

December 1, 2016

Ms. Rachel Damuth
St. Valentine School
25875 Hope Street
Redford, Michigan 48239

Subject: Summary of Water Sampling Activities
St. Valentine School
Redford, Michigan
AKT Peerless Project No. Project No. 5610F3-1-20

Ms. Damuth:

AKT Peerless was retained to provide environmental consulting services at St. Valentine School located at 25875 Hope Street, Redford, Wayne County, Michigan (subject property). AKT Peerless conducted sampling of the municipally-provided drinking water at the subject property. AKT Peerless' scope of services is based on its proposal, PF-19281, dated October 19, 2016, and the existing master services agreement between AKT Peerless and the Archdiocese of Detroit.

Introduction

AKT Peerless conducted a limited drinking water survey of the subject property to determine the potential exposure to lead. AKT Peerless limited survey included sampling three high-flow sources of drinking water in the building, including at least one common-use drinking fountain and the main kitchen tap, if applicable.

Scope of Assessment

AKT Peerless' scope of work included (1) conducting a pre-sampling inspection of the fixture(s), (2) identifying three high priority sample locations, (3) checking and cleaning aerators, (4) recording water coolers and associated model numbers, (5) noting electric wires grounded to pipes, to the extent readily observable, (6) identifying the locations of recalled water coolers to the extent readily observable, and (7) conducting first draw and 30 second flush samples.

It should be noted that (1) the boiler was in operation at the time of the survey, (2) lighting was not on in the building as the school was closed at the time of the survey, and (3) although maintenance staff provided access to the building, AKT Peerless was unaccompanied during the survey.

Samples were collected in general accordance with Michigan Department of Environmental Quality (MDEQ) sampling protocol for *Drinking Water Sampling for Lead and Copper at Schools and Daycares on Community Water Supplies*, dated April 20, 2016. The drinking water samples were transported under chain-of-custody documentation to Brighton Analytical Laboratory L.L.C. (BAL), a National Environmental Laboratory Accreditation Conference (NELAC)/MDEQ certified drinking water laboratory. R Refer to Attachment 1 for a site map with sample locations. Refer to Attachment 2 for a photographic log.

Water Cooler Survey

AKT Peerless identified the following water coolers and/or bubblers at the subject property:

Manufacturer	Model Number	Quantity	Grounded Piping (Yes/No/Not Accessible)
Not identified (water bubblers)	Not determined	4	Not accessible
Elkay (water coolers)	Not determined	4	Not accessible

A survey of water coolers at the subject property did not identify water coolers that were recalled due to potential lead exposure hazards.

Laboratory Analysis and Methods

AKT Peerless submitted six drinking water samples collected from the subject property to BAL for the analysis of lead. Samples were analyzed using United States Environmental Protection Agency (USEPA) Method 200.8 rev 5.4. If present and removable, aerators were removed and cleaned. The results of the laboratory analyses of the samples are summarized in the table below:

Summary of Analytical Results

Sample Identification*	Analytical Result (parts per billion, ppb)
SV-KS-F	Not detected
SV-KS-P	4
SV-WB-02-P	Not detected
SV-WB-02-F	2
SV-WB-03-P	48
SV-WB-03-F	69

*SV = St. Valentine School; KS= Kitchen sink; WB= Water bubbler; P= Primary draw; F= Flush draw

Analytical Results

AKT Peerless compared the laboratory analytical results to the National Primary Drinking Water Standards (adopted by the MDEQ). The laboratory analytical results identified the presence of lead above applicable primary drinking water standards in one location (SV-WB-03).

Refer to Attachment 3 for a complete laboratory analytical report and chain of custody documentation.

Conclusions

Based on laboratory analytical results, lead was detected above the United States Environmental Protection Agency (USEPA) action level for lead of 15 ppb.

Limitations

The information and opinions obtained in this report are for the exclusive use of St. Valentine School without the express written permission of AKT Peerless. AKT Peerless will not distribute this report without your written consent or as required by law or by a Court order. The information and opinions contained in the report are given in light of that assignment. The report must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed upon by the parties and as limited therein. Any third parties who have been extended the right to rely on the contents of this report by AKT Peerless (which is expressly required prior to any third-party release), expressly agrees to be bound by the original terms and conditions entered into by AKT Peerless, St. Valentine School, and the Archdiocese of Detroit.

Subject to the above and the terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing the assignment and preparing reports in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages. Although AKT Peerless believes that results contained herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive or that the information provided by St. Valentine School and the Archdiocese of Detroit or third parties is complete or accurate.

Signatures of Environmental Professionals



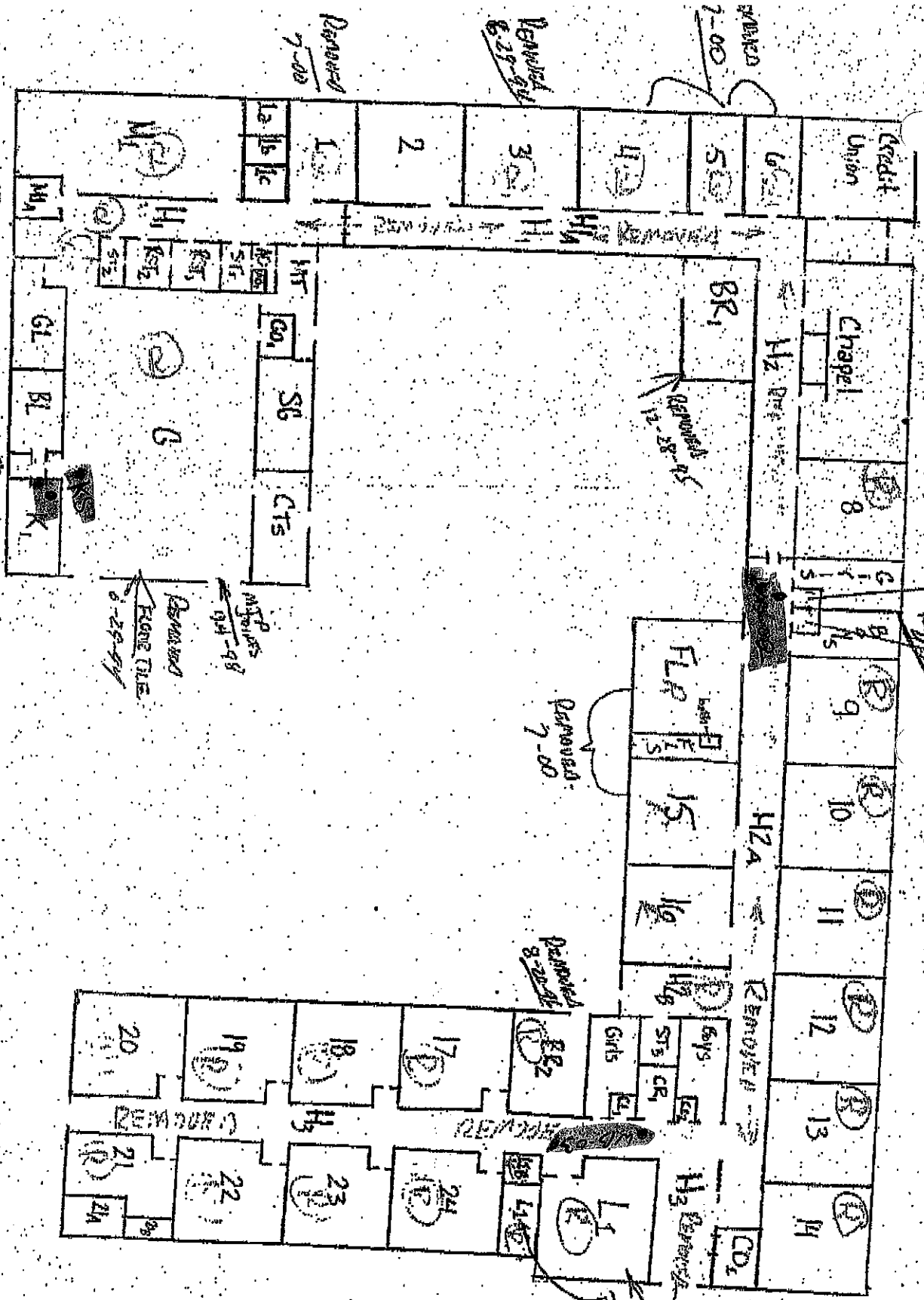
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Robert W. Lambdin
Director of Operations
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- Attachment 1 Site Plan with Sampling Locations
- Attachment 2 Photographic Log
- Attachment 3 Laboratory Analytical Report and Chain of Custody Documentation

Attachment 1
Site Plan with Sampling Locations



Ground Floor Plan

**Attachment 2
Photographic Log**



KITCHEN SINK (SV-KS)



WATER BUBBLER IN SUBJECT BUILDING (SV-WB-02)



WATER BUBBLER IN SUBJECT BUILDING (SV-WB-03)

Attachment 3
Laboratory Analytical Report and
Chain of Custody Documentation

November 30, 2016

AKT Peerless Env.
22725 Orchard Lk. Rd.
Farmington, MI 48336

Subject: St. Valentine
5610f3-1-20

Dear Ms. Hutsell :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 11/23/2016 for the above mentioned project. NELAP/TNI Accredited Analysis and MDEQ Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 42206 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,
Brighton Analytical, L.L.C.



Brighton Analytical, L.L.C.

2105 Pless Drive
Brighton, MI 48104
Phone: 810-229-7575
Fax: 810-229-8650

PROJECT NAME: St. Valentine

PROJECT #: 5610f3-1-20

PO #: (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)

Sample collected by: Colin Johnson

PROFESSOR JOHN R. GONZALES
Michigan State University
Department of Microbiology
East Lansing, MI 48824
Phone: 517-432-2000
Fax: 517-432-2000
Email: jrgonza@msu.edu

Sample ID	Sample Description	Sample Date	Sample Time
1)	SW-WB-F	11/22	8:14
2)	SW-WB-P	11/23	8:19
3)	SW-WB-03-P	11/23	8:21
4)	SW-WB-03-F	11/23	8:22
5)	SW-WB-03-P	11/23	8:27
6)	SW-WB-03-F	11/23	8:28

PAGE 1 OF 1

COMPANY/MAILING ADDRESS:
412 Parkers
2205 Grand Ave. N
Troy, MI 48068
ATTN: Karen Hill
PHONE: 781 515 1331
FAX OR EMAIL: 1-800-828-7777

Samples received within hold time? yes no

Temperature of samples °C: _____

pHs verified in lot? yes no

Headspace/bubbles in VOA's? yes no n/a

Sample containers and COC match? yes no

Drinking H₂O:
Fax to LCHD? yes no
Chlorinated Water Supply? yes no
AMT.: _____

MCL Failure: yes no
Client Notified (date/time/initials): _____

BA PROJECT #:	Analysis Requested/Method	Sample Matrix	VOA'S (PRES) Y N NA	HDPH UNPRESERVED	HDPH HNO ₃	HDPH H ₂ SO ₄	HDPH NaOH	AMBER PRESERVED?	GLASS, NO PRESERVATIVE	STERILIZED BACTERIA	MeOH Preserved Y N

Special Instructions:

Please fill out the Chain of Custody completely and return it to us. Incorrect or incomplete information will result in a "hold" on all analysis.

RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
<i>[Signature]</i>	<i>[Signature]</i>	11/24	10:00				



Brighton Analytical LLC
 2105 Pless Drive
 Brighton, Michigan 48114
 Phone: (810)229-7575 (810)229-8650
 e-mail: bai-brighton@sbcglobal.net
 MDNRE Certified #9404
 NELAC Accredited #176507

Sample Date/Time: 11/23/2016 08:14
 Submit Date/Time: 11/23/2016 11:30
 Report Date: 11/30/2016

AKT Peerless Env.
 22725 Orchard Lk. Rd.
 Farmington, MI 48336

BA Project # **42206**
 BA Sample ID **CE08207**

Project Name: **St. Valentine**
 Project Number: **5610f3-1-20**
 Sample ID: **SV-KS-F**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
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Drinking Water Metal Analysis

Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	21:21	11/28/2016
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RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by W. Hood
 Date 11/30/16



Brighton Analytical LLC
 2105 Pless Drive
 Brighton, Michigan 48114
 Phone: (810)229-7575 (810)229-8650
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 NELAC Accredited #176507

Sample Date/Time: 11/23/2016 08:13
 Submit Date/Time: 11/23/2016 11:30
 Report Date: 11/30/2016

AKT Peerless Env.
 22725 Orchard Lk. Rd.
 Farmington, MI 48336

BA Project # **42206**
 BA Sample ID **CE08208**

Project Name: **St. Valentine**
 Project Number: **5610f3-1-20**
 Sample ID: **SV-KS-P**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
Drinking Water Metal Analysis							
Total Lead (Drinking Water)	4	ug/L	1	15	EPA 200.8 rev5.4	21:24	11/28/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.
 Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by *W. Wood*
 Date *11/30/16*



Brighton Analytical LLC
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 Brighton, Michigan 48114
 Phone: (810)229-7575 (810)229-8650
 e-mail: bai-brighton@sbcglobal.net
 MDNRE Certified #9404
 NELAC Accredited #176507

Sample Date/Time: 11/23/2016 08:21
 Submit Date/Time: 11/23/2016 11:30
 Report Date: 11/30/2016

AKT Peerless Env.
 22725 Orchard Lk. Rd.
 Farmington, MI 48336


BA Project # **42206**
 BA Sample ID **CE08209**

Project Name: **St. Valentine**
 Project Number: **5610f3-1-20**
 Sample ID: **SV-WB-02-P**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
Drinking Water Metal Analysis							
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	21:27	11/28/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.
 Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by 
 Date 11/30/16



Brighton Analytical LLC
 2105 Pless Drive
 Brighton, Michigan 48114
 Phone: (810)229-7575 (810)229-8650
 e-mail: bai-brighton@sbcglobal.net
 MDNRE Certified #9404
 NELAC Accredited #176507

Sample Date/Time: 11/23/2016 08:22
 Submit Date/Time: 11/23/2016 11:30
 Report Date: 11/30/2016

AKT Peerless Env.
 22725 Orchard Lk. Rd.
 Farmington, MI 48336

BA Project # **42206**
 BA Sample ID **CE08210**

Project Name: **St. Valentine**
 Project Number: **5610f3-1-20**
 Sample ID: **SV-WB-02-F**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
Drinking Water Metal Analysis							
Total Lead (Drinking Water)	2	ug/L	1	15	EPA 200.8 rev5.4	21:30	11/28/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.
 Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by 
 Date 11/30/16



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 Brighton, Michigan 48114
 Phone: (810)229-7575 (810)229-8650
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 MDNRE Certified #9404
 NELAC Accredited #176507

Sample Date/Time: 11/23/2016 08:27
 Submit Date/Time: 11/23/2016 11:30
 Report Date: 11/30/2016

AKT Peerless Env.
 22725 Orchard Lk. Rd.
 Farmington, MI 48336

BA Project # **42206**
 BA Sample ID **CE08211**

Project Name: **St. Valentine**
 Project Number: **5610f3-1-20**
 Sample ID: **SV-WB-03-P**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
Drinking Water Metal Analysis							
Total Lead (Drinking Water)	48	ug/L	1	15	EPA 200.8 rev5.4	21:33	11/28/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.
 Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by *Utford*
 Date *11/30/12*



Brighton Analytical LLC
 2105 Pless Drive
 Brighton, Michigan 48114
 Phone: (810)229-7575 (810)229-8650
 e-mail: bai-brighton@sbcglobal.net
 MDNRE Certified #9404
 NELAC Accredited #176507

Sample Date/Time: 11/23/2016 08:28
 Submit Date/Time: 11/23/2016 11:30
 Report Date: 11/30/2016

AKT Peerless Env.
 22725 Orchard Lk. Rd.
 Farmington, MI 48336


BA Project # **42206**
 BA Sample ID **CE08212**

Project Name: **St. Valentine**
 Project Number: **5610f3-1-20**
 Sample ID: **SV-WB-03-F**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
Drinking Water Metal Analysis							
Total Lead (Drinking Water)	69	ug/L	1	15	EPA 200.8 rev5.4	21:36	11/28/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.
 Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by 
 Date 11/30/16



BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY
CONTROL

ICP-MS

METHOD 200.8/6020

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 11/28/2016

Standard ID: 112816 H2O

Batch: 11/28/2016 B3

Matrix Spike Lab ID: CE08024

Matrix: Total

Analyst: LT

Metals	Matrix Spike - Precision *			Matrix Spike - Accuracy**				Miscellaneous***		
	Matrix Spike (ug/kg)	Matrix Spike Dup (ug/kg)	RPD (%)	Spk Conc (ug/kg)	MS Recovery (%)	MSD Recovery (%)	Sample Conc (ug/kg)	Method Blk (ug/kg)	LCS-Method STD (%)	Ind. Std. (%)
Copper	864	1019	16.5	1000	85.0	100.5	14	<20	91.1	101.5
Lead	858	1012	16.5	1000	85.4	100.8	4	<1	90.5	100.9

* Matrix spike precision range +/- 20% RPD

** Matrix spike accuracy range +/- 20% recovery

*** LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery

Comments: _____