

**2017 LEAD/COOPER IN DRINKING WATER TEST SURVEY REPORT**  
**FOR THE**  
**GLENCOE SCHOOL DISTRICT #35 SCHOOLS**

**Prepared for:**

**Glencoe School District #35**  
**620 Greenwood Avenue**  
**Glencoe, Illinois 60022**

**Prepared by:**

**JMS Environmental Associates, Ltd.**  
**816 Burr Oak Drive**  
**Westmont, Illinois 60559**

24 May 2017

**JMS Environmental Associates, Ltd.**

816 Burr Oak Drive\*Westmont, Illinois, 60559

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24 May 2017

Glencoe School District #35  
620 Greenwood Avenue  
Glencoe, Illinois 60022

Attn: Jason Edelheit,  
Director of Finance & Operations/CSBO

RE: 2017 Lead/Copper in Drinking Water Testing Survey

JMS Project: J-22103

Dear Mr. Edelheit:

The following report cover the results of the 2017 Lead and Copper in Drinking Water Testing Survey that JMS Environmental Associates, Ltd. (JMS) performed for the Glencoe School District #35 at Central, South and West Schools located in Glencoe, Cook County, Illinois. The water samples were collected from all accessible and operative public potable drinking sources such as bubblers, water coolers, sinks and faucets throughout each of the Glencoe Schools. In addition, all first grade and kindergarten grade classrooms were sampled in accordance with the current Illinois Department of Public Health (IDPH) Lead in Drinking Water rules and regulations. The sampling protocol follows the current IDPH requirements and included part of the recommended U.S. EPA Drinking Water Standards for Schools and other Public Sources under the Safe Drinking Water Act (SDWA) which was enacted 1974 and amended and reauthorized in 1986 and 1996.

On 29 April 2017, JMS Technical Field Staff performed the water sampling at all three Glencoe Schools. At each school, two initial samples were taken from the closest water outlet to the water main to confirm that the incoming water supply does not contain lead in excess of the Maximum Contaminant Level (MCL) of 15 ppb or less. For Central School, the source sampling was the Basement Boiler Room Slop Sink. For South School it was the also the Basement Boiler Room Slop Sink and for West School it was the sink faucet located in the Boiler Room. This confirmation of non-detection of Lead (>15ppb) and Copper correlates with information obtained by the school district from the Village of Glencoe. The IDPH now requires school district's to inform parents of any detection of lead in drinking water. The parental communication can be via the school district's web site for concentration levels below 5 ppb. For concentration levels above 5 ppb, the parental communication is required to be via written notification sent via email or letter. A Lead in Drinking Water Mitigation Plan is then required to be developed and implemented by the school district.

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## **DISCUSSION AND SUMMARY OF RESULTS:**

Sources of lead in drinking water can include either wells or lake water intakes, and/or lead pipe or solder in the water distribution and or plumbing system. When water stands in the distribution or plumbing systems for several hours or more (such as overnight), the lead can dissolve into the drinking water. This means that the first water drawn from the tap in the morning may contain high levels of lead; (higher than 15 ppb for schools). Public water suppliers are required to implement measures to reduce lead in the drinking water supply below the US recommended action level of 15 parts per billion (ppb) at the distribution. Until such measures are completed water suppliers recommend that before using water for drinking purposes, the water at the point of use should be allowed to run for at least 30 seconds, or until the water is cold. Flushing the outlet in this manner will reduce the lead levels in the drinking water. It should also be noted that the 15 ppb action level is considered a "treatment standard" and not a health standard, and it is the responsibility of the water supplier and not of the building owner. However, in some of the water outlets which had elevated counts of lead, the problem might be the fixtures themselves or the piping leading to these fixtures.

Water that is supplied by a municipality or equivalent should not contain lead in excess of the Maximum Contaminant Level (MCL) of 15 ppb at the point of treatment.

### **Summary of Results:**

**Service/ Main:** Both service and main pipe samples had lead and copper concentrations below the U. S. EPA SDWA standards MCL's for drinking water of 15 ppb for lead and at the detection of the analytical testing method for the licensed laboratory.

**Water Bubblers:** Some of the older water bubblers in the schools had detections of lead.

**Water Faucets:** Older water faucets in sinks and sinks in classroom bathrooms had detections of lead. This may be due to the use of lead in the faucet fixtures, solder and other plastic components within a sink system.

## **COPPER IN DRINKING WATER**

**Water Bubblers:** Majority of the bubblers indicated copper concentration levels below the SDWA MCLG of 1,300 ppb.

**Water Fountains:** Majority of the water fountains indicated copper concentration levels below the SDWA MCLG of 1,300 ppb.

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## **DISCUSSION AND SUMMARY OF RESULTS: (continued)**

### **Central School:**

The Lead and Copper in Drinking Water test results for the Central School indicated that three (3) of the forty two (42) sample locations were above the 15 ppb lead concentration limit; and only fourteen (14) sample locations above the Illinois Department of Public Health (IDPH) laboratory reporting limit of detection of 1 ppb lead concentration.

No samples were above the copper concentration limit of 1,300 ppb and all of the samples had some detection of copper due to the composition of the water piping materials.

The locations of the elevated lead test results ( $> 15$  ppb) were the Misner Basement Dressing Rooms L85 and L87 sinks. The locations of the detectable lead concentration results were primarily from older sink faucets and water bubblers in Basement Mechanical Room; Kitchen Sink Faucet; Main Bubbler/Sink in L24; Left Hallway Bubbler (L64); Right Hallway Bubbler (L67); North Gymnasium Bubbler; the remaining faucets in the Misner Basement Dressing Rooms L85/L87; Classroom 102 Sink Faucet; Hallway Bubbler adjacent Room 204 and the Room 230B Sink Faucet.

### **South School:**

The Lead and Copper in Drinking Water test results for the South School indicated that none (0) of the forty six (46) sample locations were above the 15 ppb lead concentration limit; and only eight (8) sample locations above the Illinois Department of Public Health (IDPH) laboratory reporting limit of detection of 1 ppb lead concentration.

No samples were above the copper concentration limit of 1,300 ppb and all of the samples had some detection of copper due to the composition of the water piping materials.

The locations of the detectable lead concentration results were primarily from older sink faucets and water bubblers in Basement Maintenance Room Slop Sink; Basement Boiler Room Sink; Teacher's Lounge Sink Faucet; Classroom #112 Sink Faucet; Classroom #161 Sink Faucet; Classroom #164 Sink Faucet/Bathroom Sink Faucet; Second Floor East Front Office Bathroom Sink Faucet.

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### **DISCUSSION AND SUMMARY OF RESULTS: (continued)**

#### **West School:**

The Lead and Copper in Drinking Water test results for the West School indicated that none (0) of the fourteen (14) sample locations were above the 15 ppb lead concentration limit; and none (0) of the sample locations above the Illinois Department of Public Health (IDPH) laboratory reporting limit of detection of 1 ppb lead concentration.

No samples were above the copper concentration limit of 1,300 ppb and all of the samples had some detection of copper due to the composition of the water piping materials.

The remainder of this survey report includes the tables of all of the analytical test data along with a summary of any detections of lead and copper in the tested water outlets within the schools.

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### **RECOMMENDATIONS:**

For lead in water concentrations greater than 15 ppb, the U.S. E.P.A. recommends that the water outlet be turned off until remedial actions are completed. For those water outlets with an elevated concentration of copper, JMS believe that with time and the rate of water usage, these elevated copper concentrations will be reduced drastically. Such counts are expected since almost all water piping was replaced with copper piping.

The Illinois Department of Public Health (IDPH) requires informing student's parents/guardians of any detection of Lead in Drinking Water. This can be parental communication is via the school district's web site for concentration levels below 5 ppb. For concentration levels above 5 ppb, the parental communication is required to be via written notification sent via email or letter. A Lead in Drinking Water Mitigation Plan is then required to be developed and implemented by the school district.

Recommended remedial actions for Lead in Water concentrations of greater than 15 parts per billion include the following:

- 1.) Shut off the water outlet source;
- 2.) Perform daily/weekly flushes of the water outlets via manual or automatic means;
- 3.) Clean out screens and filters from accumulated metal debris;
- 4.) Investigate if a lead pipe or lead pipe components are located in the schools utilizing an experienced and licensed plumber;
- 5.) Raise the pH level in areas of the school to decrease leaching of lead from piping (including brass and copper types.)
- 6.) Resample the effected water outlets after any remedial or plumbing repairs.  
In addition, perform quarterly water tests throughout the schools to gauge any decrease or increase in lead/copper concentration levels.
- 7.) Investigate plans and drawings regarding the type of water piping in the school and plan for future replacement of drinking water systems with lead free lines and products.

If you have any questions regarding this report, please do not hesitate to contact us at JMS Environmental Associates, Ltd. .

JMS ENVIRONMENTAL ASSOCIATES, LTD.

Joseph M. Sterner, MS  
Environmental Director/President

***JMS Environmental Associates, Ltd.***

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**LEAD IN DRINKING WATER TABLE**

**CENTRAL SCHOOL**







Table of Laboratory Result Locations: Glencoe Central School

620 Greenwood Avenue, Glencoe, IL

17E0346	17E0346-67	04/29/2017 12:05	22104-04-2934A	Room 102 Sink - Flush 4/28/17 8:35PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.0011	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-68	04/29/2017 12:05	22104-04-2934B	Room 102 Sink - Flush 4/28/17 8:35PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.31	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-68	04/29/2017 12:05	22104-04-2934B	Room 102 Sink - Flush 4/28/17 8:35PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00099	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-69	04/29/2017 12:08	22104-04-2935A	Hallway Bubblers 204 - Flush 4/28/17 8:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.28	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-69	04/29/2017 12:08	22104-04-2935A	Hallway Bubblers 204 - Flush 4/28/17 8:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00050	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-70	04/29/2017 12:08	22104-04-2935B	Hallway Bubblers 204 - Flush 4/28/17 8:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.31	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-70	04/29/2017 12:08	22104-04-2935B	Hallway Bubblers 204 - Flush 4/28/17 8:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00025	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-71	04/29/2017 12:08	22104-04-2936A	Hallway Bottler 204 - Flush 4/28/17 8:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.24	0.010	mg/L	Aqueous	SJE
17E0346	17E0346-71	04/29/2017 12:08	22104-04-2936A	Hallway Bottler 204 - Flush 4/28/17 8:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.0012	0.0010	mg/L	Aqueous	SJE
17E0346	17E0346-72	04/29/2017 12:08	22104-04-2936B	Hallway Bottler 204 - Flush 4/28/17 8:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.24	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-72	04/29/2017 12:08	22104-04-2936B	Hallway Bottler 204 - Flush 4/28/17 8:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00034	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-73	04/29/2017 12:10	22104-04-2937A	Hallway Bubblers 221 - Flush 4/28/17 8:45PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.19	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-73	04/29/2017 12:10	22104-04-2937A	Hallway Bubblers 221 - Flush 4/28/17 8:45PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00011	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-74	04/29/2017 12:10	22104-04-2937B	Hallway Bubblers 221 - Flush 4/28/17 8:45PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.23	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-74	04/29/2017 12:10	22104-04-2937B	Hallway Bubblers 221 - Flush 4/28/17 8:45PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.000077	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-75	04/29/2017 12:12	22104-04-2938A	Hallway Bubblers 229 - Flush 4/28/17 8:45PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.081	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-75	04/29/2017 12:12	22104-04-2938A	Hallway Bubblers 229 - Flush 4/28/17 8:45PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.000089	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-76	04/29/2017 12:12	22104-04-2938B	Hallway Bubblers 229 - Flush 4/28/17 8:45PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.14	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-76	04/29/2017 12:12	22104-04-2938B	Hallway Bubblers 229 - Flush 4/28/17 8:45PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.000093	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-77	04/29/2017 12:18	22104-04-2939A	Room 230B Sink - Flush 4/28/17 8:48PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.44	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-77	04/29/2017 12:18	22104-04-2939A	Room 230B Sink - Flush 4/28/17 8:48PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.0028	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-78	04/29/2017 12:18	22104-04-2939B	Room 230B Sink - Flush 4/28/17 8:48PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.59	0.050	mg/L	Aqueous	RPL
17E0346	17E0346-78	04/29/2017 12:18	22104-04-2939B	Room 230B Sink - Flush 4/28/17 8:48PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00070	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-79	04/29/2017 12:20	22104-04-2940A	Hallway Bubblers Adjacent 231 - Flush 4/28/17 6:20PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.23	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-79	04/29/2017 12:20	22104-04-2940A	Hallway Bubblers Adjacent 231 - Flush 4/28/17 6:20PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00010	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-80	04/29/2017 12:20	22104-04-2940B	Hallway Bubblers Adjacent 231 - Flush 4/28/17 6:20PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.26	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-80	04/29/2017 12:20	22104-04-2940B	Hallway Bubblers Adjacent 231 - Flush 4/28/17 6:20PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00011	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-81	04/29/2017 12:20	22104-04-2941A	Hallway Bubblers Adjacent 239 - Flush 4/28/17 6:30PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.21	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-81	04/29/2017 12:20	22104-04-2941A	Hallway Bubblers Adjacent 239 - Flush 4/28/17 6:30PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.000094	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-82	04/29/2017 12:20	22104-04-2941B	Hallway Bubblers Adjacent 239 - Flush 4/28/17 6:30PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.25	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-82	04/29/2017 12:20	22104-04-2941B	Hallway Bubblers Adjacent 239 - Flush 4/28/17 6:30PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00011	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-83	04/29/2017 12:30	22104-04-2942A	Department Office Room 112 Sink - Flush 4/28/17 7:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.30	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-83	04/29/2017 12:30	22104-04-2942A	Department Office Room 112 Sink - Flush 4/28/17 7:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00026	0.0010	mg/L	Aqueous	RPL
17E0346	17E0346-84	04/29/2017 12:30	22104-04-2942B	Department Office Room 112 Sink - Flush 4/28/17 7:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Copper	0.13	0.010	mg/L	Aqueous	RPL
17E0346	17E0346-84	04/29/2017 12:30	22104-04-2942B	Department Office Room 112 Sink - Flush 4/28/17 7:40PM	Total Recoverable Metals by ICP/MS	EPA 200.8 Rev 5.4	Lead	0.00016	0.0010	mg/L	Aqueous	RPL

**SOUTH SCHOOL**







WEST SCHOOL



