L	0.10	1	09/20/18 11:03	09/19/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.42	pH Units	-	5	09/08/18 08:30	NA	*
Phosphorus, Total	365.1	0.069	mg/L	0.025	5	09/21/18 15:15	09/19/18	

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Analytical Report

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

Sample Name: 18LMG303 Diss
Lab Code: R1808598-002

Service Request: R1808598
Date Collected: 09/04/18 11:20
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0119	mg/L	0.0050	1	09/17/18 10:56	09/14/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG313
Lab Code: R1808598-003

Service Request: R1808598
Date Collected: 09/04/18 13:30
Date Received: 09/06/18 09:50

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)	39.2	mg/L	2.0	1	09/10/18 20:16	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0093	mg/L	0.0050	1	09/13/18 19:29	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	6.8	mg/L	1.0	1	09/12/18 08:06	NA	
Chlorophyll A	SM20 10200 H	10.8	ug/L	0.32	2	09/13/18 08:30	NA	
Color, True	SM 2120 B-2001(2011)	36.0	ColorUnits	1.0	1	09/06/18 18:10	NA	*
Nitrate+Nitrite as Nitrogen	353.2	0.0038	mg/L	0.0020	1	09/13/18 15:30	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.76	mg/L	0.10	1	09/20/18 11:04	09/19/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.51	pH Units	-	1	09/08/18 08:30	NA	*
Phosphorus, Total	365.1	0.0250	mg/L	0.0050	1	09/21/18 15:18	09/19/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG313 Diss
Lab Code: R1808598-004

Service Request: R1808598
Date Collected: 09/04/18 13:30
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0112	mg/L	0.0050	1	09/17/18 10:00	09/14/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG305
Lab Code: R1808598-005

Service Request: R1808598
Date Collected: 09/04/18 14:55
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	18.4	mg/L	2.0	1	09/10/18 20:20	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0052	mg/L	0.0050	1	09/13/18 19:45	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	7.9	mg/L	1.0	1	09/12/18 08:27	NA	
Chlorophyll A	SM20 10200 H	10.8	ug/L	0.64	4	09/13/18 08:30	NA	
Color, True	SM 2120 B-2001(2011)	30.0	ColorUnits	1.0	1	09/06/18 18:10	NA	*
Nitrate+Nitrite as Nitrogen	353.2	0.0076	mg/L	0.0020	1	09/13/18 15:32	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.80	mg/L	0.10	1	09/20/18 12:35	09/19/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.46	pH Units	-	1	09/08/18 08:30	NA	*
Phosphorus, Total	365.1	0.116	mg/L	0.025	5	09/21/18 15:19	09/19/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG305 Diss
Lab Code: R1808598-006

Service Request: R1808598
Date Collected: 09/04/18 14:55
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0062	mg/L	0.0050	1	09/17/18 10:02	09/14/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Service Request: R1808598
Date Collected: 09/04/18 16:05
Date Received: 09/06/18 09:50

Sample Name: 18LMG316
Lab Code: R1808598-007

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.545	mg/L	0.0050	1	09/13/18 21:22	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	6.9	mg/L	1.0	1	09/12/18 08:48	NA	
Color, True	SM 2120 B-2001(2011)	38.0	ColorUnits	1.0	1	09/06/18 18:10	NA	*
Nitrate+Nitrite as Nitrogen	353.2	0.0083	mg/L	0.0020	1	09/13/18 15:33	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.68	mg/L	0.10	1	09/20/18 12:36	09/19/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.87	pH Units	-	1	09/08/18 08:30	NA	*
Phosphorus, Total	365.1	0.0257	mg/L	0.0050	1	09/21/18 15:20	09/19/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG316 Diss
Lab Code: R1808598-008

Service Request: R1808598
Date Collected: 09/04/18 16:05
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0445	mg/L	0.0050	1	09/17/18 10:57	09/14/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG315
Lab Code: R1808598-009

Service Request: R1808598
Date Collected: 09/04/18 16:00
Date Received: 09/06/18 09:50

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)	119	mg/L	2.0	1	09/10/18 20:26	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0065	mg/L	0.0050	1	09/13/18 21:38	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	6.2	mg/L	1.0	1	09/12/18 09:09	NA	
Chlorophyll A	SM20 10200 H	6.54	ug/L	0.32	4	09/14/18 09:00	NA	
Color, True	SM 2120 B-2001(2011)	28.0	ColorUnits	1.0	1	09/06/18 18:10	NA	*
Nitrate+Nitrite as Nitrogen	353.2	0.0020	U mg/L	0.0020	1	09/13/18 15:35	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.64	mg/L	0.10	1	09/20/18 11:07	09/19/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.74	pH Units	-	1	09/08/18 08:30	NA	*
Phosphorus, Total	365.1	0.0131	mg/L	0.0050	1	09/21/18 15:21	09/19/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG315 Diss
Lab Code: R1808598-010

Service Request: R1808598
Date Collected: 09/04/18 16:00
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0059	mg/L	0.0050	1	09/17/18 10:04	09/14/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG309
Lab Code: R1808598-011

Service Request: R1808598
Date Collected: 09/05/18 07:20
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	34.0	mg/L	2.0	1	09/10/18 20:31	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	09/13/18 21:54	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.0	mg/L	2.0	2	09/12/18 12:43	NA	
Chlorophyll A	SM20 10200 H	93.5	ug/L	3.2	20	09/14/18 09:00	NA	
Color, True	SM 2120 B-2001(2011)	55.0	ColorUnits	1.0	1	09/06/18 18:10	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0030	mg/L	0.0020	1	09/13/18 15:36	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.07	mg/L	0.10	1	09/20/18 11:08	09/19/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.42	pH Units	-	1	09/08/18 08:30	NA	*
Phosphorus, Total	365.1	0.0357	mg/L	0.0050	1	09/21/18 15:22	09/19/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG309 Diss
Lab Code: R1808598-012

Service Request: R1808598
Date Collected: 09/05/18 07:20
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0176	mg/L	0.0050	1	09/17/18 10:05	09/14/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG301
Lab Code: R1808598-013

Service Request: R1808598
Date Collected: 09/05/18 09:20
Date Received: 09/06/18 09:50

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)	53.6	mg/L	2.0	1	09/10/18 20:36	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0227	mg/L	0.0050	1	09/13/18 22:10	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	13.0	mg/L	1.0	1	09/12/18 09:51	NA	
Chlorophyll A	SM20 10200 H	45.4	ug/L	3.2	20	09/14/18 09:00	NA	
Color, True	SM 2120 B-2001(2011)	155	ColorUnits	5.0	5	09/06/18 18:10	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0083	mg/L	0.0020	1	09/13/18 15:37	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	1.01	mg/L	0.10	1	09/20/18 11:09	09/19/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.48	pH Units	-	5	09/08/18 08:30	NA	*
Phosphorus, Total	365.1	0.0543	mg/L	0.0050	1	09/21/18 15:26	09/19/18	

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Analytical Report

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

Sample Name: 18LMG301 Diss
Lab Code: R1808598-014

Service Request: R1808598
Date Collected: 09/05/18 09:20
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0161	mg/L	0.0050	1	09/17/18 10:06	09/14/18	

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Analytical Report

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

Sample Name: 18LMG307
Lab Code: R1808598-015

Service Request: R1808598
Date Collected: 09/05/18 10:50
Date Received: 09/06/18 09:50

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)	136	mg/L	2.0	1	09/10/18 20:54	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0111	mg/L	0.0050	1	09/13/18 22:26	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	7.7	mg/L	1.0	1	09/12/18 10:12	NA	
Chlorophyll A	SM20 10200 H	18.7	ug/L	1.6	10	09/14/18 09:00	NA	
Color, True	SM 2120 B-2001(2011)	49.0	ColorUnits	1.0	1	09/06/18 18:10	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0031	mg/L	0.0020	1	09/13/18 15:39	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.96	mg/L	0.10	1	09/20/18 11:09	09/19/18	
pH of Color Analysis	SM 2120 B-2001(2011)	8.04	pH Units	-	1	09/08/18 08:30	NA	*
Phosphorus, Total	365.1	0.0425	mg/L	0.0050	1	09/21/18 15:27	09/19/18	

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dba ALS Environmental

Analytical Report

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

Sample Name: 18LMG307 Diss
Lab Code: R1808598-016

Service Request: R1808598
Date Collected: 09/05/18 10:50
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0076	mg/L	0.0050	1	09/17/18 10:09	09/14/18	

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Analytical Report

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

Sample Name: 18LMG311
Lab Code: R1808598-017

Service Request: R1808598
Date Collected: 09/05/18 12:15
Date Received: 09/06/18 09:50

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)	238	mg/L	2.0	1	09/10/18 21:06	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0274	mg/L	0.0050	1	09/13/18 22:42	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	4.7	mg/L	1.0	1	09/12/18 10:33	NA	
Chlorophyll A	SM20 10200 H	15.6	ug/L	3.2	20	09/14/18 09:00	NA	
Color, True	SM 2120 B-2001(2011)	39.0	ColorUnits	1.0	1	09/06/18 18:10	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.516	mg/L	0.0020	1	09/13/18 15:40	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.84	mg/L	0.10	1	09/20/18 11:10	09/19/18	
pH of Color Analysis	SM 2120 B-2001(2011)	7.97	pH Units	-	1	09/08/18 08:30	NA	*
Phosphorus, Total	365.1	0.0208	mg/L	0.0050	1	09/21/18 15:28	09/19/18	

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Analytical Report

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

Sample Name: 18LMG311 Diss
Lab Code: R1808598-018

Service Request: R1808598
Date Collected: 09/05/18 12:15
Date Received: 09/06/18 09:50

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Phosphorus, Dissolved	365.1	0.0050 U	mg/L	0.0050	1	09/17/18 10:11	09/14/18	



QC Summary Forms

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General Chemistry

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Analytical Report

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

Sample Name: Method Blank
Lab Code: R1808598-MB1

Service Request: R1808598
Date Collected: NA
Date Received: NA

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)	2.0 U	mg/L	2.0	1	09/10/18 18:36	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050 U	mg/L	0.0050	1	09/13/18 17:53	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	09/11/18 22:43	NA	
Chlorophyll A	SM20 10200 H	0.16 U	ug/L	0.16	1	09/13/18 08:30	NA	
Color, True	SM 2120 B-2001(2011)	1.0	ColorUnits	1.0	1	09/06/18 18:10	NA	
Nitrate+Nitrite as Nitrogen	353.2	0.0020 U	mg/L	0.0020	1	09/13/18 15:26	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.10 U	mg/L	0.10	1	09/20/18 10:51	09/19/18	
Phosphorus, Dissolved	365.1	0.0050 U	mg/L	0.0050	1	09/17/18 09:43	09/14/18	
Phosphorus, Total	365.1	0.0050 U	mg/L	0.0050	1	09/21/18 14:59	09/19/18	

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Analytical Report

Client: New York State DEC
Project: LCI 2018/LCI2018
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1808598-MB2

Service Request: R1808598
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1	09/10/18 20:44	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	09/12/18 11:15	
Chlorophyll A	SM20 10200 H	0.40 U	ug/L	0.40	1	09/14/18 09:00	

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Analytical Report

Client: New York State DEC
Project: LCI 2018/LCI2018
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1808598-MB3

Service Request: R1808598
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chlorophyll A	SM20 10200 H	0.40 U	ug/L	0.40	1	09/14/18 09:00	

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QA/QC Report

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

Service Request: R1808598
Date Collected: 09/04/18
Date Received: 09/06/18
Date Analyzed: 09/21/18
Date Extracted: 09/19/18

Duplicate Matrix Spike Summary
Phosphorus, Total

Sample Name: 18LMG303
Lab Code: R1808598-001
Analysis Method: 365.1
Prep Method: Method

Units: mg/L
Basis: NA

Analyte Name	Sample Result	Result	Matrix Spike R1808598-001MS		Result	Duplicate Matrix Spike R1808598-001DMS		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Phosphorus, Total	0.069	0.101	0.025	128 *	0.10	0.025	123	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.

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QA/QC Report

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

Service Request: R1808598
Date Collected: 09/05/18
Date Received: 09/06/18
Date Analyzed: 09/20/18
Date Extracted: 09/19/18

Duplicate Matrix Spike Summary
Nitrogen, Total Kjeldahl (TKN)

Sample Name: 18LMG311
Lab Code: R1808598-017
Analysis Method: 351.2
Prep Method: Method

Units: mg/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike R1808598-017MS			Duplicate Matrix Spike R1808598-017DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Nitrogen, Total Kjeldahl (TKN)	0.84	3.01	2.50	87	2.99	2.50	86	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.

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QA/QC Report

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

Service Request: R1808598
Date Collected: 09/05/18
Date Received: 09/06/18
Date Analyzed: 09/17/18
Date Extracted: 09/14/18

Duplicate Matrix Spike Summary
Phosphorus, Dissolved

Sample Name: 18LMG311 Diss
Lab Code: R1808598-018
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	0.0050 U	0.0239	0.0250	96	0.0247	0.0250	99	75-125	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.

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QA/QC Report

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

Service Request: R1808598
Date Collected: 09/05/18
Date Received: 09/06/18
Date Analyzed: 09/10/18

Replicate Sample Summary
General Chemistry Parameters

Sample Name: 18LMG307
Lab Code: R1808598-015

Units: mg/L
Basis: NA

				Duplicate Sample R1808598- 015DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	2.0	136	136	136	<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.

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QA/QC Report

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

Service Request: R1808598
Date Analyzed: 09/10/18 - 09/21/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1808598-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	18.0	20.0	90	70-130
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.512	0.500	102	70-130
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.3	10.0	103	70-130
Nitrate+Nitrite as Nitrogen	353.2	0.525	0.500	105	70-130
Nitrogen, Total Kjeldahl (TKN)	351.2	2.27	2.50	91	70-130
Phosphorus, Dissolved	365.1	0.0241	0.0250	97	70-130
Phosphorus, Total	365.1	0.0239	0.0250	96	70-130

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QA/QC Report

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

Service Request: R1808598
Date Analyzed: 09/10/18 - 09/12/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1808598-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	17.6	20.0	88	70-130
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.90	10.0	99	70-130