The Lotis Engineering Group, P.C.

6465 Transit Road – Suite 23
East Amherst, New York 14051-2232
716.276.8707

January 3, 2016

Jamie Phillips
Lancaster Central School District
177 Central Avenue
Lancaster, New York 14086

Re: Lead Testing in School Drinking Water – Sampling Event 2, 3 and 4
Lancaster High School
1 Forton Drive
Lancaster, NY 14086

Dear Ms. Phillips:

On September 6, 2016, Governor Andrew M. Cuomo signed legislation (S.8158/A.10740) mandating that public schools in New York State test potable water for lead contamination. The New York State Department of Health (NYSDOH) also issued emergency regulations pursuant to the new legislation (NYCRR Title X, Subpart 67-4).

In accordance with the new law and regulations, Lancaster Central School District (District) contracted The Lotis Engineering Group, P.C. (Lotis), to complete water testing in all District buildings. This submission summarizes the analytical results of a resampling event completed on November 4, 2016, December 8, 2016 and December 12, 2016 at Lancaster High School.

Per the emergency regulations issued by the NYSDOH, first-draw samples were collected from cold water outlets after water lay motionless in the pipes for a minimum of 8 hours, but not more than 18 hours. The school district was responsible for flushing outlets at least 8 hours prior to sample collection. Lotis was notified by the school district that flushing was completed over 8 hours prior to sampling. However, this could not be independently verified by Lotis.

Samples were collected by placing a sterile container under each outlet and turning on the water source, allowing Lotis to collect a first-draw cold water sample. Samples were collected in clean 250 mL containers containing the appropriate nitric acid preservative, as provided by the testing laboratory. Samples were then delivered to Microbac Laboratories (a certified Environmental Laboratory Approved Program) following standard chain of custody protocols.

Eight outlets, identified by the District, were sampled inside the building on November 4, 2016. An additional 3 outlets, identified by the District, were sampled inside the building on December 8, 2016. Lastly, one outlet, identified by the District, was sampled inside the building on December 12, 2016. A total of 12 outlets were sampled during these three sampling events.

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At Lancaster High School, 2 samples exceeded the 15 parts per billion (ppb) action level set forth by the NYSDOH. A summary of these samples is included in the following table:

Table 1 – Samples Exceeding 15 ppb

Date Sampled	Sample ID	Location Details	Results (ppb)
11/4/2016	13-LHS-GLR-S1-Broken Sink	Girls Locker Room Sink, not in use	57.1
12/8/2016	2-LHS-111 Prep Room S2	Room 111 Prep Room, right sink	39

Included in this submission are the complete laboratory analytical reports, chain of custody logs and photos of sample locations that exceeded the action levels.

In accordance with the new legislation, use of the aforementioned outlets is prohibited until a lead remediation plan is implemented and new testing demonstrates that the resulting lead levels are below 15 ppb. Alternative water supplies may be necessary in impacted areas. The legislation requires that Lancaster Central School District provide these results to the NYSDOH within one business day of receipt. Further, notification to building staff, all persons in parental relation to students, the local health department and the State Education Department is required within 10 business days of receipt of these results. These results and any associated remedial plans must be posted on the District's website within six weeks of receipt and all records must be retained by the District for at least 10 years.

The NYSDOH recommends reviewing "3Ts for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance" published by the United States Environmental Protection Agency (USEPA) to assist schools in assessing an appropriate remediation plan. A copy of this publication can be reviewed through the following hyperlink 3Ts for Reducing Lead in Drinking Water in Schools.

Lotis is available at your convenience to discuss this issue further.

Sincerely,

Kelly Reidy
Environmental Scientist

David N. Robinson, P.E.
President/CEO

Laboratory Analytical Results

MICROBAC®

December 13, 2016

The Lotis Engineering Group, P.C.
6465 Transit Road - Suite 23
East Amherst, NY 14051-2232

Work Order No.: 16K0775

Re: LHS

Dear Kelly Reidy:

Microbac Laboratories, Inc. - Chicagoland Division received 8 sample(s) on 11/9/2016 9:35:00AM for the analyses presented in the following report as Work Order 16K0775.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Robert Crookston, Managing Director, at robert.crookston@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Karen Ziolkowski
Senior Project Manager

MICROBAC®

WORK ORDER SAMPLE SUMMARY

Date: *Tuesday, December 13, 2016*

Client: The Lotis Engineering Group, P.C.
Project: LHS
Lab Order: 16K0775

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
16K0775-01	2-LHS-Kitchen-Dishwasher		11/04/2016 05:45	11/9/2016 9:35:00AM
16K0775-02	9-LHS-Kitchen-Kitchen-SSF-1-L	SSF=Steam Filler 1	11/04/2016 05:47	11/9/2016 9:35:00AM
16K0775-03	10-LHS-Kitchen-SSFH-2-Right	SSFH=Steam Filler Ho	11/04/2016 05:48	11/9/2016 9:35:00AM
16K0775-04	11-LHS-Kitchen-Steamer		11/04/2016 05:50	11/9/2016 9:35:00AM
16K0775-05	12-LHS-Kitchen-Tilt Skillet		11/04/2016 05:50	11/9/2016 9:35:00AM
16K0775-06	13-LHS-GLR-S1-Broken Sink		11/04/2016 05:51	11/9/2016 9:35:00AM
16K0775-07	14-LHS-BPLR-WF1	BPLR=Boy's Pool Lock	11/04/2016 05:52	11/9/2016 9:35:00AM
16K0775-08	5-LHS-Kitchen-Dish-Sprayer		11/04/2016 05:45	11/9/2016 9:35:00AM

MICROBAC®

Analytical Results

Date: *Tuesday, December 13, 2016*

Client:	The Lotis Engineering Group, P.C.	***Work Order:***	16K0775
Client Project:	LHS	***Received:***	11/09/2016 9:35

Analyses	Certs	Result	Units	Qual	Analyzed	Tech	Method
01 2-LHS-Kitchen-Dishwasher							*Collected: 11/04/2016 05:45*
Lead	gdmnoi	***1.53***	ug/L		11/22/2016 14:41	RPL	EPA 200.8 Rev 5.4
02 9-LHS-Kitchen-Kitchen-SSF-1-Left - SSF=Steam Filler 1							*Collected: 11/04/2016 05:47*
Lead	gdmnoi	***5.69***	ug/L		11/22/2016 14:42	RPL	EPA 200.8 Rev 5.4
03 10-LHS-Kitchen-SSFH-2-Right - SSFH=Steam Filler Hose 1							*Collected: 11/04/2016 05:48*
Lead	gdmnoi	***3.02***	ug/L		11/22/2016 14:42	RPL	EPA 200.8 Rev 5.4
04 11-LHS-Kitchen-Steamer							*Collected: 11/04/2016 05:50*
Lead	gdmnoi	***1.72***	ug/L		11/22/2016 14:43	RPL	EPA 200.8 Rev 5.4
05 12-LHS-Kitchen-Tilt Skillet							*Collected: 11/04/2016 05:50*
Lead	gdmnoi	***8.99***	ug/L		11/22/2016 14:44	RPL	EPA 200.8 Rev 5.4
06 13-LHS-GLR-S1-Broken Sink							*Collected: 11/04/2016 05:51*
Lead	gdmnoi	***57.1***	ug/L		11/22/2016 14:46	RPL	EPA 200.8 Rev 5.4
07 14-LHS-BPLR-WF1 - BPLR=Boy's Pool Locker Room							*Collected: 11/04/2016 05:52*
Lead	gdmnoi	***7.00***	ug/L		11/22/2016 14:48	RPL	EPA 200.8 Rev 5.4
08 5-LHS-Kitchen-Dish-Sprayer							*Collected: 11/04/2016 05:45*
Lead	gdmnoi	***1.19***	ug/L		12/12/2016 15:00	RPL	EPA 200.8 Rev 5.4

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FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank
DUP = Method Duplicate
BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

[d] Illinois EPA drinking water, wastewater and solid waste analysis (#200064)
[g] Indiana SDH chemical analysis of drinking water (#C-45-03)
[i] Kansas Dept Health & Env. NELAP (#E-10397)
[m] New York State Department of Health Wadsworth (#12006)
[n] Pennsylvania Department of Environmental Protect (#68-04863)
[o] Virginia Department of General Services Division of Consolidated Laboratory Services (#7990)

MICROBAC®

COOLER INSPECTION

Date: Tuesday, December 13, 2016

Client Name: The Lotis Engineering Group, P.C.

Date/Time Received: 11/09/2016 09:35

Work Order Number: 16K0775

Received by: Nicole Rainwater

Checklist completed by: 11/10/2016 3:30:00PM | Nicole Rainwater

Reviewed by: 11/15/2016 | KAZ

Carrier Name: UPS

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 21.0° C

After-Hour Arrival?	Yes	☐	No	☑		
Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	Not Present	☑
Custody seals intact on sample containers?	Yes	☐	No	☐	Not Present	☑
COC present?	Yes	☑	No	☐		
COC included sufficient client identification?	Yes	☑	No	☐		
COC included sufficient sample collector information?	Yes	☑	No	☐		
COC included a sample description?	Yes	☑	No	☐		
COC agrees with sample labels?	Yes	☑	No	☐		
COC identified the appropriate matrix?	Yes	☑	No	☐		
COC included date of collection?	Yes	☑	No	☐		
COC included time of collection?	Yes	☑	No	☐		
COC identified the appropriate number of containers?	Yes	☐	No	☑		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
If the samples are preserved, are the preservatives identified?	Yes	☑	No	☐		

If No, adjusted by? _____

COC included the requested analyses?	Yes	☑	No	☐		
COC signed when relinquished and received?	Yes	☑	No	☐		
Samples received on ice?	Yes	☐	No	☑		
Samples properly preserved?	Yes	☑	No	☐		
Voa vials for aqueous samples have zero headspace?	Yes	☐	No	☐	No VOA vials submitted	☑

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
16K0775-01	2-LHS-Kitchen-Dishwasher	
16K0775-02	9-LHS-Kitchen-Kitchen-SSF-1-Left	
16K0775-03	10-LHS-Kitchen-SSFH-2-Right	
16K0775-04	11-LHS-Kitchen-Steamer	
16K0775-05	12-LHS-Kitchen-Tilt Skillet	
16K0775-06	13-LHS-GLR-S1-Broken Sink	
16K0775-07	14-LHS-BPLR-WF1	
16K0775-08	5-LHS-Kitchen-Dish-Sprayer	

16K0775

SampleID	Matrix	SampleName	SampleAlias	Sampled	SampledBy
1B	Aqueous	[redacted]			
2B	Aqueous -01	[redacted]			
3B	Aqueous	[redacted]			
4B	Aqueous	[redacted]			
5B	Aqueous -08	[redacted]			
6B	Aqueous 08	[redacted]			
7B	Aqueous	[redacted]			
8B	Aqueous	[redacted]			
9B	Aqueous -02	[redacted]			
10B	Aqueous -23	[redacted]			
11B	Aqueous -24	[redacted]			
12B	Aqueous -25	[redacted]			
13B	Aqueous -26	[redacted]			
14B	Aqueous -27	[redacted]			

X Matthew Green 11/7/16

released to UPS

Rec'd @ Lab: Nicol Rainwater

11/9/16 @ 0935

NI 21.5
−0.5
21.0°C

UPS

16K0775 Karen Ziolkowski
The Lotis Engineering Group, P.C. - East Amherst N
LHS
11/09/2016

MICROBAC®

December 16, 2016

The Lotis Engineering Group, P.C.
6465 Transit Road - Suite 23
East Amherst, NY 14051-2232

Work Order No.: 16L0699

Re: LHS

Dear Kelly Reidy:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 12/13/2016 1:35:00PM for the analyses presented in the following report as Work Order 16L0699.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

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We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Robert Crookston, Managing Director, at robert.crookston@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Karen Ziolkowski
Senior Project Manager

MICROBAC®

WORK ORDER SAMPLE SUMMARY

Date: *Friday, December 16, 2016*

Client: The Lotis Engineering Group, P.C.
Project: LHS
Lab Order: 16L0699

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
16L0699-01	1-LHS-NO-Ice Machine	Ice MAchine	12/08/2016 07:07	12/13/2016 1:35:00PM
16L0699-02	2-LHS-111 Prep Room S1	left Sink in prep room	12/08/2016 07:16	12/13/2016 1:35:00PM
16L0699-03	2-LHS-111 Prep Room S2	Right Sink in prep room	12/08/2016 07:30	12/13/2016 1:35:00PM

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Analytical Results

Date: *Friday, December 16, 2016*

Client:	The Lotis Engineering Group, P.C.	***Work Order:***	16L0699
Client Project:	LHS	***Received:***	12/13/2016 13:35

Analyses	Certs	Result	Units	Qual	Analyzed	Tech	Method
01 1-LHS-NO-Ice Machine - Ice MAchine							*Collected: 12/08/2016 07:07*
Lead	gdmnoi	***3.53***	ug/L		12/15/2016 17:49	RPL	EPA 200.8 Rev 5.4
02 2-LHS-111 Prep Room S1 - left Sink in prep room							*Collected: 12/08/2016 07:16*
Lead	gdmnoi	***7.67***	ug/L		12/15/2016 17:55	RPL	EPA 200.8 Rev 5.4
03 2-LHS-111 Prep Room S2 - Right Sink in prep room							*Collected: 12/08/2016 07:30*
Lead	gdmnoi	***39.0***	ug/L		12/15/2016 17:56	RPL	EPA 200.8 Rev 5.4

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
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CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
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ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

ANALYTE TYPES: (AT)

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S = Surrogate
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DUP = Method Duplicate
BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

CERTIFICATIONS (Certs)

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[d] Illinois EPA drinking water, wastewater and solid waste analysis (#200064)
[g] Indiana SDH chemical analysis of drinking water (#C-45-03)
[i] Kansas Dept Health & Env. NELAP (#E-10397)
[m] New York State Department of Health Wadsworth (#12006)
[n] Pennsylvania Department of Environmental Protect (#68-04863)
[o] Virginia Department of General Services Division of Consolidated Laboratory Services (#7990)

MICROBAC®

COOLER INSPECTION

Date: Friday, December 16, 2016

Client Name: The Lotis Engineering Group, P.C.

Date/Time Received: 12/13/2016 13:35

Work Order Number: 16L0699

Received by: Samantha Paulus

Checklist completed by: 12/13/2016 10:08:00AM | Nicole Rainwater

Reviewed by: 12/13/2016 | KAZ

Carrier Name: UPS

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 19.2° C

After-Hour Arrival?	Yes	☐	No	☑		
Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	Not Present	☑
Custody seals intact on sample containers?	Yes	☐	No	☐	Not Present	☑
COC present?	Yes	☑	No	☐		
COC included sufficient client identification?	Yes	☑	No	☐		
COC included sufficient sample collector information?	Yes	☑	No	☐		
COC included a sample description?	Yes	☑	No	☐		
COC agrees with sample labels?	Yes	☑	No	☐		
COC identified the appropriate matrix?	Yes	☑	No	☐		
COC included date of collection?	Yes	☑	No	☐		
COC included time of collection?	Yes	☑	No	☐		
COC identified the appropriate number of containers?	Yes	☐	No	☑		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
If the samples are preserved, are the preservatives identified?	Yes	☑	No	☐		

If No, adjusted by? _____

COC included the requested analyses?	Yes	☑	No	☐		
COC signed when relinquished and received?	Yes	☑	No	☐		
Samples received on ice?	Yes	☐	No	☑		
Samples properly preserved?	Yes	☑	No	☐		
Voa vials for aqueous samples have zero headspace?	Yes	☐	No	☐	No VOA vials submitted	☑

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
16L0699-01	1-LHS-NO-Ice Machine	
16L0699-02	2-LHS-111 Prep Room S1	
16L0699-03	2-LHS-111 Prep Room S2	

16L0699

SampleID	Matrix	SampleName	SampleAlias	Sampled	SampledBy
1	Aqueous	1-LHS-NO-Ice Machine	Ice Machine	12/8/2016 07:07	Matt
2	Aqueous	[redacted]			
3	Aqueous				

-01
-02
-03

X Matthew Green

12/8/2016

Matthew Green

Relinquished to VPS

Rec'd Lab: [signature] 12-2-16 @ 1335

192

NI -00

192 °C

MICROBAC®

December 21, 2016

The Lotis Engineering Group, P.C.
6465 Transit Road - Suite 23
East Amherst, NY 14051-2232

Work Order No.: 16L0984

Re: LHS-215-S1

Dear Kelly Reidy:

Microbac Laboratories, Inc. - Chicagoland Division received 1 sample(s) on 12/15/2016 2:30:00PM for the analyses presented in the following report as Work Order 16L0984.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

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We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Robert Crookston, Managing Director, at robert.crookston@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Ron Misiunas
Director of Laboratory Services

MICROBAC®

WORK ORDER SAMPLE SUMMARY

Date: *Wednesday, December 21, 2016*

Client: The Lotis Engineering Group, P.C.
Project: LHS-215-S1
Lab Order: 16L0984

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
16L0984-01	1-LHS-215-S1		12/12/2016 06:50	12/15/2016 2:30:00PM

MICROBAC®

Analytical Results

Date: *Wednesday, December 21, 2016*

Client:	The Lotis Engineering Group, P.C.	***Work Order:***	16L0984
Client Project:	LHS-215-S1	***Received:***	12/15/2016 14:30

Analyses	Certs	Result	Units	Qual	Analyzed	Tech	Method
01 1-LHS-215-S1						*Collected: 12/12/2016 06:50*	
Lead	gdmnoi	***9.57***	ug/L		12/21/2016 13:38	RPL	EPA 200.8 Rev 5.4

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
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mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

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BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

[d] Illinois EPA drinking water, wastewater and solid waste analysis (#200064)
[g] Indiana SDH chemical analysis of drinking water (#C-45-03)
[i] Kansas Dept Health & Env. NELAP (#E-10397)
[m] New York State Department of Health Wadsworth (#12006)
[n] Pennsylvania Department of Environmental Protect (#68-04863)
[o] Virginia Department of General Services Division of Consolidated Laboratory Services (#7990)

MICROBAC®

COOLER INSPECTION

Date: Wednesday, December 21, 2016

Client Name: The Lotis Engineering Group, P.C.

Date/Time Received: 12/15/2016 14:30

Work Order Number: 16L0984

Received by: Nicole Rainwater

Checklist completed by: 12/16/2016 8:50:00AM | Nicole Rainwater

Reviewed by: 12/16/2016 | KAZ

Carrier Name: Priority US Mail

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 18.2° C

After-Hour Arrival?	Yes	☐	No	☑		
Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	Not Present	☑
Custody seals intact on sample containers?	Yes	☐	No	☐	Not Present	☑
COC present?	Yes	☑	No	☐		
COC included sufficient client identification?	Yes	☑	No	☐		
COC included sufficient sample collector information?	Yes	☑	No	☐		
COC included a sample description?	Yes	☑	No	☐		
COC agrees with sample labels?	Yes	☑	No	☐		
COC identified the appropriate matrix?	Yes	☑	No	☐		
COC included date of collection?	Yes	☑	No	☐		
COC included time of collection?	Yes	☑	No	☐		
COC identified the appropriate number of containers?	Yes	☐	No	☑		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
If the samples are preserved, are the preservatives identified?	Yes	☑	No	☐		

If No, adjusted by? _____

COC included the requested analyses?	Yes	☑	No	☐		
COC signed when relinquished and received?	Yes	☑	No	☐		
Samples received on ice?	Yes	☐	No	☑		
Samples properly preserved?	Yes	☑	No	☐		
Voa vials for aqueous samples have zero headspace?	Yes	☐	No	☐	No VOA vials submitted	☑

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
16L0984-01	1-LHS-215-S1	

16L0984

SampleID	Matrix	SampleName	SampleAlias	Sampled	SampledBy
1B	Aqueous	[redacted]			

-01

NI 18.2 / 0.0 / 18.2°C

Rec'd Lab: Nicole Reinwater 12-15-16 @1430

16L0984 Karen Ziolkowski
The Lotis Engineering Group, P.C. - East Amherst N
LHS-215-S1
12/15/2016