



ENVIRONMENTAL AQUATIC MNGT. L.L.C .

P.O.Box 7239 Algonquin, IL 60102 Ph: 847/960-7252 Fx: 847/960-7253

www.eamlakepond.com

WATER TESTING AND LAKE REPORT 2019

Izaak Walton Preserve
Homewood, IL

WATER TESTING RESULTS:

The lake was tested for standard water quality on 10/7/2019 and mapped on 11/4/19

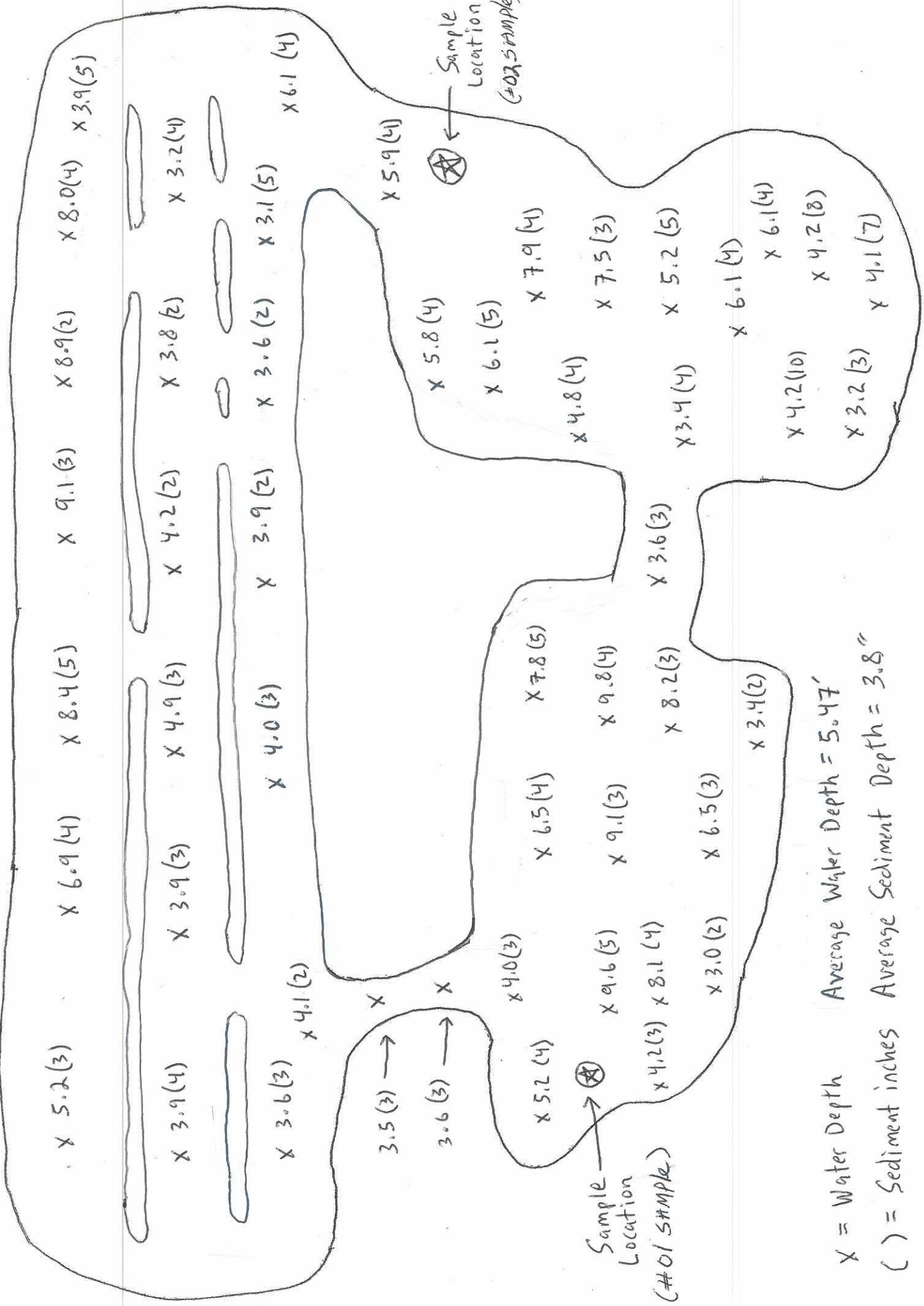
Dissolved Oxygen	8.5 ppm	Very good
Temp.	66.2 F.	Normal
pH	7.8	Normal
TDS (total dissolved solids)	60 ppm	Low (Good)
Conductivity	825 umhos/cm	Normal
Alkalinity	180 ppm	Normal
Total Hardness	150 ppm	Normal (Soft)
Secchi Depth	48"	Excellent clarity
Total Phosphorus #1 Sediment	210 ppm	Low (Good)
Total Phosphorus #2 Sediment	91 ppm	Very Low (Good)
Total Phosphorus #1 Water	27 ppb.	Very Low (Good)
Total Phosphorus #2 Water	24 ppb.	Very Low (Good)
Fecal Coliform Bacteria #1	24.6 MPN/100mL	Very Low (Good)
Fecal Coliform Bacteria #2	25.9 MPN/100mL	Very Low (Good)

SUMMARY:

All standard water parameters were normal. I did not find or see anything that would cause concern or warrant further testing. The total phosphorus results were low indicating low nutrients and a lower potential for excessive aquatic weed growth or dangerous algae blooms. The fecal coliform bacteria results were also low indicating clean water safe to swim or recreate in. Water clarity is also very good at 48". A bathymetric map and sediment depth mapping was conducted on 11/4/19 (attached). The average water depth was 5.47 feet. The average sediment depth was 3.8". These are good numbers especially the low sediment depth. I do not recommend any sediment remediation be done since the sediment depth is very low and considered very good. In my opinion this watershed is in the top 10% of water quality we have surveyed in the last 10 years. Please contact us with any questions or to discuss.

Thank you
Kevin Dahm
Owner/Founder EAM LLC

Izaak Walton 11/4/19



X 5.2 (3)

X 6.9 (4)

X 8.4 (5)

X 9.1 (3)

X 8.9 (2)

X 8.0 (4)

X 3.9 (5)

X 3.9 (4)

X 3.9 (3)

X 4.9 (3)

X 4.2 (2)

X 3.8 (2)

X 3.2 (4)

X 3.6 (3)

X 4.1 (2)

X 4.0 (3)

X 3.9 (2)

X 3.6 (2)

X 3.1 (5)

X 6.1 (4)

3.5 (3) →

3.6 (3) →

X 5.2 (4)

X 4.0 (3)

X 6.5 (4)

X 7.8 (5)

X 9.6 (5)

X 9.1 (3)

X 9.8 (4)

X 4.2 (3)

X 8.1 (4)

X 8.2 (3)

X 3.6 (3)

X 3.0 (2)

X 6.5 (3)

X 3.4 (2)

X 5.9 (4)

X 5.8 (4)

X 6.1 (5)

X 7.9 (4)

X 4.8 (4)

X 7.5 (3)

X 3.4 (4)

X 5.2 (5)

X 6.1 (4)

X 4.2 (10)

X 6.1 (4)

X 3.2 (3)

X 4.2 (8)

X 4.1 (7)



PDC Laboratories, Inc.

PROFESSIONAL • DEPENDABLE • COMMITTED

October 18, 2019

Kevin Dahm
Environmental Aquatics (EAM,LLC)
PO Box 7239
Algonquin, IL 60102

RE: Environmental Aquatics WW

Dear Kevin Dahm:

Please find enclosed the analytical results for the **6** sample(s) the laboratory received on **10/7/19 1:30 pm** and logged in under work order **9101397**. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of PDC Laboratories, Inc.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

PDC Laboratories, Inc. appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the Director of Client Services, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lgrant@pdclab.com.

Sincerely,

Penny Janus
Wastewater Project Manager
(815) 344-4044 x1613
pjanus@pdclab.com





ANALYTICAL RESULTS

Sample: 9101397-01
Name: IW 1
Matrix: Solid - Grab

Sampled: 10/07/19 10:30
Received: 10/07/19 13:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Solids - moisture	25	%		10/10/19 12:55	1	0.050	10/10/19 14:39	JEG	SM 2540G*
Solids - total solids (TS)	75	%		10/10/19 12:55	1	0.050	10/10/19 14:39	JEG	SM 2540G*
Solids - total volatile solids (TVS)	1.6	%		10/10/19 12:55	1	1.0	10/10/19 14:39	JEG	SM 2540G*
Nutrients - PIA									
Phosphorus - total as P	210	mg/kg dry		10/14/19 11:11	1	6.6	10/16/19 11:53	AMM	SW 9056*

Sample: 9101397-02
Name: IW 2
Matrix: Solid - Grab

Sampled: 10/07/19 10:30
Received: 10/07/19 13:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
General Chemistry - PIA									
Solids - moisture	27	%		10/10/19 12:55	1	0.050	10/10/19 14:39	JEG	SM 2540G*
Solids - total solids (TS)	73	%		10/10/19 12:55	1	0.050	10/10/19 14:39	JEG	SM 2540G*
Solids - total volatile solids (TVS)	2.1	%		10/10/19 12:55	1	1.0	10/10/19 14:39	JEG	SM 2540G*
Nutrients - PIA									
Phosphorus - total as P	91	mg/kg dry		10/14/19 11:11	1	6.9	10/16/19 11:54	AMM	SW 9056*

Sample: 9101397-03
Name: IW 3
Matrix: Surface Water - Grab

Sampled: 10/07/19 10:30
Received: 10/07/19 13:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Nutrients - CHI									
Phosphorus - total as P	0.027	mg/L		10/14/19 10:29	1	0.010	10/15/19 10:04	BAG	SM 4500-P F



ANALYTICAL RESULTS

Sample: 9101397-04
Name: IW 4
Matrix: Surface Water - Grab

Sampled: 10/07/19 10:30
Received: 10/07/19 13:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Nutrients - CHI</u>									
Phosphorus - total as P	0.024	mg/L	Pc	10/14/19 10:29	1	0.010	10/15/19 10:05	BAG	SM 4500-P F

Sample: 9101397-05
Name: IW 5
Matrix: Surface Water - Grab

Sampled: 10/07/19 10:30
Received: 10/07/19 13:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Microbiology - CHI</u>									
Fecal coliform bacteria	24.6	MPN/100mL		10/07/19 16:20	1	1.00	10/07/19 16:20	LKN	SM 9223B - QT*

Sample: 9101397-06
Name: IW 6
Matrix: Surface Water - Grab

Sampled: 10/07/19 10:30
Received: 10/07/19 13:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Microbiology - CHI</u>									
Fecal coliform bacteria	25.9	MPN/100mL		10/07/19 16:20	1	1.00	10/07/19 16:20	LKN	SM 9223B - QT*



NOTES

Specific method revisions used for analysis are available upon request.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314 W Crystal Lake Road A, McHenry, IL 60050

TNI Accreditation for Drinking Water, Wastewater, Fields of Testing through IL EPA Lab No. 100279

Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230

Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications: Iowa (240); Kansas (E-10338); Missouri (870)

Wastewater Certifications: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

Hazardous/Solid Waste Certifications: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPIL - Springfield, IL - 1210 Capitol Airport Drive, Springfield, IL 62707

TNI Accreditation through IL EPA Lab No. 100323

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807

USEPA DMR-QA Program

STL - St. Louis, MO - 3278 N Highway 67, Florissant, MO 63033

TNI Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS Lab No. E-10389

TNI Accreditation for Wastewater, Hazardous, and Solid Waste Analysis through IL EPA No. 200080

Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 171050

Missouri Department of Natural Resources

Microbiological Laboratory Service for Drinking Water

Qualifiers

Pc Chemical preservation discrepancy noted at the time of analysis

Certified by: Penny Janus, Wastewater Project Manager



PDC LABORATORIES, INC.
 4314-A CRYSTAL LAKE ROAD
 MCHENRY, IL 60050

PHONE # 815-344-4044
 FAX # 815-344-2208

CHAIN OF CUSTODY RECORD

State where samples collected IL

ALL HIGHLIGHTED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT) - (SAMPLE ACCEPTANCE POLICY ON REVERSE)

1 CLIENT <i>Environmental Aquatic</i>		PROJECT NUMBER	P. O. NUMBER	MEANS SHIPPED		3 ANALYSIS REQUESTED		4 (FOR LAB USE ONLY)			
ADDRESS <i>4014 N.W. Hwy 4-A</i>		PHONE NUMBER <i>(815) 960-7252</i>	FAX NUMBER	DATE SHIPPED		Total Solid % Volatile Solid % % Liquid Total Phosphorus Fecal Coliform		LOGIN # <i>9101397</i>			
CITY STATE ZIP <i>Crystal Lake IL 60014</i>		SAMPLER (PLEASE PRINT) <i>Kevin Dahm</i>		MATRIX TYPES: WW-WASTEWATER DW-DRINKING WATER GW-GROUND WATER WWSL-SLUDGE NAS-SOLID LCHT-LEACHATE				LOGGED BY: <i>PLJ</i>		LAB PROJ. # _____	
CONTACT PERSON <i>Kevin or Cathy</i>		SAMPLER'S SIGNATURE <i>[Signature]</i>		OTHER:				TEMPLATE: _____		PROJ. MGR.: _____	
2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT		DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	COMP	MATRIX TYPE	BOTTLE COUNT	REMARKS			
<i>IW 1</i>		<i>10/7</i>	<i>1030 AM</i>	<i>X</i>		<i>NAS</i>	<i>1</i>	<i>X</i>	<i>X</i>		
<i>IW 2</i>		<i>10/7</i>	<i>1030 AM</i>	<i>X</i>		<i>NAS</i>	<i>1</i>	<i>X</i>	<i>X</i>		
<i>IW 3</i>		<i>10/7</i>	<i>1030 AM</i>	<i>X</i>		<i>SW</i>	<i>1</i>		<i>X</i>		
<i>IW 4</i>		<i>10/7</i>	<i>1030 AM</i>	<i>X</i>		<i>SW</i>	<i>1</i>		<i>X</i>		
<i>IW 5</i>		<i>10/7</i>	<i>10:30</i>	<i>X</i>		<i>SW</i>	<i>1</i>		<i>X</i>		
<i>IW 6</i>		<i>10/7</i>	<i>10:30</i>	<i>X</i>		<i>SW</i>	<i>1</i>		<i>X</i>		
5 TURNAROUND TIME REQUESTED (PLEASE CIRCLE) (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE)		NORMAL RUSH		DATE RESULTS NEEDED		6 The sample temperature will be measured upon receipt at the lab. By initialing this area you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0.1-6.0C. By not initialing this area you allow the lab to proceed with analytical testing regardless of the sample temperature.					
RUSH RESULTS VIA (PLEASE CIRCLE) FAX		PHONE		E-MAIL							
FAX # _____ PHONE # _____		EMAIL ADDRESS <i>erml193(a)comcast.net</i>									
7 RELINQUISHED BY: (SIGNATURE) <i>Kevin Dahm</i>		DATE <i>10/7</i>	TIME	RECEIVED BY: (SIGNATURE) <i>J. Noj</i>		DATE <i>10-7-19</i>	TIME <i>1330</i>	8 COMMENTS: (FOR LAB USE ONLY)			
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	SAMPLE TEMPERATURE UPON RECEIPT <i>21.3 °C</i>			
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED AT LAB BY: (SIGNATURE)		DATE	TIME	CHILL PROCESS STARTED PRIOR TO RECEIPT <input type="checkbox"/> Y OR <input type="checkbox"/> N			
		DATE	TIME			DATE	TIME	SAMPLE(S) RECEIVED ON ICE <input type="checkbox"/> Y OR <input type="checkbox"/> N			
		DATE	TIME			DATE	TIME	PROPER BOTTLES RECEIVED IN GOOD CONDITION <input type="checkbox"/> Y OR <input type="checkbox"/> N			
		DATE	TIME			DATE	TIME	BOTTLES FILLED WITH ADEQUATE VOLUME <input type="checkbox"/> Y OR <input type="checkbox"/> N			
		DATE	TIME			DATE	TIME	SAMPLES RECEIVED WITHIN HOLD TIME(S) <input type="checkbox"/> Y OR <input type="checkbox"/> N			
		DATE	TIME			DATE	TIME	(EXCLUDES TYPICAL FIELD PARAMETERS)			
		DATE	TIME			DATE	TIME	DATE AND TIME TAKEN FROM SAMPLE BOTTLE _____			

Page 5 of 6

SUBCONTRACT ORDER
Transfer Chain of Custody

PDC Laboratories, Inc.
9101397



SENDING LABORATORY

PDC Laboratories, Inc.
4314-A Crystal Lake Road
McHenry, IL 60050
(815)344-4044

RECEIVING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(309) 692-9688

Sample: 9101397-01
Name: IW 1

Sampled: 10/07/19 10:30
Matrix: Solid
Preservative: Cool <6

Analysis	Due	Expires	Comments
PO4 total- P	10/16/19 16:00	11/04/19 10:30	
Solids-MOIST	10/16/19 16:00	10/14/19 10:30	
Solids-TS	10/16/19 16:00	10/14/19 10:30	
Solids-VS	10/16/19 16:00	10/14/19 10:30	

Sample: 9101397-02
Name: IW 2

Sampled: 10/07/19 10:30
Matrix: Solid
Preservative: Cool <6

Analysis	Due	Expires	Comments
PO4 total- P	10/16/19 16:00	11/04/19 10:30	
Solids-MOIST	10/16/19 16:00	10/14/19 10:30	
Solids-TS	10/16/19 16:00	10/14/19 10:30	
Solids-VS	10/16/19 16:00	10/14/19 10:30	

Please email results to Penny Janus at pjanus@pdclab.com

Date Shipped: 10/8/19 Total # of Containers: 2 Sample Origin (State): IL PO#: _____

Turn-Around Time Requested NORMAL RUSH Date Results Needed: 10/16/19

Relinquished By	Date/Time	Received By	Date/Time	Sample Temperature Upon Receipt	_____ °C
<i>BL</i>	10-8-19 9:00	<i>Mak</i>	10-8-19 13:15		<u>3</u>
Relinquished By	Date/Time	Received By	Date/Time	Sample(s) Received on Ice	<input checked="" type="checkbox"/> or N
<i>Mak</i>	15:30	<i>BL</i>	10-8-19 15:30		<input checked="" type="checkbox"/>
Relinquished By	Date/Time	Received By	Date/Time	Proper Bottles Received in Good Condition	<input checked="" type="checkbox"/> or N
<i>Mak</i>	10-8-19	<i>BL</i>	10-8-19		<input checked="" type="checkbox"/>
Relinquished By	Date/Time	Received By	Date/Time	Bottles Filled with Adequate Volume	<input checked="" type="checkbox"/> or N
<i>Mak</i>	10-8-19	<i>BL</i>	10-8-19		<input checked="" type="checkbox"/>
Relinquished By	Date/Time	Received By	Date/Time	Samples Received Within Hold Time	<input checked="" type="checkbox"/> or N
<i>Mak</i>	10-8-19	<i>BL</i>	10-8-19		<input checked="" type="checkbox"/>
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or <input checked="" type="checkbox"/> N
<i>Mak</i>	10-8-19	<i>BL</i>	10-8-19		<input checked="" type="checkbox"/>