

Mountain Consulting Services

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Spokane Valley, WA 99206
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December 5, 2023

Ms. Kristine Keller
WA Department of Social & Health Services
Facilities, Financial, & Analytics Administration
Office of Capital Programs
Post Office Box 500
Medical Lake, WA 99022

Project Number: 23-043.2

RE: Report of Findings for the Analysis of Leachable Lead Content by Toxic Characterization Leachable Procedure (*TCLP*) for the Gray Forest Fire Uncovered Old Building Materials Dump Site Stockpile located west of Pine Lodge in the Forested Land between West Medical Lake on the Eastern State Hospital Campus in Medical Lake, Washington.

Dear Ms. Keller,

Mountain Consulting Services (*Mountain Consulting*) is pleased to provide this report detailing sample collection & laboratory analysis results for **Leachable Lead-TCLP Content** associated with the Old Building Materials Dump Site Stockpile located west of Pine Lodge on the Eastern State Hospital Campus addressed at 850 Maple Street in Medical Lake, Washington.

PROJECT BACKGROUND

Mountain Consulting conducted Pre-Remediation, Leachable Lead Content Testing & Analysis of the forest fire uncovered old building materials dump site stockpile on the Eastern State Hospital (ESH) campus in Medical Lake, Washington.

The old building materials dump-site included for investigation is located approximately 1,250' west of Pine Street & Pine Lodge on the ESH Campus; approximately 300' south of Poplar Street at its west end 90-degree bend; and approximately 300' east of West Medical Lake's Shoreline on forested undeveloped land.

The dump site deposit is significant, rapping around and along the south and west sides of a flat shelf. The overall deposit of building materials is approximately 400' long, by approximately 50' wide, by approximately 30' in depth, with an estimated quantity of 600,000 cubic feet of material (*or approximately 22,225 cubic yards*).

The identifiable building materials present with the debris stockpile consists mostly of concrete; plaster with expanded metal; red hollow voided wall block; ceramic tiling; and vermiculite loose-fill insulation.

Mr. Samuel W. Bailey Jr., Washington State Certified Lead Risk Assessor 0168 collect One (1) Bulk Composite Lead TCLP waste-stream sample for this project on November 21st of 2023.

The collected composite building materials stockpile waste-stream sample was submitted by chain of custody procedures to Eurofins Environmental Testing of Spokane Valley Washington.

TCLP SAMPLE COLLECTION

A representative TCLP sample consists of the collection of various components of a waste stream in the same weight proportion as is found in the entire bulk of the waste. As such, the representative sample contains all major items found in the proposed waste stream, in an approximate weight proportion.

The sampler must estimate the approximate total weight or mass (*in percent*) of the debris before it is removed or generated. Samples are then collected so that each major component of the debris is present in approximately the correct proportion, including the entire cross-section of the substrate.

The collected Lead-TCLP sample consisted of at least 4 ounces of Lead contain waste-stream materials to meet the minimum requirements for TCLP sampling. The composite Lead-TCLP sample was delivered following proper chain of custody procedures to Eurofins TestAmerica of Spokane Valley, Washington.

WASTE COMPONENTS & PERCENTAGES

The following table lists the estimated percentages of sampled solid-waste building components present with the Old Building Materials Dump Site Stockpile located on the forested land between Pine Lodge & West Medical Lake on the ESH Campus for this Lead-TCLP testing callout. The sum of which equals 100% of the proposed waste stream:

23-043.2-L-TCLP1 (ESH OLD BUILDING MATERIALS STOCKPILE WASTE-STREAM)

Waste Stream Components	Percentage of Waste-Stream
Unpainted Concrete	25%
Painted Plaster Wallboard Components	25%
Unpainted Brick & Mortar	25%
Ceramic Floor Tile & Bedding Grout	25%
Total Percentage:	100%

LEAD TCLP SAMPLE RESULTS

The result of the Lead-TCLP composite building material dump-site stockpile collected on the Eastern State Hospital campus in Medical Lake, Washington on November 21st of 2023 is detailed as follows:

Lead-TCLP Bulk Waste-Stream Sampling Results		
Sample #	Sample Make-Up	Results in mg/L
23-043.2-L-TCLP1	Old Building Materials Dump Site Stockpile, Demolition Waste-Stream	Non-Detect (For leachable lead content)

mg/L = milligrams per liter; ppm = parts per million; ppm equals mg/L (direct conversion).

DISCUSSION OF RESULTS

The Federal & State Lead-TCLP disposal threshold limit for bulk waste components is 5 ppm.

The old building materials dump-site stockpile exposed from the Gray Forest Fire on the Eastern State Hospital campus in Medical Lake Washington assumed to have lead-containing material coatings present is classified as Category I, Low Lead Waste that can be disposed of in a landfill that accepts general construction waste as per Federal Regulation 40 CFR Part 261 and Washington State Regulation 173-303-090 WAC.

RECOMMENDATIONS

Any contractor handling LCMs should be familiar with the requirements addressed in the Code of Federal Regulation 29 *CFR* 1926.62 and Washington Administrative Code (*WAC*) 296-155-176, Lead in Construction Work Procedures.

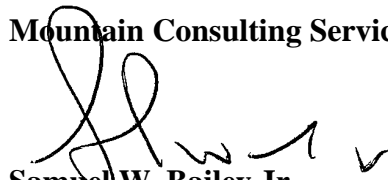
CLOSING

This report was prepared for the exclusive use by the WA State Department of Social & Health Services (*DSHS*) of Medical Lake, Washington and/or representatives thereof. It may only be reproduced in full of written approval of Mountain Consulting Services. This report is not warranted if any portion of this document is separated from the original, complete document.

If you have any questions, or require any clarification concerning this report, please call me at (509) 924-9236. It was a pleasure working with you, and we look forward to working with you again in the future.

Sincerely,

Mountain Consulting Services



Samuel W. Bailey Jr.

Operations Manager

sbailey@mountainconsultingllc.com

Attachments: Laboratory Analysis Report;
Photographs & Certifications.

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Ronald Knutson
Mountain Consulting Services LLC
9922 E Montgomery Avenue
Suite 9
Spokane Valley, Washington 99206

Generated 11/30/2023 5:12:20 PM

JOB DESCRIPTION

ESH Campus Dump Site

JOB NUMBER

590-22333-1

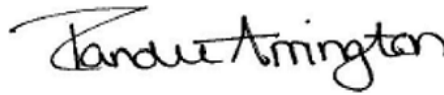
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Generated
11/30/2023 5:12:20 PM

Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Mountain Consulting Services LLC
Project/Site: ESH Campus Dump Site

Job ID: 590-22333-1

Job ID: 590-22333-1

Laboratory: Eurofins Spokane

Narrative

Job Narrative 590-22333-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

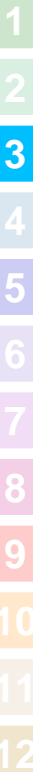
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 11/21/2023 1:17 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 20.9°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



Sample Summary

Client: Mountain Consulting Services LLC
Project/Site: ESH Campus Dump Site

Job ID: 590-22333-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-22333-1	23-043.2-L-TCLP1	Solid	11/21/23 10:00	11/21/23 13:17

1

2

3

4

5

6

7

8

9

10

11

12

Definitions/Glossary

Client: Mountain Consulting Services LLC
Project/Site: ESH Campus Dump Site

Job ID: 590-22333-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Mountain Consulting Services LLC
Project/Site: ESH Campus Dump Site

Job ID: 590-22333-1

Client Sample ID: 23-043.2-L-TCLP1

Lab Sample ID: 590-22333-1

Date Collected: 11/21/23 10:00

Matrix: Solid

Date Received: 11/21/23 13:17

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060		mg/L		11/28/23 11:40	11/28/23 16:17	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

QC Sample Results

Client: Mountain Consulting Services LLC
 Project/Site: ESH Campus Dump Site

Job ID: 590-22333-1

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 590-44852/1-A
Matrix: Solid
Analysis Batch: 44854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44852

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	1.00	1.08		mg/L		108	80 - 120

Lab Sample ID: LB 590-44820/1-B
Matrix: Solid
Analysis Batch: 44854

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 44852

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060		mg/L		11/28/23 11:40	11/28/23 15:22	1

Lab Chronicle

Client: Mountain Consulting Services LLC
Project/Site: ESH Campus Dump Site

Job ID: 590-22333-1

Client Sample ID: 23-043.2-L-TCLP1

Lab Sample ID: 590-22333-1

Date Collected: 11/21/23 10:00

Matrix: Solid

Date Received: 11/21/23 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.02 g	2000.69 mL	44820	11/27/23 14:42	AMB	EET SPK
TCLP	Prep	3010A			50 mL	50 mL	44852	11/28/23 11:40	AMB	EET SPK
TCLP	Analysis	6010D		1			44854	11/28/23 16:17	AMB	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Accreditation/Certification Summary

Client: Mountain Consulting Services LLC
Project/Site: ESH Campus Dump Site

Job ID: 590-22333-1

Laboratory: Eurofins Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

- 1
- 2
- 3
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- 5
- 6
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- 9
- 10
- 11
- 12

Method Summary

Client: Mountain Consulting Services LLC
Project/Site: ESH Campus Dump Site

Job ID: 590-22333-1

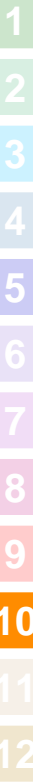
Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET SPK
1311	TCLP Extraction	SW846	EET SPK
3010A	Preparation, Total Metals	SW846	EET SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Chain of Custody Record



Environment Testing
TestAmerica

Spokane, WA 99206-5302
phone 509.924.9200 fax 509.924.9290

Regulatory Program DW NPDES RCRA Other

TestAmerica Laboratories, Inc. d/b/a Eurolins TestAmerica

Client Contact Your Company: Mountain Consulting Services, LLC Address: 9922 E. Montgomery Dr., Suite 9 City/State/Zip: Spokane Valley, WA 99206 (509) 924-9236 Phone (509) 924-2287 FAX Project Number: 23-043.2 Project Name: ESH Campus Dump Site P.O.#: N/A		Project Manager: Sam Bailey Tel/Fax: 509-951-6780 cell Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT: if different from Below _____ <input type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: Lab Contact: _____ Carrier: _____ Date: _____ COC No.: _____ of _____ COCs	
23-043.2-L-TCLP1 Pre-Renovation Project, Lead-TCLP Waste-stream/Testing Analysis Project.		Sample Date: 11/21/23 10:00am C Sample Time: _____ Sample Type (C=Comp, G=Grat): _____ Matrix: Bulk 1 ea. # of Cont.: _____		Filtered Sample (Y/N) _____ Perform MS/MSD (Y/N) _____ Lead TCLP Analysis <input checked="" type="checkbox"/>	
Sample Specific Notes: Materials Stockpile Waste-Stream					
590-22333 Chain of Custody					
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other Possible Hazard Identification Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.					
Special Instructions/QC Requirements & Comments: Lead-TCLP Sample is Representative a large Building Materials Dump Site Stockpile on the ESH Campus that was uncovered during the Gray Forest Fire/Consisting of Concrete, Brick-Mortar, Ceramic Tile-Grout, and, Plaster Materials.					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Relinquished by: <i>Sam Bailey</i> Relinquished by: _____ Relinquished by: _____		Received by: <i>Sam Bailey</i> Received by: _____ Received in Laboratory by: _____		Cooler Temp. (°C): Obs'd: 20.8 Cor'd: 20.7 Company: MCLLC Company: BEC SPO Company: _____ Company: _____	
Therm ID No.: 1225		Date/Time: 11/21/23 13:17		Date/Time: _____ Date/Time: _____ Date/Time: _____	

Login Sample Receipt Checklist

Client: Mountain Consulting Services LLC

Job Number: 590-22333-1

Login Number: 22333

List Source: Eurofins Spokane

List Number: 1

Creator: Morris, Mackenzie 1

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





View of the Upper Flat Shelf Overlooking West Medical Lake; Where the Old Building Materials Dump Site Stockpile is Located to the South & West Sides of the Shelf.



View of the Northwest End Area of the Old Building Materials Stockpile; Proven to be Contaminated with Regulated Asbestos Vermiculite Insulation.



Close-up View of the RACM Vermiculite Insulation Present with the Large Building Materials Debris Pile.



View of the Southern Side Area of the Large Building Materials Debris Stockpile Looking East.



View of the Southeast End Area of the Large Building Materials Stockpile.



View of the South Side West End Corner Area of the Stockpile Where it Starts Wrapping to the North.



View of the Southern Side Central Area; Were the Large Deposit of Coal Waste is Present.



View of the Central Coal Top Shelf Area; Were the Coal is Still Smoldering from the Recent Past Gray Forest Fire Situation.



Close-up View of the Central Area Coal Waste Stockpile.



Typical Side View of a Stockpile; Giving a Representation to the Depth of the Debris.

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Activities Program

Samuel Winston Bailey, Jr.

*Has fulfilled the certification requirements of
WAC 365-230
and has been certified to conduct lead based
paint activities as a
Risk Assessor.*

Certification #

0168

Issuance Date

06/14/2023

Expiration Date

04/08/2026



STATE UNIVERSITY OF NEW YORK AT BUFFALO
TOXICOLOGY RESEARCH CENTER
3435 Main Street, 134 Cary Hall, Buffalo, NY 14214-3000
(716) 829-2125

This Certifies that from October 4-5, 2001

Samuel W. Bailey, Jr.
14416 E. Sunnyside Drive
Veradale, WA 99037

Attended and Successfully Completed the U.S.E.P.A. Accredited
**LEAD RISK ASSESSOR CERTIFICATION
TRAINING PROGRAM**

Certification Number: LRAC-01/10/05-262

Examination Pass Date: 10/05/01 Course Completion Date: 10/05/01 Interim Certification Expiration Date: 04/05/02

Joseph J. ...

Director, Hazardous Materials Education, Training Manager

Joseph J. ...
Director, Toxicology Research Center

...
Principal Instructor



STATE UNIVERSITY OF NEW YORK AT BUFFALO
TOXICOLOGY RESEARCH CENTER
 3435 Main Street, 134 Cary Hall, Buffalo, NY 14214-3000
 (716) 829-2125

This Certifies that from October 1-3, 2001

Samuel W. Bailey, Jr.
 14416 E. Sunnyside Drive
 Veradale, WA 99037

Attended and Successfully Completed the U.S.E.P.A. Accredited

LEAD ABATEMENT INSPECTOR CERTIFICATION
TRAINING PROGRAM

Certification Number: LIC-01/10/03-284

Examination Pass Date: 10/03/01 Course Completion Date: 10/03/01 Expiration Date: 04/03/02

[Signature]
 Director, Hazardous Materials Education, Training Manager

[Signature]
 Director, Toxicology Research Center

[Signature]
 Principal Instructor

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Abatement Firm

Mountain Consulting Services, LLC

*Has fulfilled the certification requirements of
WAC 365-230
and has been certified to conduct lead-based
paint activities.*

Certification #

167

Issuance Date

02/01/2022

Expiration Date

04/02/2025

The State of Department



Washington of Ecology

Eurofins Spokane Spokane Valley, WA

has complied with provisions set forth in Chapter 173-50 WAC and is hereby recognized by the Department of Ecology as an ACCREDITED LABORATORY for the analytical parameters listed on the accompanying Scope of Accreditation.

This certificate is effective January 7, 2023 and shall expire January 6, 2024.

Witnessed under my hand on January 19, 2023.

Rebecca Wood

Lab Accreditation Unit Supervisor

Laboratory ID
C569