



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Kyle Siesser  
Cottonwood Consulting LLC  
PO BOX 1653  
Durango, Colorado 81302  
Generated 7/5/2024 12:29:01 PM

## JOB DESCRIPTION

AL Elliott D 002

## JOB NUMBER

885-6336-1

Eurofins Albuquerque  
4901 Hawkins NE  
Albuquerque NM 87109

See page two for job notes and contact information.  
Released to Imaging: 7/10/24 12:29 PM

# Eurofins Albuquerque

## Job Notes

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 South Central, LLC Project Manager.

## Authorization



Authorized for release by  
Cheyenne Cason, Project Manager  
[cheyenne.cason@et.eurofinsus.com](mailto:cheyenne.cason@et.eurofinsus.com)  
(505)345-3975

Generated  
7/5/2024 12:29:01 PM

Client: Cottonwood Consulting LLC  
Project/Site: AL Elliott D 002

Laboratory Job ID: 885-6336-1

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Definitions/Glossary . . . . .	4
Case Narrative . . . . .	5
Client Sample Results . . . . .	6
QC Sample Results . . . . .	7
QC Association Summary . . . . .	9
Lab Chronicle . . . . .	10
Certification Summary . . . . .	11
Subcontract Data . . . . .	12
Chain of Custody . . . . .	17
Receipt Checklists . . . . .	18

1

2

3

4

5

6

7

8

9

10

11

12

## Definitions/Glossary

Client: Cottonwood Consulting LLC  
Project/Site: AL Elliott D 002

Job ID: 885-6336-1

## 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: Cottonwood Consulting LLC  
Project: AL Elliott D 002

Job ID: 885-6336-1

Job ID: 885-6336-1Eurofins Albuquerque

Job Narrative  
885-6336-1

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

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

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

Receipt

The sample was received on 6/14/2024 7:00 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 25.3°C.

Subcontract Work

Method Natural Gases O2, CO2: This method was subcontracted to Energy Laboratories, Inc. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Gasoline Range Organics

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

GC VOA

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

Eurofins Albuquerque

## Client Sample Results

Client: Cottonwood Consulting LLC  
Project/Site: AL Elliott D 002

Job ID: 885-6336-1

Client Sample ID: SVE

Lab Sample ID: 885-6336-1

Date Collected: 06/13/24 13:05

Matrix: Air

Date Received: 06/14/24 07:00

Sample Container: Tedlar Bag 1L

## Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	100		5.0	ug/L			06/26/24 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	323		15 - 412		06/26/24 12:53	1

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl-tert-butyl Ether (MTBE)	ND		0.25	ug/L			06/26/24 12:53	1
Benzene	ND		0.10	ug/L			06/26/24 12:53	1
Ethylbenzene	0.31		0.10	ug/L			06/26/24 12:53	1
Toluene	ND		0.10	ug/L			06/26/24 12:53	1
m&p-Xylene	0.63		0.10	ug/L			06/26/24 12:53	1
o-Xylene	0.37		0.10	ug/L			06/26/24 12:53	1
1,3,5-TMB	0.97		0.10	ug/L			06/26/24 12:53	1
1,2,4-TMB	0.37		0.10	ug/L			06/26/24 12:53	1
Xylenes, Total	1.0		0.20	ug/L			06/26/24 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130		06/26/24 12:53	1

Eurofins Albuquerque

## QC Sample Results

Client: Cottonwood Consulting LLC  
Project/Site: AL Elliott D 002

Job ID: 885-6336-1

## Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-7463/10

Matrix: Air

Analysis Batch: 7463

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	ug/L			06/26/24 10:32	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		15 - 412				06/26/24 10:32	1

Lab Sample ID: LCS 885-7463/9

Matrix: Air

Analysis Batch: 7463

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	50.0	47.1		ug/L		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	205		15 - 412				

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-7464/10

Matrix: Air

Analysis Batch: 7464

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl-tert-butyl Ether (MTBE)	ND		0.25	ug/L			06/26/24 10:32	1
Benzene	ND		0.10	ug/L			06/26/24 10:32	1
Ethylbenzene	ND		0.10	ug/L			06/26/24 10:32	1
Toluene	ND		0.10	ug/L			06/26/24 10:32	1
m&p-Xylene	ND		0.10	ug/L			06/26/24 10:32	1
o-Xylene	ND		0.10	ug/L			06/26/24 10:32	1
1,3,5-TMB	ND		0.10	ug/L			06/26/24 10:32	1
1,2,4-TMB	ND		0.10	ug/L			06/26/24 10:32	1
Xylenes, Total	ND		0.20	ug/L			06/26/24 10:32	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				06/26/24 10:32	1

Lab Sample ID: LCS 885-7464/9

Matrix: Air

Analysis Batch: 7464

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl-tert-butyl Ether (MTBE)	2.00	1.59		ug/L		79	70 - 130
Benzene	2.00	1.79		ug/L		89	70 - 130
Ethylbenzene	2.00	1.68		ug/L		84	70 - 130
Toluene	2.00	1.67		ug/L		84	70 - 130
m&p-Xylene	4.00	3.40		ug/L		85	70 - 130
o-Xylene	2.00	1.66		ug/L		83	70 - 130
1,3,5-TMB	2.00	1.60		ug/L		80	70 - 130

Eurofins Albuquerque

QC Sample Results

Client: Cottonwood Consulting LLC  
Project/Site: AL Elliott D 002

Job ID: 885-6336-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 885-7464/9				Client Sample ID: Lab Control Sample			
Matrix: Air				Prep Type: Total/NA			
Analysis Batch: 7464							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-TMB	2.00	1.65		ug/L		83	70 - 130
Xylenes, Total	6.00	5.06		ug/L		84	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	94		70 - 130				



QC Association Summary

Client: Cottonwood Consulting LLC  
Project/Site: AL Elliott D 002

Job ID: 885-6336-1

GC VOA

Analysis Batch: 7463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-6336-1	SVE	Total/NA	Air	8015D	
MB 885-7463/10	Method Blank	Total/NA	Air	8015D	
LCS 885-7463/9	Lab Control Sample	Total/NA	Air	8015D	

Analysis Batch: 7464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-6336-1	SVE	Total/NA	Air	8021B	
MB 885-7464/10	Method Blank	Total/NA	Air	8021B	
LCS 885-7464/9	Lab Control Sample	Total/NA	Air	8021B	

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

Lab Chronicle

Client: Cottonwood Consulting LLC  
Project/Site: AL Elliott D 002

Job ID: 885-6336-1

Client Sample ID: SVE  
Date Collected: 06/13/24 13:05  
Date Received: 06/14/24 07:00

Lab Sample ID: 885-6336-1  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015D		1	7463	JP	EET ALB	06/26/24 12:53
Total/NA	Analysis	8021B		1	7464	JP	EET ALB	06/26/24 12:53

**Laboratory References:**  
= , 1120 South 27th Street, Billings, MT 59101, TEL (406)252-6325  
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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

Accreditation/Certification Summary

Client: Cottonwood Consulting LLC  
Project/Site: AL Elliott D 002

Job ID: 885-6336-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
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
8015D		Air	Gasoline Range Organics [C6 - C10]
8021B		Air	1,2,4-TMB
8021B		Air	1,3,5-TMB
8021B		Air	Benzene
8021B		Air	Ethylbenzene
8021B		Air	m&p-Xylene
8021B		Air	Methyl-tert-butyl Ether (MTBE)
8021B		Air	o-Xylene
8021B		Air	Toluene
8021B		Air	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25
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
8015D		Air	Gasoline Range Organics [C6 - C10]
8021B		Air	1,2,4-TMB
8021B		Air	1,3,5-TMB
8021B		Air	Benzene
8021B		Air	Ethylbenzene
8021B		Air	m&p-Xylene
8021B		Air	Methyl-tert-butyl Ether (MTBE)
8021B		Air	o-Xylene
8021B		Air	Toluene
8021B		Air	Xylenes, Total



Trust our People. Trust our Data.  
www.energylab.com

Billings, MT 406.252.6325 • Casper, WY 307.235.0515  
Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

## ANALYTICAL SUMMARY REPORT

June 21, 2024

Hall Environmental

4901 Hawkins St NE Ste D

Albuquerque, NM 87109-4372

Work Order: B24061616

Quote ID: B15626

Project Name: AI Elliott D, 88501577

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 6/18/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24061616-001	SVE (885-6336-1)	06/13/24 13:05	06/18/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond./1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 So. 27th Street, Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



Trust our People. Trust our Data.  
www.energylab.com

Billings, MT 406.252.6325 • Casper, WY 307.235.0515  
Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

LABORATORY ANALYTICAL REPORT  
Prepared by Billings, MT Branch

Client: Hall Environmental  
Project: Al Elliott D, 88501577  
Lab ID: B24061616-001  
Client Sample ID: SVE (885-6336-1)

Report Date: 06/21/24  
Collection Date: 06/13/24 13:05  
Date Received: 06/18/24  
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.88	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Nitrogen	77.72	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Carbon Dioxide	0.35	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Hexanes plus	0.05	Mol %		0.01		GPA 2261-95	06/20/24 01:45 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 01:45 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 01:45 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 01:45 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 01:45 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 01:45 / jrj
Hexanes plus	0.021	gpm		0.001		GPA 2261-95	06/20/24 01:45 / jrj
GPM Total	0.021	gpm		0.001		GPA 2261-95	06/20/24 01:45 / jrj
GPM Pentanes plus	0.021	gpm		0.001		GPA 2261-95	06/20/24 01:45 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	2			1		GPA 2261-95	06/20/24 01:45 / jrj
Net BTU per cu ft @ std cond. (LHV)	2			1		GPA 2261-95	06/20/24 01:45 / jrj
Pseudo-critical Pressure, psia	547			1		GPA 2261-95	06/20/24 01:45 / jrj
Pseudo-critical Temperature, deg R	240			1		GPA 2261-95	06/20/24 01:45 / jrj
Specific Gravity @ 60/60F	1.00			0.001		D3588-81	06/20/24 01:45 / jrj
Air, %	99.97			0.01		GPA 2261-95	06/20/24 01:45 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-							06/20/24 01:45 / jrj
- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior.							
- GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions.							
- To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825.							
- Standard conditions: 60 F & 14.73 psi on a dry basis							

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



Trust our People. Trust our Data.  
www.energylab.com

Billings, MT **406.252.6325** • Casper, WY **307.235.0515**  
Gillette, WY **307.686.7175** • Helena, MT **406.442.0711**

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Hall Environmental

**Work Order: B24061616**

**Report Date:** 06/21/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-95										Batch: R423193
Lab ID:	B24061715-001ADUP	12 Sample Duplicate			Run: GCNGA-B_240620A				06/20/24 11:19	
Oxygen		22.1	Mol %	0.01				0.5	20	
Nitrogen		77.7	Mol %	0.01				0.1	20	
Carbon Dioxide		0.20	Mol %	0.01				0.0	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		0.05	Mol %	0.01				0.0	20	
Lab ID:	LCS062024	11 Laboratory Control Sample			Run: GCNGA-B_240620A				06/20/24 03:27	
Oxygen		0.64	Mol %	0.01	128	70	130			
Nitrogen		6.08	Mol %	0.01	101	70	130			
Carbon Dioxide		0.99	Mol %	0.01	100	70	130			
Methane		75.1	Mol %	0.01	100	70	130			
Ethane		6.09	Mol %	0.01	101	70	130			
Propane		5.04	Mol %	0.01	102	70	130			
Isobutane		1.45	Mol %	0.01	72	70	130			
n-Butane		1.99	Mol %	0.01	99	70	130			
Isopentane		0.95	Mol %	0.01	95	70	130			
n-Pentane		0.97	Mol %	0.01	97	70	130			
Hexanes plus		0.74	Mol %	0.01	93	70	130			

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



Trust our People. Trust our Data.  
www.energylab.com

Billings, MT 406.252.6325 • Casper, WY 307.235.0515  
Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

# Work Order Receipt Checklist

Hall Environmental

B24061616

Login completed by: Danielle N. Harris

Date Received: 6/18/2024

Reviewed by: cindy

Received by: CMJ

Reviewed Date: 6/21/2024

Carrier name: FedEx NDA

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	13.0°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

## Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

## Contact and Corrective Action Comments:

None



4901 Hawkins NE  
Albuquerque, NM 87109  
Phone: 505-345-3975 Fax: 505-345-4107

## Chain of Custody Record



## Environment Testing

Phone: 505-345-3975 Fax: 505-345-4107					
Client Information (Sub Contract Lab)					
Client Contact: Shipping/Receiving Company: Energy Laboratories, Inc. Address: 1120 South 27th Street, City: Billings State, Zip MT, 59101 Phone: 406-252-6325(Tel) Email:					
Project Name: AL Elliott D 002 Site:					
SSOW#:					
Due Date Requested: 6/26/2024 TAT Requested (days): PO #: WO #: Project #: 88501577 Special Instructions/Note: Other:					
Carrier Tracking No(s): COC No: 885-981.1 Page: Page 1 of 1 Job #: 885-6336-1 Preservation Codes:					
Analysis Requested					
Field Filtered Sample (Yes or No) SUB (Natural Gases O2, CO2) Perform MS/MSD (Yes or No) Matrix (W=water, S=solid, O=oils/tissue, A=air) Preservation Code: Air					
Sample ID (Lab ID) Sample Date Sample Time Sample Type (C=Comp, G=grab) at Tissue, A=Air					
SVE (885-6336-1) 6/13/24 13:05 Mountain					
Total Number of Containers					
See Attached Instructions					
BZLOLOKELU					
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.					
Possible Hazard Identification					
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 2					
Empty Kit Relinquished by: Date: Received by: Company					
Relinquished by: Date: Received by: Company					
Relinquished by: Date: Received by: Company					
Custody Seal Intact Yes No					
Custody Seal No.: 6/18/24 09:20					



[illegible]

if necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

## Login Sample Receipt Checklist

Client: Cottonwood Consulting LLC

Job Number: 885-6336-1

Login Number: 6336

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

## SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H <sub>2</sub> O")	Vacuum Pressure downstream of drum (H <sub>2</sub> O")	Run Time (Hours)	System Operational at Arrival?	Drum H <sub>2</sub> O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	1-15-24	1	6.4	-38	-48	-	Y	22	N	Drum Frozen
Florance GC J 16		2	41.4	-6	-	-	Y	12.5	Y	Gasket leaking
Sandoval GC A 1A		3	124.8	-10 (H <sub>2</sub> O)	Broken	7397.7	N	25	N	Drain Valve is broken (Needs replace) Restarted System, Drum Frozen,
Jacquez GC B 3E		1	0.1	-6	-	5520.1	Y	Dry	N	Run time gauge has condensation and is hard to read.
Al Elliot D 002		5	-	-	-	-	N	12.7	N	Drum Frozen and full, generator was running, attempted to restart, would not start.
GCU H180		All	-	-	-	8675.6	N	-	-	System not operational on arrival, attempted to start, could not start, would not start after drying.
Heaton LS 5		Unk	82.3	-	-54	-	Y	25.5	N	Drum Frozen
Mudge B12 R		1	84.4	-28	-8	-	N	32	N	Restarted System Drum Frozen.
Mudge A 002 MV	✓	2	32.0	-50	-	-	Y	Dry	N	

## Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H<sub>2</sub>O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum



## (in hg) SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H <sub>2</sub> O")	Vacuum Pressure downstream of drum (H <sub>2</sub> O")	Run Time (Hours)	System Operational at Arrival?	Drum H <sub>2</sub> O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A*	2-5-24	1	6.2	-3.75	-3.75	-	Y	23.6	Y	
Florance GC J 16*	2-14-24	2	42.6	-2.1	-2.1	-	N	16.4	Y	Drum leaking, needs new gasket.
Sandoval GC A 1A*	2-5-24	3	41.0	-2.5	-2.5	7507.5	Y	31.75	Y	Valve Fixed Gauge Replaced
Jacquez GC B 3E*		1	0.8	-0.2	-	7031.1	Y	32.5	N	Water Frozen
Al Elliot D 002*		5	65.7	-0.5	-0.5	6664.1	Y	30.1	Y	B6T ≈ 90% Full
GCU H180		All	-	-	-	-	Y	-	-	2 psi) 110°F) 1) 2.5 2) 2.5 3) 2.5 4) 1.5
Heaton LS 5*		Unk	98.9	-2.5	-2.5	-	Y	27.3	Y	run time gauge not connected
Mudge B12 R*	2-14-24	1	36.7	-2.2	-2.5	-	Y		N	Drum Frozen
Mudge A 002 MV*	2-14-24	2	22.0	-5.0	-4.0	-	Y	32.0	N	Drum Frozen

## Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H<sub>2</sub>O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

\* - Gauge replaced with (in hg) vacuum pressure gauge

# SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	3-11-24	1	0.6	3.75	3.75	-	Y	29.5	Y	
Florance GC J 16		2	28.1	3.20	<del>3.30</del> 2.30	-	Y	18.2	Y	* - See below
Sandoval GC A 1A		3	89.1	2.50	2.50	7653.0	N	28.3	Y	
Jacquez GC B 3E		1	1.2	0.2	0.2	7869.8	Y	Dry	N	
Al Elliot D 002		5	26.5	0.5	0.5	6849.7	N	32.5	N	Water Level below drain valve
GCU H180		All	-	-	-	9003.0	Y	-	-	Temp 125°F System Pressure 1.8 psi SVE Point (psi): (1) 2.5 (2) 2.5 (3) 2.5 (4) 2.5
Heaton LS 5		Unk	70.8	2.7	2.5	-	Y	31.8	N	Water Level below drain valve
Mudge B12 R		1	41.3	2.5	2.5	-	Y	24.8	Y	Drum has hole, needs to be replaced
Mudge A 002 MV		2	47.2	4.75	3.75	-	Y	Dry	N	

Notes:

SVE - Soil Vapor Extraction  
 OVM - Organic Vapor Monitoring  
 ppm- parts per million  
 inHg- inches of mercury  
 cfm- cubic feet per minute  
 bTOD- below top of drum

\* - No leaks when system was running.  
 Turned off system and discovered leaks.  
 After investigation a small pinhole is present  
 at the bottom of the drum



# SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	4/8/24	1	66.1	3.75	3.75	—	Y	29.5	Y	
Florance GC J 16		2	202.8	-4.0	-4.0	—	Y	14	Y	Small leak when system is off
Sandoval GC A 1A		3	148.3	2.5	2.5	7612.9	N	30.5	Y	
Jacquez GC B 3E		1	6.0	0.2	0.2	8543.6	Y	Dry	N	
Al Elliot D 002		5	49.8	0.4	0.4	7181.6	Y	29	Y	
GCU H180		All	-	-	-	9177.0	Y	-	-	Temp 125 F System Pressure 20 psi SVE Point (psi): (1) 1.0 (2) 1.0 (3) 1.0 (4) 1.0
Heaton LS 5		Unk	107.5	2.75	2.5	—	Y	Dry	N	
Mudge B12 R		1	256.3	2.5	2.5	—	Y	28.5	Y	Small leak when system is off
Mudge A 002 MV		2	104.3	4.75	3.00	—	Y	Dry	N	

## Notes:

SVE - Soil Vapor Extraction  
 OVM - Organic Vapor Monitoring  
 ppm- parts per million  
 inHg- inches of mercury  
 cfm- cubic feet per minute  
 bTOD- below top of drum



### SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	5-6-24	1	1.3	3.75	3.75	-	Y	31.5	N	Water level below drain valve
Florance GC J 16		2	23.3	3.5	3.5	-	Y	24.2	Y	Tightened gasket, no leaks after tightening.
Sandoval GC A 1A		3	2.8	2.5	2.5	7745.2	N	32.5 <del>32.5</del>	N	Water level below drain valve, restarted system. MW connection was disconnected on arrival.
Jacquez GC B 3E		1	1.1	0.2	0.2	10,215.4	Y	Dry	N	Drum is dry.
Al Elliot D 002		5	29.5	0.4	0.4	8154.0	Y	30.3	Y	Drum dry
GCU H180		All	-	-	-	9331.1	Y	-	-	Temp 127 F System Pressure 215 psi SVE Point (psi): (1) 1.5 (2) 2.5 (3) 2.0 (4) 1.0
Heaton LS 5		Unk	89.6	2.5	2.5	-	Y	Dry	N	Drum dry
Mudge B12 R		1	26.7	2.5	2.5	-	Y	27.5	Y	Tightened gasket, gasket is cracked. Minor condensation observed after tightening.
Mudge A 002 MV		2	52.0	5.0	3.75	-	Y	Dry	N	Drum dry

**Notes:**  
 SVE - Soil Vapor Extraction  
 OVM - Organic Vapor Monitoring  
 ppm- parts per million  
 inHg- inches of mercury  
 cfm- cubic feet per minute  
 bTOD- below top of drum



# SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	6/14/24	1	3.4	4.0	3.75	—	Y	Dry	N	
Florance GC J 16	6/13/24	2	35.8	3.0	3.5	—	Y	Dry	N	
Sandoval GC A 1A	6/13/24	3	10.0	5.0	2.0	792.4	N	Dry	N	
Jacquez GC B 3E	6/13/24	1	6.2	0.1	0.1	1264.0	Y	Dry	N	
Al Elliot D 002	6/13/24	5	37.3	0.1	0.1	906.2	Y	Dry	N	
GCU H180	6/12/24	All	-	-	-	Broken	N	-	-	Temp 145F System Pressure 2.5 psi SVE Point (psi): (1) 0.1 (2) 2.5 (3) 2.7 (4) 0
Heaton LS 5	6/12/24	Unk	102.0	1.0	1.0	—	Y	Dry	N	
Mudge B12 R	6/12/24	1	36.7	2.5	2.5	—	Y	Dry	N	
Mudge A 002 MV	6/13/24	2	150.5	5.0	5.0	—	Y	Dry	NO	

## Notes:

SVE - Soil Vapor Extraction  
 OVM - Organic Vapor Monitoring  
 ppm- parts per million  
 inHg- inches of mercury  
 cfm- cubic feet per minute  
 bTOD- below top of drum

system off  
on arrival.  
Reset.



Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

CONDITIONS

Action 362610

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID: 329736
	Action Number: 362610
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	AL Elliot D #002 Annual Gas Sampling Lab Results and SVE Field forms (January 2024 through June 2024) are accepted as part of the record for App ID: 362610	1/8/2025