

November 30, 2018

Mr. Keith Shanahan
Culligan Water Conditioning-Mechanicsburg
12 Waterford Drive
Mechanicsburg, PA 17050

Certificate of Analysis

Project Name: Keith Shanahan	Workorder: 3001579
Purchase Order:	Workorder ID: Greenwood SD Elem 11/20/18

Dear Mr. Shanahan:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, November 20, 2018.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Amy K Borden (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Kendra Sweeney

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.



Ms. Amy K Borden
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3001579 Greenwood SD Elem 11/20/18

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3001579001	Greenwood Elem Kindergarten101	Drinking Water	11/20/2018 06:45	11/20/2018 18:38	Collected by Client
3001579002	Greenwood Elem Spanish 201	Drinking Water	11/20/2018 06:45	11/20/2018 18:38	Collected by Client
3001579003	Greenwood Elem Kitchen	Drinking Water	11/20/2018 06:45	11/20/2018 18:38	Collected by Client

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SAMPLE SUMMARY

Workorder: 3001579 Greenwood SD Elem 11/20/18

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3001579 Greenwood SD Elem 11/20/18

Lab ID: **3001579001** Date Collected: 11/20/2018 06:45 Matrix: Drinking Water
 Sample ID: **Greenwood Elem Kindergarten101** Date Received: 11/20/2018 18:38

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
METALS										
Copper, Total	0.11		mg/L	0.0050	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:23	LXC	A1
Lead, Total	ND		mg/L	0.0020	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:23	LXC	A1



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ANALYTICAL RESULTS

Workorder: 3001579 Greenwood SD Elem 11/20/18

Lab ID: **3001579002** Date Collected: 11/20/2018 06:45 Matrix: Drinking Water
 Sample ID: **Greenwood Elem Spanish 201** Date Received: 11/20/2018 18:38

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
METALS										
Copper, Total	0.15		mg/L	0.0050	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:26	LXC	A1
Lead, Total	0.0031		mg/L	0.0020	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:26	LXC	A1



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ANALYTICAL RESULTS

Workorder: 3001579 Greenwood SD Elem 11/20/18

Lab ID: **3001579003** Date Collected: 11/20/2018 06:45 Matrix: Drinking Water
Sample ID: **Greenwood Elem Kitchen** Date Received: 11/20/2018 18:38

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
METALS										
Copper, Total	0.040		mg/L	0.0050	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:29	LXC	A1
Lead, Total	ND		mg/L	0.0020	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:29	LXC	A1



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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3001579 Greenwood SD Elem 11/20/18

Lab ID	Sample ID	Analysis Method	Prep Method
3001579001	Greenwood Elem Kindergarten101	EPA 200.8	EPA ACIDT
3001579002	Greenwood Elem Spanish 201	EPA 200.8	EPA ACIDT
3001579003	Greenwood Elem Kitchen	EPA 200.8	EPA ACIDT

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34 Dogwood Lane w/ Middletown, PA 17057 w/ 717.944.5541 w/ Fax: 717.944.1430

Client Name: Culligan
Address: 12 Waterford Drive
Mechanicsburg, PA 17050
Contact: Keith Shanahan
Phone#: 717-649-0192
Project Name#: Greenwood School Distincl-High School
Bill To: Culligan

Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALSI approval and surcharges.
Date Required: Approved By:
Email? -Y
Fax? -Y No.:

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	Matrix	Enter Number of Containers Per Sample or Field Results Below.
Greenwood Elem- Kindergarten 101	11/20/18	6:55 AM	G DW	1
Greenwood Elem- Spanish 201	11/20/18	6:55 AM	G DW	1
Greenwood Elem- Kitchen	11/20/18	6:45 AM	G DW	1
5				
6				
7				
8				
9				
10				

Project Comments:
LOGGED BY (signature):
REVIEWED BY (signature):

Relinquished By / Company Name: *Keith Shanahan ALSI*
Date: 11/20/18 2:00 PM
Time: 11:20 AM 1838

Received By / Company Name: *Keith Shanahan ALSI*
Date: 11/20/18 17:17
Time: 11:20 AM 1838

Deliverables: Standard CLP-like USACE
Reportable to PADEP? Yes No
PWSID #

Special Processing: USACE Navy
Sample Disposal: Lab Special

State Samples Collected In: NY NJ PA NC

EDDS: Format Type

COC
ALSII
* 3 0 0 1 5 7 9 *

Receipt Information (completed by Receiving Lab)
Cooler Temp: Therm ID: 403
No. of Coolers: Y N Initial
Custody Seals Present? (if present) Seals Intact? Received on Ice? COC Labels Complete/Accurate? Cont. in Good Cond.? Correct Containers? Correct Sample Volumes? Correct Preservation? Headspace/Volatiles?

Courier/Tracking #: Sample/COC Comments