



March, 28th 2017

Paul Travis
Southwest Metro Intermediate School District 288
401 East 4th Street
Chaska, MN 55318

**RE: Southwest Metro Intermediate School District 288
Lead-in-Water First Draw – Initial Testing
IEA Project #201710234**

Dear Mr. Travis:

At the request of Southwest Metro Intermediate School District 288, IEA collected a total of 27 samples of drinking water on March 10th, 2017 for lead analyses from the following buildings:

- Main Campus High school
- St. Boni Education Center
- Shakopee Town Square
- East Creek Family Center
- Valley Green Adult Programs
- River Valley Education Center

The purpose of the sampling was to document lead levels in the sampled locations and to compare them to the EPA action level of 20 parts per billion (ppb).

INTRODUCTION

The Lead Contamination Control Act (LCCA) of 1988 was created by the Environmental Protection Agency (EPA) to identify and reduce lead in drinking water. Both the EPA and the Minnesota Department of Health (MDH) recommend testing of potable water sources (water used for consumption) every five years for the presence of lead. Lead is a metal that usually enters drinking water through the distribution system, including pipes, solders, faucets, and valves. Lead levels in water may increase when the water is allowed to sit undisturbed in the system, such as in science, biology, or art areas. Exposure to lead is a significant health concern, especially to infants and young children whose growing bodies absorb lead more readily than adult bodies do. Lead exposure can cause delays in physical and/or mental development in children and damage to the brain, kidneys, nervous system, and red blood cells. The EPA and MDH recommend that action be taken at a specific fixture when the lead concentration exceeds the EPA's action level for schools of 20 parts per billion (ppb).

METHODOLOGY

IEA collected 27 first-draw (unless otherwise notes) samples of approximately 500 milliliters (ml). "First draw" means the samples are collected before the fixture is used or flushed during the day. The first-draw sample results reflect a worst case scenario, i.e., the highest lead level that would be consumed by building occupants. Current protocol calls for flushing locations 8-18 hours prior to sampling.

A site map with sample locations is included in Appendix A. Water samples were analyzed by Minnesota Valley Testing Laboratories (MVTTL) in New Ulm, Minnesota, which uses EPA-approved analytical methods and quality control/assurance procedures. Samples were analyzed using the ICP/MS EPA Method 200.8.

RESULTS & DISCUSSION

The lead-in-water sample results ranged from below the level of detection (<0.05 ppb) ppb to 13.4 ppb. There were no sample results that exceeded the EPA action level of 20 ppb. The laboratory report is provided in Appendix B. Laboratory results are reported in micrograms per liter (µg/L) which is equivalent to parts per billion (ppb).

In addition, there were no lead levels between 15 ppb and 20 ppb.

RECOMMENDATIONS

IEA recommends implementing one of the following treatment options for each fixture with lead levels exceeding the EPA action level of 20 ppb. These recommendations should also be considered for fixtures with lead levels approaching 20 ppb.

- Install a drinking water treatment unit certified to NSF/ANSI 53 for lead reduction:
<http://info.nsf.org/Certified/DWTU/Listings.asp?TradeName=&Standard=053&ProductType=&PlantState=&PlantCountry=&PlantRegion=&submit3=Search&hdModlStd=ModlStd>.
- Conduct flush testing in accordance with EPA or MDH guidelines to determine if flushing will reduce lead levels. If results indicate that flushing will reduce lead to acceptable levels, implement a flushing program which includes documentation of daily flushing and periodic program review.
- Replace fixture with a "lead-free" fixture certified to NSF/ANSI 372 or NSF/ANSI 61-G. The *Reduction of Lead in Drinking Water Act* redefines "lead-free" as "not more than a weighted average of 0.25% lead when used with respect to wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures." Effective January 4, 2014, drinking water system components sold or installed must adhere to this new requirement.
- Remove fixture from service by disconnecting it from the water supply.
- Post signs that the water is not potable and to notify staff of this.

In addition, IEA recommends that a copy of the district's Lead- in-Drinking Water Testing Report be made available to staff and the public through the district's administrative offices.

GENERAL CONDITIONS

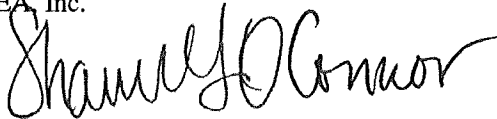
The analysis and opinions expressed in this report are based upon water testing at Southwest Metro Intermediate School District 288. This report does not reflect variations in conditions that may occur. Actual conditions may vary and may not become evident without further assessment.

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental, health and safety practices. Other than as provided in the preceding sentence and in our Proposal #4398 dated April, 21st 2015 regarding Lead-In-Water Testing including the General Conditions attached thereto, no warranties are extended or made.

Please contact IEA if you would like assistance with any of the above recommendations or have questions regarding this report.

Sincerely,

IEA, Inc.



Shannon O'Connor
Senior Project Manager

SO/tjb/ 032817

Enc.

Appendix A

Laboratory Testing Report



MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
 2 North German St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
 2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
 1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
 www.mvtl.com



Report Date: 17 Mar 2017

SHANNON O'CONNOR
 IEA
 610 N. RIVERFRONT DRIVE
 MANKATO MN 56001

Work Order #: 12-4939
 Account #: 002190
 Purchase Order #: SW METRO

Date Received: 10 Mar 2017
 Date Sampled: 10 Mar 2017
 Time Sampled: 7:00
 Temperature at Receipt: 17.1C

PROJECT NAME: SW METRO 2017

LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS	MCL	DATE ANALYZED	ANALYST
17-A8099	01-SW METRO 288	< 0.5 ug/L	15.0	14 Mar 17	RMV
17-A8100	02-SW METRO 288	< 0.5 ug/L	15.0	14 Mar 17	RMV
17-A8101	03-SW METRO 288	< 0.5 ug/L	15.0	14 Mar 17	RMV
17-A8102	04-SW METRO 288	0.77 ug/L	15.0	14 Mar 17	RMV
17-A8103	05-SW METRO 288	1.41 ug/L	15.0	14 Mar 17	RMV
17-A8104	06-SW METRO 288	0.59 ug/L	15.0	14 Mar 17	RMV
17-A8105	07-SW METRO 288	13.4 ug/L	15.0	14 Mar 17	RMV
17-A8106	08-SW METRO 288	1.92 ug/L	15.0	14 Mar 17	RMV
17-A8107	09-SW METRO 288	1.05 ug/L	15.0	14 Mar 17	RMV
17-A8108	10-SW METRO 288	1.09 ug/L	15.0	14 Mar 17	RMV
17-A8109	11-SW METRO 288	0.75 ug/L	15.0	14 Mar 17	RMV
17-A8110	12-SW METRO 288	1.09 ug/L	15.0	14 Mar 17	RMV
17-A8111	13-SW METRO 288	0.61 ug/L	15.0	14 Mar 17	RMV
17-A8112	14-SW METRO 288	< 0.5 ug/L	15.0	14 Mar 17	RMV
17-A8113	15-SW METRO 288	0.86 ug/L	15.0	14 Mar 17	RMV
17-A8114	16-SW METRO 288	0.97 ug/L	15.0	14 Mar 17	RMV
17-A8115	17-SW METRO 288	0.77 ug/L	15.0	14 Mar 17	RMV

Approved by:

Dan O'Connell, Chemistry Laboratory Manager New Ulm, MN

Analyses performed under our Minnesota Department of Health Accreditation conform to the current TNI standards.

The reporting limit was elevated for any analyte requiring a dilution as coded below:

@ = Due to sample matrix

= Due to concentration of other analytes

! = Due to sample quantity

+ = Due to internal standard response

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND SW/DW # R-040

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



MINNESOTA VALLEY TESTING LABORATORIES, INC.

1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvttl.com



Report Date: 17 Mar 2017

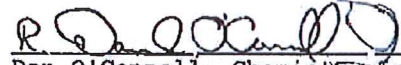
SHANNON O'CONNOR
IEA
610 N. RIVERFRONT DRIVE
MANKATO MN 56001

Work Order #: 12-4939
Account #: 002190
Purchase Order #: SW METRO

Date Received: 10 Mar 2017
Date Sampled: 10 Mar 2017
Time Sampled: 8:15
Temperature at Receipt: 17.1C

PROJECT NAME: SW METRO 2017

LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS	MCL	DATE ANALYZED	ANALYST
17-A8116	18-SW METRO 288	1.71 ug/L	15.0	14 Mar 17	RMV
17-A8117	19-SW METRO 288	2.11 ug/L	15.0	14 Mar 17	RMV
17-A8118	20-SW METRO 288	0.52 ug/L	15.0	14 Mar 17	RMV
17-A8119	21-SW METRO 288	0.57 ug/L	15.0	14 Mar 17	RMV
17-A8120	22-SW METRO 288	< 0.5 ug/L	15.0	14 Mar 17	RMV
17-A8121	23-SW METRO 288	< 0.5 ug/L	15.0	14 Mar 17	RMV
17-A8122	24-SW METRO 288	< 0.5 ug/L	15.0	14 Mar 17	RMV
17-A8123	25-SW METRO 288	2.39 ug/L	15.0	14 Mar 17	RMV
17-A8124	26-SW METRO 288	0.78 ug/L	15.0	14 Mar 17	RMV
17-A8125	27-SW METRO 288	< 0.5 ug/L	15.0	14 Mar 17	RMV

Approved by: 

Dan O'Connell, Chemistry Laboratory Manager New Ulm, MN

Analyses performed under our Minnesota Department of Health A2 accreditation conform to the current TNI standards.

The reporting limit was elevated for any analyte requiring a dilution as coded below:

@ = Due to sample matrix

= Due to concentration of other analytes

! = Due to sample quantity

+ = Due to internal standard response

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999747680 ND METRO # 1013 N ND NW/DW # D-040

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Minnesota Valley Testing Laboratories, Inc.

Chain of Custody Record

1126 North Front Street
New Ulm, MN 56073

Page 1 of 6

Toll Free: (800) 782-3557

Phone: (507) 354-8517

Fax: (507) 359-2890

Form # 10-90008-0

Company Name and Address:

Southwest Metro Intermediate School District 288
Main Campus / High School
401 Building 2401 East 4th Street
Chaska, MN 55318

Billing Address (indicate if different from above):

1EA market
610 North Pierpont Ave
Market, MN 56001

Account #:

1EA-market

Email:

shannon.oconnor@1ea.com

Phone #:

507-345-8818

Contact (Report to):

Shannon O'Connor, 1EA

Name of Samplers:

Ryan Borman

Quote Number:

SW Metro 2017 Lead in Water

Project Name/Number:

Received by: [Signature]

Sample Condition:

Date: 10/17/2017

Sample Number:

Time: 1:40

Received by:

Temp: 71.6

Date:

10/17/2017

Time:

1584

Transferred by:

Date: 3/10/2017

Time: 9:00am

1. Ryan Borman

2.

Comments:

Email results to Shannon O'Connor -> shannon.oconnor@icascity.com

Sample Information

Lab Use Only	Sample ID	Sample Type	Date Sampled	Time Sampled	Analysis
AS099	01-SWmetro 288	Lead	3/10/17	7:00	Lead in Water
AS100	02-SWmetro 288	Lead	3/10/17	7:00	Lead in Water
01	03-SW metro 288				
02	04-SWmetro 288				
03	05-SWmetro 288				
04	06-SWmetro 288				
05	07-SWmetro 288				
06	08-SWmetro 288				

Enclosed are your containers for your sampling event. Completely fill and label containers appropriately for the analyses to be conducted. Complete chain of custody and submit with samples. For questions regarding individual parameter holding times, chemical and thermal preservation and sample volumes please refer to our sample preservation guide on our website at www.mvt.com or by contacting customer service at 1-800-782-3557. If samples show signs of contamination, inadequate preservation or are in any way compromised you will be contacted as to whether to proceed with analysis or submit a new sample.

Please submit the top two copies with your samples. We will return the completed original with your results.

New UIm, MN 56073

Phone: (507) 354-8517

Toll Free: (800) 782-3557

Fax: (507) 359-2890

Form # 10-90008-0

Work Order #

Company Name and Address:

Southwest Metro Intermediate School District 288

East Creek Family Center

303 East 6th St

Chaska, MN, 55318

Billing Address (indicate if different from above):

IEA Mankato

610 North Riverfront Drive

Markate, MN, 56001

Transferred by:

Date:

Time:

1. Ryan Borman

3/10/17

7:30

Comments:

Email results to Sharmen O'Connor - sharmen.oconnor@ideasafety.com

Sample Information

[illegible]

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Please submit the top two copies with your samples. We will return the completed original with your results.



Page 3 of 6

Page 3 of 6

Form # 10-90008-0

Fax: (507) 359-2890

1

Account#:	TEA- Marya +
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Account#:	IEA - Nakato
Phone#:	507-345-8611

Phone #:	507-345-8811
Contact (Report to):	

Shannon O'Ceimot IEA

Shannon O'Connor, IEA

Name of Samplers: Ryan Berman

Ryan Berman

Quote Number	
	1

Quote Number	1
Project Name/Number:	

iv) Metro 2017 Lead in Wt

Sample Condition:	Receiver
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Disposit

ideasafety.com

Information

Information

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Time

Time Sampled	

Sampled	
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8:15	7
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[illegible]

the analyses to be conducted. Complete cha

the analyses to be conducted. Complete charts can be found in the *Handbook of Survey Research* and refer to our sample preservation guide on our website.

refer to our sample preservation guide on our website. If you are unable to follow the instructions, please contact us. If your sample is compromised you will be contacted as to the next steps.

will return the completed original

will return the completed original

N1157.7 KEMSKE, NEW ULM, MN

Minnesota Valley Testing Laboratories, Inc.

1126 North Front Street
New Ulm, MN 56073

Phone: (507) 354-8517

Toll Free: (800) 782-3557

Fax: (507) 359-2890

Form # 10-90008-0

Work Order #

Chain of Custody Record

Page 4 of 6

Company Name and Address:				Account #:	IEA - Manikato	Email:	
Southwest Metro Intermediate School District 288				Phone #:	507-345-8818	shannon.oconnor@iea	
Valley Green Adult Programs				Contact (Report to):		safety.com	
742 Canterbury Road South				Shannon, O'Connor, IEA			
Shakopee, MN, 55379				Name of Samplers:			
Billing Address (indicate if different from above):				Ryan Bermen			
IEA Manikato				Quote Number		Date Submitted:	
610 North Riverfront Drive				Project Name/Number:		Purchase Order #:	
Manikato, MN, 56001				SW Metro 2017 Lead in water			
Transferred by:				Sample Condition:	Received by:	Date:	Time:
1.	Ryan Bermen	Date:	3/10/17	Time:	4:30		
2.							

Comments:

Email results to Shannon O'Leary — shannon.oleary@ideasafety.com

Sample Information

[illegible]

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Toll Free: (800) 782-3557

Phone: (507) 354-8517

Form # 10-90008-0

Fax: (507) 359-2890

Work Order #

Company Name and Address:

Southwest Metro Intermediate School District 288

Singapore Twin Square

1150 Shekopee Town Square

Shakopee, MN, 55379

Billing Address (indicate if different from above):

IEA Nankato

610 North Riverfront Drive

Menkato, MN, 56001

Transferred by:

1. Zygar Borman

2.

Comments:

Email results to Shannon O'Connor — Shannon.OConnor@ideasafety.com

Sample Information

[illegible]

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1126 North Front Street

New Ulm, MN 56073

Phone: (507) 354-8517

Toll Free: (800) 782-3557

Fax: (507) 359-2890

Form # 10-90008-0

Work Order #

Company Name and Address:

Southwest Metro Intermediate School District 288

River Valley Education Center

100 Hope Ave

Jordan, MN, 55352

Billing Address (indicate if different from above):

IEH Mankato

610 North Riverfront Drive

Markato, MN, 56001

Transferred by:

1. Ryan Borman

2. System Dynamics

Comments:

Email results to Shannon O'Connor — shannon.oconnor@ideasafety.com

Sample Information

[illegible]

Enclosed are your containers for your sampling event. Completely fill and label containers appropriately for the analyses to be conducted. Complete chain of custody and submit with samples. For questions regarding individual parameter holding times, chemical and thermal preservation and sample volumes please refer to our sample preservation guide on our website at www.mvll.com or by contacting customer service at 1-800-782-3557. If samples show signs of contamination, inadequate preservation or are in any way compromised you will be contacted as to whether to proceed with analysis or submit a new sample.

Please submit the top two copies with your samples. We will return the completed original with your results.