



REPORT FOR LEAD TESTING IN DRINKING WATER

for

**WHITMAN COLLEGE
Music Hall and Welty Center**
Walla Walla, WA 99362

Project #E2016/0808

August 31, 2016

prepared for:

Whitman College
Attn: Fred Miller
345 Boyer Ave.
Walla Walla, WA 99362

prepared by:

Blue Mountain Environmental & Consulting Co., Inc.
PO Box 545/125 Main Street
Waitsburg, WA 99361
(509) 520-6519

PROJECT SUMMARY

Client: Whitman College
345 Boyer Ave.
Walla Walla, WA 99362

Point of Contact: Mr. Fred Miller

Property: Whitman College
Walla Walla, Washington

Major Commercial Activity: University

Environmental Professional: Yancy Meyer, BMEC, Inc.

Project Number: E2016/0808

Report Date: August 31, 2016

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1.0 INTRODUCTION

Whitman College retained Blue Mountain Environmental & Consulting Company, Inc. (BMEC) to perform an investigation for the presence of lead in drinking water in the Welty Wellness Center and the Music Hall, both on the college campus. Yancy Meyer, Environmental Professional with BMEC, assisted by Caris Lynch of BMEC, performed the water sampling on August 23rd, 2016.

At the request of Whitman College, water samples were taken from the specified buildings from sinks and water fountains. Samples were taken according to EPA protocols, allowing the sink/fountain to run for at least 30 seconds prior to sampling mid-stream with sterile containers using nitrile gloves.

Sampling results indicate the three samples were either non-detect or below the 15 ppb action level. No further action is recommended at this time.

1.1 BACKGROUND

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur with an adequate margin of safety. These non-enforceable health goals, based solely on possible health risks are called maximum contaminant level goals (MCLGs). The MCLG for lead is zero. EPA has set this level based on the best available science which shows there is no safe level of exposure to lead.

For most contaminants, EPA sets an enforceable regulation called a maximum contaminant level, (MCL) the highest level of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. EPA sets MCLs at levels that are economically and technologically feasible. However, because lead contamination of drinking water often results from corrosion of the plumbing materials belonging to water system customers, EPA established a treatment technique rather than an MCL for lead. A treatment technique is an enforceable procedure or level of technological performance which water systems must follow to ensure control of a contaminant.

The treatment technique regulation for lead (referred to as the Lead and Copper Rule) requires water systems to control the corrosivity of the water. The regulation also requires systems to collect tap samples from sites served by the system that are more likely to have plumbing materials containing lead. If more than 10 percent of tap water samples exceed the lead action level of 15 parts per billion, then water systems are required to take additional actions including:

- Taking further steps optimize their corrosion control treatment (for water systems serving 50,000 people that have not fully optimized their corrosion control).
- Educating the public about lead in drinking water and actions consumers can take to reduce their exposure to lead.
- Replacing the portions of lead service lines (lines that connect distribution mains to customers) under the water system's control.

EPA issued the Lead and Copper Rule in 1991 and revised the regulation in 2000 and 2007. States may set more stringent drinking water regulations than EPA; however, Washington State protocols are the same as the national protocols.

2.0 SCOPE OF SERVICES

LEAD IN DRINKING WATER: Title XIV of The Public Health Service Act: Safety of Public Water Systems (Safe Drinking Water Act) regulates the maximum level of lead considered to be safe for drinking water at 15 ppb. The scope of service included sampling of drinking water in the campus buildings, interest houses, and the Mill Creek cabins, and analysis of the samples by an accredited laboratory. Analysis of the results to recommend corrective action if needed.

3.0 SUMMARY OF REGULATIONS

3.1. TITLE XIV OF THE PUBLIC HEALTH SERVICE ACT SAFETY OF PUBLIC WATER SYSTEMS (SAFE DRINKING WATER ACT)

The NATIONAL DRINKING WATER REGULATIONS SEC. 1412 regulates contaminants in drinking water, and has set a 15 ppb maximum level for lead. Any lead contamination above that level must be addressed by treatment.

4.0 SAMPLING METHODOLOGY

Blue Mountain Environmental & Consulting sampled drinking water according to EPA protocols, allowing the sink/fountain to run for at least 30 seconds prior to sampling mid-stream with sterile containers using nitrile gloves. The samples were then submitted with chain of custody documentation to On-Site Laboratory for analysis of total lead content.

5.0 LABORATORY INFORMATION

Samples were analyzed by On-Site Laboratory in Redmond, Washington by EPA Method 200.8. OnSite Environmental, Inc. performs a wide variety of analytical methods under various regulatory programs using published and internally developed validated test methods. The laboratory participates in semi-annual single-blind performance evaluations studies as part of on-going certification/accreditation with the Washington Department of Ecology (WDOE) and Alaska Department of Environmental Conservation (ADEC).

6.0 RESULTS

The following sample results were at or above the detection limit of 1.0 ppb and under the EPA action level of 15 ppb:

Sample Number	Location	Result
8-23-130	Music Hall fountain near Room 100	3.0 ppb
8-23-131	Music Hall green room	7.2 ppb

The following sample was below the detection limit of 1.0 ppb:

Sample Number	Location
7-18-01	Welty Wellness Center Laundry Room sink

8.0 DISCUSSION & RECOMMENDATIONS

Sampling results indicate the three samples were either non-detect or below the 15 ppb action level. No further action is recommended at this time.

9.0 AUTHENTICATION

Having followed sampling protocol and stringent QA/QC controls, the conclusions in this report are well-founded, professional opinions.

Report Written By:



Yancy Meyer
Environmental Professional
BMEC

Report Reviewed By:



Steve Wing
Environmental Professional
BMEC

10.0 REPORT LIMITATIONS

The enclosed site assessment has been performed for the exclusive use by Whitman College, or agents specified by them, for the transaction at issue concerning the subject properties in Walla Walla, Washington.

The purpose of an environmental investigation is to evaluate potential or actual effects of past or current practices on a given site. In performing an environmental investigation, a balance must be struck between reasonable inquiry into environmental issues and an exhaustive analysis of every conceivable issue of possible concern. This environmental assessment contains BMEC opinion regarding environmental issues of concern and/or additional issues that may need to be addressed. In rendering our professional opinion, BMEC warrants that the services provided within the scope of this assessment were performed, within the limits described, in accordance with generally accepted environmental consulting principles and practices. No other warranty, expressed or implied, is made. The following paragraphs describe the assumptions and standard parameters under which such opinion is rendered.

Any opinions and/or recommendations presented in this report apply to site conditions existing at the time of performance of services. BMEC is unable to report on or accurately predict events that may affect the site after performance of services, whether occurring naturally or caused by human forces. BMEC assumes no responsibility for conditions BMEC did not investigate, or conditions not generally recognized as environmentally unacceptable at the time services were performed.

Except where there is expressed concern of our client, or where specific environmental contaminants have previously been reported by others, naturally occurring toxic substances, or contaminant concentrations not of current environmental concern, may not be addressed in this document.

No assessment is thorough enough to exclude the presence of hazardous materials at a given site. Therefore, if specific hazardous materials have not been identified during this assessment, the lack of such identifications should not be construed as a guarantee of the absence of hazardous materials, but merely as the result of services performed within the scope, limitations, and cost of work done.

BMEC is not responsible for the effects of changes in applicable environmental standards, practices, or regulations after the performance of services. Services provided for this assessment were performed in accordance with BMEC's agreement and understanding with our client, which may not be fully disclosed in this report. Opinions and/or recommendations are intended for the client, purpose, site, location, time frame, and project parameters indicated.

This report was prepared solely for the use of our client, and should be reviewed in its entirety; BMEC is not responsible for subsequent separation, detachment, or partial use of this document. Any reliance on this report by a third party shall be at such party's sole risk.

Appendix A

Laboratory Reports



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

August 29, 2016

Yancy Meyer
Blue Mountain Environmental, Inc.
90 Baldwin Road
Walla Walla, WA 99362

Re: Analytical Data for Project E2016/0808; Whitman Rental Props
Laboratory Reference No. 1608-346

Dear Yancy:

Enclosed are the analytical results and associated quality control data for samples submitted on August 26, 2016.

Please note that the remaining data for the standard turn around time samples will follow in the final report.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 29, 2016
Samples Submitted: August 26, 2016
Laboratory Reference: 1608-346
Project: E2016/0808; Whitman Rental Props

Case Narrative

Samples were collected on August 23 and 25, 2016 and received by the laboratory on August 26, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: August 29, 2016
 Samples Submitted: August 26, 2016
 Laboratory Reference: 1608-346
 Project: E2016/0808; Whitman Rental Props

DRINKING WATER LEAD
EPA 200.8

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	08-346-70					
Client ID:	8-23-127					
Lead	ND	1.0	200.8		8-27-16	
Lab ID:	08-346-71					
Client ID:	8-23-130					
Lead	3.0	1.0	200.8		8-27-16	
Lab ID:	08-346-72					
Client ID:	8-23-131					
Lead	7.2	1.0	200.8		8-27-16	



Date of Report: August 29, 2016
Samples Submitted: August 26, 2016
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**DRINKING WATER LEAD
EPA 200.8
METHOD BLANK QUALITY CONTROL**

Date Analyzed: 8-27-16
Matrix: Water
Units: ug/L (ppb)
Lab ID: MB0827DW2

Analyte	Method	Result	PQL
Lead	200.8	ND	1.0



Date of Report: August 29, 2016
Samples Submitted: August 26, 2016
Laboratory Reference: 1608-346
Project: E2016/0808; Whitman Rental Props

**DRINKING WATER LEAD
EPA 200.8
DUPLICATE QUALITY CONTROL**

Date Analyzed: 8-27-16
Matrix: Water
Units: ug/L (ppb)
Lab ID: 08-346-61

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Lead	ND	ND	NA	1.0	



Date of Report: August 29, 2016
Samples Submitted: August 26, 2016
Laboratory Reference: 1608-346
Project: E2016/0808; Whitman Rental Props

**DRINKING WATER LEAD
EPA 200.8
MS/MSD QUALITY CONTROL**

Date Analyzed: 8-27-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 08-346-61

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	80.0	78.4	98	75.7	95	3	





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





Onsite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
 (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
 (TYP analysis 5 Days)

 (other)

Laboratory Number: **08-346**

Number of Containers

NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	
NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	
Volatiles 8260C	
Halogenated Volatiles 8260C	
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664A	

TOTAL LEAD

% Moisture

Company: BMEC

Project Number: E201610808

Project Name: WHITMAN RENTAL ROOMS

Project Manager: V. MEYER

Sampled by: V. MEYER

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	Laboratory Number: 08-346		Comments/Special Instructions
						Date	Time	
31	8-23-96	8-23-16	1017	H ₂ O	1			
32	8-23-97		1018					
33	8-23-98		1020					
34	8-23-99		1021					
35	8-23-100		1024					
36	8-23-101		1025					
37	8-23-102		1033					
38	8-23-103		1034					
39	8-23-104		1040					
40	8-23-105		1041					
	Signature		Company			Date	Time	
			BMEC			8-25-16	1200	
						8-26-16	1030	

Received

Relinquished

Received

Relinquished

Received

Relinquished

Reviewed/Date

Reviewed/Date

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



OnSite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
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Chain of Custody

Turnaround Request
 (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
 (TPH analysis 5 Days)

_____ (other)

Laboratory Number: **08-346**

Company: **BMEC**
 Project Number: **E201610808**
 Project Name: **WHITMAN RENTAL POOLS**
 Project Manager: **V. Meyer**
 Sampled by: **V. Meyer**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
51	8.23.116	8.23.16	1251	H ₂ O
52	8.23.117		1258	
53	8.23.118		1259	
54	8.23.119		1301	
55	8.24 ^{YM} .23.120		1302	
56	8.23.121		1304	
57	8.23.122		1305	
58	8.23.123		1318	
59	8.23.124		1319	
60	8.23.125		1328	

Number of Containers

Container	Analysis
	NWTPH-HCID
	NWTPH-Gx/BTEX
	NWTPH-Gx
	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)
	Volatiles 8260C
	Halogenated Volatiles 8260C
	EDB EPA 8011 (Waters Only)
	Semivolatiles 8270D/SIM (with low-level PAHs)
	PAHs 8270D/SIM (low-level)
	PCBs 8082A
	Organochlorine Pesticides 8081B
	Organophosphorus Pesticides 8270D/SIM
	Chlorinated Acid Herbicides 8151A
	Total RCRA Metals
	Total MTCA Metals
	TCLP Metals
	HEM (oil and grease) 1664A
	X TOTAL LEAD
	% Moisture

Signature: *[Handwritten Signature]*
 Company: **BMEC**
 Date: **8.25.16**
 Time: **1200**

Received: *[Handwritten Signature]*
 Relinquished: *[Handwritten Signature]*
 Received: *[Handwritten Signature]*
 Relinquished: *[Handwritten Signature]*
 Reviewed/Date: _____

Comments/Special Instructions: _____

Data Package: Standard Level III Level IV
 Chromatograms with final report Electronic Data Deliverables (EDDs)

