

Oregon Dept. of Env. Quality - ODEQ

Sample Delivery Group: L1813318
Samples Received: 12/24/2024
Project Number:
Description: DEQ Forest Creek

Report To: Cathy Brown
700 NE Multnomah St. #600
Portland, OR 97124

Entire Report Reviewed By:



Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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SAMPLE SUMMARY

DU2-ISM L1813318-01 Solid

Collected by
Connor Anderson

Collected date/time
12/17/24 14:00

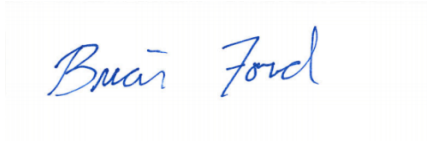
Received date/time
12/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2429129	1	01/22/25 00:00	01/22/25 00:00	-	Subcontract

¹Cp ${}^2\text{Tc}$ 3S_s ${}^4\text{Cn}$ ${}^5\text{G}_1$ ${}^6\text{Al}$ ${}^7\text{Sc}$

CASE NARRATIVE

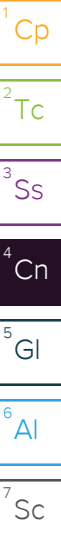
All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager

Project Narrative

L1813318 -01 contains subout data that is included after the chain of custody.



GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ACCREDITATIONS & LOCATIONS

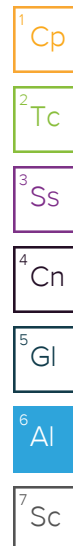
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



C169

THIS PURCHASE IS SUBMITTED PURSUANT TO STATE OF OREGON SOLICITATION #102-1098-07 AND PRICE AGREEMENT # 8903. THE PRICE AGREEMENT INCLUDING CONTRACT TERMS AND CONDITIONS AND SPECIAL CONTRACT TERMS AND CONDITIONS (T'S & C'S) CONTAINED IN THE PRICE AGREEMENT ARE HEREBY INCORPORATED BY REFERENCE AND SHALL APPLY TO THIS PURCHASE AND SHALL TAKE PRECEDENCE OVER ALL OTHER CONFLICTING T'S AND C'S, EXPRESS OR IMPLIED.

ANALYTICAL REPORT

PREPARED FOR

Attn: Jimmy Huckaba
Pace Analytical National
12065 Lebanon Rd
Mt Juliet, Tennessee 37122

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JOB DESCRIPTION

Oregon samples

JOB NUMBER

320-118078-1

Eurofins Sacramento

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 Northern California, LLC Project Manager.

Authorization



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Authorized for release by
Nathaniel Horner, Project Manager I
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(916)374-4306

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Definitions/Glossary

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Qualifiers

Dioxin

Qualifier	Qualifier Description
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Glossary

Abbreviation	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
%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

Case Narrative

Client: Pace Analytical National
Project: Oregon samples

Job ID: 320-118078-1

Job ID: 320-118078-1

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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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 1/7/2025 9:10 AM. 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 0.6°C.

Dioxin

Method 1613B: The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): DU2-ISM (320-118078-1). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

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

General Chemistry

Method Moisture: The reference method does not list a specific holding time for this procedure; therefore, the laboratory defaults to an in-house holding time of 14 days. The following sample in analytical batch 320-827913 was prepared and analyzed outside this time period: DU2-ISM (320-118078-1).

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

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Detection Summary

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Client Sample ID: DU2-ISM

Lab Sample ID: 320-118078-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	1.95	q	1.00		pg/g	1	✱	1613B	Total/NA
1,2,3,7,8-PeCDD	7.64		5.00		pg/g	1	✱	1613B	Total/NA
1,2,3,7,8-PeCDF	17.9		5.00		pg/g	1	✱	1613B	Total/NA
2,3,4,7,8-PeCDF	39.7		5.00		pg/g	1	✱	1613B	Total/NA
1,2,3,4,7,8-HxCDD	6.78	q	5.00		pg/g	1	✱	1613B	Total/NA
1,2,3,6,7,8-HxCDD	15.0		5.00		pg/g	1	✱	1613B	Total/NA
1,2,3,7,8,9-HxCDD	14.7		5.00		pg/g	1	✱	1613B	Total/NA
1,2,3,4,7,8-HxCDF	45.8		5.00		pg/g	1	✱	1613B	Total/NA
1,2,3,6,7,8-HxCDF	38.6		5.00		pg/g	1	✱	1613B	Total/NA
2,3,4,6,7,8-HxCDF	51.8		5.00		pg/g	1	✱	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	149		5.00		pg/g	1	✱	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	226		5.00		pg/g	1	✱	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	8.57		5.00		pg/g	1	✱	1613B	Total/NA
OCDD	702		10.0		pg/g	1	✱	1613B	Total/NA
OCDF	65.8		10.0		pg/g	1	✱	1613B	Total/NA
Total TCDD	138	q	1.00		pg/g	1	✱	1613B	Total/NA
Total TCDF	375	G	1.36		pg/g	1	✱	1613B	Total/NA
Total PeCDD	146	q	5.00		pg/g	1	✱	1613B	Total/NA
Total PeCDF	351	q	5.00		pg/g	1	✱	1613B	Total/NA
Total HxCDD	244	q	5.00		pg/g	1	✱	1613B	Total/NA
Total HxCDF	376	q	5.00		pg/g	1	✱	1613B	Total/NA
Total HpCDD	299		5.00		pg/g	1	✱	1613B	Total/NA
Total HpCDF	308		5.00		pg/g	1	✱	1613B	Total/NA
2,3,7,8-TCDF - RA	20.0		1.00		pg/g	1	✱	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

Client Sample Results

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Client Sample ID: DU2-ISM

Lab Sample ID: 320-118078-1

Date Collected: 12/17/24 14:00

Matrix: Solid

Date Received: 01/07/25 09:10

Percent Solids: 91.6

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	1.95	q	1.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,7,8-PeCDD	7.64		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,7,8-PeCDF	17.9		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
2,3,4,7,8-PeCDF	39.7		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,4,7,8-HxCDD	6.78	q	5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,6,7,8-HxCDD	15.0		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,7,8,9-HxCDD	14.7		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,4,7,8-HxCDF	45.8		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,6,7,8-HxCDF	38.6		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,7,8,9-HxCDF	ND		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
2,3,4,6,7,8-HxCDF	51.8		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,4,6,7,8-HpCDD	149		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,4,6,7,8-HpCDF	226		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
1,2,3,4,7,8,9-HpCDF	8.57		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
OCDD	702		10.0		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
OCDF	65.8		10.0		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
Total TCDD	138	q	1.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
Total TCDF	375	G	1.36		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
Total PeCDD	146	q	5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
Total PeCDF	351	q	5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
Total HxCDD	244	q	5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
Total HxCDF	376	q	5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
Total HpCDD	299		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1
Total HpCDF	308		5.00		pg/g	☆	01/10/25 07:38	01/15/25 07:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	54		25 - 164	01/10/25 07:38	01/15/25 07:15	1
13C-2,3,7,8-TCDF	61		24 - 169	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,7,8-PeCDD	53		25 - 181	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,7,8-PeCDF	54		24 - 185	01/10/25 07:38	01/15/25 07:15	1
13C-2,3,4,7,8-PeCDF	54		21 - 178	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,4,7,8-HxCDD	53		32 - 141	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,6,7,8-HxCDD	64		28 - 130	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,4,7,8-HxCDF	58		26 - 152	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,6,7,8-HxCDF	62		26 - 123	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,7,8,9-HxCDF	55		29 - 147	01/10/25 07:38	01/15/25 07:15	1
13C-2,3,4,6,7,8-HxCDF	62		28 - 136	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,4,6,7,8-HpCDD	56		23 - 140	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,4,6,7,8-HpCDF	62		28 - 143	01/10/25 07:38	01/15/25 07:15	1
13C-1,2,3,4,7,8,9-HpCDF	53		26 - 138	01/10/25 07:38	01/15/25 07:15	1
13C-OCDD	60		17 - 157	01/10/25 07:38	01/15/25 07:15	1
13C-OCDF	63		17 - 157	01/10/25 07:38	01/15/25 07:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	92		35 - 197	01/10/25 07:38	01/15/25 07:15	1

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	20.0		1.00		pg/g	☆	01/10/25 07:38	01/15/25 19:56	1

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Client Sample Results

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Client Sample ID: DU2-ISM

Date Collected: 12/17/24 14:00

Date Received: 01/07/25 09:10

Lab Sample ID: 320-118078-1

Matrix: Solid

Percent Solids: 91.6

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C-2,3,7,8-TCDF	63		24 - 169				01/10/25 07:38	01/15/25 19:56	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
37Cl4-2,3,7,8-TCDD	90		35 - 197				01/10/25 07:38	01/15/25 19:56	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	8.4	H	0.1		%			01/16/25 15:51	1
Percent Solids (ASTM D 2216)	91.6	H	0.1		%			01/16/25 15:51	1

Toxicity Summary

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Client Sample ID: DU2-ISM

Lab Sample ID: 320-118078-1

Analyte	Result	Qualifier	RL	EDL	Unit	WHO 2005		Method
						ND = ½ EDL		
						TEF	TEQ	
2,3,7,8-TCDD	1.95	q	1.00		pg/g	1	1.95	1613B
1,2,3,7,8-PeCDD	7.64		5.00		pg/g	1	7.64	1613B
1,2,3,7,8-PeCDF	17.9		5.00		pg/g	0.03	0.537	1613B
2,3,4,7,8-PeCDF	39.7		5.00		pg/g	0.3	11.9	1613B
1,2,3,4,7,8-HxCDD	6.78	q	5.00		pg/g	0.1	0.678	1613B
1,2,3,6,7,8-HxCDD	15.0		5.00		pg/g	0.1	1.50	1613B
1,2,3,7,8,9-HxCDD	14.7		5.00		pg/g	0.1	1.47	1613B
1,2,3,4,7,8-HxCDF	45.8		5.00		pg/g	0.1	4.58	1613B
1,2,3,6,7,8-HxCDF	38.6		5.00		pg/g	0.1	3.86	1613B
1,2,3,7,8,9-HxCDF	ND		5.00		pg/g	0.1	0.157	1613B
2,3,4,6,7,8-HxCDF	51.8		5.00		pg/g	0.1	5.18	1613B
1,2,3,4,6,7,8-HpCDD	149		5.00		pg/g	0.01	1.49	1613B
1,2,3,4,6,7,8-HpCDF	226		5.00		pg/g	0.01	2.26	1613B
1,2,3,4,7,8,9-HpCDF	8.57		5.00		pg/g	0.01	0.0857	1613B
OCDD	702		10.0		pg/g	0.0003	0.211	1613B
OCDF	65.8		10.0		pg/g	0.0003	0.0197	1613B
2,3,7,8-TCDF - RA	20.0		1.00		pg/g	0.1	2.00	1613B
Analyte	Result	Qualifier	NONE	NONE	Unit	WHO 2005		Method
						ND = ½ EDL		
						TEF	TEQ	
Total Dioxin/Furan TEQ					pg/g		2000	TEQ
Total TEQ					pg/g		2000	TEQ

TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

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Surrogate Summary

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	37TCDD (35-197)
320-118078-1	DU2-ISM	92
320-118078-1 - RA	DU2-ISM	90
MB 320-826876/1-A	Method Blank	95

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	37TCDD (31-191)
LCS 320-826876/2-A	Lab Control Sample	95
LCSD 320-826876/3-A	Lab Control Sample Dup	96

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (25-164)	TCDF (24-169)	PeCDD (25-181)	PeCDF (24-185)	PeCF (21-178)	HxCDD (32-141)	HxDD (28-130)	HxCDF (26-152)
320-118078-1	DU2-ISM	54	61	53	54	54	53	64	58
320-118078-1 - RA	DU2-ISM		63						
MB 320-826876/1-A	Method Blank	60	68	56	61	58	53	65	57

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HxDF (26-123)	HxCF (29-147)	13CHxCF (28-136)	HpCDD (23-140)	HpCDF (28-143)	HpCDF2 (26-138)	OCDD (17-157)	OCDF (17-157)
320-118078-1	DU2-ISM	62	55	62	56	62	53	60	63
320-118078-1 - RA	DU2-ISM								
MB 320-826876/1-A	Method Blank	61	59	59	56	64	53	61	64

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
PeCF = 13C-2,3,4,7,8-PeCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxDD = 13C-1,2,3,6,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDF = 13C-1,2,3,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDD = 13C-OCDD
OCDF = 13C-OCDF

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (20-175)	TCDF (22-152)	PeCDD (21-227)	PeCDF (21-192)	PeCF (13-328)	HxCDD (21-193)	HxDD (25-163)	HxCDF (19-202)
LCS 320-826876/2-A	Lab Control Sample	69	76	65	66	56	50	66	50
LCSD 320-826876/3-A	Lab Control Sample Dup	71	78	65	67	63	60	77	63

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HxDF (21-159)	HxCF (17-205)	13CHxCF (22-176)	HpCDD (26-166)	HpCDF (21-158)	HpCDF2 (20-186)	OCDD (13-199)	OCDF (13-199)
LCS 320-826876/2-A	Lab Control Sample	55	71	69	68	62	70	78	79
LCSD 320-826876/3-A	Lab Control Sample Dup	67	72	72	68	76	71	75	81

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
PeCF = 13C-2,3,4,7,8-PeCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxDD = 13C-1,2,3,6,7,8-HxCDD

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Isotope Dilution Summary

Client: Pace Analytical National

Project/Site: Oregon samples

HxCDF = 13C-1,2,3,4,7,8-HxCDF

HxDF = 13C-1,2,3,6,7,8-HxCDF

HxCF = 13C-1,2,3,7,8,9-HxCDF

13CHxCF = 13C-2,3,4,6,7,8-HxCDF

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD

HpCDF = 13C-1,2,3,4,6,7,8-HpCDF

HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF

OCDD = 13C-OCDD

OCDF = 13C-OCDF

Job ID: 320-118078-1

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QC Sample Results

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-826876/1-A

Matrix: Solid

Analysis Batch: 827323

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 826876

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
2,3,7,8-TCDF	ND		1.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,7,8-PeCDD	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,7,8-PeCDF	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
2,3,4,7,8-PeCDF	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,4,7,8-HxCDD	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,6,7,8-HxCDD	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,7,8,9-HxCDD	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,4,7,8-HxCDF	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,6,7,8-HxCDF	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,7,8,9-HxCDF	ND q		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
2,3,4,6,7,8-HxCDF	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,4,6,7,8-HpCDD	ND q		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,4,6,7,8-HpCDF	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
1,2,3,4,7,8,9-HpCDF	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
OCDD	ND q		10.0		pg/g		01/10/25 07:38	01/14/25 16:53	1
OCDF	ND q		10.0		pg/g		01/10/25 07:38	01/14/25 16:53	1
Total TCDD	ND		1.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
Total TCDF	ND		1.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
Total PeCDD	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
Total PeCDF	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
Total HxCDD	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
Total HxCDF	ND q		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
Total HpCDD	ND q		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1
Total HpCDF	ND		5.00		pg/g		01/10/25 07:38	01/14/25 16:53	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	60		25 - 164	01/10/25 07:38	01/14/25 16:53	1
13C-2,3,7,8-TCDF	68		24 - 169	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,7,8-PeCDD	56		25 - 181	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,7,8-PeCDF	61		24 - 185	01/10/25 07:38	01/14/25 16:53	1
13C-2,3,4,7,8-PeCDF	58		21 - 178	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,4,7,8-HxCDD	53		32 - 141	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,6,7,8-HxCDD	65		28 - 130	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,4,7,8-HxCDF	57		26 - 152	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,6,7,8-HxCDF	61		26 - 123	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,7,8,9-HxCDF	59		29 - 147	01/10/25 07:38	01/14/25 16:53	1
13C-2,3,4,6,7,8-HxCDF	59		28 - 136	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,4,6,7,8-HpCDD	56		23 - 140	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,4,6,7,8-HpCDF	64		28 - 143	01/10/25 07:38	01/14/25 16:53	1
13C-1,2,3,4,7,8,9-HpCDF	53		26 - 138	01/10/25 07:38	01/14/25 16:53	1
13C-OCDD	61		17 - 157	01/10/25 07:38	01/14/25 16:53	1
13C-OCDF	64		17 - 157	01/10/25 07:38	01/14/25 16:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	95		35 - 197	01/10/25 07:38	01/14/25 16:53	1

Eurofins Sacramento

QC Sample Results

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-826876/2-A

Matrix: Solid

Analysis Batch: 827323

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 826876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,3,7,8-TCDD	20.0	20.88		pg/g		104	67 - 158
2,3,7,8-TCDF	20.0	20.35		pg/g		102	75 - 158
1,2,3,7,8-PeCDD	100	105.1		pg/g		105	70 - 142
1,2,3,7,8-PeCDF	100	107.9		pg/g		108	80 - 134
2,3,4,7,8-PeCDF	100	108.6		pg/g		109	68 - 160
1,2,3,4,7,8-HxCDD	100	107.7		pg/g		108	70 - 164
1,2,3,6,7,8-HxCDD	100	106.5		pg/g		106	76 - 134
1,2,3,7,8,9-HxCDD	100	135.5		pg/g		135	64 - 162
1,2,3,4,7,8-HxCDF	100	115.7		pg/g		116	72 - 134
1,2,3,6,7,8-HxCDF	100	112.9		pg/g		113	84 - 130
1,2,3,7,8,9-HxCDF	100	112.6		pg/g		113	78 - 130
2,3,4,6,7,8-HxCDF	100	111.7		pg/g		112	70 - 156
1,2,3,4,6,7,8-HpCDD	100	111.2		pg/g		111	70 - 140
1,2,3,4,6,7,8-HpCDF	100	105.9		pg/g		106	82 - 122
1,2,3,4,7,8,9-HpCDF	100	116.4		pg/g		116	78 - 138
OCDD	200	206.8		pg/g		103	78 - 144
OCDF	200	218.2		pg/g		109	63 - 170

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	69		20 - 175
13C-2,3,7,8-TCDF	76		22 - 152
13C-1,2,3,7,8-PeCDD	65		21 - 227
13C-1,2,3,7,8-PeCDF	66		21 - 192
13C-2,3,4,7,8-PeCDF	56		13 - 328
13C-1,2,3,4,7,8-HxCDD	50		21 - 193
13C-1,2,3,6,7,8-HxCDD	66		25 - 163
13C-1,2,3,4,7,8-HxCDF	50		19 - 202
13C-1,2,3,6,7,8-HxCDF	55		21 - 159
13C-1,2,3,7,8,9-HxCDF	71		17 - 205
13C-2,3,4,6,7,8-HxCDF	69		22 - 176
13C-1,2,3,4,6,7,8-HpCDD	68		26 - 166
13C-1,2,3,4,6,7,8-HpCDF	62		21 - 158
13C-1,2,3,4,7,8,9-HpCDF	70		20 - 186
13C-OCDD	78		13 - 199
13C-OCDF	79		13 - 199

Surrogate	LCS %Recovery	LCS Qualifier	Limits
37Cl4-2,3,7,8-TCDD	95		31 - 191

Lab Sample ID: LCSD 320-826876/3-A

Matrix: Solid

Analysis Batch: 827323

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826876

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,3,7,8-TCDD	20.0	21.85		pg/g		109	67 - 158	5	50
2,3,7,8-TCDF	20.0	21.35		pg/g		107	75 - 158	5	50
1,2,3,7,8-PeCDD	100	109.2		pg/g		109	70 - 142	4	50
1,2,3,7,8-PeCDF	100	114.1		pg/g		114	80 - 134	6	50

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QC Sample Results

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-826876/3-A

Matrix: Solid

Analysis Batch: 827323

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 826876

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,3,4,7,8-PeCDF	100	113.0		pg/g		113	68 - 160	4	50
1,2,3,4,7,8-HxCDD	100	111.7		pg/g		112	70 - 164	4	50
1,2,3,6,7,8-HxCDD	100	107.7		pg/g		108	76 - 134	1	50
1,2,3,7,8,9-HxCDD	100	116.6		pg/g		117	64 - 162	15	50
1,2,3,4,7,8-HxCDF	100	119.5		pg/g		120	72 - 134	3	50
1,2,3,6,7,8-HxCDF	100	118.5		pg/g		118	84 - 130	5	50
1,2,3,7,8,9-HxCDF	100	112.0		pg/g		112	78 - 130	0	50
2,3,4,6,7,8-HxCDF	100	115.7		pg/g		116	70 - 156	4	50
1,2,3,4,6,7,8-HpCDD	100	116.1		pg/g		116	70 - 140	4	50
1,2,3,4,6,7,8-HpCDF	100	105.1		pg/g		105	82 - 122	1	50
1,2,3,4,7,8,9-HpCDF	100	113.8		pg/g		114	78 - 138	2	50
OCDD	200	218.1		pg/g		109	78 - 144	5	50
OCDF	200	217.3		pg/g		109	63 - 170	0	50

LCSD LCSD			
Isotope Dilution	%Recovery	Qualifier	Limits
13C-2,3,7,8-TCDD	71		20 - 175
13C-2,3,7,8-TCDF	78		22 - 152
13C-1,2,3,7,8-PeCDD	65		21 - 227
13C-1,2,3,7,8-PeCDF	67		21 - 192
13C-2,3,4,7,8-PeCDF	63		13 - 328
13C-1,2,3,4,7,8-HxCDD	60		21 - 193
13C-1,2,3,6,7,8-HxCDD	77		25 - 163
13C-1,2,3,4,7,8-HxCDF	63		19 - 202
13C-1,2,3,6,7,8-HxCDF	67		21 - 159
13C-1,2,3,7,8,9-HxCDF	72		17 - 205
13C-2,3,4,6,7,8-HxCDF	72		22 - 176
13C-1,2,3,4,6,7,8-HpCDD	68		26 - 166
13C-1,2,3,4,6,7,8-HpCDF	76		21 - 158
13C-1,2,3,4,7,8,9-HpCDF	71		20 - 186
13C-OCDD	75		13 - 199
13C-OCDF	81		13 - 199

LCSD LCSD			
Surrogate	%Recovery	Qualifier	Limits
37Cl4-2,3,7,8-TCDD	96		31 - 191

Eurofins Sacramento

QC Association Summary

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Specialty Organics

Prep Batch: 826876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-118078-1	DU2-ISM	Total/NA	Solid	HRMS-Sox	
320-118078-1 - RA	DU2-ISM	Total/NA	Solid	HRMS-Sox	
MB 320-826876/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	
LCS 320-826876/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	
LCSD 320-826876/3-A	Lab Control Sample Dup	Total/NA	Solid	HRMS-Sox	

Analysis Batch: 827323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-826876/1-A	Method Blank	Total/NA	Solid	1613B	826876
LCS 320-826876/2-A	Lab Control Sample	Total/NA	Solid	1613B	826876
LCSD 320-826876/3-A	Lab Control Sample Dup	Total/NA	Solid	1613B	826876

Analysis Batch: 827524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-118078-1	DU2-ISM	Total/NA	Solid	1613B	826876

Analysis Batch: 827707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-118078-1 - RA	DU2-ISM	Total/NA	Solid	1613B	826876

General Chemistry

Analysis Batch: 827913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-118078-1	DU2-ISM	Total/NA	Solid	D 2216	

Lab Chronicle

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Client Sample ID: DU2-ISM

Date Collected: 12/17/24 14:00

Date Received: 01/07/25 09:10

Lab Sample ID: 320-118078-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1			827913	01/16/25 15:51	CFR	EET SAC

Client Sample ID: DU2-ISM

Date Collected: 12/17/24 14:00

Date Received: 01/07/25 09:10

Lab Sample ID: 320-118078-1

Matrix: Solid

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.48 g	20.0 uL	826876	01/10/25 07:38	IS	EET SAC
Total/NA	Analysis	1613B		1	1 Sample	1 Sample	827524	01/15/25 07:15	CB	EET SAC
Total/NA	Prep	HRMS-Sox	RA		10.48 g	20.0 uL	826876	01/10/25 07:38	IS	EET SAC
Total/NA	Analysis	1613B	RA	1	1 uL	1 uL	827707	01/15/25 19:56	DB	EET SAC

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Laboratory: Eurofins Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200060	03-31-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
D 2216		Solid	Percent Moisture
D 2216		Solid	Percent Solids
TEQ		Solid	Total Dioxin/Furan TEQ
TEQ		Solid	Total TEQ

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Method Summary

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Method	Method Description	Protocol	Laboratory
1613B	Dioxins and Furans (HRGC/HRMS)	EPA	EET SAC
TEQ	Total TEQ Calculation	Lab SOP	EET SAC
D 2216	Percent Moisture	ASTM	EET SAC
HRMS-Sox	Soxhlet Extraction	EPA	EET SAC

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
Lab SOP = Laboratory Standard Operating Procedure

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Pace Analytical National
Project/Site: Oregon samples

Job ID: 320-118078-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-118078-1	DU2-ISM	Solid	12/17/24 14:00	01/07/25 09:10

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Sub-Contract Chain of Custody

Batch Date/Time: 01/06/25 09 40

Sub-Contract Lab: TAWSCA

Address: 880 Riverside Parkway

City/State: West Sacramento, CA
95605

Contact:

Nathaniel Horner@et eurofinsus com

Owner Lab: PACEMTJL

Address: 12065 Lebanon Rd

City/State: Mt Juliet, TN 37122

Phone: (615) 773-9756

Fax: (615) 758-5859

WO: WG2429129

Email: MTJLSuboutTeam@pacelabs com

Results Due Date: 01/28/25

ESC Purchase Order #: L1813318

Send Reports to: James C Huckaba



12065 Lebanon Rd
Mt Juliet, TN 37122
Phone (615) 773-9756
Fax (615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Method	Sample Number Lab Use Only	Sample Comments Lab Use Only
DU2-ISM 4ozClr-NoPres - 50414628	SS	OR	12/17/24 14:00	Dioxins and Furans 1613	1613	2. L1813318-01	1613 dioxins/furans including TEQ, Equis EDD and Promium EDD

*= Container used for multiple Samples and/or Analyses

Relinquished by: [Signature] Date 1-6-25

Received by: [Signature] EE7560 Date 1/7/24 0910

Relinquished by: _____ Date _____

Received by: _____ Date _____

06°C



320-118078 Chain of Custody



Environment Testing

Sacramento Sample Receiving Notes (SSRN)

Loc 320

118078

Tracking # 4301 1543 7469

Job _____

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSL / OnTrac / Goldstreak / USPS / Other _____Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COCTherm ID W4 Corr Factor (+/- W/A) °CIce ☒ Wet ☒ Gel _____ Other _____Cooler Custody Seal Seal

Cooler ID _____

Temp Observed 0.6 °C Corrected 0.6 °CFrom Temp Blank ☒ Sandwich ☐ Sidewall ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
Frozen samples show signs of thaw?	☐	☐	☒

Initials SO Date 11/2/24

Unpacking/Labeling The Samples	Yes	No	NA
Containers are not broken or leaking?	☒	☐	☐
Samples compromised/tampered with?	☐	☒	☐
COC is complete w/o discrepancies	☒	☐	☐
Sample custody seal?	☐	☐	☒
Sample containers have legible labels?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Is the Field Sampler's name on COC?	☐	☐	☒
Samples w/o discrepancies?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace?	☐	☐	☒
(Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials DM Date 01/07/25

Notes: _____

Trizma Lot #(s) _____

Ammonium

Acetate Lot #(s) _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
NCM Filed?	☐	☐	☒
Samples received within hold time?	☒	☐	☐
Log Release checked in TALS?	☒	☐	☐

Initials DM Date 01/07/25