Technical Memorandum

то:	Craig McKinney, Emerald Kalama Chemical LLC Sloane Wildman, Babst Calland
FROM:	Ken Reid, LEG; Chip Halbert, PE
DATE:	December 21, 2022
RE:	Burnt Ridge Closure Summary Emerald Kalama Chemical/Fire Mountain Farms Fire Mountain Farms Storage Units Onalaska, Washington Landau Project No. 0066045.110.114

Introduction

Landau Associates, Inc. (Landau) was retained by Perkins Coie LLP (Perkins) on behalf of Emerald Kalama Chemical, LLC (Emerald) to provide technical and environmental support services related to Administrative Order No. 10938 issued by the Washington State Department of Ecology (Ecology) to Emerald and Fire Mountain Farms, Inc. (FMF; Ecology 2014) and the Agreement for Conditional Compliance with Ecology Administrative Order No. 10938 During Judicial Review (Agreement) between Ecology, Emerald, and FMF, dated June 3, 2016 (Ecology 2016). On August 3, 2021, Emerald was acquired by LANXESS Corporation. On October 3, 2022, the support Perkins was providing to Emerald was transferred to Babst, Calland, Clements and Zomnir, P.C. and Landau was retained to provide technical and environmental support services.

This technical memorandum provides a summary of closure activities for the Burnt Ridge storage facility (Burnt Ridge) operated by FMF. From June 23, 2020 through November 28, 2022, FMF completed the facility's closure in accordance with the Final Closure Plan (Landau 2020), which was prepared for all three facilities as stipulated in the Agreement. Closure activities for Burnt Ridge are described in the following sections and consisted of water removal; mixed-material solids dewatering, removal, and disposal; decontamination; and collection of confirmation samples.

Background

The Burnt Ridge facility is in Lewis County located at 856 Burnt Ridge Road, in Onalaska, Washington (Figure 1). The storage unit is contained by an embankment constructed into sloping, natural terrain that stored mixed material composed of municipal wastewater treatment plant-derived biosolids and industrial wastewater biological solids (IWBS). The mixed material contains biosolids from municipal wastewater treatment plants and IWBS generated at Emerald's wastewater treatment plant in Kalama, Washington. Ecology designated the IWBS and mixed material at FMF as dangerous waste in 2014 based on the Resource Conservation and Recovery Act's derived-from rule. Mixed material at the FMF facilities was designated as U019- and U220-listed dangerous waste.



Emerald and FMF submitted delisting petitions to the US Environmental Protection Agency (EPA) and Ecology in 2018, which were subsequently approved by both agencies on April 8, 2020. The delisting approvals allow for disposal of the mixed material in a Washington State Subtitle D landfill. The EPA approved a total volume of 4,700 cubic yards (cy) of mixed material at Burnt Ridge.

As stated in the Closure Plan, the storage unit is approximately square, as shown on Figure 2 and 3, with approximate dimensions of 220 feet (ft) on each side and a surface area at the top of the storage unit of about 48,000 square ft. The level-top embankment matches existing grades on the north side, with perimeter berms on the south, east, and west sides that extend above the surrounding grades. As shown on Figure 2, the storage unit was designed with internal slopes of 3 units horizontal to 1 unit vertical (3H:1V), perimeter berm external slopes of 2H:1V, and a depth of approximately 14 ft. According to the design drawing, the storage unit is lined with Claymax 600CL geosynthetic clay liner (GCL) material manufactured by Colloid Environmental Technologies Company. For the purposes of volume estimates, Landau assumes that approximately 12 inches of soil ("soil cap") was placed on top of the liner as part of typical manufacturer recommendations for GCL installations. The total storage unit volume, including 18 inches of freeboard, is approximately 3 million gallons.

The storage unit contains mixed material and accumulated precipitation. Landau took measurements of the depth to the mixed material surface below the water level in October 2017 (Landau 2017b). Measurements were collected in a grid at 23 locations across the storage unit. Based on these measurements and the storage unit design drawings, the estimated average mixed-material thickness was 2 ft. Given this thickness, the volume of mixed material was estimated to be approximately 3,000 cy. As discussed below, the actual volume of mixed material removed from the storage unit was 26 percent higher than originally estimated.

Mixed-Material and Water Removal

Due to unexpected mixed-material grain-size variations at depth within the Burnt Ridge storage unit, three different phases of work (2020, 2021, and 2022) were necessary to remove the accumulated precipitation and mixed material. Each of these phases of work is discussed separately, by year, below.

2020

The first phase of water and mixed-material removal work occurred in 2020. In accordance with the Closure Plan, 842,983 gallons of accumulated precipitation was trucked from the storage unit to the Emerald Kalama plant for treatment between June 23, 2020 and August 18, 2020. Once the storage unit was drained to the desired level, mixed-material removal commenced by means of a large-scale centrifuge operated by Synagro Technologies between December 2, 2020 and December 28, 2020. Mixed material was removed using an FMF-operated dredge, pumped to a polymer mix tank where coagulants and flocculants were added, and then processed through two centrifuges running in

parallel at rates up to 200 gallons per minute each. Filtrate water from the centrifuge was recirculated back to the unit. A photograph of the dredge and centrifuge is provided in Attachment 1. The centrifuge was stopped once the influent mixed-material solids content was less than 3 percent, which is the limit of the operable range for that equipment. A total of 1,516 tons (approximately 1,799 cy) of dewatered mixed material was removed during this first phase of dewatering with a significant amount of mixed material remaining in the storage unit.

After the necessary cessation of centrifugal mixed-material dewatering, a review of alternative dewatering technologies was conducted, and a belt filter press (BFP) with a submerged intake pump (rather than a dredge) was selected with Ecology consultation and approval. This dewatering technology would be implemented in the second phase of closure work to be conducted in 2021.

2021

The second phase of water and mixed-material removal work occurred in 2021 and, in accordance with the Closure Plan, 1,732,362 gallons of accumulated precipitation was trucked from the storage unit to the Emerald Kalama plant for treatment between March 8, 2021 and August 12, 2021. Once the storage unit was drained to the desired level, mixed-material removal commenced by means of a large-scale BFP. Between September 2, 2021 and October 14, 2021, mixed material was removed using FMF-operated pumps to a polymer mix tank where coagulants and flocculants were added, and then processed through the BFP at rates up to 105 gallons per minute. Filtrate water from the BFP was pumped through a series of frac and weir tanks to remove suspended sediment and the clarified water was sent to the Emerald Kalama plant for treatment. The BFP work was stopped when the mixed material remaining in the unit became too coarse to be pumped; a review and approval of final material removal alternatives would be required before the third and final phase of closure work could be conducted in 2022. A total of 715 tons (approximately 848 cy) of dewatered mixed material was removed during the second phase of dewatering. A total of 363,843 gallons of BFP process water was trucked to the Emerald Kalama plant for treatment. Photographs of the belt filter press are provided in Attachment 1.

After an evaluation of alternative dewatering technologies for the coarser mixed material that could not be pumped, allowing the mixed material to dry during the late spring and summer of 2022 and then manual removal (dig-and-haul) was selected as the most efficient and expedient method for the final stage mixed-material removal. Ecology approved manual removal for this final, third phase of closure work.

Ecology approved the installation of a 30-mil geosynthetic membrane to separate the pending wet season rainwater from the water already in contact with the mixed material, which must be managed as a dangerous waste. Rainfall accumulating on top of the rain cover was approved for discharge to the adjacent pasture (Reid 2021). A photograph of the installed rain cover is included in Attachment 1.

2022

The third phase of water and mixed-material removal work occurred in 2022 and, in accordance with the Closure Plan, 1,298,091 gallons of accumulated precipitation in contact with the mixed material (underneath the rainfall liner) was pumped through a series of frac and weir tanks to remove suspended sediment and the clarified water was sent to the Emerald Kalama plant for treatment between June 1, 2022 and November 21, 2022. Once the storage unit was completely drained so that no standing water was present, the mixed material was allowed to dry out until no free water was present before manual removal commenced. Mixed-material removal started in the northwestern corner and proceeded across the storage unit using different pieces of hauling/loading equipment for each stage to minimize tracking mixed material out of the storage unit (i.e., "track out"). At the end of the removal process, the minimal amount of mixed-material track out was removed by hand; the completeness of track out removal was confirmed by Ecology during its August 10, 2022 site visit. Photographs of the dig-and-haul process are provided in Attachment 1.

Due to a significant shortage of LeMay containers during the summer of 2022, all parties involved (FMF, Emerald, Ecology, and Landau) became concerned that the mixed-material removal process was not proceeding fast enough, and a late summer rain event could complicate or even possibly prohibit completion of the project during the 2022 dry season. To minimize this risk, Ecology approved the use of a concrete slab adjacent to FMF's hay shed as a temporary upland staging area to place mixed material prior to being loaded into LeMay containers, as shown on Figure 3. The concrete slab area used as an upland solids staging area is surrounded by concrete blocks and included two stormwater catch basins, the inlet and outlet pipes of which were plugged to prevent stormwater from leaving the slab area. Ecology's August 18, 2022 email (Gould 2022) approving of the use of this staging area included the requirements that the slab and stormwater catch basins be power-washed, all water and solids removed, and confirmation water samples be collected from both catch basins and analyzed for benzene and toluene, as discussed below.

Between August 1, 2022 and September 13, 2022, all remaining mixed material was removed from the Burnt Ridge storage unit, including a significant portion of the soil cap (discussed below). A total of 1,057 tons (approximately 1,125 cy) of dewatered mixed material was removed during the third and final phase of dewatering.

During all three phases of mixed-material removal at Burnt Ridge, mixed material was loaded into plastic-lined shipping containers mounted on flatbed trailers provided and transported by LeMay Enterprises, Inc. (LeMay). LeMay is Lewis County's designated solid waste hauler and the project was required to use them for all mixed-material transport. FMF cleaned any spilled mixed material from the sides and top of each container and each container was then covered before being transported off site. LeMay hauled 129 containers to the Centralia Rail Yard where containers were transferred onto rail cars and transported to the Roosevelt Landfill in Roosevelt, Washington for final disposal.

The density (weight per unit volume) of the dewatered mixed material was measured several times during each phase of removal. These density measurements were used to calculate the approximate volume of mixed material hauled by LeMay. The total volume removed from Burnt Ridge was approximately 3,772 cy; which is below the EPA-approved volume of 4,700 cy.

After decontamination and removal of the frac and weir tanks used to remove suspended sediment and the clarified water was sent to the Emerald Kalama plant for treatment, Ecology made a final site visit on December 12, 2022 and confirmed that all process water and mixed material had been removed from the site.

Confirmation Sampling

During the third phase of manual mixed-material removal, most of the soil cap throughout the central portion of the storage unit (Figure 3; columns B, C, D, and E, rows 2 through 5) could not easily be segregated from the mixed material by the manual means employed and, as a result, was removed and incorporated into the material hauled to landfill. Portions of the geosynthetic liner in this central area of the storage unit were damaged such that the underlying soil was exposed. The damaged liner was pointed out to and observed by Ecology and, following discussion of the confirmation sampling process, the exposed subgrade below the liner was specifically identified for confirmation sample collection, as discussed below.

Landau collected 11 soil samples from the bottom of the Burnt Ridge storage unit on September 16, 2022. As shown on Figure 3 and as discussed in Section 2.2.1 of the Closure Plan (Landau 2020), these 11 confirmation sampling locations were determined using the same methods described in the Waste Characterization Plan for sampling mixed material (Landau 2017a). The specific portion of the subgrade material sampled within each of the 11 cells was selected in the field following Ecology concurrence.

Confirmation soil samples were collected in the field by EPA Method 5035A and placed in a cooler on ice and delivered under standard chain-of-custody procedures to Eurofins/TestAmerica in Fife, Washington for analysis. Samples were analyzed for benzene and toluene by EPA Method 8260D with a 3-day turnaround time. Copies of the laboratory analytical reports are provided in Attachment 2. Selected photographs of some of the sampling locations are provided in Attachment 1.

As discussed above, Ecology's approval of the use of a temporary mixed-material staging area included the requirement that the concrete slab and stormwater catch basins be power-washed and all rinse water transported to Emerald Kalama for treatment. Following this cleaning process, confirmation water samples were collected from each of the two plugged catch basins (Figure 3). Samples were placed in a cooler on ice and delivered under standard chain-of-custody procedures to Eurofins/TestAmerica in Fife, Washington for analysis. Samples were analyzed for benzene and toluene by EPA Method 8260D with a 10-day turnaround time. Copies of the laboratory analytical

reports are provided in Attachment 2. Photographs of the sampling locations are provided in Attachment 1.

Confirmation Sampling Results

Analytical results of both the soil and water confirmation samples are provided in Tables 1 and 2, respectively. Results were compared to their respective Model Toxics Control Act (MTCA) Method A cleanup levels, which are the closure standards set forth in the Closure Plan.

Analytical results for the 11 soil confirmation samples collected from the base of the storage unit (Figure 3) were below the MTCA Method A soil cleanup levels for both benzene and toluene (Table 1). Toluene was detected in six of the 11 samples at concentrations significantly below the MTCA Method A soil cleanup level and benzene was not detected above the laboratory reporting limit. The benzene reporting limit for 1 of the 11 samples (FMF-BR-C5) was slightly elevated due to matrix interference encountered by the laboratory while running the analysis, which required a dilution. The required dilution resulted in an elevated reporting limit slightly above the MTCA Method A cleanup level for benzene; however, based on results from the other 10 samples in which benzene was not detected and reporting limits were below the MTCA Method A cleanup level, the sampling results collectively demonstrate that neither benzene nor toluene was present at concentrations exceeding MTCA Method A soil cleanup levels.

Analytical results for the two water samples collected from the catch basins located in the temporary upland solids staging area (Figure 3) are provided in Table 2. Benzene and toluene were not detected above their respective laboratory reporting limits. These sampling results support the conclusion that the staging area controls were effective at preventing the release of liquids into the stormwater system.

These results demonstrate compliance with conditions for closure of Burnt Ridge as a dangerous waste storage unit.

Use of This Technical Memorandum

This technical memorandum has been prepared for the exclusive use of Emerald and applicable regulatory agencies for specific application to the Burnt Ridge storage unit closure project. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau, shall be at the user's sole risk. Landau warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession

currently practicing in the same locality under similar conditions as this project. Landau makes no other warranty, either express or implied.

If you have any questions regarding the information provided in this technical memorandum, please contact the undersigned.

LANDAU ASSOCIATES, INC.

Q. Theic

Ken Reid, LEG Associate

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Chip Halbert, PE Chief Executive Officer

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References

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- Gould, G. 2022. "Re: FMF Solids Stage Area Alternatives." From Gregory Gould, Solid Waste Management, Industrial Section, Washington State Department of Ecology, to Ken Reid, Associate, Landau Associates, Inc. August 18.
- Landau. 2017a. Revision 3: Waste Characterization Plan, Fire Mountain Farms Mixed Material Storage Units, Lewis County, Washington. Landau Associates, Inc. July 27.
- Landau. 2017b. Waste Characterization Report, Fire Mountain Farms Burnt Ridge Storage Unit, Lewis County, Washington. Landau Associates, Inc. November 29.
- Landau. 2020. Final Closure Plan, Fire Mountain Farms, Inc. Storage Units, Kalama, Washington. Landau Associates, Inc. August 12.
- Reid, K. 2021. "Re: Burnt Ridge Rainwater Liner Proposal." From Ken Reid, Associate, Landau Associates, Inc., to Greg Gould, Solid Waste Management, Industrial Section, Washington State Department of Ecology. October 29.

Attachments

- Table 1:Soil Analytical Results
- Table 2:Decontamination Water Analytical Results
- Figure 1: Burnt Ridge Vicinity Map
- Figure 2: Burnt Ridge Storage Unit Design
- Figure 3: Burnt Ridge Storage Unit Sampling Locations
- Attachment 1: Burnt Ridge Closure Completion Photographs
- Attachment 2: Laboratory Analytical Reports



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Table 1 Soil Analytical Results Burnt Ridge Facility Onalaska, Washington

	MTCA Method A		Sampling Location, Laboratory SDG, Sampling Date												
	Cleanup Level for	FMF-BR-A2	FMF-BR-A4	FMF-BR-A5	FMF-BR-A6	FMF-BR-B3	FMF-BR-B4	FMF-BR-C5	FMF-BR-E1	FMF-BR-E6	FMF-BR-F1	FMF-BR-F6			
	Unrestricted	580-118014-1	580-118014-1	580-118014-1	580-118014-1	580-118014-1	580-118014-1	580-118014-1	580-118014-1	580-118014-1 580-118014-1		580-118014-1			
Analyte	Uses	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022	9/16/2022			
Volatiles (mg	/kg; SW-846 8260D)													
Benzene	0.03	0.0014 U	0.0017 U	0.0012 U	0.0017 U	0.0012 U	0.0012 U	0.064 U (a)	0.0013 U	0.0012 U	0.0013 U	0.0012 U			
Toluene	7	0.0049	0.0024	0.0028	0.0017 U	0.0012	0.0012 U	0.064 U	0.0013 U	0.0015	0.0026	0.0012 U			

Notes:

Bold text indicates detected analyte.

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

(a) The laboratory indicated the sample required dilution due to matrix interference; an elevated reporting limit is provided.

Acronyms/Abbreviations:

mg/kg = milligrams per kilogram

MTCA = Model Toxics Control Act

SDG = sample delivery group

Table 2 Decontamination Water Analytical Results Burnt Ridge Facility Onalaska, Washington

		Sampling Location, Laboratory SDG,								
		Sampling Date, Sample Type								
		FMF-CB-	FMF-CB-SOUTH							
		580-118222-1	580-118222-1	580-118222-1						
	MTCA Method A	9/23/2022	9/23/2022	9/23/2022						
Analyte	Cleanup Level	N	FD	Ν						
Volatiles (µg/L; S	W-846 8260D)									
Benzene	5	1.0 U	1.0 U	1.0 U						
Toluene	1,000	1.0 U	1.0 U	1.0 U						

Notes:

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

Acronyms/Abbreviations:

FD = field duplicate µg/L = micrograms per liter MTCA = Model Toxics Control Act N = primary sample SDG = sample delivery group

ATTACHMENT 1

Burnt Ridge Closure Completion Photographs



1. 2020: FMF dredge in foreground, centrifuge in background, looking north.



2. 2021: Belt filter press setup.



Emerald Kalama Closure Report Burnt Ridge Closure Completion Photographs Figure



3. 2021: Belt filter press in operation.



4. 2021: Belt filter press in operation.



Emerald Kalama Closure Report Burnt Ridge Closure Completion Photographs Figure



5. 2021: Belt filter press – loading LeMay container.



6. 2021: Rain cover installed.



Emerald Kalama Closure Report



7. 2022: Mixed-material dig excavation, looking southwest.



8. 2022: Haul road to conveyor, looking east.



Burnt Ridge Closure Completion Photographs Figure **1-4**



9. 2022: Mixed material temporarily staged on dump slab prior to being loaded onto conveyor.



10. 2022: Mixed material being loaded on conveyor.



Burnt Ridge Closure Completion Photographs Figure 1-5



11. 2022: Mixed material conveyored into LeMay containers.



12. 2022: Mixed material removed, looking southeast.





13. 2022: Confirmation sample A5, looking south.



14. 2022: Confirmation sample B4, looking northwest.



Emerald Kalama Closure Report Burnt Ridge Closure Completion Photographs



15. 2022: Confirmation sample C5, looking east.



16. 2022: Liner exposed.



Emerald Kalama Closure Report Burnt Ridge Closure Completion Photographs

Figure 1-8



17. 2022: Damaged geosynthetic liner.



18. 2022: Dump slab loading area (cleaned), looking south.



Emerald Kalama Closure Report Burnt Ridge Closure Completion Photographs Figure



19. 2022: Dump slab truck loading area (cleaned), looking north.



20. 2022: Upland solids staging area, FMF north catch basin after cleaning.



Emerald Kalama Closure Report Burnt Ridge Closure Completion Photographs Figure **1-10**



21. 2022: Upland solids staging area, FMF north catch basin sampling location after cleaning, looking south.



22. 2022: Upland solids staging area, FMF south catch basin sampling location after cleaning, looking west.



Emerald Kalama Closure Report Burnt Ridge Closure Completion Photographs Figure **1-11**



23. 2022: Upland solids staging area, FMF south catch basin after cleaning.



Emerald Kalama Closure Report

ATTACHMENT 2

Laboratory Analytical Reports

🔅 eurofins

Environment Testing America

ANALYTICAL REPORT

Eurofins Seattle 5755 8th Street East Tacoma, WA 98424 Tel: (253)922-2310

Laboratory Job ID: 580-118014-1

Client Project/Site: burnt Ridge Road, Onalaska WA

For:

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Review your project results through

EOL

Have a Question?

www.eurofinsus.com/Env

Visit us at:

Ask— The Expert Landau & Associates, Inc. 155 NE 100 ST Suite 302 Seattle, Washington 98125

Attn: Evelyn Ives

Shuid cump-

Authorized for release by: 9/23/2022 5:33:56 PM

Sheri Cruz, Project Manager I (253)922-2310 Sheri.Cruz@et.eurofinsus.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 580-118014-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-118014-1

Comments

Trip Blank was listed on COC but not received. No analyses were logged for this sample.

Receipt

The samples were received on 9/17/2022 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3° C.

Receipt Exceptions

Sample containers were not received for the following sample. Trip (580-118014-12) The client is aware and requested we cancel analysis on this sample.

GC/MS VOA

Method 8260D: The following sample was diluted due to the nature of the sample matrix: FMF-BR-C5 (580-118014-7). Elevated reporting limits (RLs) are provided.

Method 8260D: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-265985. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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

General Chemistry

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

VOA Prep

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

Definitions/Glossary

These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Client: Landau & Associates, Inc. Project/Site: burnt Ridge Road, Onalaska WA

Percent Recovery

Contains Free Liquid

Colony Forming Unit

Dilution Factor

Contains No Free Liquid

Detection Limit (DoD/DOE)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Method Detection Limit

Minimum Level (Dioxin) Most Probable Number

Method Quantitation Limit

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Not Calculated

Negative / Absent

Positive / Present

Presumptive

Quality Control

Limit of Quantitation (DoD/DOE)

Duplicate Error Ratio (normalized absolute difference)

Decision Level Concentration (Radiochemistry)

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Concentration (Radiochemistry)

Not Detected at the reporting limit (or MDL or EDL if shown)

Minimum Detectable Activity (Radiochemistry)

Glossary Abbreviation

¤

%R

CFL

CFU

CNF

DER

DL

DLC

EDL

LOD

LOQ

MCL

MDA

MDC

MDL

MPN MQL

ML

NC

ND

NEG

POS

PQL

PRES

QC

RER

RPD

TEF

TEQ

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DL, RA, RE, IN

Job ID: 580-118014-1

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Sample Summary

Collected

09/16/22 15:20 09/17/22 09:35

09/16/22 15:25 09/17/22 09:35

09/16/22 15:30 09/17/22 09:35

09/16/22 15:40 09/17/22 09:35

09/16/22 15:50 09/17/22 09:35

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09/16/22 16:30 09/17/22 09:35

09/16/22 16:40 09/17/22 09:35

09/16/22 16:50 09/17/22 09:35

Received

Matrix

Solid

Client: Landau & Associates, Inc. Project/Site: burnt Ridge Road, Onalaska WA

Client Sample ID

FMF-BR-A6

FMF-BR-A5

FMF-BR-A4

FMF-BR-A2

FMF-BR-B4

FMF-BR-B3

FMF-BR-C5

FMF-BR-E6

FMF-BR-E1

FMF-BR-F6

FMF-BR-F1

Lab Sample ID

580-118014-1

580-118014-2

580-118014-3

580-118014-4

580-118014-5

580-118014-6

580-118014-7

580-118014-8

580-118014-9

580-118014-10

580-118014-11

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LANDAU ASSOCIATES Chain-of Record	f-Custody	North Seattle (206) Tacoma (253) 926-2 Olympia (360) 791-3	631-8660 493 3178	Spokan Portlan	e (509) 327-9737 d (503) 542-1080	Date 9/16/22 Page) of	Turnaround Time Standard Accelerated 3	- day
Project Name FMF Project Location/Event <u>Burnf</u>	Project No	066045 Oneleska U	14	-	Test	ing Parameters	Special Handling R	Requirements:
Sampler's Name Ken Reice	Enebra Ine	° <`	/	S Strike	we we have a second sec		Shipment Method:	LAI
Send Results To	y "	, Kristi 56	alter of		<u> </u>		Stored on ice:	Yes No
Sample I.D. Di	ate Time	No. of Matrix Containers	$\sqrt{\sqrt{N}}$	$\sum /$			Observations/Comme	nts
FMF-BR-AG FMF-BR-AG FMF-BR-AU FMF-BR-AU	16/22 1520 1525 1530	50i 4	X Y X				Allow water samples to settle, aliquot from clear portion	collect
$\frac{FMF-13K-AL}{FMF-BL-B4}$	1590		¥				- Silica gel cleanup [
FMF-BF-C5	1600		¥ ×				Dissolved metal samples were	held filtered
FMF-BP-EI FMF-BR-F6 FMF-F6 FM	1630		¥ × ×			Ot	ther	
<u>FMF-1312 - FI</u> <u>V</u> Trip	/ 1650	Har I	4					
		· · · · ·						
						Therm. ID: A3 Cooler Dsc: L4	Cor: 2.3 ° Unc: 1.7	
		· · · · · · · · · · · · · · · · · · ·				Cust. Seal: <u>Ves</u> Blue Ice Wet Dr	NoLab Cour: y, None Other:	
Relinquished by Signature	Received by	M		Relinquishe	d by		eived bv	· <u>×</u>
Printed Name Joshua Burbach Company Lanchu 11ssoc, "utes Date 9/17/22 Time 0935	2 VAUEUNG ETN 22 Time 09	A	Printed Name Company Date	Time	580-118014 Ch	ain of Custody		
	WHITE COPY -	Laboratory YELLOV	^{v co} ľťačiej	e6 ^t 5i≢29	PINK COPY - Client R	epresentative		 <u>9/23/20</u>

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	Chain-of- Record	Custody					Spokane (509) 327-9737 D Portland (503) 542-1080 P				9/16 1	0f	Turnaround Time Standard Accelerated <u>3</u> - der
Project Name FMF		Project No	06601	15			/		Test	ing Pa	rameter	S	
Project Location/Event	Burnt Ric	he Rd.	Onalas	ka U	1A		D.	7 X	/ /		77	7 7 7 7	
Sampler's NameK	en Reid))					125	what]					Special Handling Requirements:
Project Coptact	il Fil	chia Tu	° C			1,8/2	₽ [×] ×	×X.					Shipment Method: LAI
Send Results To	·(··· ···	, Kri	5+:51	bultz/a			04					Stored on ice: Yes No
Sample I.D.	Date	e Time	Matrix	No. of Container	s /3/	V /				/ /		Ohs	orustions/Commonts
FMF-BR-AG	. 9/16	127 1520	501	4	Tx (\bigwedge		((f	/ 003	
FME-BR- A.	5	1525		!	Ϋ́							Allow wate	er samples to settle, collect
FUE-BR-A	4 7	1530			×							aliquot fro	$\hat{\mathbf{m}}$ clear portion \Box
EMF-BR-A	12 (1540			×							NWTPH-D>	k - Acid wash cleanup 🔲
EMF-BR-P	34	1550			Y								- Silica get cleanup
FMF-IBR- I	33	1600			4		_				ļ	Dissolved r	netal samples were field filtered
- <u>FUF-BR-</u>	3	1610			×							a	
-FMF-DE-E	6	1620			4							Other	
ENE-BR-E	6	160										1/2 at	анаан улуу уууу ул алагын а
EME-BR - F	1 V	1650	-/	4									Artum an anti-article and an an article 2,17,273,197, article and article and article article article 2,274,27
Trip			Hotel		4		++						а ан на
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													- A AAAA A
111 ¹¹ 1 (Vind) 111 - 111 (111 - 11													
										ı	herm. ID:	A3_Cor: 2.	<u>3</u> ° Unc: <u>1.7</u> °
	1997 (1997) 1997 (1997) 1997 (1997) 1997 (1997) 1997 (1997) 1997 (1997) 1997 (1997) 1997 (1997)										Cooler Dsc		
							ļļ.			t	ust. Seal:	Les_No_	- UPS: Lab Cour:
	·····									F	Blue Ice W	et) Dry, None	Other:
9979 kashar nonstrumentari ang majari pilan da sa kashar kashar kashar ang manang mang da sa kashar kasha	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.						┼						40
Relinquished by	·····	Received by N	11		<u>I</u>	Reling	uisheđ	by				Received by	i».
Signature	<u> </u>	Signature	V.			Signatu	re						
Printed Name Joshua	Burbach	Printed Name	S VAU	EUNA	A	Printed	Name .						
Company Lanchen 1/3	Sociutes	Company E	ETN			Compar	ıγ						
Date 9/17/22 Ti	me 0935	Date 9/17/2	1 <u>2</u> Tim	ne <u>09</u>	35	Date			_ Time _		580-1180	14 Chain of Custo	idy
		WHITE COPY - I	aboratory	YELLO	w con Page	je7t 101€ 2	9 F	INK COP	Y - Client R	epresenta	ative		9/23,

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Chain of Custody Record



raconia VVA 90424 Phone 253-922-2310				I									
Client Information (Sub Contract Lab)	Sampler			Lab PM Cruz,	: Sheri L				Carrier Tracking	No(s):	COC No: 580-10912	2.1	
Client Contact Shipping/Receiving	Phone:			E-Mail [.] Sheri	Cruz@et	.eurofins	us.com		State of Origin. Washington		Page: Page 1 of	5	
Company Eurofins Environment Testing Southwest,				< <u>-</u>	ccreditatio	ns Require Oregon,	d (See note) State - Wa	: ashington			Job #: 580-11801	4-1	
Address: 2841 Dow Avenue, Suite 100	Due Date Requeste 9/26/2022	d.					Anal	ysis Req	uested		Preservatio	on Codes M -	Hexane
City Tustin	TAT Requested (da	ys)			Aluo						B - NCL B - NaOH C - Zn Aceta	a z o z	Vone AsNaO2
State, Zp: CA, 92780	1				əuənic						D - Nitric Aci E - NaHSO4	ъ L O L D	Vaz.045 Na2SO3 Va2S2O3
Phone: 714-895-5494(Tel)	PO#				ot bns i						F - MeUH G - Amchlor H - Ascorbic	Acid T-1	12SO4 SP Dodecahydrate
Email	#OM				euezue (on	sbite					J - DI Water	>	Acetone MCAA pH 4-5
Project Name: burnt Ridge Road Onalaska WA	Project #: 58015768				6 (163 00) B 00) B	evelSc			i		10011631 		rizma other (specify)
Site:	SSOW#:				Y) OSI S8 oleO	sioM fr					of Coher		
Samule Identification - Client ID (Lab ID)	Samole Date	Sample Time	Sample Type (C=comp, G=orab)	Matrix (w=water s=solid, O=wastololi, 11=Trecue Amair)	Perform MS/M Perform MS/M	Moisture/ Pecen					Total Number O	cial Instru	ctions/Note.
		X	Preservat	ion Code.	X								
FMF-BR-A6 (580-118014-1)	9/16/22	15 20 Pacific		Solid	×	×					4		
FMF-BR-A5 (580-118014-2)	9/16/22	15 25 Pacific		Solid	×	×					4		
FMF-BR-A4 (580-118014-3)	9/16/22	15 30 Pacific		Solid	×	×					4		
FMF-BR-A2 (580-118014-4)	9/16/22	15 40 Pacific		Solid	×	×					4		
FMF-BR-B4 (580-118014-5)	9/16/22	15 50 Pacific		Solid	×	×					4		
FMF-BR-B3 (580-118014-6)	9/16/22	16 00 Pacific		Solid	×	×					4		
FMF-BR-C5 (580-118014-7)	9/16/22	16 10 Pacific		Solid	×	×					4		
FMF-BR-E6 (580-118014-8)	9/16/22	16 20 Pacific		Solid	×	×					4		
FMF-BR-E1 (580-118014-9)	9/16/22	16 30 Pacific		Solid	×	×					4		
Note: Since laboratory accreditations are subject to change. Eurofins Environmer does not currently maintain accreditation in the State of Origin listed above for an status should be brought to Eurofins Environment Testing Northwest, LLC attenti-	ent Testing Northwest, L Inalysis/tests/matrix bein tion immediately If all ri	LC places the ig analyzed th equested accri	ownership of m e samples mus editations are c	lethod, analyte & t be shipped bac urrent to date, re	accreditati k to the Eu turn the sig	on complia rofins Envii ned Chain	nce upon ou onment Tes of Custody a	t subcontract I ting Northwest ttesting to said	aboratories Thi LLC laboratory I complicance to	s sample shipme or other instruction Eurofins Enviror	it is forwarded unde ins will be provided. ment Testing North	er chain-of-cu . Any change west, LLC.	stody If the laboratory s to accreditation
Possible Hazard Identification					Sampl	e Dispo	sal (A fee	may be as	sessed if sa	imples are re	tained longer t	han 1 mor	(th)
Deliverable Requested 1 II III IV Other (specify)	Primary Delivera	ble Rank: 2			Specia	I Instruct	ions/QC F	Requiremen	spusai by Le	2			101101S
Empty Kit Relinquished by		Date			ime				Method of	Shipment:			
	Dated ime: 7/19122	_ \		Sompany.	T T	jeived by	K			Date/The:	01 20	S S	Park
Relinquished by	Date/Time:		<u> </u>	Company	Rec	etved by				Date/Time: /		Con	ipany
Relinquished by	Date/Time:			Company	Rec	eived by.				Date/Time:	~	Con	ıpany
Custody Seals Intact: Custody Seal No					ð	ller Tempe	rature(s) °C	and Other Ren	larks		1/20	20	KSC1
											Same Same	Ver	. 06/08/2021

Chain of Custody Record

Eurofins Seattle 5755 8th Street East Tacoma WA 98424 Phone 253-922-2310	Chain of Cust	ody Record		🐝 eurofins Envronment Testing America
Client Information (Sub Contract Lab)	Sampler	Lab PM Cruz Shen L	Carrier Tracking No(s):	COC No: 580-109122.2
Client Contact Shipping/Receiving	Phone:	E-Mail. Sheri Cruz@et.eurofinsus.com	State of Origin: Washington	Page: Page 2 of 2
Company Eurofins Environment Testing Southwest,		Accreditations Required (See note): NELAP - Oregon State - Washi	ngton	Job #: 580-118014-1
Address. 2841 Dow Avenue Sutte 100	Due Date Requested 9/26/2022	Analys	s Requested	Preservation Codes. M - Hexane
City Tustin	TAT Requested (days)			B - HCL N - None B - NaOH O - AsNaO2 C - Zn Acetate
State. Zip: CA, 92780	.	ə ənəvla		D - Nitric Acid P - Na204S E - NaHSO4 Q - Na2SO3 E MOOU R - Na2S2O3
Phone 714-895-5494(Tel)	PO#) pns (c		G - Amchlor S - H2SO4 G - Amchlor T - TSP Dodecahydrate H - Ascorbic Acid
Email:	#OM	sbilds (oV (oV		1 - Ice C - Account J - Di Water V - MCAA
Project Name: burnt Ridge Road Onalaska WA	Project #: 58015768	ee (Yes es or 260D B 260D B 2600 B		L - EDA Y - Trizma L - EDA Z - other (specify)
Site:	SSOW#:	qms2 Y) QSI Salc 8: Salc 8: M JI		0 Other 0
Commune Manufification _ Clistet ID (1 ab 10)	Sample Type Sample (C=comp. Sample (C=comp.	Matrix (www.ee. sesoid: sesoid: sesoid: sesoid: matrix mat		10 (2011) Instructions (Note
	Preservatio	on Code: XX		
FMF-BR-F6 (580-118014-10)	9/16/22 16 40 Pacific	Solid X X		4
FMF-BR-F1 (580-118014-11)	9/16/22 16 50 Bacific	Solid X X		4
1. test States Character states and an and an and and and and an and an and and	# Tookica Northermond 11 Calance the amount in adding		antroct Inhoratorios This some chineset	e famuerded under shein-officilietodi. If the Jahorston.
rout: Since reportency accretionations are support, to charget, enounis Criminatine does not currently maintain accreditation in the State of Origin listed above for ana status should be brought to Eurofins Environment Testing Northwest, LLC attentio	in resulty routimest, LLC praces ure ownership of the alysis/tests/matrix being analyzed the samples must on immediately If all requested accreditations are cur	errord, analyze a advectine our four prime report out out be shipped back to the Eurofins Environment Testing irrent to date, return the signed Chain of Custody attes	volutacy actuations and the sample simple simplexitient. Vorthwest, LLC laboratory or other instructions ing to said complicance to Eurofins Environme	s to manuaciation of the manufacture reproduction will be provided. Any changes to accreditation shift Testing Northwest, LLC.
Possible Hazard Identification Unconfirmed		Sample Disposal (A fee m Return To Client	Ny be assessed if samples are reta	ined longer than 1 month) chive For Months
Deliverable Requested 1 II IV Other (specify)	Primary Deliverable Rank: 2	Special Instructions/QC Req	uirements	
Empty Kit Relinquished by $N_{ m N}$	Date	Time	Method of Shipment:	
	Date/Times/1/g/22	Particle Received by	Date/Time:	2 1000 Company
Relinquished by	Date/Time: Cc	ompainy Received by	Date/Time:/	Сотрапу
Relinquished by	Date/Time: Co	ompany Received by	Date/Time:	Company
Custody Seals Intact: Custody Seal No (Δ Yes Δ No	-	Cooler Temperature(s) °C and	Other Remarks	0.7/1.0 /2 501/

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Ver 06/08/2021

Client: Landau & Associates, Inc.

Login Number: 118014 List Number: 1 Creator: Presley, Kim A

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	False	Refer to Job Narrative for details.
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.	True	
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	

Client: Landau & Associates, Inc.

Login Number: 118014 List Number: 2 Creator: Ornelas, Olga

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	Not Present
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?	N/A	Received project as a subcontract.
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	

List Source: Eurofins Calscience

List Creation: 09/20/22 04:17 PM

Client Sample ID: FMF-BR-A6 Date Collected: 09/16/22 15:20

Percent Solids

Date Collected: 09/16/22 15: Date Received: 09/17/22 09:	20 35							Matrix Percent Solid	:: Solic ls: 85.7
Method: 8260D - Volatile O	rganic Compo	unds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND		1.7		ug/Kg	— <u> </u>	09/20/22 17:24	09/21/22 12:32	
Toluene	ND		1.7		ug/Kg	₽	09/20/22 17:24	09/21/22 12:32	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	121		80 - 142				09/20/22 17:24	09/21/22 12:32	
4-Bromofluorobenzene (Surr)	102		80 - 120				09/20/22 17:24	09/21/22 12:32	
Dibromofluoromethane (Surr)	102		80 - 123				09/20/22 17:24	09/21/22 12:32	
Toluene-d8 (Surr)	95		80 - 120				09/20/22 17:24	09/21/22 12:32	
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fa
Percent Moisture	14.3		0.1		%			09/20/22 17:30	

0.1

%

85.7

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8 9 10

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Job ID: 580-118014-1

Lab Sample ID: 580-118014-1

09/20/22 17:30

Client Sample ID: FMF-BR-A5 Date Collected: 09/16/22 15:25 Date Received: 09/17/22 09:35

Eurofins	Seattle

9/23	/20	22
ジレムン	120	22

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.2		ug/Kg	☆	09/20/22 17:24	09/21/22 12:52	1
Toluene	2.8		1.2		ug/Kg	¢	09/20/22 17:24	09/21/22 12:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		80 - 142				09/20/22 17:24	09/21/22 12:52	1
4-Bromofluorobenzene (Surr)	102		80 - 120				09/20/22 17:24	09/21/22 12:52	1
Dibromofluoromethane (Surr)	102		80 - 123				09/20/22 17:24	09/21/22 12:52	1
Toluene-d8 (Surr)	97		80 - 120				09/20/22 17:24	09/21/22 12:52	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.4		0.1		%			09/20/22 17:30	1
Percent Solids	82.6		0.1		%			09/20/22 17:30	1

Lab Sample ID: 580-118014-2 Matrix: Solid

Percent Solids: 82.6

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Job ID: 580-118014-1

Client Sample Results

Client: Landau & Associates, Inc. Project/Site: burnt Ridge Road, Onalaska WA

Client Sample ID: FMF-BR-A4 Date Collected: 09/16/22 15:30 Date Received: 09/17/22 09:35

Lab Sample ID: 580-118014-3 Matrix: Solid

Percent Solids: 72.0

Job ID: 580-118014-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.7		ug/Kg	¢	09/20/22 17:24	09/21/22 13:13	1
Toluene	2.4		1.7		ug/Kg	¢	09/20/22 17:24	09/21/22 13:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		80 - 142				09/20/22 17:24	09/21/22 13:13	1
4-Bromofluorobenzene (Surr)	96		80 - 120				09/20/22 17:24	09/21/22 13:13	1
Dibromofluoromethane (Surr)	103		80 - 123				09/20/22 17:24	09/21/22 13:13	1
Toluene-d8 (Surr)	95		80 - 120				09/20/22 17:24	09/21/22 13:13	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28.0		0.1		%			09/20/22 17:30	1
Percent Solids	72.0		0.1		%			09/20/22 17:30	1

Client Sample ID: FMF-BR-A2 Date Collected: 09/16/22 15:40 Date Received: 09/17/22 09:35

Job ID: 580-118014-1

Lab Sample ID: 580-118014-4 Matrix: Solid

Percent Solids: 83.0

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Method: 8260D - Volatile Or	ganic Compo	unds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.4		ug/Kg	☆	09/20/22 17:24	09/21/22 13:33	1
Toluene	4.9		1.4		ug/Kg	¢	09/20/22 17:24	09/21/22 13:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		80 - 142				09/20/22 17:24	09/21/22 13:33	1
4-Bromofluorobenzene (Surr)	103		80 - 120				09/20/22 17:24	09/21/22 13:33	1
Dibromofluoromethane (Surr)	102		80 - 123				09/20/22 17:24	09/21/22 13:33	1
Toluene-d8 (Surr)	97		80 - 120				09/20/22 17:24	09/21/22 13:33	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.0		0.1		%			09/20/22 17:30	1
Percent Solids	83.0		0.1		%			09/20/22 17:30	1

Client Sample ID: FMF-BR-B4 Date Collected: 09/16/22 15:50 Date Received: 09/17/22 09:35

Job ID: 580-118014-1

Lab Sample ID: 580-118014-5 Matrix: Solid

Percent Solids: 79.4

Method: 8260D - Volatile Or	ganic Compo	unds by G	C/MS							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
Benzene	ND		1.2		ug/Kg	<u></u>	09/20/22 17:24	09/21/22 13:54	1	
Toluene	ND		1.2		ug/Kg	☆	09/20/22 17:24	09/21/22 13:54	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	127		80 - 142				09/20/22 17:24	09/21/22 13:54	1	
4-Bromofluorobenzene (Surr)	99		80 - 120				09/20/22 17:24	09/21/22 13:54	1	0
Dibromofluoromethane (Surr)	110		80 - 123				09/20/22 17:24	09/21/22 13:54	1	Ō
Toluene-d8 (Surr)	93		80 - 120				09/20/22 17:24	09/21/22 13:54	1	9
General Chemistry										
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Percent Moisture	20.6		0.1		%			09/20/22 17:30	1	
Percent Solids	79.4		0.1		%			09/20/22 17:30	1	

Client Sample ID: FMF-BR-B3 Date Collected: 09/16/22 16:00 Date Received: 09/17/22 09:35

Job ID: 580-118014-1	
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Lab Sample ID: 580-118014-6 Matrix: Solid

Percent Solids: 78.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.2		ug/Kg	☆	09/20/22 17:24	09/21/22 14:14	1	5
Toluene	1.2		1.2		ug/Kg	¢	09/20/22 17:24	09/21/22 14:14	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	121		80 - 142				09/20/22 17:24	09/21/22 14:14	1	
4-Bromofluorobenzene (Surr)	101		80 - 120				09/20/22 17:24	09/21/22 14:14	1	
Dibromofluoromethane (Surr)	104		80 - 123				09/20/22 17:24	09/21/22 14:14	1	
Toluene-d8 (Surr)	98		80 - 120				09/20/22 17:24	09/21/22 14:14	1	
General Chemistry										
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Percent Moisture	21.8		0.1		%			09/20/22 17:30	1	
Percent Solids	78.2		0.1		%			09/20/22 17:30	1	

Client Sample ID: FMF-BR-C5 Date Collected: 09/16/22 16:10 Date Received: 09/17/22 09:35

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9/23/2022

Date Received: 09/17/22 09:	35			Percent Solid	ls: 75.0				
	rganic Compo	unds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		64		ug/Kg	— — —	09/20/22 17:24	09/21/22 12:11	50
Toluene	ND		64		ug/Kg	☆	09/20/22 17:24	09/21/22 12:11	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 142				09/20/22 17:24	09/21/22 12:11	50
4-Bromofluorobenzene (Surr)	100		80 - 120				09/20/22 17:24	09/21/22 12:11	50
Dibromofluoromethane (Surr)	94		80 - 123				09/20/22 17:24	09/21/22 12:11	50
Toluene-d8 (Surr)	96		80 - 120				09/20/22 17:24	09/21/22 12:11	50
_ General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25.0		0.1		%			09/20/22 17:30	1
Percent Solids	75.0		0.1		%			09/20/22 17:30	1

Matrix: Solid

5

8 9

Lab Sample ID: 580-118014-7

Client Sample ID: FMF-BR-E6 Date Collected: 09/16/22 16:20 Date Received: 09/17/22 09:35

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Job ID: 580-118014-1

Lab Sample ID: 580-118014-8 Matrix: Solid

Percent Solids: 77.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.2		ug/Kg	₽	09/20/22 17:24	09/21/22 14:35	1	
Toluene	1.5		1.2		ug/Kg	₽	09/20/22 17:24	09/21/22 14:35	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)			80 - 142				09/20/22 17:24	09/21/22 14:35	1	
4-Bromofluorobenzene (Surr)	102		80 - 120				09/20/22 17:24	09/21/22 14:35	1	G
Dibromofluoromethane (Surr)	105		80 - 123				09/20/22 17:24	09/21/22 14:35	1	5
Toluene-d8 (Surr)	93		80 - 120				09/20/22 17:24	09/21/22 14:35	1	6
General Chemistry										
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Percent Moisture	22.2		0.1		%			09/20/22 17:30	1	
Percent Solids	77.8		0.1		%			09/20/22 17:30	1	

Client Sample ID: FMF-BR-E1 Date Collected: 09/16/22 16:30 Date Received: 09/17/22 09:35

									5.70.0
Method: 8260D - Volatile O	rganic Compo	unds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.3		ug/Kg	₽	09/20/22 17:24	09/21/22 14:56	1
Toluene	ND		1.3		ug/Kg	¢	09/20/22 17:24	09/21/22 14:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		80 - 142				09/20/22 17:24	09/21/22 14:56	1
4-Bromofluorobenzene (Surr)	99		80 - 120				09/20/22 17:24	09/21/22 14:56	1
Dibromofluoromethane (Surr)	103		80 - 123				09/20/22 17:24	09/21/22 14:56	1
Toluene-d8 (Surr)	97		80 - 120				09/20/22 17:24	09/21/22 14:56	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.7		0.1		%			09/20/22 17:30	1
Percent Solids	75.3		0.1		%			09/20/22 17:30	1

Lab Sample ID: 580-118014-9 Matrix: Solid

Percent Solids: 75.3

Client Sample ID: FMF-BR-F6 Date Collected: 09/16/22 16:40

Percent Solids

Date Received: 09/17/22 09:	35							Percent Solid	ls: 74.8
Method: 8260D - Volatile O	rganic Compo	unds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.2		ug/Kg	⊉	09/20/22 17:24	09/21/22 15:16	1
Toluene	ND		1.2		ug/Kg	¢	09/20/22 17:24	09/21/22 15:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	126		80 - 142				09/20/22 17:24	09/21/22 15:16	1
4-Bromofluorobenzene (Surr)	101		80 - 120				09/20/22 17:24	09/21/22 15:16	1
Dibromofluoromethane (Surr)	109		80 - 123				09/20/22 17:24	09/21/22 15:16	1
Toluene-d8 (Surr)	98		80 - 120				09/20/22 17:24	09/21/22 15:16	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25.2		0.1		%			09/20/22 17:30	1

0.1

%

74.8

Lab Sample ID: 580-118014-10 Matrix: Solid

09/20/22 17:30

4 5 6

8 9 10

Client Sample ID: FMF-BR-F1 Date Collected: 09/16/22 16:50 Date Received: 09/17/22 09:35

Job ID: 580-118014-1

Lab Sample ID: 580-118014-11 Matrix: Solid

Percent Solids: 78.8

Method: 8260D - Volatile Or	ganic Compo	unds by G	C/MS							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
Benzene	ND		1.3		ug/Kg	<u>ф</u>	09/20/22 17:24	09/21/22 15:37	1	
Toluene	2.6		1.3		ug/Kg	¢	09/20/22 17:24	09/21/22 15:37	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	127		80 - 142				09/20/22 17:24	09/21/22 15:37	1	
4-Bromofluorobenzene (Surr)	101		80 - 120				09/20/22 17:24	09/21/22 15:37	1	0
Dibromofluoromethane (Surr)	107		80 - 123				09/20/22 17:24	09/21/22 15:37	1	0
Toluene-d8 (Surr)	97		80 - 120				09/20/22 17:24	09/21/22 15:37	1	9
General Chemistry										
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Percent Moisture	21.2		0.1		%			09/20/22 17:30	1	
Percent Solids	78.8		0.1		%			09/20/22 17:30	1	

QC Sample Results

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 570-26 Matrix: Solid	5985/10							Cli	ent Sam	ple ID: Metho Prep Type:	od Blank Total/NA
Analysis Batch: 265985	МВ	мр									
Analyta	MB Bosult	NIB	ы		мы	Unit	-	, , ,	Proparad	Applyzod	Dil Eso
Benzene		Quaimer					L		Tepareu		$\frac{DIIFac}{50}$
Toluene			50			ug/Kg				09/21/22 11:30	5 50 5 50
			00			uging				00/21/22 11:00	00
	MB	MB									
Surrogate	%Recovery	Qualifier	Limits					F	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		80 - 142							09/21/22 11:30	0 50
4-Bromofluorobenzene (Surr)	99		80 - 120							09/21/22 11:30	0 50
Dibromofluoromethane (Surr)	96		80 - 123							09/21/22 11:30	0 50
Toluene-d8 (Surr)	98		80 - 120							09/21/22 11:30	0 50
Lab Sample ID: MB 570-26	5985/9							Cli	ent Sam	ple ID: Metho	od Blank
Matrix: Solid										Prep Type:	Total/NA
Analysis Batch: 265985											
· ·····, ··· ··· ··· ····	МВ	МВ									
Analyte	Result	Qualifier	RL		MDL	Unit) F	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0			ug/Kg			•	09/21/22 11:10	0 1
Toluene	ND		1.0			ug/Kg				09/21/22 11:10) 1
0	MB MB	MB Owelifier	Limita						.	Amelymod	
Surrogate	%Recovery	Qualifier	$-\frac{Limits}{90, 142}$						reparea	Analyzed	
1,2-Dichloroethane-04 (Surr)	107		00 - 142 90 - 120							09/21/22 11.10) I n 1
A-Bromofluoromethane (Surr)	99		00 - 120 80 122							09/21/22 11.10) I N 1
Toluono d8 (Surr)	90		80 120							00/21/22 11.10) /
	57		00 - 120							03/21/22 11.10	
Lab Sample ID: LCS 570-2	65985/4						Clier	nt Sa	mple ID	: Lab Control	Sample
Matrix: Solid										Prep Type:	Total/NA
Analysis Batch: 265985											
			Spike	LCS	LCS					%Rec	
Analyte			Added	Result	Qua	lifier	Unit	D	%Rec	Limits	
Benzene			50.0	49.1			ug/Kg		98	80 - 120	
Toluene			50.0	49.5			ug/Kg		99	80 - 120	
	105.105	5									
Surrogate	%Recovery Qu	, alifiar	l imite								
1 2-Dichloroethane-d4 (Surr)	105		80 - 142								
4-Bromofluorobenzene (Surr)	104		80 - 120								
Dibromofluoromethane (Surr)	103		80 - 123								
Toluene-d8 (Surr)	103		80 - 120								
Lab Sample ID: LCSD 570	-265985/5					С	lient Sa	mple	ID: Lab	Control Sam	ple Dup
Matrix: Solid								Ĩ		Prep Type:	Total/NA
Analysis Batch: 265985											
			Spike	LCSD	LCS	D				%Rec	RPD
Analyte			Added	Result	Qua	lifier	Unit	D	%Rec	Limits RI	PD Limit
Benzene			50.0	49.3			ug/Kg		99	80 - 120	0 20

Toluene			50.0
	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		80 - 142

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0

99

80 - 120

49.6

ug/Kg

QC Sample Results

Job ID: 580-118014-1

Project/Site: burnt Ridge Ro	bad, Onalaska	WA						300 12. 300-110	014-1	
Method: 8260D - Vola	tile Organi	c Compo	ounds by C	GC/MS	(Contin	ued)				
Lab Sample ID: LCSD 57 Matrix: Solid Analysis Batch: 265985	0-265985/5				C	Client S	ample ID:	Lab Control Sample Prep Type: Tot	∍ Dup al/NA	4
Surrogato	LCSD	LCSD	Limite							5
4-Bromofluorobenzene (Surr)		Quaimer	80 - 120							
Dibromofluoromethane (Surr)	103		80 - 123							
Toluene-d8 (Surr)	103		80 - 120							
Method: Moisture - Pe	ercent Mois	sture								8
Lab Sample ID: 580-1180 Matrix: Solid Analysis Batch: 265837	14-1 DU						Clien	t Sample ID: FMF-E Prep Type: Tot	BR-A6 al/NA	9
	Sample	Sample		DU	DU				RPD	
Analyte	Result	Qualifier		Result	Qualifier	Unit	D	RPD	Limit	
Percent Moisture	14.3			14.6		%		1	10	
Percent Solids	85.7			85.4		%		0.2	10	
Lab Sample ID: 580-1180 Matrix: Solid	14-11 DU						Clien	t Sample ID: FMF-E Prep Type: Tot	3R-F1 al/NA	

. Prep Type: Total/NA

Analysis Batch: 265837								
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	21.2		20.0		%		 6	10
Percent Solids	78.8		80.0		%		1	10

Batch

Туре

Client Sample ID: FMF-BR-A6 Date Collected: 09/16/22 15:20 Date Received: 09/17/22 09:35

Analysis

Batch

Туре

Prep

Analysis

Batch Method

Moisture

Batch

5035

8260D

Method

Client Sample ID: FMF-BR-A6 Date Collected: 09/16/22 15:20 Date Received: 09/17/22 09:35

Prep Type

Prep Type

Total/NA

Total/NA

Total/NA

Billution Batch Prepared Run Factor Number Analyst Lab or Analyzed 265837 B4QL EET CAL 4 09/20/22 17:30 Lab Sample ID: 580-118014-1 Matrix: Solid Percent Solids: 85.7 Run Factor Number Analyst 1 265829 ZH8D ET CAL 4 Or Analyzed 09/20/22 17:30 Matrix: Solid Run Factor Number Analyst 1 265829 ZH8D 265829 ZH8D EET CAL 4 09/20/22 17:24 09/20/22 17:24 1 26585 OH1 ET CAL 4 09/21/22 12:32 Lab Sample ID: 580-118014-2 Matrix: Solid Run Factor 1 265837 B4QL EET CAL 4 09/20/22 17:30 Lab Sample ID: 580-118014-2 Matrix: Solid		$D \cdot 580_{1}1801/_{1}$	loh l					
Lab Sample ID: 580-118014-1 Matrix: Solid Run Factor Number 1 Analyst 265837 Lab B4QL Prepared cor Analyzed EET CAL 4 Prepared 09/20/22 17:30 Lab Sample ID: 580-118014-1 Matrix: Solid Percent Solids: 85.7 Matrix: Solid Percent Solids: 85.7 Run Factor Number 265829 Analyst 2H8D Lab Prepared or Analyzed 1 265985 OH1 EET CAL 4 09/20/22 17:24 265985 OH1 EET CAL 4 09/21/22 12:32 Lab Sample ID: 580-118014-2 Matrix: Solid Run Factor Number 265837 Analyst B4QL Lab or Analyzed or Analyzed I 265837 B4QL EET CAL 4 09/20/22 17:24 Lab Sample ID: 580-118014-2 Matrix: Solid		D. 300-110014-1	5051					
Matrix: Solid Run Factor Number Analyst Lab or Analyzed 265837 B4QL EET CAL 4 09/20/22 17:30 Lab Sample ID: 580-118014-1 Matrix: Solid Matrix: Solid Percent Solids: 85.7 Run Factor Number Analyst Lab Prepared 1 265829 ZH8D EET CAL 4 09/20/22 17:24 1 265985 OH1 EET CAL 4 09/21/22 12:32 Lab Sample ID: 580-118014-2 Matrix: Solid Run Factor Number Analyst 1 265985 OH1 EET CAL 4 09/21/22 12:32 Lab Sample ID: 580-118014-2 Matrix: Solid Run Factor Number Analyst Lab or Analyzed 1 265837 B4QL EET CAL 4 09/21/22 12:32 Matrix: Solid Run Factor Number Analyst Lab or Analyzed 1 265837 B4QL EET CAL 4 09/20/22 17:30 Lab Sample ID: 580-118014-2 09/20/22 17:30 Lab Sample ID: 580-1180		580-118014-1	Sample ID:	Lab				
RunDilution FactorBatch NumberPrepared Analyst 265837Prepared B4QLLabor Analyzed 09/20/22 17:30Lab Sample ID: 580-118014-1 Matrix: Solid Percent Solids: 85.7RunDilution FactorBatch Number 265829Prepared ZH8D1265835OH1Eat EET CAL 4Variable 265829ZH8D ZH8DEET CAL 41265829OH1EET CAL 4265829OH1EET CAL 4265829OH1EET CAL 409/20/22 17:24 EET CAL 409/21/22 12:32Lab Sample ID: 580-118014-2 Matrix: SolidRunDilution 1Batch 265837RunDilution 1Batch 265837RunDilution 1Batch 265837RunDilution 1Batch 265837RunDilution 1Batch 265837RunEatch 0LabOr Analyzed 0EET CAL 4O/20/22 17:30LabSample ID: 580-118014-2 0RunEatch 1RunNumber 1Batch 1Cataly EET CAL 4Lab EET CAL 4O/20/22 17:30LabSample ID: 580-118014-2 O/20/22 17:30LabSample ID: 580-118014-2 Matrix: Solid		Matrix: Solid						
RunDilution FactorBatch NumberAnalyst AnalystLab EET CAL 4Prepared or Analyzed 09/20/22 17:30Lab Sample ID: 580-118014-1 Matrix: Solid Percent Solids: 85.7RunDilution FactorBatch Number 265829Prepared Lab 265829RunFactorNumber 265829Analyst 265829Lab Colspan="4">or Analyzed EET CAL 41265985OH1EET CAL 409/20/22 17:24 09/20/22 17:24 EET CAL 42265985OH1EET CAL 409/21/22 12:32Lab Sample ID: 580-118014-2 Matrix: SolidRunDilution 1Batch 265837Prepared EET CAL 4Colspan="4">Op/20/22 17:24 EET CAL 4Colspan="4">Colspan="4">Prepared 09/20/22 17:24 EET CAL 4Dilution 1Batch 265837Prepared EET CAL 4RunDilution 1Batch 265837Prepared EET CAL 4Lab EET CAL 4Og/20/22 17:30Matrix: Solid								
RunFactorNumberAnalyst 265837Lab B4QLor Analyzed 09/20/22 17:30LabSample ID: 580-118014-1 Matrix: Solid Percent Solids: 85.7RunDilution FactorBatch 265829Prepared ZH8D1265985OH1Lab EET CAL 4or Analyzed 09/20/22 17:24 EET CAL 4265985OH1EET CAL 409/21/22 12:32LabSample ID: 580-118014-2 09/20/22 17:24Matrix: SolidRunDilution 1Batch 265985Prepared OH1Or Analyzed EET CAL 4Og/20/22 17:24 09/21/22 12:32LabSample ID: 580-118014-2 Matrix: SolidRunDilution 1Batch 265837Prepared Analyst EET CAL 4Lab EET CAL 4Og/20/22 17:30Lab EET CAL 4Dilution 09/20/22 17:30RunDilution 1Batch 265837Prepared B4QLLab EET CAL 4Og/20/22 17:30Lab EET CAL 4Og/20/22 17:30	ŝ		Prepared			Batch	Dilution	
Image: Number of the system Image: Dilution of the system Batch of the system Prepared of th			or Analyzed	Lab	Analyst	Number	Factor	Run
Lab Sample ID: 580-118014-1 Matrix: Solid Percent Solids: 85.7RunDilution FactorBatch 265829Analyst ZH8D 265985Lab EET CAL 4Prepared 09/20/22 17:24 EET CAL 41265985OH1EET CAL 409/21/22 12:32Lab Sample ID: 580-118014-2 Matrix: SolidRunDilution FactorBatch Number 265837Prepared EET CAL 4Quillion 1Colspan="2">Batch EET CAL 4RunDilution Factor 1Batch 265837Prepared EET CAL 4Colspan="2">Call A 09/20/22 17:30Lab EET CAL 4Or Analyzed 09/20/22 17:30Lab Lab Cample ID: 580-118014-2 Matrix: Solid	ŝ		09/20/22 17:30	EET CAL 4	B4QL	265837	1	
RunDilution FactorBatch Number 265985Prepared ZH8DPrepared EET CAL 41265985OH1EET CAL 409/20/22 17:24 09/21/22 12:32Lab Og/20/22 17:24 EET CAL 4205985OH1EET CAL 409/21/22 12:32Lab Sample ID: 580-118014-2 Matrix: SolidRunDilution FactorBatch 265837Prepared Analyst EET CAL 4RunDilution FactorBatch 265837Prepared Analyst EET CAL 4Or Analyzed 09/20/22 17:30Lab Sample ID: 580-118014-2 Matrix: SolidLab Colspan="4">Or Analyzed Og/20/22 17:30		580-118014-1	Sample ID:	Lab				
Percent Solids: 85.7 Run Dilution Factor Batch Number 265985 Analyst 265985 Lab EET CAL 4 Prepared 09/20/22 17:24 EET CAL 4 Or Analyzed 09/21/22 12:32 Lab Sample ID: 580-118014-2 Matrix: Solid Run Dilution Factor 1 Batch Number 265837 Analyst B4QL Lab EET CAL 4 Prepared or Analyzed EET CAL 4 Lab Prepared 09/20/22 17:30 Matrix: Solid		Matrix: Solid						
RunDilution FactorBatch Number 265829Analyst ZH8D ZH8DLab EET CAL 4Prepared or Analyzed D9/20/22 17:24 EET CAL 41265985OH1EET CAL 409/21/22 12:32LabSample ID: 580-118014-2 Matrix: SolidRunDilution Factor 1Batch 265837Analyst B4QLLab EET CAL 4Prepared or Analyzed O9/20/22 17:30RunDilution Factor 1Batch 265837Analyst B4QLLab EET CAL 4Prepared O9/20/22 17:30LabSample ID: 580-118014-2 Matrix: Solid		ent Solids: 85.7	Perc					
RunFactorNumber 265985Analyst ZH8DLab EET CAL 4or Analyzed 09/20/22 17:241265985OH1EET CAL 409/21/22 12:32Lab Sample ID: 580-118014-2 Matrix: SolidRunDilution FactorBatch 265837Prepared Analyst B4QLDilution EET CAL 4Batch 09/20/22 17:24Prepared or Analyzed 09/21/22 12:32Lab Sample ID: 580-118014-2 Matrix: SolidLab 09/20/22 17:30RunFactor 1Number 265837Analyst B4QLLab Sample ID: 580-118014-2 Matrix: SolidLab Matrix: Solid			Broparod			Batch	Dilution	
Run Pactor Runber Analyst Lab Of Analyzed 1 265829 ZH8D EET CAL 4 09/20/22 17:24 1 265985 OH1 EET CAL 4 09/21/22 12:32 Lab Sample ID: 580-118014-2 Matrix: Solid Run Factor Number Analyst B4QL Lab EET CAL 4 Prepared or Analyzed EET CAL 4 Lab Or Analyzed 09/20/22 17:30 Dilution Batch B4QL Prepared EET CAL 4 Matrix: Solid	1		Prepareu or Analyzod	Lab	Analyst	Numbor	Eactor	Bun
1 265985 OH1 EET CAL 4 09/21/22 11.24 1 265985 OH1 EET CAL 4 09/21/22 12:32 Lab Sample ID: 580-118014-2 Matrix: Solid Run Batch 1 Batch 265837 Analyst B4QL Lab EET CAL 4 Prepared 09/20/22 Matrix: Solid Lab Sample ID: 580-118014-2 Matrix: Solid			01 Allalyzeu 09/20/22 17:24			265820	Factor	Run
Image: Problem in the second system is second system in the second system in the second system in the second system in the second system in t			00/21/22 17:24			203029	1	
Lab Sample ID: 580-118014-2 Matrix: Solid Run Dilution Factor Batch Number 265837 Prepared B4QL Prepared ET CAL 4 or Analyzed 09/20/22 17:30 Lab Or Analyzed 09/20/22 17:30 Dilution Dilution Dilution Dilution Run Factor Number 1 Analyst 265837 Lab Or Analyzed 09/20/22 17:30 Lab Sample ID: 580-118014-2 Matrix: Solid			09/21/22 12.32	EET CAL 4		200900	I	
Bilution Batch Prepared Run Factor Number Analyst Lab or Analyzed 1 265837 B4QL EET CAL 4 09/20/22 17:30 Lab Sample ID: 580-118014-2 Matrix: Solid		580-118014-2	Sample ID:	Lab				
Dilution Batch Prepared Run Factor Number Analyst Lab or Analyzed 1 265837 B4QL EET CAL 4 09/20/22 17:30 Lab Sample ID: 580-118014-2 Matrix: Solid		Matrix: Solid						
RunFactorNumberAnalyst B4QLLab ET CAL 4or Analyzed 09/20/22 17:30Lab Sample ID: 580-118014-2 Matrix: Solid			Prepared			Batch	Dilution	
1 265837 B4QL EET CAL 4 09/20/22 17:30 Lab Sample ID: 580-118014-2 Matrix: Solid			or Analyzed	Lab	Analyst	Number	Factor	Run
Lab Sample ID: 580-118014-2 Matrix: Solid			09/20/22 17:30	EET CAL 4	B4QL	265837		
		580-118014-2 Matrix: Solid	Sample ID:	Lab				
Percent Solids: 82.6		ent Solids: 82.6	Perc					

Client Sample ID: FMF-BR-A5 Date Collected: 09/16/22 15:25

Date Received: 09/17/22 09:35

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	Moisture		1	265837	B4QL	EET CAL 4	09/20/22 17:30

Client Sample ID: FMF-BR-A5

Date Collected: 09/16/22 15:25

Date Received: 09/17/22 09:35

Γ	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5035			265829	ZH8D	EET CAL 4	09/20/22 17:24
Total/NA	Analysis	8260D		1	265985	OH1	EET CAL 4	09/21/22 12:52

Client Sample ID: FMF-BR-A4 Date Collected: 09/16/22 15:30 Date Received: 09/17/22 09:35

	Batch	Batch		Dilution	Batch			Prepared
Prep Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	Moisture		1	265837	B4QL	EET CAL 4	09/20/22 17:30

Client Sample ID: FMF-BR-A4 Date Collected: 09/16/22 15:30

Date Received: 09/17/22 09:35

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5035			265829	ZH8D	EET CAL 4	09/20/22 17:24
Total/NA	Analysis	8260D		1	265985	OH1	EET CAL 4	09/21/22 13:13

Client Sample ID: FMF-BR-A2

Date Collected: 09/16/22 15:40 Date Received: 09/17/22 09:35

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	Moisture		1	265837	B4QL	EET CAL 4	09/20/22 17:30

Eurofins Seattle

Lab Sample ID: 580-118014-3

Lab Sample ID: 580-118014-3

Lab Sample ID: 580-118014-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

Percent Solids: 72.0

	Client Sample	ID: FMF	-BR-A2					Lab	Sample ID:	580-118014-4
	Date Collected: 0 Date Received: 0	9/17/22 09	:35						Perc	ent Solids: 83.0
	_	Batch	Batch		Dilution	Batch			Prepared	
	Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
	Total/NA	Prep	5035			265829	ZH8D	EET CAL 4	09/20/22 17:24	
	Total/NA	Analysis	8260D		1	265985	OH1	EET CAL 4	09/21/22 13:33	
	Client Sample	ID: FMF	-BR-B4					Lab	Sample ID:	580-118014-5
	Date Collected: 0	9/16/22 15	5:50							Matrix: Solid
	Date Received: 0	9/17/22 09	:35							
	_	Batch	Batch		Dilution	Batch			Prepared	
	Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
	Total/NA	Analysis	Moisture		1	265837	B4QL	EET CAL 4	09/20/22 17:30	
	Client Sample	ID: FMF	-BR-B4					Lab	Sample ID:	580-118014-5
	Date Collected: 0	9/16/22 15	5:50						_	Matrix: Solid
	Date Received: 0	9/17/22 09	:35						Perc	ent Solids: 79.4
	_	Batch	Batch		Dilution	Batch			Prepared	
	Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
	Total/NA	Prep	5035			265829	ZH8D	EET CAL 4	09/20/22 17:24	
	Total/NA	Analysis	8260D		1	265985	OH1	EET CAL 4	09/21/22 13:54	
	Client Sample	ID: FMF	-BR-B3					Lab	Sample ID:	580-118014-6
	Date Collected: 0	9/16/22 16	5:00							Matrix: Solid
	Date Received: 0	9/17/22 09	:35							
	_	Batch	Batch		Dilution	Batch			Prepared	
	Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
	Total/NA	Analysis	Moisture		1	265837	B4QL	EET CAL 4	09/20/22 17:30	
	Client Sample	ID: FMF	-BR-B3					Lab	Sample ID:	580-118014-6
	Date Collected: 0	9/16/22 16	6:00							Matrix: Solid
	Date Received: 0	9/17/22 09	:35						Perc	ent Solids: 78.2
	_	Batch	Batch		Dilution	Batch			Prepared	
	Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
	Total/NA	Prep	5035			265829	ZH8D	EET CAL 4	09/20/22 17:24	
	Total/NA	Analysis	8260D		1	265985	OH1	EET CAL 4	09/21/22 14:14	
	Client Sample	ID: FMF	-BR-C5					Lab	Sample ID:	580-118014-7
	Date Collected: 0	9/16/22 16	6:10						-	Matrix: Solid
	Date Received: 0	9/17/22 09	:35							
1	_	Batch	Batch		Dilution	Batch			Prepared	
	Pren Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	

Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	Moisture		1	265837	B4QL	EET CAL 4	09/20/22 17:30

Client Samp	le ID: FMI	F-BR-C5					Lab	Sample ID:	580-118014-7
Date Collected	: 09/16/22 1	6:10							Matrix: Solid
Date Received	: 09/17/22 0	9:35						Perc	ent Solids: 75.0
Γ	Batch	Batch		Dilution	Batch			Prenared	
Bron Type	Type	Method	Pun	Eactor	Numbor	Analyet	Lah	or Analyzod	
	Prep				265820			$\frac{01 \text{ Analyzed}}{09/20/22 \ 17.24}$	
Total/NA	Analysis	82600		50	205025			00/21/22 17:24	
	Analysis	8200D		50	200900	UIII	EET CAL 4	09/21/22 12.11	
Client Samp	le ID: FMI	F-BR-E6					Lab	Sample ID:	580-118014-8
Date Collected	: 09/16/22 1	6:20							Matrix: Solid
Date Received	: 09/17/22 0	9:35							
Г	Botoh	Patab		Dilution	Potoh			Bronarad	
Dren Tune	Datch	Datch	Dum	Dilution	DdlCII	Analyst	Lah	Prepareu	
Tetel/NIA			Kun		Number	Analyst		0r Analyzed	
Iotal/NA	Analysis	woisture		1	205837	B4QL	EET CAL 4	09/20/22 17.30	
Client Samp	le ID: FMI	F-BR-E6					Lab	Sample ID:	580-118014-8
Date Collected	: 09/16/22 1	6:20						-	Matrix: Solid
Date Received	: 09/17/22 0	9:35						Perc	ent Solids: 77.8
	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Prep	5035			265829	ZH8D	EET CAL 4	09/20/22 17:24	
Total/NA	Analysis	8260D		1	265985	OH1	EET CAL 4	09/21/22 14:35	
Client Samp	le ID: FMI	F-BR-E1					Lab	Sample ID:	580-118014-9
Date Collected	: 09/16/22 1	6:30							Matrix: Solid
Date Received	: 09/17/22 0	9:35							
	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	Moisture		1	265837	B4QL	EET CAL 4	09/20/22 17:30	
Client Samp	le ID: FMI	F-BR-E1					Lab	Sample ID:	580-118014-9
Date Collected	: 09/16/22 1	6:30							Matrix: Solid
Date Received	: 09/17/22 0	9:35						Perc	ent Solids: 75.3
Γ								_	
	Batch	Batch	_	Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Prep	5035			265829	ZH8D	EET CAL 4	09/20/22 17:24	
Total/NA	Analysis	8260D		1	265985	OH1	EET CAL 4	09/21/22 14:56	
Client Samp	le ID: FMI	F-BR-F6					Lab S	ample ID: 5	80-118014-10
Date Collected	: 09/16/22 1	6:40							Matrix: Solid
Date Received	: 09/17/22 0	9:35							
	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	

Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	Moisture		1	265837	B4QL	EET CAL 4	09/20/22 17:30

Client Sample ID: FMF-BR-F6 Date Collected: 09/16/22 16:40 Date Received: 09/17/22 09:35

Date Received	d: 09/17/22 0	9:35						Perce	nt Solids: 74.8
Γ	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Prep	5035			265829	ZH8D	EET CAL 4	09/20/22 17:24	
Total/NA	Analysis	8260D		1	265985	OH1	EET CAL 4	09/21/22 15:16	

Client Sample ID: FMF-BR-F1 Date Collected: 09/16/22 16:50 Date Received: 09/17/22 09:35

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	Moisture		1	265837	B4QL	EET CAL 4	09/20/22 17:30

Client Sample ID: FMF-BR-F1 Lab Sample ID: 580-118014-11 Date Collected: 09/16/22 16:50 Matrix: Solid Date Received: 09/17/22 09:35 Percent Solids: 78.8 Dilution Batch Batch Batch Prepared

Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5035			265829	ZH8D	EET CAL 4	09/20/22 17:24
Total/NA	Analysis	8260D		1	265985	OH1	EET CAL 4	09/21/22 15:37

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Lab Sample ID: 580-118014-10 Matrix: Solid Lab Sample ID: 580-118014-11 Matrix: Solid

Accreditation/Certification Summary

Client: Landau & Associates, Inc. Project/Site: burnt Ridge Road, Onalaska WA

Job ID: 580-118014-1

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Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation	10109	09-30-22
	Districts		
California	SCAQMD LAP	17LA0919	12-01-22
California	State	3082	07-31-23
Oregon	NELAP	4175	02-02-23
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-12-22

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Environment Testing America

ANALYTICAL REPORT

Eurofins Seattle 5755 8th Street East Tacoma, WA 98424 Tel: (253)922-2310

Laboratory Job ID: 580-118222-1

Client Project/Site: Fire Mtn Farms

For:

Landau & Associates, Inc. 155 NE 100 ST Suite 302 Seattle, Washington 98125

Attn: Evelyn Ives

Authorized for release by: 10/9/2022 11:19:39 PM Pauline Matlock, Project Manager (253)922-2310 Pauline.Matlock@et.eurofinsus.com

Designee for

..... Links

Review your project results through

EOL

Have a Question?

www.eurofinsus.com/Env

Visit us at:

Ask— The Expert Sheri Cruz, Project Manager I (253)922-2310 Sheri.Cruz@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 580-118222-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-118222-1

Case Narrative

Comments

No additional comments.

Receipt

The samples were received on 9/23/2022 12:13 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 9.6° C.

GC/MS VOA

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

VOA Prep

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

Job ID: 580-118222-1

Definitions/Glossary

These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Client: Landau & Associates, Inc. Project/Site: Fire Mtn Farms

Percent Recovery

Contains Free Liquid

Colony Forming Unit

Dilution Factor

Contains No Free Liquid

Detection Limit (DoD/DOE)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Method Detection Limit

Minimum Level (Dioxin) Most Probable Number

Method Quantitation Limit

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Not Calculated

Negative / Absent

Positive / Present

Presumptive

Quality Control

Limit of Quantitation (DoD/DOE)

Duplicate Error Ratio (normalized absolute difference)

Decision Level Concentration (Radiochemistry)

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Concentration (Radiochemistry)

Not Detected at the reporting limit (or MDL or EDL if shown)

Minimum Detectable Activity (Radiochemistry)

Glossary Abbreviation

¤ %R

CFL

CFU

CNF

DER

DL

DLC

EDL

LOD

LOQ

MCL

MDA

MDC

MDL

MPN MQL

ML

NC

ND

NEG

POS

PQL

QC

RER

RPD

TEF

TEQ

TNTC

RL

PRES

Dil Fac

DL, RA, RE, IN

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Sample Summary

Client: Landau & Associates, Inc. Project/Site: Fire Mtn Farms

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-118222-1	FMF-CB-North	Water	09/23/22 09:16	09/23/22 12:13
580-118222-2	FMF-CB-DUP	Water	09/23/22 09:28	09/23/22 12:13
580-118222-3	FMF-CB-South	Water	09/23/22 09:40	09/23/22 12:13
580-118222-4	Trip Blank	Water	09/23/22 00:01	09/23/22 12:13

LANDAU ASSOCIATES Chain-of- Record	Custody	North Seattle (20 Tacoma (253) 92 Olympia (360) 75	6) 631-8660 6-2493 91-3178	 Spokane (509) 327-9737 Portland (503) 542-1080 	Date 9/2 Page 1	of Accelerated
Project Name BUNH Ridge-FMF Project Location/Event Marsha, WA Shi Sampler's Name SamaMha LMD Project Contact K-IN REIC, PMAN Send Results To K-REIC, D. JOIC Sample I.D. Data FMF-CB-North 9/23 FMF-CB-DUR 9/23	Project No. D decan water stram Thade jensen zz 916 zz 928	066045,110. Testing Matrix Containe AQ 2 AQ 2	rs 29	Test	ing Parameter	Special Handling Requirements: Shipment Method: CI (OPOH F Stored on ice: (res) / No Observations/Comments Allow water samples to settle, collect
FMF-CB-South 9/23 TripBlank	122 040	AQ 2 AQ Z				aliquot from clear portion NWTPH-Dx - Acid wash cleanup - Silica gel cleanup Dissolved metal samples were field filtered
						Folivene Only VOAS preserved w/HCI
						530-116222 Chain of Custody
Relinquished by Signature Stand Mark Mark Printed Name Mark Mark Company Lavia ASSOLITES Date 222 Time 222	Received by Signature Printed Name Company Date 1/23/2	Mcxinda = ETN 22 Time 12:	Swoope 13	Relinquished by Signature Printed Name Company Date		10.2 /9.6 IRS SMRed Bub/Wet/Chient Received by Signature Printed Name Company Date

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within 9

Abroute.

Client: Landau & Associates, Inc.

Login Number: 118222 List Number: 1 Creator: Swoope, Alexandra C

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	True	
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	

List Source: Eurofins Seattle

Client Sample ID: FMF-CB-North Date Collected: 09/23/22 09:16 Date Received: 09/23/22 12:13

Lab Sample ID: 580-118222-1

Matrix: Water

Job ID: 580-118222-1

Method: SW846 8260D - Vo	olatile Organic	Compound	ds by GC/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			10/05/22 17:44	1
Toluene	ND		1.0		ug/L			10/05/22 17:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analvzed	Dil Fac
•	•						-		
Toluene-d8 (Surr)			80 - 120				_	10/05/22 17:44	1
Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr)	99 90		80 - 120 80 - 120					10/05/22 17:44 10/05/22 17:44	1
Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr)	99 90 101		80 - 120 80 - 120 80 - 120					10/05/22 17:44 10/05/22 17:44 10/05/22 17:44	1 1 1

8 9 10

Client Sample ID: FMF-CB-DUP Date Collected: 09/23/22 09:28 Date Received: 09/23/22 12:13

Lab Sample ID: 580-118222-2

Matrix: Water

Job ID: 580-118222-1

Method: SW846 8260D - Vo	latile Organic	Compound	ds by GC/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			10/05/22 18:09	1
Toluene	ND		1.0		ug/L			10/05/22 18:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Surrogate Toluene-d8 (Surr)	98	Qualifier	Limits 80 - 120				Prepared	Analyzed 10/05/22 18:09	Dil Fac
Surrogate Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr)	98 90 90	Qualifier	Limits 80 - 120 80 - 120				Prepared	Analyzed 10/05/22 18:09 10/05/22 18:09	Dil Fac 1 1
Surrogate Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr)	%Recovery 98 90 103	Qualifier	Limits 80 - 120 80 - 120 80 - 120				Prepared	Analyzed 10/05/22 18:09 10/05/22 18:09 10/05/22 18:09	Dil Fac 1 1 1

Client Sample ID: FMF-CB-South Date Collected: 09/23/22 09:40 Date Received: 09/23/22 12:13

Job ID: 580-118222-1

Lab Sample ID: 580-118222-3 Matrix: Water

Method: SW846 8260D - Vo	olatile Organic	Compoun	ds by GC/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			10/05/22 18:34	1
Toluene	ND		1.0		ug/L			10/05/22 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120					10/05/22 18:34	1
4-Bromofluorobenzene (Surr)	93		80 - 120					10/05/22 18:34	1
Dibromofluoromethane (Surr)	103		80 - 120					10/05/22 18:34	1

10/9/2022

Client Sample ID: Trip Blank Date Collected: 09/23/22 00:01 Date Received: 09/23/22 12:13

Lab Sample ID: 580-118222-4 Matrix: Water

Method: SW846 8260D - Vo	latile Organic	Compound	ds by GC/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			10/05/22 17:20	1
Toluene	ND		1.0		ug/L			10/05/22 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Surrogate Toluene-d8 (Surr)	%Recovery 98	Qualifier	Limits 80 - 120				Prepared	Analyzed 10/05/22 17:20	Dil Fac
Surrogate Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr)	98 93	Qualifier	Limits 80 - 120 80 - 120				Prepared	Analyzed 10/05/22 17:20 10/05/22 17:20	Dil Fac 1 1
Surrogate Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr)	%Recovery 	Qualifier	Limits 80 - 120 80 - 120 80 - 120				Prepared	Analyzed 10/05/22 17:20 10/05/22 17:20 10/05/22 17:20	Dil Fac 1 1 1

5 6

8 9 10

5 6

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Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-406059/3

Matrix: Water Analysis Batch: 406059

Client Sample ID: Method Blank Prep Type: Total/NA

Analysis Baton. 400000									
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			10/05/22 11:36	1
Toluene	ND		1.0		ug/L			10/05/22 11:36	1
	МВ	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120					10/05/22 11:36	1
4-Bromofluorobenzene (Surr)	94		80 - 120					10/05/22 11:36	1
Dibromofluoromethane (Surr)	100		80 - 120					10/05/22 11:36	1
1,2-Dichloroethane-d4 (Surr)	103		80 - 120					10/05/22 11:36	1

Lab Sample ID: LCS 580-406059/4 Matrix: Water Analysis Batch: 406059

-			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene			10.0	9.81		ug/L		98	80 - 122	
Toluene			10.0	9.40		ug/L		94	80 - 120	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
Toluene-d8 (Surr)	97		80 - 120							
4-Bromofluorobenzene (Surr)	95		80 - 120							
Dibromofluoromethane (Surr)	99		80 - 120							

80 - 120

Lab Sample ID: LCSD 580-406059/5 Matrix: Water Analysis Batch: 406059

1,2-Dichloroethane-d4 (Surr)

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

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

		Spike	LCSD	LCSD				%Rec		RPD
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene		10.0	9.79		ug/L		98	80 - 122	0	14
Toluene		10.0	9.42		ug/L		94	80 - 120	0	13
	LCSD LCSD									
•										

Surrogate	%Recovery	Qualifier	Limits	
Toluene-d8 (Surr)	96		80 - 120	
4-Bromofluorobenzene (Surr)	98		80 - 120	
Dibromofluoromethane (Surr)	103		80 - 120	
1,2-Dichloroethane-d4 (Surr)	105		80 - 120	

Client Sam	ple ID: FMI	F-CB-North					Lab	Sample ID:	580-118222-1
Date Collecte	d: 09/23/22 0	9:16						-	Matrix: Water
Date Receive	d: 09/23/22 1	2:13							
	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8260D		1	406059	BNM	EET SEA	10/05/22 17:44	
Client Sam	ple ID: FM	F-CB-DUP					Lab	Sample ID:	580-118222-2
Date Collecte	d: 09/23/22 0	9:28						-	Matrix: Water
Date Receive	d: 09/23/22 1	2:13							
	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8260D		1	406059	BNM	EET SEA	10/05/22 18:09	
Client Sam	ple ID: FM	F-CB-South					Lab	Sample ID:	580-118222-3
Date Collecte	d: 09/23/22 0	9:40						-	Matrix: Water
Date Receive	d: 09/23/22 1	2:13							
Γ	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analvzed	
Total/NA	Analysis	8260D		1	406059	BNM	EET SEA	10/05/22 18:34	
Client Sam	ple ID: Trip	Blank					Lab	Sample ID:	580-118222-4
Date Collecte	d: 09/23/22 0	0:01							Matrix: Water
Date Receive	d: 09/23/22 1	2:13							
	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis			1	406059	BNM	EET SEA	10/05/22 17:20	
	,	01000		1	100000				

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Client: Landau & Associates, Inc. Project/Site: Fire Mtn Farms Job ID: 580-118222-1

Laboratory: Eurofins Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25
ANAB	Dept. of Defense ELAP	L2236	01-19-25
ANAB	Dept. of Energy	L2236	01-19-25
ANAB	ISO/IEC 17025	L2236	01-19-25
Arkansas DEQ	State	8801526	05-23-23
California	State	2954	07-07-22 *
Florida	NELAP	E87575	06-30-23
Louisiana	NELAP	03073	06-30-23
Maine	State	WA01273	05-02-24
Montana (UST)	State	NA	04-14-27
New Jersey	NELAP	WA014	06-30-23
New York	NELAP	11662	04-01-23
Oregon	NELAP	4167	07-08-23
US Fish & Wildlife	US Federal Programs	A20571	06-30-23
USDA	US Federal Programs	P330-20-00031	02-10-23
Washington	State	C788	07-13-23
Wisconsin	State	399133460	08-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.