

August 31, 2016

Mr. Jeff Goldy
Environmental Health & Safety Coordinator
Hopkins Public Schools
1001 Highway 7
Hopkins, MN 55305



**RE: Summer 2016 Lead-in-Water Follow-up Testing
IEA Project #201610588**

Dear Mr. Goldy:

At the request of Hopkins Public Schools, IEA collected follow-up samples of drinking water on August 18, 2016, from Meadowbrook Elementary, North Junior High, and West Junior High for lead analysis. The purpose of the sampling was to document lead content of water in four locations and to compare the results to "first draw" sampling conducted on October 2015, and the EPA action level of 20 parts per billion (ppb).

INTRODUCTION

The Lead Contamination Control Act (LCAA) 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, solder, 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 more lead than adults 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).

First draw samples collected at these three district buildings on October 30, 2015 had elevated lead content above the EPA Action Level of 20 ppm. Here is a brief history of the samplings conducted:

- IEA collected 1,046 first-draw samples of approximately 500 milliliters (ml) in March, 2015 at District buildings. Of the 1,046 samples, 23 locations exceeded the EPA Action Level.
- On June 10, 2015, IEA collected 23 additional first-draw samples of approximately 500 milliliters (ml) to re-check taps with lead levels at or above 15 ppb during the initial sampling. Of the 23 samples, six samples exceeded the EPA Action Level.
- On October 30, 2015, IEA collected six additional first-draw samples of approximately 500 milliliters (ml) to sample following the fixtures being replaced over the summer.
- On March 15, 2016, IEA collected four additional first-draw samples of approximately 500 milliliters (ml) to sample following the fixtures being replaced over the summer and confirm the results.

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800-233-9513

BRAINERD
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MARSHALL
1420 East College Drive
Marshall, MN 56258
507-476-3599 / FAX 507-537-6985
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METHODOLOGY

Samples were collected after the water was standing in the pipes for at least 8-hours, but not more than 18-hours, as recommended by the EPA. "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.

Site maps with sample locations marked and their Chain-of-Custody (COC) are included in Appendix A. Water samples were analyzed by Minnesota Valley Testing Laboratories (MVTLL) 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

Lead levels for the four (4) fixtures ranged from 2.91 ppb to 25 ppb. Results for the four locations are displayed in *Tables 1-4: Drinking Water Sample Results* and include the previous sampling results. The laboratory reports are provided in the Appendix B.

Table 1: Drinking Water Sample Results – Meadowbrook Elementary – Room 116 – Sink N

Sample Number	Sampling Date	Sampling Location	Fixture Type	Lead Results (ppb)
31115MB-87	3/11/15	Room 116 - North	Sink	29.7
06102015MB-4	6/10/15	Room 116 – North	Sink	20.6
10302015MB-2	10/30/15	Room 116 – North	Sink	24.3
03152016MB-1	3/15/16	Room 116 – North	Sink	15.6
08182016ME-1	8/18/16	Room 116 – North	Sink	2.91

ppb – parts per billion

Table 2: Drinking Water Sample Results – Meadowbrook Elementary Room 116 – Drinking Fountain N

Sample Number	Sampling Date	Sampling Location	Fixture Type	Lead Results (ppb)
31115MB-88	3/11/15	Room 116 – North	Drinking Fountain	107
06102015MB-5	6/10/15	Room 116 – North	Drinking Fountain	52.8
10302015MB-3	10/30/15	Room 116 – North	Drinking Fountain	26.4
03152016MB-2	3/15/16	Room 116 – North	Drinking Fountain	46.4
08182016ME-2	8/18/16	Room 116 – North	Drinking Fountain	5.46

ppb – parts per billion

Table 3: Drinking Water Sample Results – North Junior High School – Room 607 Sink

Sample Number	Sampling Date	Sampling Location	Fixture Type	Lead Results (ppb)
3252015NJ-9	3/25/15	Room 607	Sink	44.9
06102015NJ-1	6/10/15	Room 607	Sink	134
10302015NJ-1	10/30/15	Room 607	Sink	22
03152016NJH-1	3/15/16	Room 607	Sink	3.94
08182016NJH-1	8/18/16	Room 607	Sink	7.89

ppb – parts per billion

Table 4: Water Testing Results Exceeding 20 ppb – West Junior High School –Room 403A - Sink E

Sample Number	Sampling Date	Sampling Location	Fixture Type	Lead Results (ppb)
3172015WJ-76	3/17/15	Room 403A East	Sink	56.7
06102015WJ-2	6/10/15	Room 403A East	Sink	224
10302015WJ-1	10/30/15	Room 403A East	Sink	155
031516WJH-1	3/15/16	Room 403A East	Sink	147
08182016WJH-1	8/18/16	Room 403A East	Sink	25

ppb – parts per billion

Discussion of Results

- The lead level for the north sink in Room 116 at Meadowbrook Elementary was below the EPA Action Level.
- The lead level for the north drinking fountain in Room 116 at Meadowbrook Elementary was below the EPA Action Level.
- The lead level for the sink in Room 607 at the North Junior High was below the EPA Action Level.
- The lead level for the east sink in Room 403A at the West Junior High was still above the EPA Action Level.

CONCLUSIONS & RECOMMENDATIONS

IEA recommends implementing one of the following treatment options for the east sink fixture in Room 403A at the West Junior High with lead level exceeding the EPA action level of 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.
- Investigate other potential sources for the lead upstream of the replaced fixtures and replace as warranted. Collecting a series of samples from fixture can assist in determining location of source.
- 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 the public through the district's administrative offices.

GENERAL COMMENTS

The analysis and opinions expressed in this report are based upon data obtained from Hopkins Public Schools at the indicated locations. This report does not reflect variations in conditions that may occur across the site, property, or facility. 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 & Safety practices. Other than as provided in the preceding sentence and in our Environmental, Health and Safety (EH&S) Proposal #5210 dated May 11, 2016, including the General Conditions attached thereto, no warranties are extended or made.


If you have any questions or would like further assistance in implementing any of the above recommendations, please do not hesitate to contact me at 763-315-7900.

Sincerely,

IEA, Inc.


Mindy Lang
Account Manager

Reviewed by:


Leslie Cloonan, MPH, CIH, LEED AP O+M
Senior Project Manager
Indoor Environments Division

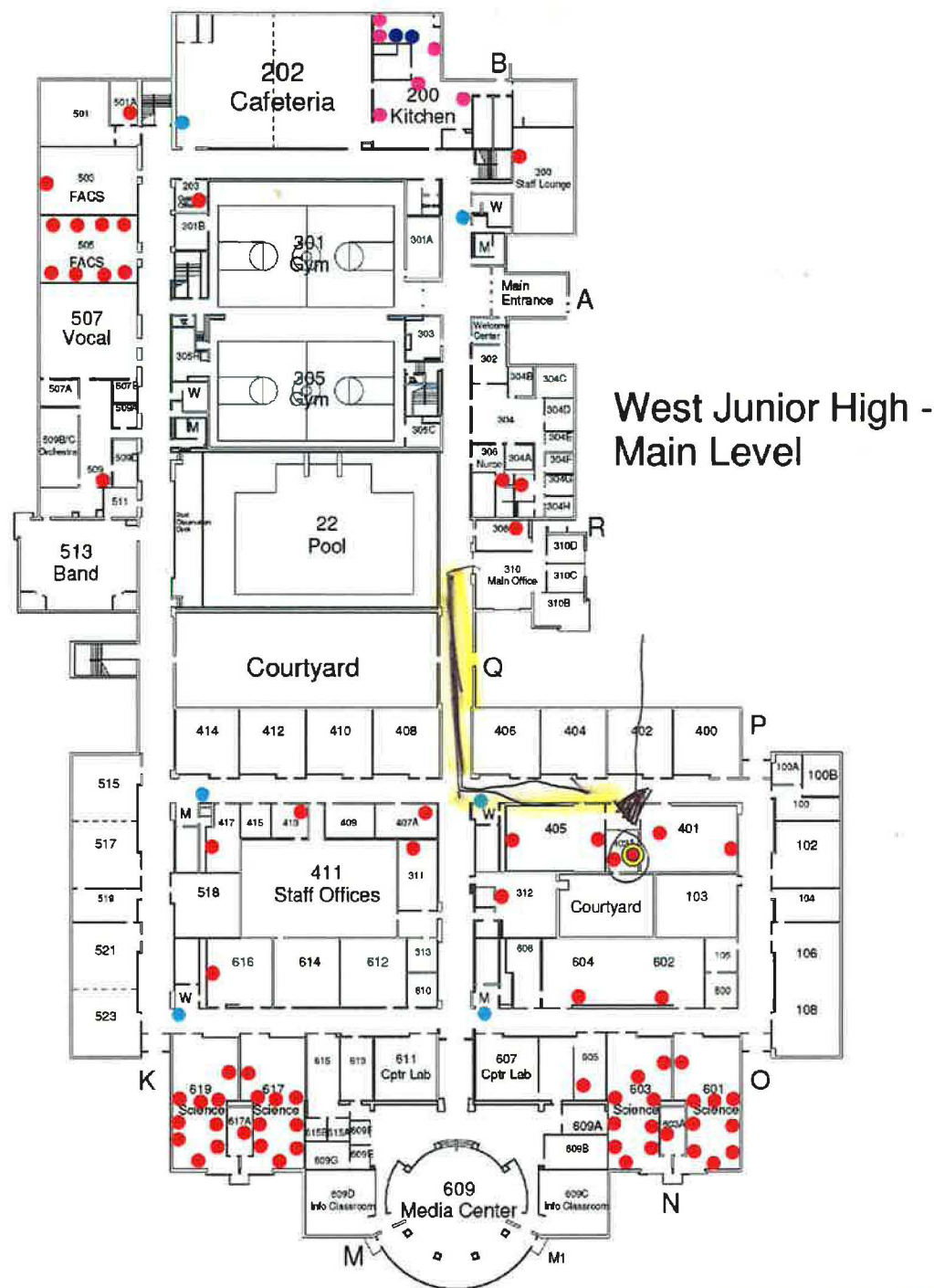
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Appendix A

Building Maps & COCs

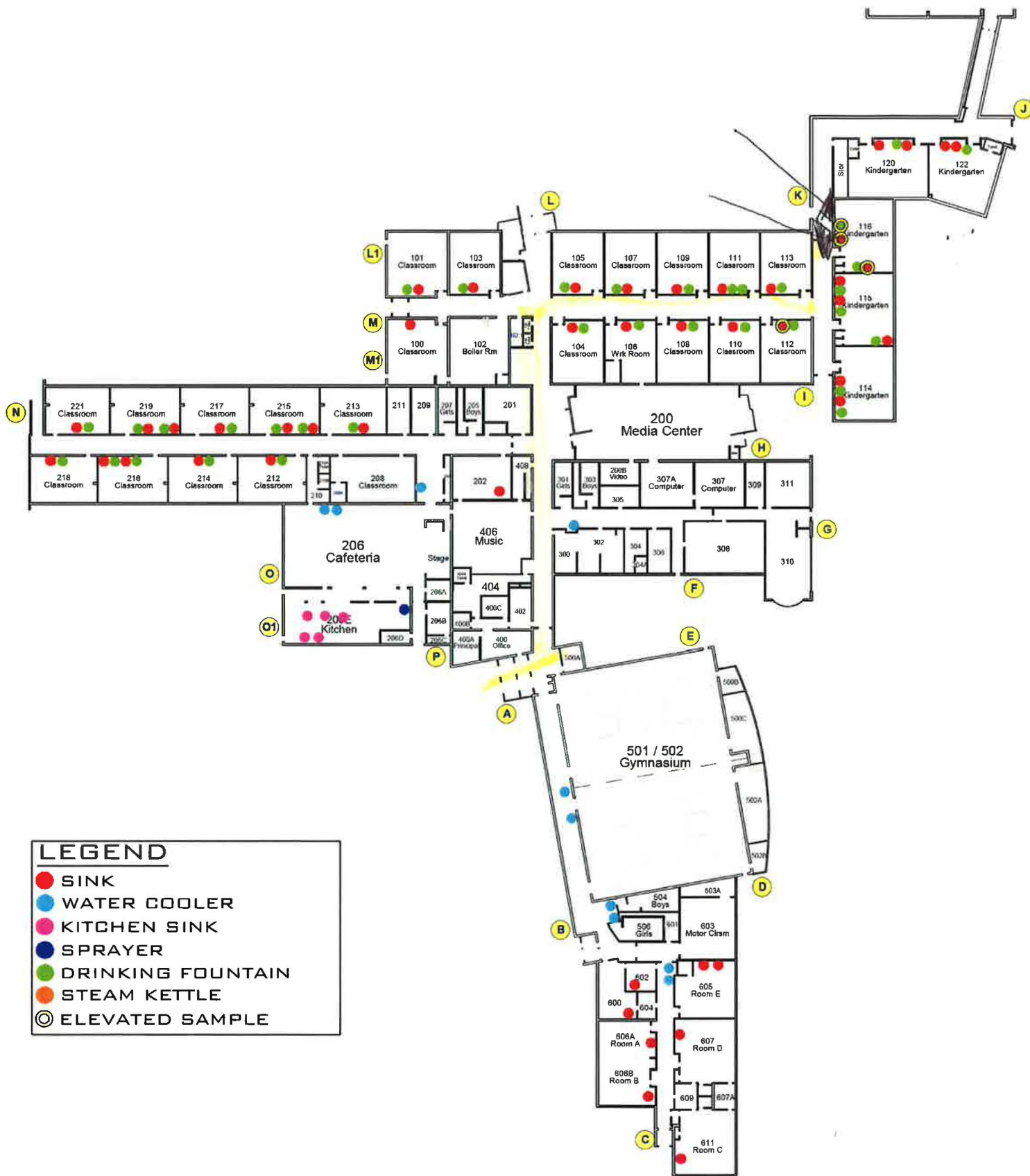
LEGEND

- SINK
- WATER COOLER
- KITCHEN SINK
- DRINKING FOUNTAIN
- SPRAYER
- ◎ ELEVATED SAMPLE




- SINK
- WATER COOLER
- SPRAYER
- KITCHEN SINK
- STEAM KETTLE
- ⦿ ELEVATED SAMPLE





Chain of Custody

9201 West Broadway North, Suite 600
Brooklyn Park, MN 55445
763.315.7900 ☎ 1.800.233.9513 

Client Name Hopkins Public Schools			Building Name Meadowbrook Elem School			Analytical Lab MVTL				
Contact Name Michelle Johnson			Project # 201610588			Project Name Summer 2016 Follow up Lead-in-Water Testing				
Phone # 763-315-7900			IEA Fax # 763-315-7920			Written Sample Results To Michelle Johnson				
Other Information										
Sampled By Nick Umland			Date 8-18-16	Time 7:00 AM	Analyzed By (Company)		Analyst	Date & Time		
Shipped By Carole Nelson			Date 8-18-16	Time 815 am	Turnaround Time		Notes			
Received By			Date	Time	Sample Condition		Temperature			
Lab Number	Sample Number	Sample Location	Sample Type			Date Sampled		Volume/ Bottle Type	Analysis Required	Comments & Observations
			Water	Soil	Other					
16-A42193	08182016ME-1	Room 116 - North SNK	X			8/18/2016		500mL unpreserved	Lead	2.91
16-A42195	08182016ME-2	Room 116 - North DF	X			8/18/2016		500mL unpreserved	Lead	5.46

Chain of Custody

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Client Name Hopkins Public Schools			Building Name North Junior High School			Analytical Lab MVTL				
Contact Name Michelle Johnson			Project # 201610588			Project Name Summer 2016 Follow-up Lead-in-Water Testing				
Phone # 763-315-7900			IEA Fax # 763-315-7920			Written Sample Results To Michelle Johnson				
Other Information										
Sampled By Nick Umland			Date 8-18-16	Time 630 am	Analyzed By (Company)		Analyst	Date & Time		
Shipped By Carole Nelson			Date 8-18-16	Time 815 am	Turnaround Time			Notes		
Received By			Date	Time	Sample Condition			Temperature		
Lab Number	Sample Number	Sample Location	Sample Type			Date Sampled		Volume/ Bottle Type	Analysis Required	Comments & Observations
			Water	Soil	Other					
16-A42196	8182016NJH-1	Room 607 - SNK	X			8/18/2016		500mL unpreserved	Lead	7.89

Chain of Custody

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 Brooklyn Park, MN 55445
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Client Name		Hopkins Public Schools		Building Name		West Junior High School		Analytical Lab		MVTL	
Contact Name		Michelle Johnson		Project #		201610588		Project Name		Summer 2016 Follow-up Lead-in-Water Testing	
Phone #		763-315-7900		IEA Fax #		763-315-7920		Written Sample Results To		Michelle Johnson	
Other Information											
Sampled By		Nick Umland		Date	8-18-16	Time	605 am	Analyzed By (Company)	Analyst	Date & Time	
Shipped By		Carole Nelson		Date	8-18-16	Time	815 am	Turnaround Time	Notes		
Received By				Date		Time		Sample Condition	Temperature		
Lab Number	Sample Number	Sample Location	Sample Type			Date Sampled		Volume/ Bottle Type	Analysis Required	Comments & Observations	
			Water	Soil	Other						
16-A42197	08182016WJH-1	Room 403A East - SNK	X			8/18/2016		500mL unpreserved	Lead	25	

Appendix B

Laboratory Analysis Reports



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
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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvttl.com



Report Date: 26 Aug 2016

HEIDI SOLBERG
IEA/BROOKLYN PARK
9201 W BDWY STE #600
BROOKLYN PARK MN 55445

Work Order #: 12-12781
Account #: 002190
Purchase Order #: 201610588

Date Received: 19 Aug 2016
Date Sampled: 18 Aug 2016
Temperature at Receipt: 14.1C

PROJECT NAME: N JR HS
PROJECT NUMBER: 201610588

AUG 31 2016

LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS	MCL	DATE ANALYZED	ANALYST
16-A42196	08182016NJH-1 ROOM 607 SNK	7.89 ug/L	15.0	24 Aug 16	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 WW/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.



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Report Date: 26 Aug 2016

HEIDI SOLBERG
IEA/BROOKLYN PARK
9201 W BDWY STE #600
BROOKLYN PARK MN 55445

Work Order #: 12-12782
Account #: 002190
Purchase Order #: 201610588
Date Received: 19 Aug 2016
Date Sampled: 18 Aug 2016
Temperature at Receipt: 14.1C

PROJECT NAME: W JR HS
PROJECT NUMBER: 201610588

AUG 31 2016

LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS	MCL	DATE ANALYZED	ANALYST
16-A42197	08182016WJH-1 ROOM 403 A EAST SNK	25.0 ug/L	15.0	24 Aug 16	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:

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MEMBER
ACIL

Report Date: 31 Aug 2016

HEIDI SOLBERG
IEA/BROOKLYN PARK
9201 W BDWY STE #600
BROOKLYN PARK MN 55445

Work Order #: 12-12780
Account #: 002190
Purchase Order #: 201610588

Date Received: 19 Aug 2016
Date Sampled: 18 Aug 2016
Temperature at Receipt: 14.1C

PROJECT NAME: MEADOWBROOK ELEM
PROJECT NUMBER: 201610588

LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS	MCL	DATE ANALYZED	ANALYST
16-A42193	08182016ME-1 ROOM 116 NORTH SNK	2.91 ug/L	15.0	24 Aug 16	RMV
16-A42195	08182016ME-2 ROOM 116 NORTH DF	5.46 ug/L	15.0	29 Aug 16	RMV

Approved by:

Dan O'Connell, Asst. 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 sample quantity

= Due to concentration of other analytes

+ = Due to internal standard response

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

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