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***WATER QUALITY TESTING***

***FOR***

***ZION SCHOOL DISTRICT 6  
EAST ELEMENTARY SCHOOL***

***ZION, ILLINOIS***

***MARCH 31, 2017***

***PROJECT NUMBER: 17-18288***

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## **INTRODUCTION**

Zion School District 6 implemented a proactive program of water testing at the East Elementary School. Water sampling was conducted by David Johnson an Aires associate consultant on March 31, 2017. Mr. Geoffrey J. Bacci, II, PE designed the studied and developed this report.

All sampling methodology followed protocol required by The Lead in Drinking Water Testing Bill (LDWTB) an guidelines published by the Illinois Department of Public Health (IDPH). Detailed background information on testing requirements, methodology and lead health effects are included in the main report to the District that summarizes results and offers recommendations.

## **RESULTS**

Field sheets identifying sample numbers and sample locations maps are included in Appendix I. Laboratory results are included in Appendix II.

Results that exceed 5 ppb must be communicated to parents in writing. Results that exceeded the EPA action level of 20 ppb are shown in **bold print**. The following locations are results that exceeded 5 ppb:

- EE-S-01A: first draw kitchen east sink – 9.5 ppb
- EE-S-01B: flush sample kitchen east sink – 12.9 ppb
- EE-S-02A first draw kitchen center sink – 12.4 ppb
- **EE-S-03B: flush kitchen west sink – 26.3 ppb**
- EE-S-07A: first draw room 104 sink – 13.4 ppb
- EE-S-08A: first draw room 103 sink – 12.2 ppb.

Remaining results should at minimum be posted on the Districts website within 7 days. The results of all samples should be e mailed to IDPH within 7 days.

Drinking fountains that exceed the EPA action level of 20 ppb should be taken out of service. Sinks that exceed the EPA action level of 20 ppb should be labeled to avoid using as a drinking or cooking source.

Further investigation and corrective action is necessary to identify the lead source and identify corrective action to reduce lead levels.

### **PROFESSIONAL CERTIFICATION**

Aires Consulting, a division of Gallagher Bassett Services, Inc. conducted this study in the interest of **Zion School District 6** to assist in meeting environmental obligations and regulations. In this respect, we hope the results of this study are useful. *This study was not intended to include every environmental exposure that may be present at the facility; only those items specifically addressed in the report were evaluated.* If you have any questions concerning this study please let us know.

Respectfully Submitted,



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Geoffrey J. Bacci, II, PE  
Director Operations

## Sample Collection

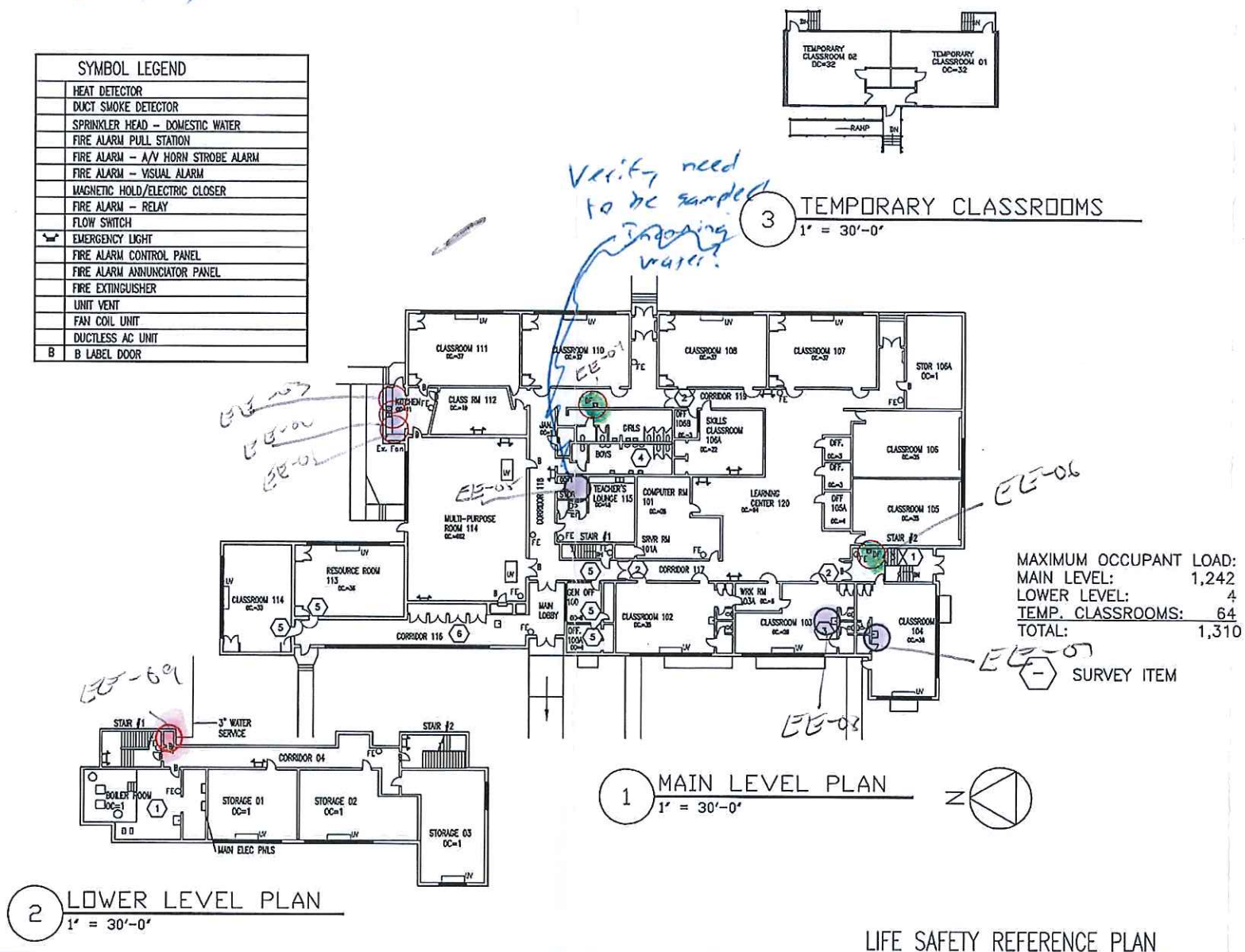
Project Location	East	Consultant		Last Time Used:
P.O. #		Date		Date Time:

\* Type: W = Water fountain B= Bottle fill S = Sink I = Incoming source

Sample Description School ID Type* Sample #	Sampling Time	Sample Location	Outlet Description (Make/Model)	Sampler Comments
EE-S-01A	9:15	Kitchen east	stainless steel	
EE-S-01B	9:17			
EE-S-02A	9:20	Kitchen center	stainless steel	
EE-S-02B	9:21			
EE-S-03A	9:23	Kitchen west	stainless steel	
EE-S-03B	9:25			
EE-W-04A	9:27	Across from Room 120	Elkay	
EE-W-04B	9:28		Elkay	
EE-S-05A	9:30	Nurses office	porcelain	
EE-S-05B	9:31			
EE-W-06A	9:40	Outside Room 104	Elkay	
EE-W-06B	9:41			
EE-S-07A	9:44	Room 104	porcelain	
EE-S-07B	9:45			
EE-S-08A	9:48	Room 103		
EE-S-08B	9:50			
EE-I-09	9:55	Water Intake	Shut down near stairwell	PH = 7.84 4/4/17 NB

- Water Fountain
- Sink
- Drinking Supply

SYMBOL LEGEND	
	HEAT DETECTOR
	DUCT SMOKE DETECTOR
	SPRINKLER HEAD - DOMESTIC WATER
	FIRE ALARM PULL STATION
	FIRE ALARM - A/V HORN STROBE ALARM
	FIRE ALARM - VISUAL ALARM
	MAGNETIC HOLD/ELECTRIC CLOSER
	FIRE ALARM - RELAY
	FLOW SWITCH
	EMERGENCY LIGHT
	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUNCIATOR PANEL
	FIRE EXTINGUISHER
	UNIT VENT
	FAN COIL UNIT
	DUCTLESS AC UNIT
	B LABEL DOOR



PROJECT NO. 1421  
DATE 02/20/15  
ARCHITECTS DESIGNERS 1122 DOUGLAS CT. WAUKEGAN, IL 60085  
**RRP INC.**  
FOR TEN YEAR SURVEY ZION ELEMENTARY SCHOOL DISTRICT #6 EAST ELEMENTARY SCHOOL  
SHEET NO. 1 OF 1



Friday, April 28, 2017

Geoff Bacci II  
 Aires Consulting Group  
 1550 Hubbard Ave.  
 Batavia, IL 60510  
 TEL: (630) 879-3006  
 FAX: (630) 879-3014

RE: Zion District 6/ East Elementary School

PAS WO: 17D0129

Prairie Analytical Systems, Inc. received 17 sample(s) on 4/4/2017 for the analyses presented in the following report.

All applicable quality control procedures met method specific acceptance criteria unless otherwise noted.

This report shall not be reproduced, except in full, without the prior written consent of Prairie Analytical Systems, Inc.

If you have any questions, please feel free to contact me at (224) 253-1348.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Christina E. Pierce".

Christina E. Pierce  
 Project Manager

**Certifications:** NELAP/NELAC - IL #100323

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1210 Capital Airport Drive	*	Springfield, IL 62707	*	1.217.753.1148	*	1.217.753.1152 Fax
9114 Virginia Road Suite #112	*	Lake in the Hills, IL 60156	*	1.847.651.2604	*	1.847.458.0538 Fax

Prairie Analytical Systems, Inc.

Date: 4/28/2017

## LABORATORY RESULTS

**Client:** Aires Consulting Group  
**Project:** Zion District 6/ East Elementary School  
**Client Sample ID:** EE-S-01A  
**Collection Date:** 3/31/17 9:15

**Lab Order:** 17D0129  
**Lab ID:** 17D0129-01  
**Matrix:** Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
<b>Metals by ICP-MS</b>									
*Lead	9.50	2.00		µg/L	1	4/26/17 12:10	4/26/17 14:00	EPA200.8	JTC

**Client Sample ID:** EE-S-01B  
**Collection Date:** 3/31/17 9:17

**Lab ID:** 17D0129-02  
**Matrix:** Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
<b>Metals by ICP-MS</b>									
*Lead	12.9	2.00		µg/L	1	4/26/17 12:10	4/26/17 14:05	EPA200.8	JTC

**Client Sample ID:** EE-S-02A  
**Collection Date:** 3/31/17 9:20

**Lab ID:** 17D0129-03  
**Matrix:** Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
<b>Metals by ICP-MS</b>									
*Lead	12.4	2.00		µg/L	1	4/26/17 8:40	4/27/17 17:07	EPA200.8	JTC

**Client Sample ID:** EE-S-02B  
**Collection Date:** 3/31/17 9:21

**Lab ID:** 17D0129-04  
**Matrix:** Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
<b>Metals by ICP-MS</b>									
*Lead	U	2.00		µg/L	1	4/26/17 8:40	4/27/17 17:12	EPA200.8	JTC

**Client Sample ID:** EE-S-03A  
**Collection Date:** 3/31/17 9:23

**Lab ID:** 17D0129-05  
**Matrix:** Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
<b>Metals by ICP-MS</b>									
*Lead	3.01	2.00		µg/L	1	4/26/17 8:40	4/27/17 17:16	EPA200.8	JTC

**Client Sample ID:** EE-S-03B  
**Collection Date:** 3/31/17 9:25

**Lab ID:** 17D0129-06  
**Matrix:** Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
<b>Metals by ICP-MS</b>									
*Lead	26.3	2.00		µg/L	1	4/26/17 8:40	4/27/17 17:21	EPA200.8	JTC

**Client Sample ID:** EE-W-04A  
**Collection Date:** 3/31/17 9:27

**Lab ID:** 17D0129-07  
**Matrix:** Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
<b>Metals by ICP-MS</b>									
*Lead	U	2.00		µg/L	1	4/26/17 12:10	4/26/17 14:23	EPA200.8	JTC



Prairie Analytical Systems, Inc.

Date: 4/28/2017

## LABORATORY RESULTS

<b>Client:</b>	Aires Consulting Group					<b>Lab Order:</b>	17D0129				
<b>Project:</b>	Zion District 6/ East Elementary School										
<b>Client Sample ID:</b>	EE-W-04B					<b>Lab ID:</b>	17D0129-08				
<b>Collection Date:</b>	3/31/17 9:28					<b>Matrix:</b>	Drinking Water				
<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Method</b>	<b>Analyst</b>		
<b>Metals by ICP-MS</b>											
*Lead	U	2.00		µg/L	1	4/26/17 12:10	4/26/17 14:27	EPA200.8	JTC		
<b>Client Sample ID:</b>	EE-S-05A					<b>Lab ID:</b>	17D0129-09				
<b>Collection Date:</b>	3/31/17 9:30					<b>Matrix:</b>	Drinking Water				
<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Method</b>	<b>Analyst</b>		
<b>Metals by ICP-MS</b>											
*Lead	2.39	2.00		µg/L	1	4/26/17 12:10	4/26/17 14:32	EPA200.8	JTC		
<b>Client Sample ID:</b>	EE-S-05B					<b>Lab ID:</b>	17D0129-10				
<b>Collection Date:</b>	3/31/17 9:31					<b>Matrix:</b>	Drinking Water				
<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Method</b>	<b>Analyst</b>		
<b>Metals by ICP-MS</b>											
*Lead	U	2.00		µg/L	1	4/26/17 12:10	4/26/17 14:36	EPA200.8	JTC		
<b>Client Sample ID:</b>	EE-W-06A					<b>Lab ID:</b>	17D0129-11				
<b>Collection Date:</b>	3/31/17 9:40					<b>Matrix:</b>	Drinking Water				
<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Method</b>	<b>Analyst</b>		
<b>Metals by ICP-MS</b>											
*Lead	U	2.00		µg/L	1	4/26/17 12:10	4/26/17 14:40	EPA200.8	JTC		
<b>Client Sample ID:</b>	EE-W-06B					<b>Lab ID:</b>	17D0129-12				
<b>Collection Date:</b>	3/31/17 9:41					<b>Matrix:</b>	Drinking Water				
<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Method</b>	<b>Analyst</b>		
<b>Metals by ICP-MS</b>											
*Lead	U	2.00		µg/L	1	4/26/17 12:10	4/26/17 14:45	EPA200.8	JTC		
<b>Client Sample ID:</b>	EE-S-07A					<b>Lab ID:</b>	17D0129-13				
<b>Collection Date:</b>	3/31/17 9:44					<b>Matrix:</b>	Drinking Water				
<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Method</b>	<b>Analyst</b>		
<b>Metals by ICP-MS</b>											
*Lead	13.4	2.00		µg/L	1	4/26/17 12:10	4/26/17 14:49	EPA200.8	JTC		
<b>Client Sample ID:</b>	EE-S-07B					<b>Lab ID:</b>	17D0129-14				
<b>Collection Date:</b>	3/31/17 9:45					<b>Matrix:</b>	Drinking Water				
<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Method</b>	<b>Analyst</b>		
<b>Metals by ICP-MS</b>											
*Lead	U	2.00		µg/L	1	4/26/17 8:40	4/27/17 17:25	EPA200.8	JTC		

Prairie Analytical Systems, Inc.

Date: 4/28/2017

## LABORATORY RESULTS

Client: Aires Consulting Group

Project: Zion District 6/ East Elementary School

Lab Order: 17D0129

Client Sample ID: EE-S-07B

Lab ID: 17D0129-14

Collection Date: 3/31/17 9:45

Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
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Client Sample ID: EE-S-08A

Lab ID: 17D0129-15

Collection Date: 3/31/17 9:48

Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
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## Metals by ICP-MS

*Lead	12.2	2.00		µg/L	1	4/26/17 8:40	4/27/17 17:30	EPA200.8	JTC
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Client Sample ID: EE-S-08B

Lab ID: 17D0129-16

Collection Date: 3/31/17 9:50

Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
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## Metals by ICP-MS

*Lead	U	2.00		µg/L	1	4/26/17 12:10	4/26/17 15:02	EPA200.8	JTC
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Client Sample ID: EE-I-09

Lab ID: 17D0129-17

Collection Date: 3/31/17 9:55

Matrix: Drinking Water

Analyses	Result	Limit	Qual	Units	DF	Date Prepared	Date Analyzed	Method	Analyst
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## Metals by ICP-MS

*Lead	69.7	2.00		µg/L	1	4/26/17 8:40	4/27/17 17:34	EPA200.8	JTC
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Prairie Analytical Systems, Inc.

Date: 4/28/2017

## LABORATORY RESULTS

Client: Aires Consulting Group

Project: Zion District 6/ East Elementary School

Lab Order: 17D0129

## Metals by ICP-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Batch A002107 - EPA 200.8 Metals

## Blank (A002107-BLK1)

Prepared: 04/26/201 Analyzed: 04/27/201

Lead	U	2.00	µg/L
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## LCS (A002107-BS1)

Prepared: 04/26/201 Analyzed: 04/27/201

Lead	526	2.00	µg/L	500.00	105	85-115
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## Matrix Spike (A002107-MS1)

Source: 17D0129-17

Prepared: 04/26/201 Analyzed: 04/27/201

Lead	598	2.00	µg/L	500.00	69.7	106	75-125
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## Matrix Spike (A002107-MS2)

Source: 17D0243-01

Prepared: 04/26/201 Analyzed: 04/27/201

Lead	538	2.00	µg/L	500.00	3.34	107	75-125
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## Matrix Spike Dup (A002107-MSD1)

Source: 17D0129-17

Prepared: 04/26/201 Analyzed: 04/27/201

Lead	598	2.00	µg/L	500.00	69.7	106	75-125	0.1	20
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## Matrix Spike Dup (A002107-MSD2)

Source: 17D0243-01

Prepared: 04/26/201 Analyzed: 04/27/201

Lead	548	2.00	µg/L	500.00	3.34	109	75-125	2	20
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## Batch A002113 - EPA 200.8 Metals

## Blank (A002113-BLK1)

Prepared &amp; Analyzed: 04/26/201

Lead	U	2.00	µg/L
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## LCS (A002113-BS1)

Prepared &amp; Analyzed: 04/26/201

Lead	516	2.00	µg/L	500.00	103	85-115
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## Matrix Spike (A002113-MS1)

Source: 17D0110-24

Prepared &amp; Analyzed: 04/26/201

Lead	486	2.00	µg/L	500.00	4.97	96	75-125
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Prairie Analytical Systems, Inc.

Date: 4/28/2017

## LABORATORY RESULTS

Client: Aires Consulting Group

Project: Zion District 6/ East Elementary School

Lab Order: 17D0129

## Metals by ICP-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Batch A002113 - EPA 200.8 Metals

## Matrix Spike (A002113-MS2)

Source: 17D0129-13

Prepared &amp; Analyzed: 04/26/201

Lead	497	2.00	µg/L	500.00	13.4	97	75-125			
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## Matrix Spike Dup (A002113-MSD1)

Source: 17D0110-24

Prepared &amp; Analyzed: 04/26/201

Lead	494	2.00	µg/L	500.00	4.97	98	75-125	1	20	
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## Matrix Spike Dup (A002113-MSD2)

Source: 17D0129-13

Prepared &amp; Analyzed: 04/26/201

Lead	491	2.00	µg/L	500.00	13.4	96	75-125	1	20	
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**Prairie Analytical Systems, Inc.****Date:** 4/28/2017

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**LABORATORY RESULTS**

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**Client:** Aires Consulting Group**Project:** Zion District 6/ East Elementary School**Lab Order:** 17D0129

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**Notes and Definitions**

\* NELAC certified compound.

U Analyte not detected (i.e. less than RL or MDL).

# Chain of Custody Record

Central IL - 1210 Capital Airport Drive - Springfield, IL 62707-8490 - Phone (217) 753-1148 - Facsimile (217) 753-1152  
 Chicago IL Office - 9114 Virginia Rd., Ste 112 - Lake in the Hills, IL 60156 - Phone (847) 651-2604 - Facsimile (847) 458-9680  
 Central / Southern IL Contact - Phone (217) 414-7762 - Facsimile (217) 753-1152



Client		Aires Consulting - Gallagher Bassett				Analysis and/or Method Requested				Reporting	
Address		1550 Hubbard Ave				Lead in Drinking Water - IL				<input type="checkbox"/> CCDD <input type="checkbox"/> Residential <input type="checkbox"/> Industrial / Commercial	
City, State, Zip Code		Batavia, IL 60510									
Phone / Facsimile		630.879.3006									
Project Name / Number		Zion District 6									
Project Location		East Elementary School 2913 Elim Ave, Zion									
P.O. # or Invoice To		17-18288								<input type="checkbox"/> CALM <input type="checkbox"/> A <input type="checkbox"/> D <input type="checkbox"/> B <input type="checkbox"/> E <input type="checkbox"/> C <input type="checkbox"/> F	
Contact Person		Geoff Bacci II								<input type="checkbox"/> RISC <input type="checkbox"/> Residential <input type="checkbox"/> Industrial	
Sample Description		Sampling		Preserv		No. of		Sample Type		Sampler Comments	
		Date		Code		Containers		Comp			
		Time		Code				Grab			
See attached Addendum (1 pages) for sample information (7 additional samples)											
EE-S-01A		3/31/17		9:15		1				X	
EE-S-01B		3/31/17		9:17		1				X	
EE-S-02A		3/31/17		9:20		1				X	
EE-S-02B		3/31/17		9:21		1				X	
EE-S-03A		3/31/17		9:23		1				X	
EE-S-03B		3/31/17		9:25		1				X	
EE-W-04A		3/31/17		9:27		1				X	
EE-W-04B		3/31/17		9:28		1				X	
EE-S-05A		3/31/17		9:30		1				X	
EE-S-05B		3/31/17		9:31		1				X	
Matrix Code		A - Aqueous		DW - Drinking Water		GW - Ground Water		S - Solid		NA - Non-Aqueous Liquid	
Preservative Code		0 - None		1 - HCl		2 - H2SO4		4 - NaOH		3 - HNO3	
Relinquished By		Date		Time		Received By		Date		Time	
D. Bacci		4/13/17		11:00		D. Bacci		4/14/17		10:00 AM	
D. Bacci		4/14/17		2:35		D. Bacci		4/14/17		1:43 PM	
D. Bacci		4/14/17		17:00		D. Bacci		4/14/17		10:50 AM	
Special Instructions:										Append	
Turnaround Time: Standard		Rush		Date Required:		QC Level		On wet ice?		Temperature (°C)	
17-2		3		4		17-2		3		4	
17-2		3		4		17-2		3		4	

Copies: White - Client / Yellow - PAS, Inc. / Pink - Sampler  
 PAS COC - Aires

Page 1 of 2

Revision 4  
 March 21, 2017

2502

PAS COC - Aires

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