



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: clients.hallenvironmental.com

March 28, 2022

Kyle Siesser

Cottonwood Consulting LLC
PO BOX 1653

Durango, CO 81302

TEL: (970) 764-7356

FAX:

RECEIVED

By Mike Buchanan at 3:43 pm, Jan 19, 2024

Received for the
Record

RE: Sandoval GC A 1A

OrderNo.: 2203998

Dear Kyle Siesser:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/18/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2203998**

Date Reported: **3/28/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GC A 1A

Collection Date: 3/16/2022 8:55:00 AM

Lab ID: 2203998-001

Matrix: AIR

Received Date: 3/18/2022 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
Benzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Toluene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Ethylbenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,2,4-Trimethylbenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,3,5-Trimethylbenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Naphthalene	ND	0.20		µg/L	1	3/22/2022 1:24:00 PM
1-Methylnaphthalene	ND	0.40		µg/L	1	3/22/2022 1:24:00 PM
2-Methylnaphthalene	ND	0.40		µg/L	1	3/22/2022 1:24:00 PM
Acetone	ND	1.0		µg/L	1	3/22/2022 1:24:00 PM
Bromobenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Bromodichloromethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Bromoform	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Bromomethane	ND	0.20		µg/L	1	3/22/2022 1:24:00 PM
2-Butanone	ND	1.0		µg/L	1	3/22/2022 1:24:00 PM
Carbon disulfide	ND	1.0		µg/L	1	3/22/2022 1:24:00 PM
Carbon tetrachloride	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Chlorobenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Chloroethane	ND	0.20		µg/L	1	3/22/2022 1:24:00 PM
Chloroform	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Chloromethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
2-Chlorotoluene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
4-Chlorotoluene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
cis-1,2-DCE	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	3/22/2022 1:24:00 PM
Dibromochloromethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Dibromomethane	ND	0.20		µg/L	1	3/22/2022 1:24:00 PM
1,2-Dichlorobenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,3-Dichlorobenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,4-Dichlorobenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Dichlorodifluoromethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,1-Dichloroethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,1-Dichloroethene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,2-Dichloropropane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,3-Dichloropropane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
2,2-Dichloropropane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix interference

B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report

Lab Order 2203998

Date Reported: 3/28/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GC A 1A

Collection Date: 3/16/2022 8:55:00 AM

Lab ID: 2203998-001

Matrix: AIR

Received Date: 3/18/2022 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
1,1-Dichloropropene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Hexachlorobutadiene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
2-Hexanone	ND	1.0		µg/L	1	3/22/2022 1:24:00 PM
Isopropylbenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
4-Isopropyltoluene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	3/22/2022 1:24:00 PM
Methylene chloride	ND	0.30		µg/L	1	3/22/2022 1:24:00 PM
n-Butylbenzene	ND	0.30		µg/L	1	3/22/2022 1:24:00 PM
n-Propylbenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
sec-Butylbenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Styrene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
tert-Butylbenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
trans-1,2-DCE	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,1,1-Trichloroethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,1,2-Trichloroethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Trichloroethene (TCE)	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Trichlorofluoromethane	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
1,2,3-Trichloropropane	ND	0.20		µg/L	1	3/22/2022 1:24:00 PM
Vinyl chloride	ND	0.10		µg/L	1	3/22/2022 1:24:00 PM
Xylenes, Total	ND	0.15		µg/L	1	3/22/2022 1:24:00 PM
Surr: Dibromofluoromethane	101	70-130		%Rec	1	3/22/2022 1:24:00 PM
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%Rec	1	3/22/2022 1:24:00 PM
Surr: Toluene-d8	90.9	70-130		%Rec	1	3/22/2022 1:24:00 PM
Surr: 4-Bromofluorobenzene	92.7	70-130		%Rec	1	3/22/2022 1:24:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 2 of 2



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

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

ANALYTICAL SUMMARY REPORT

March 25, 2022

Hall Environmental

4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: G22030399

Project Name: Not Indicated

Energy Laboratories Inc. Gillette WY received the following 1 sample for Hall Environmental on 3/23/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
G22030399-001	2203998-001A; SVE	03/16/22 8:55	03/23/22	Air	Natural Gas Analysis - BTU Natural Gas Analysis - Compressibility Factor Natural Gas Analysis - GPM Natural Gas Analysis - Molecular Weight Natural Gas Analysis - Routine Natural Gas Analysis - Pressure Base Natural Gas Analysis - Psuedo- Critical Pressure Natural Gas Analysis - Psuedo- Critical Temperature Natural Gas Analysis - Specific Gravity Natural Gas Analysis - Temperature Base

The analyses presented in this report were performed by Energy Laboratories, Inc., 400 W. Boxelder Rd., Gillette, WY 82718, 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.

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

Report Approved By:



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

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

Client: Hall Environmental
Project: Not Indicated
Client Sample ID: 2203998-001A; SVE
Location:
Lab ID: G22030399-001

Report Date: 03/25/22
Collection Date: 03/16/22 08:55
Date Received: 03/23/22
Sampled By: Not Indicated

Analyses **Result** **Units** **Qualifier** **Method** **Analysis Date / By**

NATURAL GAS CHROMATOGRAPHIC ANALYSIS REPORT

Oxygen	22.385	Mol %	GPA 2261	03/24/22 14:59 / blb
Nitrogen	77.582	Mol %	GPA 2261	03/24/22 14:59 / blb
Carbon Dioxide	0.033	Mol %	GPA 2261	03/24/22 14:59 / blb
Hydrogen Sulfide	< 0.001	Mol %	GPA 2261	03/24/22 14:59 / blb
Methane	< 0.001	Mol %	GPA 2261	03/24/22 14:59 / blb
Ethane	< 0.001	Mol %	GPA 2261	03/24/22 14:59 / blb
Propane	< 0.001	Mol %	GPA 2261	03/24/22 14:59 / blb
Isobutane	< 0.001	Mol %	GPA 2261	03/24/22 14:59 / blb
n-Butane	< 0.001	Mol %	GPA 2261	03/24/22 14:59 / blb
Isopentane	< 0.001	Mol %	GPA 2261	03/24/22 14:59 / blb
n-Pentane	< 0.001	Mol %	GPA 2261	03/24/22 14:59 / blb
Hexanes plus	< 0.001	Mol %	GPA 2261	03/24/22 14:59 / blb

GPM @ STD COND/1000 CU.FT., MOISTURE FREE GAS

GPM Ethane	< 0.0003	gal/MCF	GPA 2261	03/24/22 14:59 / blb
GPM Propane	< 0.0003	gal/MCF	GPA 2261	03/24/22 14:59 / blb
GPM Isobutane	< 0.0003	gal/MCF	GPA 2261	03/24/22 14:59 / blb
GPM n-Butane	< 0.0003	gal/MCF	GPA 2261	03/24/22 14:59 / blb
GPM Isopentane	< 0.0004	gal/MCF	GPA 2261	03/24/22 14:59 / blb
GPM n-Pentane	< 0.0004	gal/MCF	GPA 2261	03/24/22 14:59 / blb
GPM Hexanes plus	< 0.0004	gal/MCF	GPA 2261	03/24/22 14:59 / blb
GPM Pentanes plus	< 0.0004	gal/MCF	GPA 2261	03/24/22 14:59 / blb
GPM Total	< 0.0004	gal/MCF	GPA 2261	03/24/22 14:59 / blb

CALCULATED PROPERTIES

Calculation Pressure Base	14.730	psia	GPA 2261	03/24/22 14:59 / blb
Calculation Temperature Base	60	°F	GPA 2261	03/24/22 14:59 / blb
Compressibility Factor, Z	1.0000	unitless	GPA 2261	03/24/22 14:59 / blb
Molecular Weight	28.91	unitless	GPA 2261	03/24/22 14:59 / blb
Pseudo-critical Pressure, psia	547	psia	GPA 2261	03/24/22 14:59 / blb
Pseudo-critical Temperature, deg R	239	deg R	GPA 2261	03/24/22 14:59 / blb
Specific Gravity (air=1.000)	1.001	unitless	GPA 2261	03/24/22 14:59 / blb
Gross BTU per cu ft @ std cond, dry	< 0.01	BTU/cu ft	GPA 2261	03/24/22 14:59 / blb
Gross BTU per cu ft @ std cond, wet	< 0.01	BTU/cu ft	GPA 2261	03/24/22 14:59 / blb

Report RL - Analyte Reporting Limit
Definitions: 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 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

QA/QC Summary Report

Prepared by Gillette, WY Branch

Client: Hall Environmental

Work Order: G22030399

Report Date: 03/25/22

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
---------	--------	-------	----	------	-----------	------------	-----	----------	------

Method: GPA 2261 Analytical Run: R270004

Lab ID: CCV-2203241254 Continuing Calibration Verification Standard 03/24/22 12:55

Oxygen	0.637	Mol %	0.001	106	90	110			
Nitrogen	1.378	Mol %	0.001	98	85	110			
Carbon Dioxide	0.954	Mol %	0.001	95	90	110			
Hydrogen Sulfide	0.025	Mol %	0.001	100	70	130			
Methane	93.438	Mol %	0.001	100	90	110			
Ethane	1.014	Mol %	0.001	101	90	110			
Propane	1.009	Mol %	0.001	101	90	110			
Isobutane	0.495	Mol %	0.001	99	90	110			
n-Butane	0.495	Mol %	0.001	99	90	110			
Isopentane	0.200	Mol %	0.001	100	90	110			
n-Pentane	0.201	Mol %	0.001	100	90	110			
Hexanes plus	0.154	Mol %	0.001	103	90	110			

Lab ID: ICV-2203241303 Initial Calibration Verification Standard 03/24/22 13:04

Oxygen	0.391	Mol %	0.001	97	75	110			
Nitrogen	5.154	Mol %	0.001	103	90	110			
Carbon Dioxide	4.900	Mol %	0.001	99	90	110			
Hydrogen Sulfide	0.130	Mol %	0.001	131	100	136			
Methane	73.196	Mol %	0.001	100	90	110			
Ethane	4.997	Mol %	0.001	101	90	110			
Propane	4.993	Mol %	0.001	100	90	110			
Isobutane	1.984	Mol %	0.001	99	90	110			
n-Butane	1.965	Mol %	0.001	98	90	110			
Isopentane	0.986	Mol %	0.001	99	90	110			
n-Pentane	0.997	Mol %	0.001	100	90	110			
Hexanes plus	0.307	Mol %	0.001	102	90	110			

Lab ID: CCV-2203241628 Continuing Calibration Verification Standard 03/24/22 16:28

Oxygen	0.609	Mol %	0.001	102	90	110			
Nitrogen	1.288	Mol %	0.001	92	85	110			
Carbon Dioxide	0.965	Mol %	0.001	97	90	110			
Hydrogen Sulfide	0.021	Mol %	0.001	84	70	130			
Methane	93.560	Mol %	0.001	100	90	110			
Ethane	1.015	Mol %	0.001	101	90	110			
Propane	1.006	Mol %	0.001	101	90	110			
Isobutane	0.492	Mol %	0.001	98	90	110			
n-Butane	0.492	Mol %	0.001	98	90	110			
Isopentane	0.199	Mol %	0.001	99	90	110			
n-Pentane	0.200	Mol %	0.001	100	90	110			
Hexanes plus	0.153	Mol %	0.001	102	90	110			

Method: GPA 2261 Batch: R270004

Lab ID: G22030399-001ADUP	Sample Duplicate			Run: Varian GC_220324A	03/24/22 15:09
Oxygen	22.383	Mol %	0.001	0.0	10

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

QA/QC Summary Report

Prepared by Gillette, WY Branch

Client: Hall Environmental

Work Order: G22030399

Report Date: 03/25/22

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261							Batch: R270004		
Lab ID: G22030399-001ADUP	Sample Duplicate		Run: Varian GC_220324A				03/24/22 15:09		
Nitrogen	77.585	Mol %	0.001				0.0	10	
Carbon Dioxide	0.032	Mol %	0.001				3.1	10	
Hydrogen Sulfide	< 0.001	Mol %	0.001					10	
Methane	< 0.001	Mol %	0.001					10	
Ethane	< 0.001	Mol %	0.001					10	
Propane	< 0.001	Mol %	0.001					10	
Isobutane	< 0.001	Mol %	0.001					10	
n-Butane	< 0.001	Mol %	0.001					10	
Isopentane	< 0.001	Mol %	0.001					10	
n-Pentane	< 0.001	Mol %	0.001					10	
Hexanes plus	< 0.001	Mol %	0.001					10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

Work Order Receipt Checklist

Hall Environmental

G22030399

Login completed by: Jill S. Jeffress

Date Received: 3/23/2022

Reviewed by: Misty Stephens

Received by: csj

Reviewed Date: 3/24/2022

Carrier name: Hand Del

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

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.

Contact and Corrective Action Comments:

None



CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

Hall Environmental Analysis Laboratory
 1901 Hankins Ave
 Albuquerque, NM 87109
 TEL. 505-345-3975
 FAX 505-345-4100
 Website: clients.hallenvironmental.com

SUB CONTRACTOR	Energy Labs-Gillette	COMPANY	Energy Laboratories	PHONE	(866) 686-7175	FAX	
ADDRESS	400 W Borelder Rd		ACCOUNT #		EMAIL		
CITY, STATE, ZIP	Gillette, WY 82718						
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2203998-001A	SVE	TEDLAR	Air	3/16/2022 8:55:00 AM	1	Natural Gases O2, CO2

6220 30399

SPECIAL INSTRUCTIONS/COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you!

Relinquished By	SLS	Date	3/16/2022	Time	9:06 AM	Received By	M. Roy	Date	03/16/2022	Time	10:30
Relinquished By		Date		Time		Received By		Date		Time	
Relinquished By		Date		Time		Received By		Date		Time	

TAT Standard RUSH Next BD 2nd BD 3rd BD

REPORT TRANSMITTAL DESIRED
 HARDCOPY (extra cost) FAX EMAIL ONLINE
 FOR LAB USE ONLY
 Temp of samples _____ °C Attempt to Cool? _____
 Comments: _____



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallevironmental.com

Sample Log-In Check List

Client Name: Cottonwood Consulting LLC Work Order Number: 2203998 RcptNo: 1

Received By: Cheyenne Cason 3/18/2022 8:05:00 AM
Completed By: Sean Livingston 3/18/2022 9:05:24 AM
Reviewed By: [Signature] 3-18-22

[Handwritten signatures]

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [] No [] NA [checked]
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [] No [] NA [checked]
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by: [Signature] 3/18/22

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: [] Date: []
By Whom: [] Via: [] eMail [] Phone [] Fax [] In Person []
Regarding: []
Client Instructions: []

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, NA, Good, [], [], [], []



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

RECEIVED
 By Mike Buchanan at 3:45 pm, Jan 19, 2024

June 23, 2022

Kyle Siesser

Cottonwood Consulting LLC

PO BOX 1653

Durango, CO 81302

TEL: (970) 764-7356

FAX:

Received for the record

RE: Sandoval GC A 1A

OrderNo.: 2206607

Dear Kyle Siesser:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/10/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman'.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2206607

Date Reported: 6/23/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GC A 1A

Collection Date: 6/8/2022 9:50:00 AM

Lab ID: 2206607-001

Matrix: AIR

Received Date: 6/10/2022 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Toluene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Ethylbenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Methyl tert-butyl ether (MTBE)	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,2,4-Trimethylbenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,3,5-Trimethylbenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,2-Dichloroethane (EDC)	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,2-Dibromoethane (EDB)	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Naphthalene	ND	0.40	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1-Methylnaphthalene	ND	0.80	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
2-Methylnaphthalene	ND	0.80	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Acetone	ND	2.0	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Bromobenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Bromodichloromethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Bromoform	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Bromomethane	ND	0.40	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
2-Butanone	ND	2.0	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Carbon disulfide	ND	2.0	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Carbon tetrachloride	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Chlorobenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Chloroethane	ND	0.40	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Chloroform	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Chloromethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
2-Chlorotoluene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
4-Chlorotoluene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
cis-1,2-DCE	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
cis-1,3-Dichloropropene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,2-Dibromo-3-chloropropane	ND	0.40	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Dibromochloromethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Dibromomethane	ND	0.40	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,2-Dichlorobenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,3-Dichlorobenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,4-Dichlorobenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Dichlorodifluoromethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,1-Dichloroethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,1-Dichloroethene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,2-Dichloropropane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,3-Dichloropropane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
2,2-Dichloropropane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Page 1 of 2

Analytical Report

Lab Order 2206607

Date Reported: 6/23/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GC A 1A

Collection Date: 6/8/2022 9:50:00 AM

Lab ID: 2206607-001

Matrix: AIR

Received Date: 6/10/2022 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,1-Dichloropropene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Hexachlorobutadiene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
2-Hexanone	ND	2.0	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Isopropylbenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
4-Isopropyltoluene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
4-Methyl-2-pentanone	ND	2.0	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Methylene chloride	ND	0.60	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
n-Butylbenzene	ND	0.60	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
n-Propylbenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
sec-Butylbenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Styrene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
tert-Butylbenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,1,1,2-Tetrachloroethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,1,2,2-Tetrachloroethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Tetrachloroethene (PCE)	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
trans-1,2-DCE	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
trans-1,3-Dichloropropene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,2,3-Trichlorobenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,2,4-Trichlorobenzene	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,1,1-Trichloroethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,1,2-Trichloroethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Trichloroethene (TCE)	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Trichlorofluoromethane	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
1,2,3-Trichloropropane	ND	0.40	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Vinyl chloride	ND	0.20	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Xylenes, Total	ND	0.30	D	µg/L	2	6/14/2022 4:14:00 PM	R88708
Surr: Dibromofluoromethane	112	70-130	D	%Rec	2	6/14/2022 4:14:00 PM	R88708
Surr: 1,2-Dichloroethane-d4	99.4	70-130	D	%Rec	2	6/14/2022 4:14:00 PM	R88708
Surr: Toluene-d8	95.8	70-130	D	%Rec	2	6/14/2022 4:14:00 PM	R88708
Surr: 4-Bromofluorobenzene	96.4	70-130	D	%Rec	2	6/14/2022 4:14:00 PM	R88708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Page 2 of 2



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

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

ANALYTICAL SUMMARY REPORT

June 23, 2022

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: G22060306

Project Name: 2206607

Energy Laboratories Inc. Gillette WY received the following 1 sample for Hall Environmental on 6/16/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
G22060306-001	2206607-001A; SVE	06/08/22 9:50	06/16/22	Gas	Air Correction Calculations Analysis Corrections 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., 400 W. Boxelder Rd., Gillette, WY 82718, 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.

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

Report Approved By:



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

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

CLIENT: Hall Environmental
Project: 2206607
Work Order: G22060306

Report Date: 06/23/22

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



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

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

Client: Hall Environmental
Project: 2206607
Client Sample ID: 2206607-001A; SVE
Location:
Lab ID: G22060306-001

Report Date: 06/23/22
Collection Date: 06/08/22 09:50
Date Received: 06/16/22
Sampled By: Not Provided

Analyses	Result	Units	Qualifier	Method	Analysis Date / By
----------	--------	-------	-----------	--------	--------------------

GAS CHROMATOGRAPHIC ANALYSIS REPORT

Oxygen	21.89	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
Nitrogen	78.07	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
Carbon Dioxide	0.04	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
Hydrogen Sulfide	<0.01	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
Methane	<0.01	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
Ethane	<0.01	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
Propane	<0.01	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
Isobutane	<0.01	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
n-Butane	<0.01	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
Isopentane	<0.01	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
n-Pentane	<0.01	Mol %		GPA 2261-	06/20/22 14:36 / eli-b
Hexanes plus	<0.01	Mol %		GPA 2261-	06/20/22 14:36 / eli-b

GPM @ STD COND/1000 CU.FT., MOISTURE FREE GAS

Propane	< 0.001	gpm		GPA 2261-	06/20/22 14:36 / eli-b
Isobutane	< 0.001	gpm		GPA 2261-	06/20/22 14:36 / eli-b
n-Butane	< 0.001	gpm		GPA 2261-	06/20/22 14:36 / eli-b
Isopentane	< 0.001	gpm		GPA 2261-	06/20/22 14:36 / eli-b
n-Pentane	< 0.001	gpm		GPA 2261-	06/20/22 14:36 / eli-b
Hexanes plus	< 0.001	gpm		GPA 2261-	06/20/22 14:36 / eli-b
GPM Total	< 0.001	gpm		GPA 2261-	06/20/22 14:36 / eli-b
GPM Pentanes plus	< 0.001	gpm		GPA 2261-	06/20/22 14:36 / eli-b

CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	<1			GPA 2261-	06/20/22 14:36 / eli-b
Net BTU per cu ft @ std cond. (LHV)	<1			GPA 2261-	06/20/22 14:36 / eli-b
Pseudo-critical Pressure, psia	545			GPA 2261-	06/20/22 14:36 / eli-b
Pseudo-critical Temperature, deg R	239			GPA 2261-	06/20/22 14:36 / eli-b

PHYSICAL PROPERTIES-CALCULATED

Specific Gravity @ 60/60F	0.998			D3588-81	06/20/22 14:36 / eli-b
---------------------------	-------	--	--	----------	------------------------

COMMENTS

- 06/20/22 14:36 / eli-b

- 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 RL - Analyte Reporting Limit

MCL - Maximum Contaminant Level

Definitions: QCL - Quality Control Limit

ND - Not detected at the Reporting Limit (RL)



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

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: G22060306

Report Date: 06/22/22

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
---------	--------	-------	----	------	-----------	------------	-----	----------	------

Method: GPA 2261-95

Batch: R383462

Lab ID:	LCS062022	Laboratory Control Sample			Run:	GCNGA-B_220620A			
Oxygen	0.60	Mol %	0.01	120	70	130			
Nitrogen	5.97	Mol %	0.01	99	70	130			
Carbon Dioxide	1.01	Mol %	0.01	102	70	130			
Methane	74.5	Mol %	0.01	100	70	130			
Ethane	6.07	Mol %	0.01	101	70	130			
Propane	5.08	Mol %	0.01	103	70	130			
Isobutane	2.01	Mol %	0.01	100	70	130			
n-Butane	2.00	Mol %	0.01	100	70	130			
Isopentane	1.01	Mol %	0.01	101	70	130			
n-Pentane	1.00	Mol %	0.01	100	70	130			
Hexanes plus	0.77	Mol %	0.01	96	70	130			

Lab ID:	B22061652-001ADUP	Sample Duplicate			Run:	GCNGA-B_220620A			
Oxygen	21.3	Mol %	0.01				0	20	
Nitrogen	77.7	Mol %	0.01				0.1	20	
Carbon Dioxide	0.77	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	0.17	Mol %	0.01				52	20	R

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit



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

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

Work Order Receipt Checklist

Hall Environmental

G22060306

Login completed by: Chantel S. Johnson

Date Received: 6/16/2022

Reviewed by: Alyson T. Degnan

Received by: csj

Reviewed Date: 6/21/2022

Carrier name: FedEx

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 type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Container/Temp Blank temperature:	°C		
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.

Contact and Corrective Action Comments:

None



CHAIN OF CUSTODY RECORD

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975
FAX: 505-345-4107
Website: www.hallenvironmental.com

SUB CONTRACTOR: Energy Labs-Gillette		COMPANY: Energy Laboratories		PHONE: (866) 686-7175	FAX:		
ADDRESS: 400 W Boxelder Rd		CITY, STATE, ZIP: Gillette, WY 82718		ACCOUNT #:	EMAIL:		
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2206607-001A	SVE	TEDLAR	Air	6/8/2022 9:50:00 AM	1	
Natural Gases O2, CO2							

SPECIAL INSTRUCTIONS/COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By:	Date: 6/10/2022	Time: 10:44 AM	Received By:	Date:	Time:	REPORT TRANSMITTAL DESIRED:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	<input type="checkbox"/> HARDCOPY (extra cost) <input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	FOR LAB USE ONLY
TAT:	Standard <input checked="" type="checkbox"/>	RUSH <input type="checkbox"/>	Next BD <input type="checkbox"/>	2nd BD <input type="checkbox"/>	3rd BD <input type="checkbox"/>	Temp of samples: _____ °C Attempt to Cool? _____
Comments: <i>[Handwritten Signature]</i>						



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Cottonwood Consulting LLC Work Order Number: 2206607 RcptNo: 1

Received By: Cheyenne Cason 6/10/2022 7:05:00 AM

Completed By: Sean Livingston 6/10/2022 10:42:06 AM

Reviewed By: KPG 6.10.22

Handwritten signature

Handwritten signature

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0° C Yes [] No [] NA [checked]
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: [Handwritten Signature]

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: Date:
By Whom: Via: [] eMail [] Phone [] Fax [] In Person
Regarding:
Client Instructions:

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, NA, Good, Yes, , ,

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS
 Action 134643

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID: 329736
	Action Number: 134643
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Received for the record, Q1 and Q2 of 2022 for SVE system at Sandoval GC 1A	1/19/2024