

LIMITED LEAD AND COPPER IN DRINKING WATER SAMPLING

**Morrow Magnet High School (Elite Scholars Academy)
CCPS No. 4058
7923 Fiedler Road
Jonesboro, GA 30236**

GLE Project No.: 18000-18861

Prepared for:

**Clayton County Public Schools
1058 Fifth Avenue
Jonesboro, Georgia 30236**

December 2018

Prepared by:



**1100 Spring Street NW, Suite 820
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1.0 INTRODUCTION

GLE was contracted by Clayton County Public Schools (CCPS), through RFP No. 017-17, to perform water collection and testing services for lead and copper at Morrow High School Magnet (Elite Scholars Academy). The purpose of the contracted project was to collect and test water samples taken from CCPS drinking, cooking, and nursing water outlets to identify the presence of lead and copper in the water of CCPS schools and administrative/support buildings. Outlets not used for drinking, such as restroom faucets, maintenance areas, and science labs were excluded from this scope of work. The testing was generally performed in accordance with the Environmental Protection Agency (EPA)'s 3Ts for Reducing Lead in Drinking Water in Schools Technical Guidance Document (revised October 2006).

On October 8, 2018, Ms. Katrina Riley and Ms. Isis Hamilton of GLE Associates, Inc. (GLE), performed initial lead and copper in drinking water sampling of Client-designated drinking water fountains and outlets used for drinking, cooking, and/or nursing located within Morrow High School Magnet (Elite Scholars Academy) located at 7923 Fiedler Road in Jonesboro, Georgia. According to the Client's representative, Morrow High School Magnet (Elite Scholars Academy) was originally constructed in 1973, with major renovations or additions in 1982, 1986, 2000 and 2013. It is our understanding that no previous water testing has been conducted at Elite Scholars Academy.

2.0 INVENTORY AND SAMPLING PLANS

Prior to the initial sampling event, on February 28, 2018, GLE mobilized to the site to inventory the existing outlets at the facility to devise a sampling plan. Further, GLE submitted a Plumbing Profile to CCPS to complete prior to sampling. Based on the results of GLE's inventory and CCPS's plumbing profile, a sampling plan was created and provided to CCPS. A copy of the Sampling Plan with the sample number identifying sample areas is included in **Appendix C**.

3.0 LEAD AND COPPER IN DRINKING WATER SAMPLING PROCEDURES

Prior to the sampling events, a Client-designated representative flushed the drinking, cooking, and nursing water outlets the night before each sampling event (or between at least 8 to 18 hours prior to the sampling event). Refrigerated drinking water fountains were flushed for 15 minutes. Non-refrigerated fountains and faucets used for drinking and cleaning were run for 30 seconds to one minute or until cold. The remaining Client-designated faucets were flushed for 10 minutes. The flushing was performed from the faucet located furthest away from the service line on each wing and/or floor of the building. Once the flushing was complete, CCPS personnel logged the completion date and time on the outlet flushed. GLE confirmed the 8 to 18 hour window prior to taking samples from flushed outlets and submitting them to the laboratory for analysis.

GLE assumed that the water supply lines and outlets in the assessed building were operating properly at the time of sampling. One representative water sample for lead and copper analysis was collected from each outlet identified in the sampling plan utilizing sterile, 250 milliliter (mL) sampling bottles preserved with nitric acid (HNO₃). The sample was collected immediately after activating the water fountain or outlet, described in this report as “first draw”.

The collected samples were submitted to Waypoint Analytical, Inc., a qualified laboratory in Memphis, Tennessee, for analysis. The samples were analyzed for lead and copper in water by Inductively Coupled Plasma/Mass Spectroscopy (ICP/MS) in general accordance with EPA Method 200.8. A summary of the sampling locations and the associated analytical results are summarized below and in the attached table. The laboratory reports and chain of custodies are located in **Appendix A**. A copy of the laboratory’s certification is included in **Appendix B**.

4.0 LEAD AND COPPER IN DRINKING WATER SAMPLING FINDINGS

A total of 34 water samples were collected for analysis of lead and copper content, comprised of one, water sample (first draw) from each Client-designated water fountain or outlet at the above-referenced school. The sample ID consisted of “W” for water, sample number, followed by A for first draw. Outlets identified within the cafeteria bottle filler (right drinking water fountain) was not flushed/ inoperable during the initial sampling event. A summary of the analytical results for the lead and copper in drinking water sampling follows in **Table 4.1 – Summary of Lead and Copper in Drinking Water Sampling Results**. The reporting limit for the lead sample analysis was 0.500 micrograms per liter (µg/L) or parts per billion (ppb) and for copper sample analysis was 0.500 micrograms per liter (µg/L) or parts per billion (ppb).

According to the EPA’s 3Ts for Reducing Lead in Drinking Water in Schools Technical Guidance Document (revised September 2006), EPA recommends that water fountains and/or outlets be taken out of service if the lead level exceeds **20 µg/L or ppb** and if the copper level exceeds **1,300 µg/L or ppb**. Public water supply (PWS) systems are subject to an action level (AL) of **15 µg/L or ppb** of lead in water for treatment (specifically, if more than 10% of samples at residences tested exceed 15 ppb, system-wide corrosion control treatment may be necessary). For the purposes of this sampling event CCPS is taking corrective action for samples reported at or greater than **15 µg/L or ppb for lead and 1,300 µg/L or ppb for copper**.

TABLE 4.1
SUMMARY OF LEAD AND COPPER IN DRINKING WATER SAMPLING RESULTS
MORROW MAGNET HIGH SCHOOL (ELITE SCHOLARS ACADEMY)
JONESBORO, GEORGIA

SAMPLE NUMBER	TEST LOCATION	FIRST DRAW- LEAD SAMPLE RESULTS (µg/L)	FIRST DRAW- COPPER SAMPLE RESULTS (µg/L)
W1A	HALLWAY NEAR ROOM 9 DRINKING WATER FOUNTAIN (RIGHT)	BRL	217
W2A	HALLWAY NEAR ROOM 9 DRINKING WATER FOUNTAIN (LEFT)	BRL	218
W3A	HALLWAY NEAR ROOM 24 DRINKING WATER FOUNTAIN (RIGHT)	BRL	90
W4A	HALLWAY NEAR ROOM 24 DRINKING WATER FOUNTAIN (LEFT)	BRL	87.2
W5A	MEDIA CENTER LOUNGE DRINKING WATER	326	346
W6A	HALLWAY NEAR ROOM 41 DRINKING WATER FOUNTAIN (RIGHT)	BRL	177
W7A	HALLWAY NEAR ROOM 41 DRINKING WATER FOUNTAIN (LEFT)	0.575	187
W8A	HALLWAY NEAR ROOM 30 DRINKING WATER FOUNTAIN (RIGHT)	0.593	153
W9A	HALLWAY NEAR ROOM 30 DRINKING WATER FOUNTAIN (LEFT)	2.65	282
W10A	ADMIN WORK ROOM DRINKING WATER	BRL	266
W11A	CLASSROOM 32 ART ROOM DRINKING WATER	17.3	158
W12A	CLASSROOM 50 VOCATIONAL ROOM DRINKING WATER	5.40	475
W13A	HALLWAY BAND ROOM DRINKING WATER FOUNTAIN (RIGHT)	BRL	166

TABLE 4.1
SUMMARY OF LEAD AND COPPER IN DRINKING WATER SAMPLING RESULTS
MORROW MAGNET HIGH SCHOOL (ELITE SCHOLARS ACADEMY)
JONESBORO, GEORGIA

SAMPLE NUMBER	TEST LOCATION	FIRST DRAW- LEAD SAMPLE RESULTS (µg/L)	FIRST DRAW- COPPER SAMPLE RESULTS (µg/L)
W14A	HALLWAY BAND ROOM DRINKING WATER FOUNTAIN (LEFT)	BRL	169
W15A	HALLWAY NEAR GIRLS LOCKER ROOM DRINKING WATER FOUNTAIN (RIGHT)	BRL	134
W16A	HALLWAY NEAR GIRLS LOCKER ROOM DRINKING WATER FOUNTAIN (LEFT)	BRL	117
W17A	CONCESSION STAND DRINKING WATER	2.51	38.3
W18A	CONCESSION STAND ICE MAKER	BRL	0.520
W19A	IN FRONT OF CONCESSION STAND DRINKING WATER FOUNTAIN	BRL	51.1
W20A	ADJACENT GYM DRINKING WATER FOUNTAIN	BRL	78.8
W21A	HALWAY NEAR ROOM 18 DRINKING WATER FOUNTAIN	BRL	85.2
W22A	CAFETERIA DRINKING WATER FOUNTAIN (LEFT)	BRL	157
W23A	CAFETERIA DRINKING WATER FOUNTAIN (RIGHT)	BRL	133
W24A	KITCHEN ICE	BRL	1.70
W25A	KITCHEN SW WALL DRINKING WATER (LEFT SIDE)	1.43	192
W26A	KITCHEN S WALL DRINKING WATER (FACING OFFICE)	BRL	194
W27A	KITCHEN N WALL DRINKING WATER ADJACENT OFFICE (S1)	BRL	130

TABLE 4.1 SUMMARY OF LEAD AND COPPER IN DRINKING WATER SAMPLING RESULTS MORROW MAGNET HIGH SCHOOL (ELITE SCHOLARS ACADEMY) JONESBORO, GEORGIA			
SAMPLE NUMBER	TEST LOCATION	FIRST DRAW- LEAD SAMPLE RESULTS (µg/L)	FIRST DRAW- COPPER SAMPLE RESULTS (µg/L)
W28A	KITCHEN N WALL DRINKING WATER LEFT (S2)	BRL	153
W29A	KITCHEN N WALL MIDDLE DRINKING WATER (S3)	BRL	140
W30A	KITCHEN N WALL RIGHT DRINKING WATER (S4)	BRL	147
W31A	KITCHEN NE WALL NEAR FREEZER DRINKING WATER	0.874	255
W32A	KITCHEN STEAMER	2.85	217
W33A	KITCHEN S WALL RIGHT (OUTSIDE)	0.834	207
W34A	KITCHEN S WALL LEFT (OUTSIDE)	BRL	185

BRL – Below Reporting Limits

µg/L – micrograms per liter

Results in **bold** indicate levels at or above the EPA PWS Action Level of 15 µg/L for Lead in Drinking Water

*Properly flushed and resampled during the follow-up testing event.

5.0 CONCLUSIONS ANDS RECOMMENDATIONS

Based on the findings of the lead in drinking water sampling, GLE offers the following conclusions:

1. A total of 34 initial first draw water samples were collected for analysis of lead and copper content, comprised of one water sample from each Client-designated drinking water fountains and outlets used for drinking, cooking, and/or nursing outlets at Morrow Magnet High School (Elite Scholars Academy). During the initial assessment, 34 first draw water samples were submitted to the laboratory for analysis.
2. Eleven (11) of the 34 initial first draw water samples analyzed for lead indicated detectable levels of lead. Two (2) of the 11 initial first draw water samples with detectable levels of lead were **greater** than the EPA PWS AL of 15µg/L. **The drinking water sinks in Art Room-51 and Media Center Lounge were removed from service for drinking water or cooking activities until follow-up sampling was conducted. Per the Client, the Art Room-51 outlet will be demarcated as a non-potable drinking source. However, if determined to be used for drinking, cooking, and/or nursing, the outlet will need to be resampled. The bottle filler attached to the water fountain (right) within the Cafeteria was not flushed/ inoperable during the initial sampling event. If determined to be used for drinking, cooking, and/or nursing, these outlets will need to be sampled.**
3. 34 of the 34 first draw initial water samples indicated detectable levels of copper. None of the 34 initial first draw water samples with detectable levels of copper was **greater** than 1,300µg/L.

6.0 LIMITATIONS

The results of this assessment apply only to those specific Client-designated water outlets sampled. Per the EPA sampling guidelines, large variations in lead concentrations may be found among individual outlets in a facility because of difference in flow rates and/or building materials; therefore, this assessment is limited to the conditions encountered at the date and time of each sampling event.

APPENDIX A
Laboratory Analytical Results and
Chain of Custody

11/29/2018

GLE Associates
Ms. Katrina Riley
1100 Spring St, NW Suite 820
Suite 820
Atlanta, GA, 30309

Ref: Analytical Testing
Revised Lab Report Number: 18-283-9241 (Original Report 18-283-0241)
Client Project Description: CCPS: Morrow Magnet High School (Elite S
Project# 18000-18861

Dear Ms. Katrina Riley:
Waypoint Analytical, LLC. received sample(s) on 10/10/2018 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

Alabama #40750	Louisiana #04015	VA NELAP #460181	Texas #T104704180-11-6	Arkansas #88-0650
Mississippi	California #2904	NC #415	Oklahoma #9311	Virginia #00106
Kentucky #90047	Tennessee #TN02027	EPA #TN00012	Kentucky UST #41	



Sample Summary Table

Report Number: 18-283-9241

Client Project Description: CCPS: Morrow Magnet High School (Elite S
Project# 18000-18861

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
98374	W1-A	Aqueous	10/08/2018 06:11	10/10/2018
98375	W2-A	Aqueous	10/08/2018 06:11	10/10/2018
98376	W3-A	Aqueous	10/08/2018 06:14	10/10/2018
98377	W4-A	Aqueous	10/08/2018 06:14	10/10/2018
98378	W5-A	Aqueous	10/08/2018 06:15	10/10/2018
98379	W6-A	Aqueous	10/08/2018 06:18	10/10/2018
98380	W7-A	Aqueous	10/08/2018 06:19	10/10/2018
98381	W8-A	Aqueous	10/08/2018 06:21	10/10/2018
98382	W9-A	Aqueous	10/08/2018 06:21	10/10/2018
98383	W10-A	Aqueous	10/08/2018 06:23	10/10/2018
98384	W11-A	Aqueous	10/08/2018 06:26	10/10/2018
98385	W12-A	Aqueous	10/08/2018 06:29	10/10/2018
98386	W13-A	Aqueous	10/08/2018 06:32	10/10/2018
98387	W14-A	Aqueous	10/08/2018 06:32	10/10/2018
98388	W15-A	Aqueous	10/08/2018 06:35	10/10/2018
98389	W16-A	Aqueous	10/08/2018 06:36	10/10/2018
98390	W17-A	Aqueous	10/08/2018 06:37	10/10/2018
98391	W18-A	Aqueous	10/08/2018 06:38	10/10/2018
98392	W19-A	Aqueous	10/08/2018 06:39	10/10/2018
98393	W20-A	Aqueous	10/08/2018 06:41	10/10/2018
98394	W21-A	Aqueous	10/08/2018 06:42	10/10/2018
98395	W22-A	Aqueous	10/08/2018 06:46	10/10/2018
98396	W23-A	Aqueous	10/08/2018 06:47	10/10/2018
98397	W24-A	Aqueous	10/08/2018 06:47	10/10/2018
98398	W25-A	Aqueous	10/08/2018 06:48	10/10/2018
98399	W26-A	Aqueous	10/08/2018 06:51	10/10/2018



Sample Summary Table

Report Number: 18-283-9241

Client Project Description: CCPS: Morrow Magnet High School (Elite S
Project# 18000-18861

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
98400	W27-A	Aqueous	10/08/2018 06:52	10/10/2018
98401	W28-A	Aqueous	10/08/2018 06:52	10/10/2018
98402	W29-A	Aqueous	10/08/2018 06:53	10/10/2018
98403	W30-A	Aqueous	10/08/2018 06:54	10/10/2018
98404	W31-A	Aqueous	10/08/2018 06:55	10/10/2018
98405	W32-A	Aqueous	10/08/2018 06:56	10/10/2018
98406	W33-A	Aqueous	10/08/2018 06:56	10/10/2018
98407	W34-A	Aqueous	10/08/2018 06:58	10/10/2018

Summary of Detected Analytes

Project: CCPS: Morrow Magnet High School (Elite S

Report Number: 18-283-9241

Client Sample ID Method	Lab Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
W1-A	L 98374					
EPA-200.8	Copper	217	µg/L	0.500	10/11/2018 18:50	
W2-A	L 98375					
EPA-200.8	Copper	218	µg/L	0.500	10/11/2018 18:51	
W3-A	L 98376					
EPA-200.8	Copper	90.0	µg/L	0.500	10/11/2018 18:52	
W4-A	L 98377					
EPA-200.8	Copper	87.2	µg/L	0.500	10/11/2018 18:54	
W5-A	L 98378					
EPA-200.8	Copper	346	µg/L	0.500	10/11/2018 18:55	
EPA-200.8	Lead	326	µg/L	0.500	10/11/2018 18:55	
W6-A	L 98379					
EPA-200.8	Copper	177	µg/L	0.500	10/11/2018 18:58	
W7-A	L 98380					
EPA-200.8	Copper	187	µg/L	0.500	10/11/2018 18:59	
EPA-200.8	Lead	0.575	µg/L	0.500	10/11/2018 18:59	
W8-A	L 98381					
EPA-200.8	Copper	153	µg/L	0.500	10/11/2018 19:01	
EPA-200.8	Lead	0.593	µg/L	0.500	10/11/2018 19:01	
W9-A	L 98382					
EPA-200.8	Copper	282	µg/L	0.500	10/11/2018 19:06	
EPA-200.8	Lead	2.65	µg/L	0.500	10/11/2018 19:06	
W10-A	L 98383					
EPA-200.8	Copper	266	µg/L	0.500	10/11/2018 19:09	
W11-A	L 98384					
EPA-200.8	Copper	158	µg/L	0.500	10/11/2018 19:12	
EPA-200.8	Lead	17.3	µg/L	0.500	10/11/2018 19:12	
W12-A	L 98385					
EPA-200.8	Copper	475	µg/L	0.500	10/11/2018 19:13	
EPA-200.8	Lead	5.40	µg/L	0.500	10/11/2018 19:13	
W13-A	L 98386					
EPA-200.8	Copper	166	µg/L	0.500	10/11/2018 19:16	

Summary of Detected Analytes

Project: CCPS: Morrow Magnet High School (Elite S)

Report Number: 18-283-9241

Client Sample ID Method	Lab Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
W14-A	L 98387					
EPA-200.8	Copper	169	µg/L	0.500	10/11/2018 19:17	
W15-A	L 98388					
EPA-200.8	Copper	134	µg/L	0.500	10/11/2018 19:19	
W16-A	L 98389					
EPA-200.8	Copper	117	µg/L	0.500	10/11/2018 19:20	
W17-A	L 98390					
EPA-200.8	Copper	38.3	µg/L	0.500	10/11/2018 19:21	
EPA-200.8	Lead	2.51	µg/L	0.500	10/11/2018 19:21	
W18-A	L 98391					
EPA-200.8	Copper	0.520	µg/L	0.500	10/11/2018 19:23	
W19-A	L 98392					
EPA-200.8	Copper	51.1	µg/L	0.500	10/11/2018 19:28	
W20-A	L 98393					
EPA-200.8	Copper	78.8	µg/L	0.500	10/11/2018 19:29	
W21-A	L 98394					
EPA-200.8	Copper	85.2	µg/L	0.500	10/11/2018 19:40	
W22-A	L 98395					
EPA-200.8	Copper	157	µg/L	0.500	10/11/2018 19:42	
W23-A	L 98396					
EPA-200.8	Copper	133	µg/L	0.500	10/11/2018 19:47	
W24-A	L 98397					
EPA-200.8	Copper	1.70	µg/L	0.500	10/11/2018 19:48	
W25-A	L 98398					
EPA-200.8	Copper	192	µg/L	0.500	10/11/2018 19:49	
EPA-200.8	Lead	1.43	µg/L	0.500	10/11/2018 19:49	
W26-A	L 98399					
EPA-200.8	Copper	194	µg/L	0.500	10/11/2018 19:51	
W27-A	L 98400					
EPA-200.8	Copper	130	µg/L	0.500	10/11/2018 19:52	
W28-A	L 98401					
EPA-200.8	Copper	153	µg/L	0.500	10/11/2018 19:53	

Summary of Detected Analytes

Project: CCPS: Morrow Magnet High School (Elite S)

Report Number: 18-283-9241

Client Sample ID Method	Lab Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
W29-A	L 98402					
EPA-200.8	Copper	140	µg/L	0.500	10/11/2018 19:55	
W30-A	L 98403					
EPA-200.8	Copper	147	µg/L	0.500	10/11/2018 19:56	
W31-A	L 98404					
EPA-200.8	Copper	255	µg/L	0.500	10/11/2018 19:58	
EPA-200.8	Lead	0.874	µg/L	0.500	10/11/2018 19:58	
W32-A	L 98405					
EPA-200.8	Copper	217	µg/L	0.500	10/11/2018 20:01	
EPA-200.8	Lead	2.85	µg/L	0.500	10/11/2018 20:01	
W33-A	L 98406					
EPA-200.8	Copper	207	µg/L	0.500	10/11/2018 20:06	
EPA-200.8	Lead	0.834	µg/L	0.500	10/11/2018 20:06	
W34-A	L 98407					
EPA-200.8	Copper	185	µg/L	0.500	10/11/2018 20:07	

23169

GLE Associates

Ms. Katrina Riley

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98374**

Matrix: **Aqueous**

Sample ID : **W1-A**

Sampled: **10/8/2018 6:11**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	217	µg/L	0.500	1	10/11/18 18:50	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 18:50	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98375**

Matrix: **Aqueous**

Sample ID : **W2-A**

Sampled: **10/8/2018 6:11**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	218	µg/L	0.500	1	10/11/18 18:51	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 18:51	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98376**

Matrix: **Aqueous**

Sample ID : **W3-A**

Sampled: **10/8/2018 6:14**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	90.0	µg/L	0.500	1	10/11/18 18:52	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 18:52	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98377**

Matrix: **Aqueous**

Sample ID : **W4-A**

Sampled: **10/8/2018 6:14**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	87.2	µg/L	0.500	1	10/11/18 18:54	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 18:54	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

Suite 820

Atlanta, GA 30309

Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98378**

Matrix: **Aqueous**

Sample ID : **W5-A**

Sampled: **10/8/2018 6:15**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	346	µg/L	0.500	1	10/11/18 18:55	BKN	EPA-200.8
Lead	326	µg/L	0.500	1	10/11/18 18:55	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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Atlanta, GA 30309

Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98379**

Matrix: **Aqueous**

Sample ID : **W6-A**

Sampled: **10/8/2018 6:18**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	177	µg/L	0.500	1	10/11/18 18:58	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 18:58	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98380**

Matrix: **Aqueous**

Sample ID : **W7-A**

Sampled: **10/8/2018 6:19**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	187	µg/L	0.500	1	10/11/18 18:59	BKN	EPA-200.8
Lead	0.575	µg/L	0.500	1	10/11/18 18:59	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98381**

Matrix: **Aqueous**

Sample ID : **W8-A**

Sampled: **10/8/2018 6:21**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	153	µg/L	0.500	1	10/11/18 19:01	BKN	EPA-200.8
Lead	0.593	µg/L	0.500	1	10/11/18 19:01	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98382**

Matrix: **Aqueous**

Sample ID : **W9-A**

Sampled: **10/8/2018 6:21**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	282	µg/L	0.500	1	10/11/18 19:06	BKN	EPA-200.8
Lead	2.65	µg/L	0.500	1	10/11/18 19:06	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98383**

Matrix: **Aqueous**

Sample ID : **W10-A**

Sampled: **10/8/2018 6:23**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	266	µg/L	0.500	1	10/11/18 19:09	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:09	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98384**

Matrix: **Aqueous**

Sample ID : **W11-A**

Sampled: **10/8/2018 6:26**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	158	µg/L	0.500	1	10/11/18 19:12	BKN	EPA-200.8
Lead	17.3	µg/L	0.500	1	10/11/18 19:12	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98385**

Matrix: **Aqueous**

Sample ID : **W12-A**

Sampled: **10/8/2018 6:29**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	475	µg/L	0.500	1	10/11/18 19:13	BKN	EPA-200.8
Lead	5.40	µg/L	0.500	1	10/11/18 19:13	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98386**

Matrix: **Aqueous**

Sample ID : **W13-A**

Sampled: **10/8/2018 6:32**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	166	µg/L	0.500	1	10/11/18 19:16	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:16	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98387**

Matrix: **Aqueous**

Sample ID : **W14-A**

Sampled: **10/8/2018 6:32**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	169	µg/L	0.500	1	10/11/18 19:17	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:17	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98388**

Matrix: **Aqueous**

Sample ID : **W15-A**

Sampled: **10/8/2018 6:35**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	134	µg/L	0.500	1	10/11/18 19:19	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:19	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

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Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98389**

Matrix: **Aqueous**

Sample ID : **W16-A**

Sampled: **10/8/2018 6:36**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	117	µg/L	0.500	1	10/11/18 19:20	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:20	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

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Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98390**

Matrix: **Aqueous**

Sample ID : **W17-A**

Sampled: **10/8/2018 6:37**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	38.3	µg/L	0.500	1	10/11/18 19:21	BKN	EPA-200.8
Lead	2.51	µg/L	0.500	1	10/11/18 19:21	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
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Original Report Date : 10/12/2018

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Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98391**

Matrix: **Aqueous**

Sample ID : **W18-A**

Sampled: **10/8/2018 6:38**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	0.520	µg/L	0.500	1	10/11/18 19:23	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:23	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

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Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98392**

Matrix: **Aqueous**

Sample ID : **W19-A**

Sampled: **10/8/2018 6:39**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	51.1	µg/L	0.500	1	10/11/18 19:28	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:28	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

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Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98393**

Matrix: **Aqueous**

Sample ID : **W20-A**

Sampled: **10/8/2018 6:41**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	78.8	µg/L	0.500	1	10/11/18 19:29	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:29	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

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Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98394**

Matrix: **Aqueous**

Sample ID : **W21-A**

Sampled: **10/8/2018 6:42**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	85.2	µg/L	0.500	1	10/11/18 19:40	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:40	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98395**

Matrix: **Aqueous**

Sample ID : **W22-A**

Sampled: **10/8/2018 6:46**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	157	µg/L	0.500	1	10/11/18 19:42	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:42	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98396**

Matrix: **Aqueous**

Sample ID : **W23-A**

Sampled: **10/8/2018 6:47**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	133	µg/L	0.500	1	10/11/18 19:47	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:47	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98397**

Matrix: **Aqueous**

Sample ID : **W24-A**

Sampled: **10/8/2018 6:47**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	1.70	µg/L	0.500	1	10/11/18 19:48	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:48	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98398**

Matrix: **Aqueous**

Sample ID : **W25-A**

Sampled: **10/8/2018 6:48**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	192	µg/L	0.500	1	10/11/18 19:49	BKN	EPA-200.8
Lead	1.43	µg/L	0.500	1	10/11/18 19:49	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

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Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98399**

Matrix: **Aqueous**

Sample ID : **W26-A**

Sampled: **10/8/2018 6:51**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	194	µg/L	0.500	1	10/11/18 19:51	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:51	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98400**

Matrix: **Aqueous**

Sample ID : **W27-A**

Sampled: **10/8/2018 6:52**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	130	µg/L	0.500	1	10/11/18 19:52	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:52	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98401**

Matrix: **Aqueous**

Sample ID : **W28-A**

Sampled: **10/8/2018 6:52**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	153	µg/L	0.500	1	10/11/18 19:53	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:53	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98402**

Matrix: **Aqueous**

Sample ID : **W29-A**

Sampled: **10/8/2018 6:53**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	140	µg/L	0.500	1	10/11/18 19:55	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:55	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

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Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98403**

Matrix: **Aqueous**

Sample ID : **W30-A**

Sampled: **10/8/2018 6:54**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	147	µg/L	0.500	1	10/11/18 19:56	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 19:56	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

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Atlanta, GA 30309

Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98404**

Matrix: **Aqueous**

Sample ID : **W31-A**

Sampled: **10/8/2018 6:55**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	255	µg/L	0.500	1	10/11/18 19:58	BKN	EPA-200.8
Lead	0.874	µg/L	0.500	1	10/11/18 19:58	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

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Atlanta, GA 30309

Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98405**

Matrix: **Aqueous**

Sample ID : **W32-A**

Sampled: **10/8/2018 6:56**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	217	µg/L	0.500	1	10/11/18 20:01	BKN	EPA-200.8
Lead	2.85	µg/L	0.500	1	10/11/18 20:01	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

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Atlanta, GA 30309

Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98406**

Matrix: **Aqueous**

Sample ID : **W33-A**

Sampled: **10/8/2018 6:56**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	207	µg/L	0.500	1	10/11/18 20:06	BKN	EPA-200.8
Lead	0.834	µg/L	0.500	1	10/11/18 20:06	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

23169

GLE Associates

Ms. Katrina Riley

1100 Spring St, NW Suite 820

Suite 820

Atlanta, GA 30309

Project CCPS: Morrow Magnet High School (Elit
Information : Project# 18000-18861

Original Report Date : 10/12/2018

Revised Report Date: 11/29/2018

Received : 10/10/2018

Report Number : **18-283-9241**

REPORT OF ANALYSIS

Lab No : **98407**

Matrix: **Aqueous**

Sample ID : **W34-A**

Sampled: **10/8/2018 6:58**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	185	µg/L	0.500	1	10/11/18 20:07	BKN	EPA-200.8
Lead	<0.500	µg/L	0.500	1	10/11/18 20:07	BKN	EPA-200.8

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: GLE Associates
Project Description: CCPS: Morrow Magnet High School (Elite Scholars)
Report No: 18-283-9241

QC Prep: L403275 **QC Analytical Batch(es):** L403735
QC Prep Batch Method: EPA-200.8 **Analysis Method:** EPA-200.8
Analysis Description: Metals Analyses

Lab Reagent Blank LRB-L403275 Matrix: AQU
Associated Lab Samples: 98374, 98375, 98376, 98377, 98378, 98379, 98380, 98381, 98382, 98383, 98384, 98385, 98386, 98387, 98388, 98389, 98390, 98391, 98392, 98393

Parameter	Units	Blank Result	MQL	Analyzed
Copper	µg/L	< 0.500	0.500	10/11/18 18:47
Lead	µg/L	< 0.500	0.500	10/11/18 18:47

Laboratory Control Sample LCS-L403275

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Copper	µg/L	50.3	49.5	98.5	85-115
Lead	µg/L	50.3	50.0	99.5	85-115

Matrix Spike & Matrix Spike Duplicate L 98393-MS-L403275 L 98393-MSD-L403275

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Copper	µg/L	78.8	50.3	50.3	124	124	89.9	89.9	70-130	0.0	20.0
Lead	µg/L	< 0.503	50.3	50.3	48.6	49.0	96.7	97.5	70-130	0.8	20.0

Quality Control Data

Client ID: GLE Associates
Project Description: CCPS: Morrow Magnet High School (Elite Scholars)
Report No: 18-283-9241

QC Prep: L403310 **QC Analytical Batch(es):** L403735
QC Prep Batch Method: EPA-200.8 **Analysis Method:** EPA-200.8
Analysis Description: Metals Analyses

Lab Reagent Blank LRB-L403310 Matrix: AQU
Associated Lab Samples: 98394, 98395, 98396, 98397, 98398, 98399, 98400, 98401, 98402, 98403, 98404, 98405, 98406, 98407

Parameter	Units	Blank Result	MQL	Analyzed
Copper	µg/L	< 0.500	0.500	10/11/18 19:37
Lead	µg/L	< 0.500	0.500	10/11/18 19:37

Laboratory Control Sample LCS-L403310

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Copper	µg/L	50.3	49.8	99.1	85-115
Lead	µg/L	50.3	49.4	98.3	85-115

Matrix Spike & Matrix Spike Duplicate L 98407-MS-L403310 L 98407-MSD-L403310

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Copper	µg/L	185	50.3	50.3	221	225	71.6	79.6	70-130	1.7	20.0
Lead	µg/L	< 0.503	50.3	50.3	49.5	50.1	98.5	99.6	70-130	1.2	20.0

Cooler Receipt Form

Customer Number: **23169**

Customer Name: **GLE Associates**

Report Number: **18-283-0241**

Shipping Method

<input checked="" type="radio"/> Fed Ex	<input type="radio"/> US Postal	<input type="radio"/> Lab	<input type="radio"/> Other :	<div></div>
<input type="radio"/> UPS	<input type="radio"/> Client	<input type="radio"/> Courier	Thermometer ID:	<div>N/A</div>

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers received	<div>1</div>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Sovanchampa Yos

Date & Time:

10/10/2018 10:38:18

Client Name/Address Elite Associates 18000-18861		Client Project Manager/Contact Katrina Riley Project/Site Location (City/State) Atlanta, GA		Billing Information 1100 Spring Street, 820 Atlanta, GA		18-283-0241 23169 10-10-2018 10:31:57	
Project Description Pb and Cu		Project Manager/Contact Elite Scholars		<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limit(s) <input checked="" type="checkbox"/> Date Results Needed		Method of SI <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> Courier	
Project Number 18000-18861		Project Manager Phone # 404-373-3844		Project Manager Email kriley@glassociates.com ihamilton@glassociates.com		Purchase Order Number 200.864	
Waypoint ANALYTICAL 2790 Whitten Road Memphis, TN 38133 (901) 213-2400		Unless noted, all containers per Table II of 40 CFR Part 136.		Site/Facility ID # Elite Scholars		Cool < 10C Na2S2O3 (Micro Only) A Cool <= 6C B H2SO4 pH<2 C None Required D NaOH pH>10 E HNO3 pH<2 F HCL pH<2 G H3PO4 pH<2 H Cool <= 6C NA2S2O3 I	
Date 06/18/18		Time 0611		Sample Identification W1-A		Required Analysis / Preservative	
0611		0611		W2-A		HW near room 9 DNF Right	
0614		0614		W3-A		HW near room 9 DNF Left	
0614		0614		W4-A		HW near room 24 DNF Right	
0615		0615		W5-A		HW near room 24 DNF Left	
0618		0618		W6-A		Media Center lounge DNF	
0619		0619		W7-A		HW near room 41 DNF Right	
0621		0621		W8-A		HW near room 41 DNF Left	
0621		0621		W9-A		HW near room 30 DNF Right	
0623		0623		W10-A		HW near room 30 DNF Left	
0623		0623		Admin Work Room DNF		Comments/Notes	
For Laboratory Use Only		Lab Comments		Client Remarks/Comments		Sampled by (Name - Print) D. Riley	
Ice Y/N		Custody Seals Y/N		Date 10/9/18		Time 1320	
Blank/Cooler Temp n/a		Relinquished by: (SIGNATURE) [Signature]		Received by: (SIGNATURE) Huro Awer		Date 10/9/18	
Relinquished by: (SIGNATURE) [Signature]		Received by: (SIGNATURE) Feder		Date 10/9/18		Time 1500	
Relinquished by: (SIGNATURE) [Signature]		Received by: (SIGNATURE) [Signature]		Date 10/10/18		Time 0805	

Client Name/Address GLE Associates 1100 Spring Street, 820 Atlanta, GA		Billing Information 18-283-0241 23169 10-10-2018 10:31:57 GLE Associates COPS: Elite Scholars	
Client Project Manager/Contact Katrina Riley Project/Site Location (City/State) Atlanta, GA Elite Scholars		Method of Ship <input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limit(s) <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> Date Results Needed <input type="checkbox"/> Courier	
Project Description Pb and Cu		Project Manager Email kriley@glrassociates.com ihamilton@glrassociates.com	
Project Number 18000-18861		Purchase Order Number 404-373-3844	
Waypoint ANALYTICAL 2790 Whitten Road Memphis, TN 38133 (901) 213-2400		Site/Facility ID # Elite Scholars	
Sample Identification Unless noted, all containers per Table II of 40 CFR Part 136.		Required Analysis / Preservative	
Date 10/21/18	Time 0642	Matrix (Refer to Key) DW 7 HNO3 HNO3	Comments/Notes Hw near room 12 DWLF Right Cafeteria DWLF Left J Hw near room 12 DWLF Left Cafeteria DWLF Left Right Kitchen ICE (Left Side) Kitchen SW Wall DW Kitchen S Wall Office DW Adj to SI Kitchen N Wall Office DW S2 Kitchen N Wall Left + DW S3 Kitchen N Wall Middle DW S4 Kitchen N Wall Right DW
For Laboratory Use Only		Client Remarks/Comments	
Ice TN	Custody Seals YND	Sampled by (Name - Print) K. Riley, J. Hamilton	
Blank/Cooler Temp NA		Relinquished by: (SIGNATURE) [Signature]	
Relinquished by: (SIGNATURE) [Signature]		Date 10/9/18 1320	Time 1320
Relinquished by: (SIGNATURE) [Signature]		Date 10/9/18 1500	Time 1500
Relinquished by: (SIGNATURE) [Signature]		Date 10/9/18 1500	Time 1500

APPENDIX B
Laboratory Certification



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Watershed Protection Branch

2 Martin Luther King, Jr. Drive
Suite 1152, East Tower
Atlanta, Georgia 30334
404-463-1511

Mr. Michael T. Kauffman, Laboratory Director
Waypoint Analytical, Inc.
2790 Whitten Road
Memphis, TN 38133

MAR 13 2018

RE: Certification by Reciprocity
Waypoint Analytical, Inc.
Georgia ID #C 044

Dear Mr. Kauffman:

The Georgia Department of Natural Resources, Environmental Protection Division (EPD), is in receipt of your laboratory's request to fulfill your laboratory's request for Certification by Reciprocity for the analysis of **Lead and Copper** in Drinking Water by **EPA 200.8**. Therefore, in accordance with the Georgia Safe Drinking Water Act of 1977 (Sections 12-5-170 through 12-5-193, O.C.G.A.) and the Rules for Safe Drinking Water (Chapter 391-3-5), this certification replaces any previously issued certification and is valid until May 10, 2020. This certificate is contingent upon continued Certification by the State of Tennessee and is non-transferable. This certificate is also contingent upon continued acceptable semi-annual Proficiency Testing results.

Prior to the expiration of this certification, please contact your accrediting/certifying authority and request the following information be forwarded to Lynne Grubb at lynne.grubb@dnr.ga.gov or Sean Earley at sean.earley@dnr.ga.gov.

1. Copies of the most current on-site and accepted corrective actions
2. Copies of the scope of accreditation listing analytes


If you have any questions, please feel free to contact Lynne Grubb at 404-657-3189 or Sean Earley at 404-651-9581.

Thank you.



Sean Earley

Laboratory Certification Officer
Drinking Water Compliance Unit



Lewis Hays
Program Manager
Watershed Compliance Program

WAYPOINT ANALYTICAL (GA LAB ID# C044)

2790 Whitten Road Memphis, TN 38133

Effective March 1, 2018 to May 10, 2020

ANALYTE	CERTIFIED BY	METHOD
INORGANIC CHEMICALS		
Copper	TN DEC	200.8
Lead	TN DEC	200.8



Dear Client:

Re: Georgia State Law (O.C.G.A. § 12-2-9) requires all commercial laboratories submitting data to the Environmental Protection Division for regulatory purposes be approved or accredited by an accrediting authority such as NELAP. Pursuant to this regulation this laboratory affirms the following certification in support of this regulation under Chapter 391-3-26-05:

Laboratory: Waypoint Analytical, Inc.
2790 Whitten Road
Memphis, TN 38133

Accreditor: NELAP Accrediting Authority
Primary Accrediting State: Louisiana Department of Environmental Quality (LELAP)

Accreditation Number: 04015

Scope: CWA/RCRA

Effective: 07/01/2017

Expires: 06/30/2018

Certificate and scope available upon request.

If you have any questions or comments please feel free in contacting me at rmedina@waypointanalytical.com.

Respectfully,

Dr. Richard Medina
Chief Quality Officer

APPENDIX C

Sampling Plan

CLAYTON COUNTY PUBLIC SCHOOLS
ELITE SCHOLARS ACADEMY

FACILITY NUMBER:	4058
INSTRUCTIONAL UNITS:	15
FTE:	200
SITE ACREAGE:	21 AC.
TOTAL BUILDING AREA:	105,478 SF

