

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

October 03, 2023

Kyle Siesser

Cottonwood Consulting LLC

PO BOX 1653

Durango, CO 81302

TEL: (970) 764-7356

FAX:

RE: Sandoval GCA 001A

OrderNo.: 2309B62

Dear Kyle Siesser:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/21/2023 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", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2309B62

Date Reported: 10/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GCA 001A

Collection Date: 9/19/2023 9:35:00 AM

Lab ID: 2309B62-001

Matrix: AIR

Received Date: 9/21/2023 6:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
Benzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Toluene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Ethylbenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,2,4-Trimethylbenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,3,5-Trimethylbenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Naphthalene	ND	0.20		µg/L	1	9/25/2023 1:36:00 PM
1-Methylnaphthalene	ND	0.40		µg/L	1	9/25/2023 1:36:00 PM
2-Methylnaphthalene	ND	0.40		µg/L	1	9/25/2023 1:36:00 PM
Acetone	ND	1.0		µg/L	1	9/25/2023 1:36:00 PM
Bromobenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Bromodichloromethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Bromoform	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Bromomethane	ND	0.20		µg/L	1	9/25/2023 1:36:00 PM
2-Butanone	ND	1.0		µg/L	1	9/25/2023 1:36:00 PM
Carbon disulfide	ND	1.0		µg/L	1	9/25/2023 1:36:00 PM
Carbon tetrachloride	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Chlorobenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Chloroethane	ND	0.20		µg/L	1	9/25/2023 1:36:00 PM
Chloroform	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Chloromethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
2-Chlorotoluene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
4-Chlorotoluene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
cis-1,2-DCE	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	9/25/2023 1:36:00 PM
Dibromochloromethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Dibromomethane	ND	0.20		µg/L	1	9/25/2023 1:36:00 PM
1,2-Dichlorobenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,3-Dichlorobenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,4-Dichlorobenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Dichlorodifluoromethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,1-Dichloroethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,1-Dichloroethene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,2-Dichloropropane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,3-Dichloropropane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
2,2-Dichloropropane	ND	0.10		µg/L	1	9/25/2023 1:36:00 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 standard limits. If undiluted results may be estimated.

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

Page 1 of 2

Analytical Report

Lab Order 2309B62

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Lab ID: 2309B62-001

Matrix: AIR

Received Date: 9/21/2023 6:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
1,1-Dichloropropene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Hexachlorobutadiene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
2-Hexanone	ND	1.0		µg/L	1	9/25/2023 1:36:00 PM
Isopropylbenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
4-Isopropyltoluene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	9/25/2023 1:36:00 PM
Methylene chloride	ND	0.30		µg/L	1	9/25/2023 1:36:00 PM
n-Butylbenzene	ND	0.30		µg/L	1	9/25/2023 1:36:00 PM
n-Propylbenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
sec-Butylbenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Styrene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
tert-Butylbenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
trans-1,2-DCE	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,1,1-Trichloroethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,1,2-Trichloroethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Trichloroethene (TCE)	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Trichlorofluoromethane	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
1,2,3-Trichloropropane	ND	0.20		µg/L	1	9/25/2023 1:36:00 PM
Vinyl chloride	ND	0.10		µg/L	1	9/25/2023 1:36:00 PM
Xylenes, Total	ND	0.15		µg/L	1	9/25/2023 1:36:00 PM
Surr: Dibromofluoromethane	96.7	70-130		%Rec	1	9/25/2023 1:36:00 PM
Surr: 1,2-Dichloroethane-d4	89.4	70-130		%Rec	1	9/25/2023 1:36:00 PM
Surr: Toluene-d8	92.0	70-130		%Rec	1	9/25/2023 1:36:00 PM
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	9/25/2023 1:36:00 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 standard limits. If undiluted results may be estimated.

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

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ANALYTICAL SUMMARY REPORT

October 02, 2023

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

Work Order: B23092155 Quote ID: B15626

Project Name: Not Indicated

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 9/26/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B23092155-001	2309B62-001B, SVE	09/19/23 9:35	09/26/23	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 S 27th St., 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.

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

Report Approved By:

Quality Assurance Manager

Digitally signed by
Leigh Ann. Wise
Date: 2023.10.02 17:45:01 -06:00



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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: Not Indicated
Lab ID: B23092155-001
Client Sample ID: 2309B62-001B, SVE

Report Date: 10/02/23
Collection Date: 09/19/23 09:35
Date Received: 09/26/23
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.87	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Nitrogen	78.08	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Carbon Dioxide	0.05	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Hexanes plus	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 09:09 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 09:09 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 09:09 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 09:09 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 09:09 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 09:09 / jrj
Hexanes plus	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 09:09 / jrj
GPM Total	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 09:09 / jrj
GPM Pentanes plus	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 09:09 / jrj

CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	ND		1		GPA 2261-95	09/27/23 09:09 / jrj
Net BTU per cu ft @ std cond. (LHV)	ND		1		GPA 2261-95	09/27/23 09:09 / jrj
Pseudo-critical Pressure, psia	545		1		GPA 2261-95	09/27/23 09:09 / jrj
Pseudo-critical Temperature, deg R	239		1		GPA 2261-95	09/27/23 09:09 / jrj
Specific Gravity @ 60/60F	0.998		0.001		D3588-81	09/27/23 09:09 / jrj
Air, %	99.92		0.01		GPA 2261-95	09/27/23 09:09 / jrj

- The analysis was not corrected for air.

COMMENTS

-					-	09/27/23 09:09 / 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)



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B23092155

Report Date: 10/02/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-95										Batch: R409565
Lab ID: B23092155-001ADUP										12 Sample Duplicate
										Run: GCNGA-B_230927A
Oxygen		21.9	Mol %	0.01				0	20	09/27/23 09:43
Nitrogen		78.1	Mol %	0.01				0	20	
Carbon Dioxide		0.05	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		<0.01	Mol %	0.01					20	
Lab ID: LCS092723										11 Laboratory Control Sample
										Run: GCNGA-B_230927A
Oxygen		0.62	Mol %	0.01	124	70	130			09/27/23 15:27
Nitrogen		6.02	Mol %	0.01	100	70	130			
Carbon Dioxide		1.00	Mol %	0.01	101	70	130			
Methane		74.3	Mol %	0.01	99	70	130			
Ethane		6.04	Mol %	0.01	101	70	130			
Propane		5.35	Mol %	0.01	108	70	130			
Isobutane		1.98	Mol %	0.01	99	70	130			
n-Butane		1.98	Mol %	0.01	99	70	130			
Isopentane		1.02	Mol %	0.01	102	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.73	Mol %	0.01	91	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Work Order Receipt Checklist

Hall Environmental

B23092155

Login completed by: Addison A. Gilbert

Date Received: 9/26/2023

Reviewed by: darcy

Received by: dnh

Reviewed Date: 9/30/2023

Carrier name: FedEx

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:	17.4°C No Ice		
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
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975
FAX: 505-345-4107
Website: www.hallenvironmental.com

SUB CONTRACTOR		Energy Labs -Billings		COMPANY	Energy Laboratories		PHONE	(406) 869-6253		FAX	(406) 252-6069	
ADDRESS		1120 South 27th Street		ACCOUNT #								
CITY, STATE, ZIP		Billings, MT 59107										

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	ANALYTICAL COMMENTS
1	2309B62-001B	SVE	TEDLAR	Air	9/19/2023 9:35:00 AM	1 Natural Gas Analysis CO2+02 B23092155

CONTAINERS

1 2309B62-001B SVE

1 Natural Gas Analysis CO2+02

B23092155

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	Time	Received By	Date	Time	REPORT TRANSMITTAL DESIRED:	
Relinquished By	9/21/2023	10:31 AM	Received By			HARDCOPY (extra cost)	EMAIL
Relinquished By			Received By			FAX	ONLINE
TAT:			RUSH			FOR LAB USE ONLY	
						Temp of samples	Attempt to Cool ?
						Comments:	



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: 2309B62

RcptNo: 1

Received By: Tracy Casarrubias 9/21/2023 6:10:00 AM

Completed By: Tracy Casarrubias 9/21/2023 8:33:34 AM

Reviewed By: *[Signature]* 9/21/23

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐

2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒

4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☐ NA ☒

5. Sample(s) in proper container(s)? Yes ☒ No ☐

6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐

7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐

8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☒

10. Were any sample containers received broken? Yes ☐ No ☒

11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐

13. Is it clear what analyses were requested? Yes ☒ No ☐

14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *ju 9/21/23*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	N/A	Good	Yes			

Chain-of-Custody Record

Client: Cottonwood Consulting LLC

Mailing Address: PO Box 1653

Durango, CO 81302

Phone #: 970-764-7356

email or Fax#: ksiesser@cottonwoodconsulting.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Sampler:

On Ice: ☐ Yes ☒ No

of Coolers: 1

Cooler Temp (including CF): N/A

Container

Type and #

tedlar bag - 1

Preservative

Type

NA

HEAL No.

230913602

001

Sample Name

SVE

Matrix

AIR

Date

9/19/23 09:35

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Sandoval GCA #001A

Project #:

Project Manager:

Kyle Siesser

Analysis Request

BTEX / MTBE / TMB's (8021)

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO₃, NO₂, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

CO2

O2

Remarks:

please cc emillar@cottonwoodconsulting.com
jlafortune@cottonwoodconsulting.com

Received by: Via: DATE

9/20/23 09:10

Received by: Via: DATE

9/20/23 09:10

Relinquished by:

9/20/23

Date:

9/20/23

Date:

9/20/23



Environment Testing

Eurofins Environment Testing South
Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 29, 2023

Kyle Siesser

Cottonwood Consulting LLC

PO BOX 1653

Durango, CO 81302

TEL: (970) 764-7356

FAX:

RE: Sandoval GCA 001A

OrderNo.: 2312988

Dear Kyle Siesser:

Eurofins Environment Testing South Central, LLC received 1 sample(s) on 12/16/2023 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 do not hesitate to contact Eurofins Albuquerque 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", with a stylized flourish at the end.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2312988

Date Reported: 12/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GCA 001A

Collection Date: 12/15/2023 11:35:00 AM

Lab ID: 2312988-001

Matrix: AIR

Received Date: 12/16/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
Benzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Toluene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Ethylbenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,2,4-Trimethylbenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,3,5-Trimethylbenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Naphthalene	ND	0.20		µg/L	1	12/18/2023 1:24:00 PM
1-Methylnaphthalene	ND	0.40		µg/L	1	12/18/2023 1:24:00 PM
2-Methylnaphthalene	ND	0.40		µg/L	1	12/18/2023 1:24:00 PM
Acetone	ND	1.0		µg/L	1	12/18/2023 1:24:00 PM
Bromobenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Bromodichloromethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Bromoform	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Bromomethane	ND	0.20		µg/L	1	12/18/2023 1:24:00 PM
2-Butanone	ND	1.0		µg/L	1	12/18/2023 1:24:00 PM
Carbon disulfide	ND	1.0		µg/L	1	12/18/2023 1:24:00 PM
Carbon tetrachloride	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Chlorobenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Chloroethane	ND	0.20		µg/L	1	12/18/2023 1:24:00 PM
Chloroform	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Chloromethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
2-Chlorotoluene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
4-Chlorotoluene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
cis-1,2-DCE	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	12/18/2023 1:24:00 PM
Dibromochloromethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Dibromomethane	ND	0.20		µg/L	1	12/18/2023 1:24:00 PM
1,2-Dichlorobenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,3-Dichlorobenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,4-Dichlorobenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Dichlorodifluoromethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,1-Dichloroethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,1-Dichloroethene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,2-Dichloropropane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,3-Dichloropropane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
2,2-Dichloropropane	ND	0.10		µg/L	1	12/18/2023 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 standard limits. If undiluted results may be estimated.

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

Analytical Report

Lab Order 2312988

Date Reported: 12/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GCA 001A

Collection Date: 12/15/2023 11:35:00 AM

Lab ID: 2312988-001

Matrix: AIR

Received Date: 12/16/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
1,1-Dichloropropene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Hexachlorobutadiene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
2-Hexanone	ND	1.0		µg/L	1	12/18/2023 1:24:00 PM
Isopropylbenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
4-Isopropyltoluene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	12/18/2023 1:24:00 PM
Methylene chloride	ND	0.30		µg/L	1	12/18/2023 1:24:00 PM
n-Butylbenzene	ND	0.30		µg/L	1	12/18/2023 1:24:00 PM
n-Propylbenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
sec-Butylbenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Styrene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
tert-Butylbenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
trans-1,2-DCE	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,1,1-Trichloroethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,1,2-Trichloroethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Trichloroethene (TCE)	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Trichlorofluoromethane	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
1,2,3-Trichloropropane	ND	0.20		µg/L	1	12/18/2023 1:24:00 PM
Vinyl chloride	ND	0.10		µg/L	1	12/18/2023 1:24:00 PM
Xylenes, Total	ND	0.15		µg/L	1	12/18/2023 1:24:00 PM
Surr: Dibromofluoromethane	107	70-130		%Rec	1	12/18/2023 1:24:00 PM
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	12/18/2023 1:24:00 PM
Surr: Toluene-d8	97.1	70-130		%Rec	1	12/18/2023 1:24:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	12/18/2023 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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		



ANALYTICAL SUMMARY REPORT

December 28, 2023

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

Work Order: B23121307 Quote ID: B15626

Project Name: Tedlar Gas Analysis

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 12/19/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B23121307-001	2312988-001B - SVE	12/15/23 11:35	12/19/23	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 S 27th St., 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.

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

Report Approved By:

Organic SupervisorDigitally signed by
Ladonna Weis

Date: 2023.12.28 07:28:50 -07:00



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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: Tedlar Gas Analysis
Lab ID: B23121307-001
Client Sample ID: 2312988-001B - SVE

Report Date: 12/28/23
Collection Date: 12/15/23 11:35
Date Received: 12/19/23
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.71	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Nitrogen	78.24	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Carbon Dioxide	0.05	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Hexanes plus	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 11:20 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 11:20 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 11:20 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 11:20 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 11:20 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 11:20 / jrj
Hexanes plus	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 11:20 / jrj
GPM Total	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 11:20 / jrj
GPM Pentanes plus	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 11:20 / jrj

CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	ND	1	GPA 2261-95	12/20/23 11:20 / jrj
Net BTU per cu ft @ std cond. (LHV)	ND	1	GPA 2261-95	12/20/23 11:20 / jrj
Pseudo-critical Pressure, psia	545	1	GPA 2261-95	12/20/23 11:20 / jrj
Pseudo-critical Temperature, deg R	239	1	GPA 2261-95	12/20/23 11:20 / jrj
Specific Gravity @ 60/60F	0.998	0.001	D3588-81	12/20/23 11:20 / jrj
Air, %	99.20	0.01	GPA 2261-95	12/20/23 11:20 / jrj

- The analysis was not corrected for air.

COMMENTS

-	-	12/20/23 11:20 / 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)



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B23121307

Report Date: 12/28/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-95									Batch: R414179	
Lab ID: B23121311-001ADUP 12 Sample Duplicate									Run: GCNGA-B_231220A 12/20/23 01:57	
Oxygen		21.7	Mol %	0.01				0.0	20	
Nitrogen		78.2	Mol %	0.01				0	20	
Carbon Dioxide		0.09	Mol %	0.01				11	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		0.02	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		<0.01	Mol %	0.01					20	
Lab ID: LCS122123 11 Laboratory Control Sample									Run: GCNGA-B_231220A 12/20/23 03:37	
Oxygen		0.64	Mol %	0.01	128	70	130			
Nitrogen		6.14	Mol %	0.01	102	70	130			
Carbon Dioxide		0.99	Mol %	0.01	100	70	130			
Methane		74.6	Mol %	0.01	100	70	130			
Ethane		6.02	Mol %	0.01	100	70	130			
Propane		5.01	Mol %	0.01	101	70	130			
Isobutane		1.80	Mol %	0.01	90	70	130			
n-Butane		1.99	Mol %	0.01	99	70	130			
Isopentane		1.00	Mol %	0.01	100	70	130			
n-Pentane		0.99	Mol %	0.01	99	70	130			
Hexanes plus		0.79	Mol %	0.01	99	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Work Order Receipt Checklist

Hall Environmental

B23121307

Login completed by: Crystal M. Jones

Date Received: 12/19/2023

Reviewed by: dharris

Received by: cmj

Reviewed Date: 12/20/2023

Carrier name: FedEx

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:	14.4°C No Ice		
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.

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.

Contact and Corrective Action Comments:

None



Environment Testing

CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975
FAX: 505-345-4107
Website: www.hallenvironmental.com

SUB CONTRACTOR: Energy Labs -Billings		COMPANY: Energy Laboratories		PHONE: (406) 869-6253	FAX: (406) 252-6069
ADDRESS: 1120 South 27th Street		ACCOUNT #:		EMAIL:	
CITY, STATE, ZIP: Billings, MT 59107					
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE
1	2312988-001B	SVE	TEDLAR	Air	12/15/2023 11:35:00 AM
					# CONTAINERS
					1
					Natural Gas Analysis CO2+O2

B23121307

ANALYTICAL COMMENTS

SPECIAL INSTRUCTIONS / COMMENTS:

Include the LAB ID and CLIENT SAMPLE ID on final reports. Email results to Hall.Lab@et.eurofinsus.com. For Questions email Hall.samplecontrol@et.eurofinsus.com. Please return all coolers and blue ice. Thank you.

Relinquished By:	Date: 12/16/2023	Time: 9:01 AM	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 12/14/23	Time: 0910
TAT:			RUSH		
Standard ☐			Next BD ☐ 2nd BD ☐ 3rd BD ☐		
			FOR LAB USE ONLY		
			REPORT TRANSMITTAL DESIRED: ☐ HARD COPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE		
			Temp of samples ☐ C Attempt to Cool? ☐		
			Comments:		



Environment Testin

Eurofins Environment Testing South
Central, LLC
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

Work Order Number: 2312988

RcptNo: 1

Received By: Tracy Casarrubias

12/16/2023 7:35:00 AM

Completed By: Tracy Casarrubias

12/16/2023 8:59:13 AM

Reviewed By: *mw 12/18/23***Chain of Custody**

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☐ No ☒ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☒ *mw 12/18/23*
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: *mw 12/18/23***Special Handling (if applicable)**

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	N/A	Good	Yes			

Chain-of-Custody Record

Client: Cottonwood Consulting LLC

Mailing Address: PO Box 1653

Durango, CO 81302

Phone #: 970-764-7356

email or Fax#: ksiesser@cottonwoodconsulting.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Sandoval GCA #001A

Project #:

Project Manager:

Kyle Siesser

Sampler: Kelsey O'Brien

On Ice: ☐ Yes ☒ No

of Coolers:

Cooler Temp (including CFI): N/A

Container

Type and #

tedlar bag - 1

Preservative

Type

NA

HEAL No.

2312988

001

Date:

12/15/23

Relinquished by:

Wyo. m

Received by:

Chad W

Date

12/15/23

Time

1336

Date:

12/15/23

Relinquished by:

Chad W

Received by:

Chad W

Date

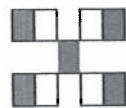
12/16/23

Time

7:35

Remarks:

please cc emillar@cottonwoodconsulting.com

HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTX / MTBE / TMB's (8021)

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO₃, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

CO₂O₂



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

March 23, 2023

Kyle Siesser
Cottonwood Consulting LLC
PO BOX 1653
Durango, CO 81302
TEL: (970) 764-7356
FAX:

RE: Sandoval GCA 001A

OrderNo.: 2303591

Dear Kyle Siesser:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/10/2023 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', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2303591

Date Reported: 3/23/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GCA 001A

Collection Date: 3/9/2023 10:45:00 AM

Lab ID: 2303591-001

Matrix: AIR

Received Date: 3/10/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
Benzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Toluene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Ethylbenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,2,4-Trimethylbenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,3,5-Trimethylbenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Naphthalene	ND	0.20		µg/L	1	3/16/2023 1:30:00 PM
1-Methylnaphthalene	ND	0.40		µg/L	1	3/16/2023 1:30:00 PM
2-Methylnaphthalene	ND	0.40		µg/L	1	3/16/2023 1:30:00 PM
Acetone	ND	1.0		µg/L	1	3/16/2023 1:30:00 PM
Bromobenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Bromodichloromethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Bromoform	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Bromomethane	ND	0.20		µg/L	1	3/16/2023 1:30:00 PM
2-Butanone	ND	1.0		µg/L	1	3/16/2023 1:30:00 PM
Carbon disulfide	ND	1.0		µg/L	1	3/16/2023 1:30:00 PM
Carbon tetrachloride	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Chlorobenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Chloroethane	ND	0.20		µg/L	1	3/16/2023 1:30:00 PM
Chloroform	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Chloromethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
2-Chlorotoluene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
4-Chlorotoluene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
cis-1,2-DCE	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	3/16/2023 1:30:00 PM
Dibromochloromethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Dibromomethane	ND	0.20		µg/L	1	3/16/2023 1:30:00 PM
1,2-Dichlorobenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,3-Dichlorobenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,4-Dichlorobenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Dichlorodifluoromethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,1-Dichloroethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,1-Dichloroethene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,2-Dichloropropane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,3-Dichloropropane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
2,2-Dichloropropane	ND	0.10		µg/L	1	3/16/2023 1:30:00 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 standard limits. If undiluted results may be estimated.

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

Page 1 of 5

Analytical Report

Lab Order 2303591

Date Reported: 3/23/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GCA 001A

Collection Date: 3/9/2023 10:45:00 AM

Lab ID: 2303591-001

Matrix: AIR

Received Date: 3/10/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
1,1-Dichloropropene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Hexachlorobutadiene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
2-Hexanone	ND	1.0		µg/L	1	3/16/2023 1:30:00 PM
Isopropylbenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
4-Isopropyltoluene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	3/16/2023 1:30:00 PM
Methylene chloride	ND	0.30		µg/L	1	3/16/2023 1:30:00 PM
n-Butylbenzene	ND	0.30		µg/L	1	3/16/2023 1:30:00 PM
n-Propylbenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
sec-Butylbenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Styrene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
tert-Butylbenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
trans-1,2-DCE	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,1,1-Trichloroethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,1,2-Trichloroethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Trichloroethene (TCE)	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Trichlorofluoromethane	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
1,2,3-Trichloropropane	ND	0.20		µg/L	1	3/16/2023 1:30:00 PM
Vinyl chloride	ND	0.10		µg/L	1	3/16/2023 1:30:00 PM
Xylenes, Total	ND	0.15		µg/L	1	3/16/2023 1:30:00 PM
Surr: Dibromofluoromethane	92.2	70-130		%Rec	1	3/16/2023 1:30:00 PM
Surr: 1,2-Dichloroethane-d4	88.7	70-130		%Rec	1	3/16/2023 1:30:00 PM
Surr: Toluene-d8	101	70-130		%Rec	1	3/16/2023 1:30:00 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%Rec	1	3/16/2023 1:30:00 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/16/2023 1:30:00 PM
Surr: BFB	100	70-130		%Rec	1	3/16/2023 1:30:00 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 standard limits. If undiluted results may be estimated.

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

Page 2 of 5

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2303591

23-Mar-23

Client: Cottonwood Consulting LLC

Project: Sandoval GCA 001A

Sample ID: 2303591-001adup		SampType: DUP		TestCode: EPA Method 8260B: Volatiles						
Client ID: SVE	Batch ID: R95327			RunNo: 95327						
Prep Date:	Analysis Date: 3/16/2023			SeqNo: 3447871			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.10						0	20	
Toluene	ND	0.10						0	20	
Ethylbenzene	ND	0.10						0	20	
Methyl tert-butyl ether (MTBE)	ND	0.10						0	20	
1,2,4-Trimethylbenzene	ND	0.10						0	20	
1,3,5-Trimethylbenzene	ND	0.10						0	20	
1,2-Dichloroethane (EDC)	ND	0.10						0	20	
1,2-Dibromoethane (EDB)	ND	0.10						0	20	
Naphthalene	ND	0.20						0	20	
1-Methylnaphthalene	ND	0.40						0	20	
2-Methylnaphthalene	ND	0.40						0	20	
Acetone	ND	1.0						0	20	
Bromobenzene	ND	0.10						0	20	
Bromodichloromethane	ND	0.10						0	20	
Bromoform	ND	0.10						0	20	
Bromomethane	ND	0.20						0	20	
2-Butanone	ND	1.0						0	20	
Carbon disulfide	ND	1.0						0	20	
Carbon tetrachloride	ND	0.10						0	20	
Chlorobenzene	ND	0.10						0	20	
Chloroethane	ND	0.20						0	20	
Chloroform	ND	0.10						0	20	
Chloromethane	ND	0.10						0	20	
2-Chlorotoluene	ND	0.10						0	20	
4-Chlorotoluene	ND	0.10						0	20	
cis-1,2-DCE	ND	0.10						0	20	
cis-1,3-Dichloropropene	ND	0.10						0	20	
1,2-Dibromo-3-chloropropane	ND	0.20						0	20	
Dibromochloromethane	ND	0.10						0	20	
Dibromomethane	ND	0.20						0	20	
1,2-Dichlorobenzene	ND	0.10						0	20	
1,3-Dichlorobenzene	ND	0.10						0	20	
1,4-Dichlorobenzene	ND	0.10						0	20	
Dichlorodifluoromethane	ND	0.10						0	20	
1,1-Dichloroethane	ND	0.10						0	20	
1,1-Dichloroethene	ND	0.10						0	20	
1,2-Dichloropropane	ND	0.10						0	20	
1,3-Dichloropropane	ND	0.10						0	20	
2,2-Dichloropropane	ND	0.10						0	20	

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 standard limits. If undiluted results may be estimated.
- B

Analyte detected in the associated Method Blank
- E

Above Quantitation Range/Estimated Value
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2303591

23-Mar-23

Client: Cottonwood Consulting LLC

Project: Sandoval GCA 001A

Sample ID: 2303591-001adup		SampType: DUP		TestCode: EPA Method 8260B: Volatiles						
Client ID: SVE	Batch ID: R95327			RunNo: 95327						
Prep Date:	Analysis Date: 3/16/2023			SeqNo: 3447871			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10						0	20	
Hexachlorobutadiene	ND	0.10						0	20	
2-Hexanone	ND	1.0						0	20	
Isopropylbenzene	ND	0.10						0	20	
4-Isopropyltoluene	ND	0.10						0	20	
4-Methyl-2-pentanone	ND	1.0						0	20	
Methylene chloride	ND	0.30						0	20	
n-Butylbenzene	ND	0.30						0	20	
n-Propylbenzene	ND	0.10						0	20	
sec-Butylbenzene	ND	0.10						0	20	
Styrene	ND	0.10						0	20	
tert-Butylbenzene	ND	0.10						0	20	
1,1,1,2-Tetrachloroethane	ND	0.10						0	20	
1,1,2,2-Tetrachloroethane	ND	0.10						0	20	
Tetrachloroethene (PCE)	ND	0.10						0	20	
trans-1,2-DCE	ND	0.10						0	20	
trans-1,3-Dichloropropene	ND	0.10						0	20	
1,2,3-Trichlorobenzene	ND	0.10						0	20	
1,2,4-Trichlorobenzene	ND	0.10						0	20	
1,1,1-Trichloroethane	ND	0.10						0	20	
1,1,2-Trichloroethane	ND	0.10						0	20	
Trichloroethene (TCE)	ND	0.10						0	20	
Trichlorofluoromethane	ND	0.10						0	20	
1,2,3-Trichloropropane	ND	0.20						0	20	
Vinyl chloride	ND	0.10						0	20	
Xylenes, Total	ND	0.15						0	20	
Surr: Dibromofluoromethane	0.92		1.000		92.1	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.88		1.000		88.2	70	130	0	0	
Surr: Toluene-d8	0.99		1.000		98.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.97		1.000		96.8	70	130	0	0	

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 standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2303591
23-Mar-23

Client: Cottonwood Consulting LLC
Project: Sandoval GCA 001A

Sample ID: 2303591-001adup		SampType: DUP		TestCode: EPA Method 8015D: Gasoline Range						
Client ID: SVE		Batch ID: G95327		RunNo: 95327						
Prep Date:		Analysis Date: 3/16/2023		SeqNo: 3447869			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0						0	20	
Surr: BFB	990		1000		99.2	70	130	0	0	

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 standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

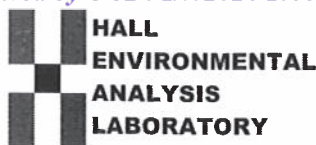
E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 5 of 5



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: 2303591

RcptNo: 1

Received By: Tracy Casarrubias 3/10/2023 7:10:00 AM

Completed By: Tracy Casarrubias 3/10/2023 8:45:27 AM

Reviewed By: *ju 3/10/23*

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☒ NA ☐ *3/10/23*
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☐ NA ☒
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)

of preserved bottles checked for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: *KPR 3-10-23*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	N/A	Good	Yes			

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

~~Mudge B #012R - on~~
Sandoval GFA#001A

Project #:

email or Fax#: kssiesser@cottonwoodconsulting.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other☐ EDD (Type)

Sampler: Emma Millar

On Ice:	☐ Yes	☒ No
1. <i>Chlorophyll a</i>		
2. <i>Chlorophyll b</i>		
3. <i>Chlorophyll c</i>		
4. <i>Chlorophyll d</i>		
5. <i>Chlorophyll e</i>		
6. <i>Chlorophyll f</i>		
7. <i>Chlorophyll g</i>		
8. <i>Chlorophyll h</i>		
9. <i>Chlorophyll i</i>		
10. <i>Chlorophyll j</i>		
11. <i>Chlorophyll k</i>		
12. <i>Chlorophyll l</i>		
13. <i>Chlorophyll m</i>		
14. <i>Chlorophyll n</i>		
15. <i>Chlorophyll o</i>		
16. <i>Chlorophyll p</i>		
17. <i>Chlorophyll q</i>		
18. <i>Chlorophyll r</i>		
19. <i>Chlorophyll s</i>		
20. <i>Chlorophyll t</i>		
21. <i>Chlorophyll u</i>		
22. <i>Chlorophyll v</i>		
23. <i>Chlorophyll w</i>		
24. <i>Chlorophyll x</i>		
25. <i>Chlorophyll y</i>		
26. <i>Chlorophyll z</i>		
27. <i>Chlorophyll aa</i>		
28. <i>Chlorophyll ab</i>		
29. <i>Chlorophyll ac</i>		
30. <i>Chlorophyll ad</i>		
31. <i>Chlorophyll ae</i>		
32. <i>Chlorophyll af</i>		
33. <i>Chlorophyll ag</i>		
34. <i>Chlorophyll ah</i>		
35. <i>Chlorophyll ai</i>		
36. <i>Chlorophyll aj</i>		
37. <i>Chlorophyll ak</i>		
38. <i>Chlorophyll al</i>		
39. <i>Chlorophyll am</i>		
40. <i>Chlorophyll an</i>		
41. <i>Chlorophyll ao</i>		
42. <i>Chlorophyll ap</i>		
43. <i>Chlorophyll aq</i>		
44. <i>Chlorophyll ar</i>		
45. <i>Chlorophyll as</i>		
46. <i>Chlorophyll at</i>		
47. <i>Chlorophyll au</i>		
48. <i>Chlorophyll av</i>		
49. <i>Chlorophyll aw</i>		
50. <i>Chlorophyll ax</i>		
51. <i>Chlorophyll ay</i>		
52. <i>Chlorophyll az</i>		
53. <i>Chlorophyll ba</i>		
54. <i>Chlorophyll bb</i>		
55. <i>Chlorophyll bc</i>		
56. <i>Chlorophyll bd</i>		
57. <i>Chlorophyll be</i>		
58. <i>Chlorophyll bf</i>		
59. <i>Chlorophyll bg</i>		
60. <i>Chlorophyll bh</i>		
61. <i>Chlorophyll bi</i>		
62. <i>Chlorophyll bj</i>		
63. <i>Chlorophyll bk</i>		
64. <i>Chlorophyll bl</i>		
65. <i>Chlorophyll bm</i>		
66. <i>Chlorophyll bn</i>		
67. <i>Chlorophyll bo</i>		
68. <i>Chlorophyll bp</i>		
69. <i>Chlorophyll bq</i>		
70. <i>Chlorophyll br</i>		
71. <i>Chlorophyll bs</i>		
72. <i>Chlorophyll bt</i>		
73. <i>Chlorophyll bu</i>		
74. <i>Chlorophyll bv</i>		
75. <i>Chlorophyll bw</i>		
76. <i>Chlorophyll bx</i>		
77. <i>Chlorophyll by</i>		
78. <i>Chlorophyll bz</i>		
79. <i>Chlorophyll ca</i>		
80. <i>Chlorophyll cb</i>		
81. <i>Chlorophyll cc</i>		
82. <i>Chlorophyll cd</i>		
83. <i>Chlorophyll ce</i>		
84. <i>Chlorophyll cf</i>		
85. <i>Chlorophyll cg</i>		
86. <i>Chlorophyll ch</i>		
87. <i>Chlorophyll ci</i>		
88. <i>Chlorophyll cj</i>		
89. <i>Chlorophyll ck</i>		
90. <i>Chlorophyll cl</i>		
91. <i>Chlorophyll cm</i>		
92. <i>Chlorophyll cn</i>		
93. <i>Chlorophyll co</i>		
94. <i>Chlorophyll cp</i>		
95. <i>Chlorophyll cq</i>		
96. <i>Chlorophyll cr</i>		
97. <i>Chlorophyll cs</i>		
98. <i>Chlorophyll ct</i>		
99. <i>Chlorophyll cu</i>		
100. <i>Chlorophyll cv</i>		
101. <i>Chlorophyll cw</i>		
102. <i>Chlorophyll cx</i>		
103. <i>Chlorophyll cy</i>		
104. <i>Chlorophyll cz</i>		
105. <i>Chlorophyll da</i>		
106. <i>Chlorophyll db</i>		
107. <i>Chlorophyll dc</i>		
108. <i>Chlorophyll dd</i>		
109. <i>Chlorophyll de</i>		
110. <i>Chlorophyll df</i>		
111. <i>Chlorophyll dg</i>		
112. <i>Chlorophyll dh</i>		

of Coolers:

Cooler Temp (including CF):

Date	Time	Matrix	Sample Name
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20/01/2019	AIR	SVE
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tedlar bag - 1

5

1

1

Date:	Time:	Relinquished by:
-------	-------	------------------

1

Received by:

_____, Via:

Rate	Time
10%	10 years
15%	15 years
20%	20 years
25%	25 years
30%	30 years
35%	35 years
40%	40 years
45%	45 years
50%	50 years
55%	55 years
60%	60 years
65%	65 years
70%	70 years
75%	75 years
80%	80 years
85%	85 years
90%	90 years
95%	95 years
100%	100 years

Remarks:

3/9/23 140

Date:	Time:	Relinquished by:
-------	-------	------------------

15

2

23 140

please c

please c:emillar@cottonwoodconsulting.com

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.



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04 October 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Sandoval GC A #001A

Enclosed are the results of analyses for samples received by the laboratory on 09/19/23 14:15. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: T104704514-23-17

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-23-16



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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW#2	2309200-01	Water	09/19/23 09:50	09/19/23 14:15	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Page 2 of 14 2309200 GAL FINAL 10 04 23 1657 10/04/23 16:57:59



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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

MW#2

2309200-01 (Ground Water)

Sampled Date: 09/19/23 09:50

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Dichlorodifluoromethane*	<0.025	0.025	0.025	mg/L	50	09/26/23 18:27	8260B		MS
Chloromethane*	<0.025	0.025	0.025	mg/L	50	09/26/23 18:27	8260B		MS
Vinyl chloride*	<0.025	0.025	0.025	mg/L	50	09/26/23 18:27	8260B		MS
Bromomethane*	<0.025	0.025	0.025	mg/L	50	09/26/23 18:27	8260B		MS
Chloroethane*	<0.025	0.025	0.025	mg/L	50	09/26/23 18:27	8260B		MS
Trichlorofluoromethane*	<0.025	0.025	0.007	mg/L	50	09/26/23 18:27	8260B		MS
1,1-Dichloroethene*	<0.025	0.025	0.002	mg/L	50	09/26/23 18:27	8260B		MS
Carbon disulfide*	0.054	0.050	0.005	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
Iodomethane	<0.050	0.050	0.003	mg/L	50	09/26/23 18:27	8260B		MS
Acrolein*	<0.250	0.250	0.026	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
Methylene chloride*	0.064	0.025	0.025	mg/L	50	09/26/23 18:27	8260B		MS
Acetone*	<0.500	0.500	0.043	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
trans-1,2-Dichloroethene*	<0.025	0.025	0.005	mg/L	50	09/26/23 18:27	8260B		MS
Methyl tert-butyl ether	<0.050	0.050	0.001	mg/L	50	09/26/23 18:27	8260B		MS
1,1-Dichloroethane*	<0.025	0.025	0.003	mg/L	50	09/26/23 18:27	8260B		MS
Acrylonitrile*	<0.100	0.100	0.007	mg/L	50	09/26/23 18:27	8260B		MS
Vinyl acetate*	<0.025	0.025	0.004	mg/L	50	09/26/23 18:27	8260B		MS
cis-1,2-Dichloroethene*	<0.025	0.025	0.012	mg/L	50	09/26/23 18:27	8260B		MS
2,2-Dichloropropane*	<0.025	0.025	0.008	mg/L	50	09/26/23 18:27	8260B		MS
Bromochloromethane*	<0.025	0.025	0.005	mg/L	50	09/26/23 18:27	8260B		MS
Chloroform*	<0.025	0.025	0.0008	mg/L	50	09/26/23 18:27	8260B		MS
Carbon tetrachloride*	<0.025	0.025	0.007	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
1,1,1-Trichloroethane*	<0.025	0.025	0.003	mg/L	50	09/26/23 18:27	8260B		MS
1,1-Dichloropropene*	<0.025	0.025	0.008	mg/L	50	09/26/23 18:27	8260B		MS
2-Butanone*	<0.100	0.100	0.026	mg/L	50	09/26/23 18:27	8260B		MS
Benzene*	1.34	0.025	0.002	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
1,2-Dichloroethane*	<0.025	0.025	0.003	mg/L	50	09/26/23 18:27	8260B		MS
Trichloroethene*	<0.025	0.025	0.009	mg/L	50	09/26/23 18:27	8260B		MS
Dibromomethane*	<0.025	0.025	0.008	mg/L	50	09/26/23 18:27	8260B	QR-03	MS
1,2-Dichloropropane*	<0.025	0.025	0.004	mg/L	50	09/26/23 18:27	8260B		MS
Bromodichloromethane*	<0.025	0.025	0.002	mg/L	50	09/26/23 18:27	8260B		MS
cis-1,3-Dichloropropene*	<0.025	0.025	0.004	mg/L	50	09/26/23 18:27	8260B		MS

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Veronica Wells, Project Manager

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www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

MW#2

2309200-01 (Ground Water)

Sampled Date: 09/19/23 09:50

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Toluene*	<0.025	0.025	0.0008	mg/L	50	09/26/23 18:27	8260B		MS
4-Methyl-2-pentanone*	<0.050	0.050	0.006	mg/L	50	09/26/23 18:27	8260B		MS
Tetrachloroethene*	<0.025	0.025	0.002	mg/L	50	09/26/23 18:27	8260B		MS
trans-1,3-Dichloropropene*	<0.025	0.025	0.002	mg/L	50	09/26/23 18:27	8260B		MS
1,1,2-Trichloroethane*	<0.025	0.025	0.002	mg/L	50	09/26/23 18:27	8260B		MS
Dibromochloromethane*	<0.025	0.025	0.004	mg/L	50	09/26/23 18:27	8260B		MS
1,3-Dichloropropane*	<0.025	0.025	0.007	mg/L	50	09/26/23 18:27	8260B		MS
1,2-Dibromoethane*	<0.025	0.025	0.001	mg/L	50	09/26/23 18:27	8260B		MS
2-Hexanone*	<0.050	0.050	0.016	mg/L	50	09/26/23 18:27	8260B		MS
Chlorobenzene*	<0.025	0.025	0.001	mg/L	50	09/26/23 18:27	8260B		MS
Ethylbenzene*	0.222	0.025	0.002	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
1,1,1,2-Tetrachloroethane*	<0.025	0.025	0.003	mg/L	50	09/26/23 18:27	8260B		MS
m+p - Xylene*	2.25	0.050	0.002	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
o-Xylene*	0.448	0.025	0.006	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
Total Xylenes*	2.69	0.050	0.008	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
Bromoform*	<0.025	0.025	0.003	mg/L	50	09/26/23 18:27	8260B		MS
Styrene*	<0.025	0.025	0.006	mg/L	50	09/26/23 18:27	8260B		MS
Isopropylbenzene*	<0.025	0.025	0.0008	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
Bromobenzene*	<0.025	0.025	0.001	mg/L	50	09/26/23 18:27	8260B		MS
n-Propylbenzene*	0.039	0.025	0.0008	mg/L	50	09/26/23 18:27	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.025	0.025	0.002	mg/L	50	09/26/23 18:27	8260B		MS
2-Chlorotoluene*	<0.025	0.025	0.001	mg/L	50	09/26/23 18:27	8260B		MS
1,2,3-trichloropropane*	<0.025	0.025	0.005	mg/L	50	09/26/23 18:27	8260B		MS
1,3,5-Trimethylbenzene*	0.197	0.025	0.0008	mg/L	50	09/26/23 18:27	8260B		MS
trans-1,4-Dichloro-2-butene	<0.500	0.500	0.007	mg/L	50	09/26/23 18:27	8260B		MS
4-Chlorotoluene*	<0.025	0.025	0.0008	mg/L	50	09/26/23 18:27	8260B		MS
tert-Butylbenzene*	<0.025	0.025	0.004	mg/L	50	09/26/23 18:27	8260B		MS
1,2,4-Trimethylbenzene*	1.27	0.025	0.002	mg/L	50	09/26/23 18:27	8260B	QM-07	MS
sec-Butylbenzene*	0.028	0.025	0.0006	mg/L	50	09/26/23 18:27	8260B		MS
p-Isopropyltoluene*	0.065	0.025	0.002	mg/L	50	09/26/23 18:27	8260B		MS
1,3-Dichlorobenzene*	<0.025	0.025	0.0008	mg/L	50	09/26/23 18:27	8260B		MS
1,4 Dichlorobenzene*	<0.025	0.025	0.002	mg/L	50	09/26/23 18:27	8260B		MS

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Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

MW#2

2309200-01 (Ground Water)

Sampled Date: 09/19/23 09:50

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

n-Butylbenzene*	<0.025	0.025	0.003	mg/L	50	09/26/23 18:27	8260B		MS
1,2-Dichlorobenzene*	<0.025	0.025	0.002	mg/L	50	09/26/23 18:27	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.025	0.025	0.025	mg/L	50	09/26/23 18:27	8260B		MS
Hexachlorobutadiene*	<0.025	0.025	0.025	mg/L	50	09/26/23 18:27	8260B		MS
1,2,4-Trichlorobenzene*	<0.025	0.025	0.003	mg/L	50	09/26/23 18:27	8260B		MS
Naphthalene*	0.083	0.025	0.003	mg/L	50	09/26/23 18:27	8260B		MS
1,2,3-Trichlorobenzene*	<0.025	0.025	0.012	mg/L	50	09/26/23 18:27	8260B		MS
1,4-Dioxane	<0.500	0.500	0.500	mg/L	50	09/26/23 18:27	8260B		MS
Surrogate: Dibromofluoromethane			95.8 %	82.4-141		09/26/23 18:27	8260B		MS
Surrogate: Toluene-d8			104 %	87.1-110		09/26/23 18:27	8260B		MS
Surrogate: 4-Bromofluorobenzene			104 %	76.4-114		09/26/23 18:27	8260B		MS

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Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

VOLATILES BY GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles

Blank (3092519-BLK1)

Prepared: 09/25/23 Analyzed: 09/26/23

1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,1-Trichloroethane	ND	0.0005	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,2-Trichloroethane	ND	0.0005	mg/L
1,1-Dichloroethane	ND	0.0005	mg/L
1,1-Dichloroethene	ND	0.0005	mg/L
1,1-Dichloropropene	ND	0.0005	mg/L
1,2,3-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trimethylbenzene	ND	0.0005	mg/L
1,2-Dibromo-3-chloropropane	ND	0.0005	mg/L
1,2-Dibromoethane	ND	0.0005	mg/L
1,2-Dichlorobenzene	ND	0.0005	mg/L
1,2-Dichloroethane	ND	0.0005	mg/L
1,2-Dichloropropane	ND	0.0005	mg/L
1,3,5-Trimethylbenzene	ND	0.0005	mg/L
1,3-Dichlorobenzene	ND	0.0005	mg/L
1,3-Dichloropropane	ND	0.0005	mg/L
1,4-Dichlorobenzene	ND	0.0005	mg/L
1,4-Dioxane	ND	0.010	mg/L
1,2,3-trichloropropane	ND	0.0005	mg/L
2,2-Dichloropropane	ND	0.0005	mg/L
2-Butanone	ND	0.002	mg/L
2-Chlorotoluene	ND	0.0005	mg/L
2-Hexanone	ND	0.001	mg/L

Surrogate: 4-Bromofluorobenzene	0.0232		mg/L	0.0250	92.6	76.4-114
4-Chlorotoluene	ND	0.0005	mg/L			
4-Methyl-2-pentanone	ND	0.001	mg/L			
Acetone	ND	0.010	mg/L			
Acrolein	ND	0.005	mg/L			
Acrylonitrile	ND	0.002	mg/L			
Benzene	ND	0.0005	mg/L			
Bromobenzene	ND	0.0005	mg/L			
Bromochloromethane	ND	0.0005	mg/L			
Bromodichloromethane	ND	0.0005	mg/L			
Bromoform	ND	0.0005	mg/L			

Green Analytical Laboratories

Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles (Continued)

Blank (3092519-BLK1) (Continued)

Prepared: 09/25/23 Analyzed: 09/26/23

Bromomethane	ND	0.0005	mg/L							
Carbon disulfide	ND	0.001	mg/L							
Carbon tetrachloride	ND	0.0005	mg/L							
Chlorobenzene	ND	0.0005	mg/L							
Chloroethane	ND	0.0005	mg/L							
Chloroform	ND	0.0005	mg/L							
Chloromethane	ND	0.0005	mg/L							
cis-1,2-Dichloroethene	ND	0.0005	mg/L							
cis-1,3-Dichloropropene	ND	0.0005	mg/L							
Dibromochloromethane	ND	0.0005	mg/L							
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0246</i>		mg/L	<i>0.0250</i>		<i>98.5</i>	<i>82.4-141</i>			
Dibromomethane	ND	0.0005	mg/L							
Dichlorodifluoromethane	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
Hexachlorobutadiene	ND	0.0005	mg/L							
Iodomethane	ND	0.001	mg/L							
Isopropylbenzene	ND	0.0005	mg/L							
m+p - Xylene	ND	0.001	mg/L							
Methyl tert-butyl ether	ND	0.001	mg/L							
Methylene chloride	ND	0.0005	mg/L							
Naphthalene	ND	0.0005	mg/L							
n-Butylbenzene	ND	0.0005	mg/L							
n-Propylbenzene	ND	0.0005	mg/L							
o-Xylene	ND	0.0005	mg/L							
p-Isopropyltoluene	ND	0.0005	mg/L							
sec-Butylbenzene	ND	0.0005	mg/L							
Styrene	ND	0.0005	mg/L							
tert-Butylbenzene	ND	0.0005	mg/L							
Tetrachloroethene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
<i>Surrogate: Toluene-d8</i>	<i>0.0265</i>		mg/L	<i>0.0250</i>		<i>106</i>	<i>87.1-110</i>			
Total Xylenes	ND	0.001	mg/L							
trans-1,2-Dichloroethene	ND	0.0005	mg/L							
trans-1,3-Dichloropropene	ND	0.0005	mg/L							
trans-1,4-Dichloro-2-butene	ND	0.010	mg/L							
Trichloroethene	ND	0.0005	mg/L							
Trichlorofluoromethane	ND	0.0005	mg/L							
Vinyl acetate	ND	0.0005	mg/L							
Vinyl chloride	ND	0.0005	mg/L							

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Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles (Continued)

LCS (3092519-BS1)

Prepared: 09/25/23 Analyzed: 09/26/23

1,1,1,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		90.2	82.4-120			
1,1,1-Trichloroethane	0.017	0.0005	mg/L	0.0200		86.8	80.7-121			
1,1,2,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		100	76.5-121			
1,1,2-Trichloroethane	0.020	0.0005	mg/L	0.0200		99.9	81.7-118			
1,1-Dichloroethane	0.019	0.0005	mg/L	0.0200		95.4	74.8-123			
1,1-Dichloroethene	0.021	0.0005	mg/L	0.0200		107	53.9-149			
1,1-Dichloropropene	0.018	0.0005	mg/L	0.0200		88.2	85.9-115			
1,2,3-Trichlorobenzene	0.017	0.0005	mg/L	0.0200		84.0	76.1-134			
1,2,4-Trichlorobenzene	0.016	0.0005	mg/L	0.0200		82.0	72.4-136			
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		95.9	67.4-138			
1,2-Dibromo-3-chloropropane	0.018	0.0005	mg/L	0.0200		88.2	71.7-124			
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		95.0	84.9-116			
1,2-Dichlorobenzene	0.018	0.0005	mg/L	0.0200		89.6	82.5-119			
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		101	72.5-123			
1,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		93.4	79.4-117			
1,3,5-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		101	69-137			
1,3-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		93.1	84.4-120			
1,3-Dichloropropane	0.018	0.0005	mg/L	0.0200		91.8	82.6-117			
1,4 Dichlorobenzene	0.019	0.0005	mg/L	0.0200		92.6	81.7-118			
1,4-Dioxane	0.422	0.010	mg/L	0.400		105	-34.6-193			
1,2,3-trichloropropane	0.022	0.0005	mg/L	0.0200		108	44.7-168			
2,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		107	62.9-136			
2-Butanone	0.040	0.002	mg/L	0.0400		99.0	24.1-159			
2-Chlorotoluene	0.018	0.0005	mg/L	0.0200		90.7	80.2-121			
2-Hexanone	0.041	0.001	mg/L	0.0400		102	56.3-139			
Surrogate: 4-Bromofluorobenzene	0.0252		mg/L	0.0250		101	76.4-114			
4-Chlorotoluene	0.020	0.0005	mg/L	0.0200		97.8	82.2-125			
4-Methyl-2-pentanone	0.043	0.001	mg/L	0.0400		107	60.7-139			
Acetone	0.050	0.010	mg/L	0.0400		126	39.1-168			
Acrolein	0.500	0.005	mg/L	0.200		250	26.6-161			BS1
Acrylonitrile	0.042	0.002	mg/L	0.0400		106	64.9-135			
Benzene	0.019	0.0005	mg/L	0.0200		94.3	69.4-129			
Bromobenzene	0.016	0.0005	mg/L	0.0200		82.4	83.5-115			BS2
Bromochloromethane	0.020	0.0005	mg/L	0.0200		100	70.7-123			
Bromodichloromethane	0.019	0.0005	mg/L	0.0200		94.6	80.3-119			
Bromoform	0.017	0.0005	mg/L	0.0200		84.4	71.1-141			
Bromomethane	0.021	0.0005	mg/L	0.0200		103	55.1-143			
Carbon disulfide	0.048	0.001	mg/L	0.0400		121	53.6-147			
Carbon tetrachloride	0.017	0.0005	mg/L	0.0200		83.7	79.5-125			

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Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles (Continued)

LCS (3092519-BS1) (Continued)

Prepared: 09/25/23 Analyzed: 09/26/23

Chlorobenzene	0.017	0.0005	mg/L	0.0200		86.6	85.1-115			
Chloroethane	0.025	0.0005	mg/L	0.0200		123	36.9-159			
Chloroform	0.020	0.0005	mg/L	0.0200		98.2	80.9-119			
Chloromethane	0.017	0.0005	mg/L	0.0200		86.4	54.2-142			
cis-1,2-Dichloroethene	0.019	0.0005	mg/L	0.0200		97.4	73.8-128			
cis-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		88.8	82.5-122			
Dibromochloromethane	0.018	0.0005	mg/L	0.0200		89.4	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0234</i>		mg/L	<i>0.0250</i>		<i>93.4</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		101	77-118			
Dichlorodifluoromethane	0.020	0.0005	mg/L	0.0200		98.2	38.7-147			
Ethylbenzene	0.018	0.0005	mg/L	0.0200		91.0	70.2-130			
Hexachlorobutadiene	0.017	0.0005	mg/L	0.0200		84.0	78.9-148			
Iodomethane	0.040	0.001	mg/L	0.0400		99.1	63.5-135			
Isopropylbenzene	0.018	0.0005	mg/L	0.0200		90.7	85-124			
m+p - Xylene	0.039	0.001	mg/L	0.0400		97.0	71.9-133			
Methyl tert-butyl ether	0.043	0.001	mg/L	0.0400		107	57.7-137			
Methylene chloride	0.023	0.0005	mg/L	0.0200		115	49.3-163			
Naphthalene	0.019	0.0005	mg/L	0.0200		94.3	62.1-141			
n-Butylbenzene	0.018	0.0005	mg/L	0.0200		92.0	75.4-132			
n-Propylbenzene	0.020	0.0005	mg/L	0.0200		97.8	79.6-124			
o-Xylene	0.019	0.0005	mg/L	0.0200		92.6	69.4-132			
p-Isopropyltoluene	0.018	0.0005	mg/L	0.0200		89.4	79.8-131			
sec-Butylbenzene	0.019	0.0005	mg/L	0.0200		93.4	77.6-133			
Styrene	0.018	0.0005	mg/L	0.0200		89.3	71.7-128			
tert-Butylbenzene	0.020	0.0005	mg/L	0.0200		98.3	78.8-128			
Tetrachloroethene	0.017	0.0005	mg/L	0.0200		82.8	74.2-128			
Toluene	0.019	0.0005	mg/L	0.0200		92.9	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0246</i>		mg/L	<i>0.0250</i>		<i>98.5</i>	<i>87.1-110</i>			
Total Xylenes	0.057	0.001	mg/L	0.0600		95.6	71.6-132			
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		107	65.2-133			
trans-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		103	84-123			
trans-1,4-Dichloro-2-butene	0.066	0.010	mg/L	0.0400		166	9.3-235			
Trichloroethene	0.019	0.0005	mg/L	0.0200		95.6	79.3-114			
Trichlorofluoromethane	0.012	0.0005	mg/L	0.0200		58.8	28.6-162			
Vinyl acetate	0.027	0.0005	mg/L	0.0200		134	50.9-135			
Vinyl chloride	0.020	0.0005	mg/L	0.0200		98.7	61.6-133			

LCS Dup (3092519-BSD1)

Prepared: 09/25/23 Analyzed: 09/26/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		98.6	82.4-120	8.95	6.88	QR-04
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Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles (Continued)

LCS Dup (3092519-BSD1) (Continued)

Prepared: 09/25/23 Analyzed: 09/26/23

1,1,1-Trichloroethane	0.018	0.0005	mg/L	0.0200		91.0	80.7-121	4.84	7.43	
1,1,2,2-Tetrachloroethane	0.022	0.0005	mg/L	0.0200		112	76.5-121	10.9	8.68	QR-04
1,1,2-Trichloroethane	0.021	0.0005	mg/L	0.0200		104	81.7-118	4.12	6.82	
1,1-Dichloroethane	0.020	0.0005	mg/L	0.0200		100	74.8-123	4.66	4.3	QR-04
1,1-Dichloroethene	0.022	0.0005	mg/L	0.0200		112	53.9-149	4.58	16.5	
1,1-Dichloropropene	0.018	0.0005	mg/L	0.0200		91.2	85.9-115	3.40	5.47	
1,2,3-Trichlorobenzene	0.018	0.0005	mg/L	0.0200		88.8	76.1-134	5.55	43	
1,2,4-Trichlorobenzene	0.017	0.0005	mg/L	0.0200		86.2	72.4-136	5.06	22.3	
1,2,4-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		103	67.4-138	7.48	8.94	
1,2-Dibromo-3-chloropropane	0.018	0.0005	mg/L	0.0200		89.5	71.7-124	1.52	15.1	
1,2-Dibromoethane	0.020	0.0005	mg/L	0.0200		102	84.9-116	7.11	5.83	QR-04
1,2-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		97.1	82.5-119	8.03	8.72	
1,2-Dichloroethane	0.022	0.0005	mg/L	0.0200		108	72.5-123	5.99	8.94	
1,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		97.2	79.4-117	4.09	5.51	
1,3,5-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		110	69-137	8.12	16.5	
1,3-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		99.8	84.4-120	6.95	9	
1,3-Dichloropropane	0.020	0.0005	mg/L	0.0200		98.6	82.6-117	7.25	6.06	QR-04
1,4 Dichlorobenzene	0.020	0.0005	mg/L	0.0200		101	81.7-118	8.23	7.71	QR-04
1,4-Dioxane	0.435	0.010	mg/L	0.400		109	-34.6-193	3.11	35.2	
1,2,3-trichloropropane	0.022	0.0005	mg/L	0.0200		109	44.7-168	0.784	49.2	
2,2-Dichloropropane	0.022	0.0005	mg/L	0.0200		112	62.9-136	4.48	9.62	
2-Butanone	0.043	0.002	mg/L	0.0400		108	24.1-159	8.63	14.2	
2-Chlorotoluene	0.020	0.0005	mg/L	0.0200		100	80.2-121	9.81	8.62	QR-04
2-Hexanone	0.043	0.001	mg/L	0.0400		107	56.3-139	4.74	7.28	
Surrogate: 4-Bromofluorobenzene	0.0249		mg/L	0.0250		99.6	76.4-114			
4-Chlorotoluene	0.021	0.0005	mg/L	0.0200		104	82.2-125	5.91	15.5	
4-Methyl-2-pentanone	0.046	0.001	mg/L	0.0400		115	60.7-139	7.23	7.57	
Acetone	0.053	0.010	mg/L	0.0400		132	39.1-168	4.43	30.5	
Acrolein	0.490	0.005	mg/L	0.200		245	26.6-161	1.89	22.4	BS1
Acrylonitrile	0.044	0.002	mg/L	0.0400		109	64.9-135	3.37	7.62	
Benzene	0.020	0.0005	mg/L	0.0200		101	69.4-129	7.16	4.16	QR-04
Bromobenzene	0.018	0.0005	mg/L	0.0200		89.2	83.5-115	7.92	8.41	
Bromochloromethane	0.021	0.0005	mg/L	0.0200		105	70.7-123	4.24	5.16	
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		99.5	80.3-119	5.00	5.36	
Bromoform	0.017	0.0005	mg/L	0.0200		85.0	71.1-141	0.767	14.1	
Bromomethane	0.021	0.0005	mg/L	0.0200		105	55.1-143	1.49	21.5	
Carbon disulfide	0.049	0.001	mg/L	0.0400		123	53.6-147	1.93	20.3	
Carbon tetrachloride	0.018	0.0005	mg/L	0.0200		88.6	79.5-125	5.74	11.4	
Chlorobenzene	0.018	0.0005	mg/L	0.0200		92.0	85.1-115	5.99	5.18	QR-04

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Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3092519 - Volatiles (Continued)										
LCS Dup (3092519-BSD1) (Continued)										
Prepared: 09/25/23 Analyzed: 09/26/23										
Chloroethane	0.025	0.0005	mg/L	0.0200		127	36.9-159	3.68	24.1	
Chloroform	0.020	0.0005	mg/L	0.0200		102	80.9-119	3.40	5.15	
Chloromethane	0.020	0.0005	mg/L	0.0200		97.6	54.2-142	12.2	27	
cis-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		104	73.8-128	7.03	5.73	QR-04
cis-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		96.8	82.5-122	8.62	6.09	QR-04
Dibromochloromethane	0.018	0.0005	mg/L	0.0200		88.0	83.1-124	1.52	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0229</i>		mg/L	<i>0.0250</i>		<i>91.6</i>	<i>82.4-141</i>			
Dibromomethane	0.021	0.0005	mg/L	0.0200		105	77-118	4.04	5.75	
Dichlorodifluoromethane	0.020	0.0005	mg/L	0.0200		100	38.7-147	2.26	22.6	
Ethylbenzene	0.019	0.0005	mg/L	0.0200		95.8	70.2-130	5.14	4.83	QR-04
Hexachlorobutadiene	0.018	0.0005	mg/L	0.0200		87.8	78.9-148	4.36	18.4	
Iodomethane	0.041	0.001	mg/L	0.0400		102	63.5-135	3.01	24.3	
Isopropylbenzene	0.019	0.0005	mg/L	0.0200		95.9	85-124	5.57	6.25	
m+p - Xylene	0.041	0.001	mg/L	0.0400		102	71.9-133	5.00	5.77	
Methyl tert-butyl ether	0.044	0.001	mg/L	0.0400		111	57.7-137	3.37	12.8	
Methylene chloride	0.022	0.0005	mg/L	0.0200		109	49.3-163	5.37	19.7	
Naphthalene	0.020	0.0005	mg/L	0.0200		98.2	62.1-141	4.05	33.5	
n-Butylbenzene	0.020	0.0005	mg/L	0.0200		99.6	75.4-132	7.94	10.1	
n-Propylbenzene	0.022	0.0005	mg/L	0.0200		108	79.6-124	9.91	9.09	QR-04
o-Xylene	0.020	0.0005	mg/L	0.0200		100	69.4-132	7.73	6.29	QR-04
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		96.8	79.8-131	7.95	9.26	
sec-Butylbenzene	0.020	0.0005	mg/L	0.0200		102	77.6-133	8.80	9.85	
Styrene	0.018	0.0005	mg/L	0.0200		91.4	71.7-128	2.38	7.55	
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		107	78.8-128	8.52	18.6	
Tetrachloroethene	0.017	0.0005	mg/L	0.0200		87.2	74.2-128	5.18	6.38	
Toluene	0.020	0.0005	mg/L	0.0200		99.9	68.1-127	7.26	5.67	QR-04
<i>Surrogate: Toluene-d8</i>	<i>0.0247</i>		mg/L	<i>0.0250</i>		<i>98.8</i>	<i>87.1-110</i>			
Total Xylenes	0.061	0.001	mg/L	0.0600		101	71.6-132	5.89	5.83	QR-04
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		106	65.2-133	1.55	19.1	
trans-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		106	84-123	2.39	6.26	
trans-1,4-Dichloro-2-butene	0.057	0.010	mg/L	0.0400		142	9.3-235	15.8	92.8	
Trichloroethene	0.021	0.0005	mg/L	0.0200		104	79.3-114	8.18	4.92	QR-04
Trichlorofluoromethane	0.013	0.0005	mg/L	0.0200		66.0	28.6-162	11.6	19.8	
Vinyl acetate	0.028	0.0005	mg/L	0.0200		140	50.9-135	4.19	7.84	BS1
Vinyl chloride	0.020	0.0005	mg/L	0.0200		101	61.6-133	2.70	23	

Green Analytical Laboratories

Veronica Wells, Project Manager

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
10/04/23 16:57

Notes and Definitions

QR-04 The RPD for the BS/BSD was outside of historical limits.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

BS2 Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.

BS1 Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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(970) 247-4220
Fax: (970) 247-4227
service@greenanalytical.com or dzufelt@greenanalytical.com
75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Cottonwood Consulting LLC		P.O. #:		Bill to (if different):	
Project Manager: Kyle Siesser		Company:			
Address: PO Box 1653		Attn:			
City: Durango		State: CO		Zip: 81302	
Phone #: 970-764-7356		Email: ksiesser@cottonwoodconsulting.com		Address:	
Additional Report To:		City:		State:	
Project Name: Sandoval GC A #001A		Phone #:		Zip:	
Project Number:		Fax or Email:			
Sampler Name (Print): Emma Miller / Dylan Senger		Matrix (check one)		# of containers	
FOR LAB USE ONLY		☒ GROUNDWATER ☐ SURFACEWATER ☐ WASTEWATER ☐ PRODUCEDWATER ☐ SOIL ☐ OTHER :		☐ No preservation (general) ☐ HNO ₃ ☐ HCl ☐ H ₂ SO ₄ ☐ Other: ☐ Other:	
Lab I.D.	Sample Name or Location	Date	Time	EPA Method 8260B (VOCs)	
2301-200 C1	MMW#2	9/19/23	0950	X	
Relinquished By:		Date: 9/19/23	Time: 1415	Received By: [Signature]	
Relinquished By:		Date:	Time:	Received By:	
Relinquished By:		Date:	Time:	Received By:	
Delivered By: (Circle One)		Temperature at receipt:		CHECKED BY:	
Sampler: UPS - FedEx - Kangaroo - Other:		laser #2 on ice		21.30c JPN	
PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder.		ADDITIONAL REMARKS:		Report to State? (Circle) Yes No	

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2309-200Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ KangarooCustody Seals on Box/Cooler Present: ☐ Yes ☒ NoSeals Intact: ☐ Yes ☒ NoThermometer Used: 2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 21.3 °C Correction Factor: 0 °C Final Temp: 21.3 °C

* Temp should be above freezing to 6°C

Date/Initials of person
examining contents: 9/19/23
SELabeled by Initials:
(if different than above) _____

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☐ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12.
Matrix:	☒ WT ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☒ No ☐ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☐ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

27 December 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Sandoval GC A #001

Enclosed are the results of analyses for samples received by the laboratory on 12/15/23 14:20. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'. The signature is written in a cursive style with a light blue background.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: T104704514-23-18

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-23-16

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2312147-01	Water	12/15/23 12:05	12/15/23 14:20	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

MW #2

2312147-01 (Ground Water)

Sampled Date: 12/15/23 12:05

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

1,1,1,2-Tetrachloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 12:58	8260B		MS
1,1,1-Trichloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 12:58	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 12:58	8260B		MS
1,1,2-Trichloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 12:58	8260B		MS
1,1-Dichloroethane*	<0.050	0.050	0.015	mg/L	100	12/22/23 12:58	8260B		MS
1,1-Dichloroethene*	<0.050	0.050	0.019	mg/L	100	12/22/23 12:58	8260B		MS
1,1-Dichloropropene*	<0.050	0.050	0.016	mg/L	100	12/22/23 12:58	8260B		MS
1,2,3-Trichlorobenzene*	<0.050	0.050	0.023	mg/L	100	12/22/23 12:58	8260B		MS
1,2,4-Trichlorobenzene*	<0.050	0.050	0.013	mg/L	100	12/22/23 12:58	8260B		MS
1,2,4-Trimethylbenzene*	0.938	0.050	0.004	mg/L	100	12/22/23 12:58	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
1,2-Dibromoethane*	<0.050	0.050	0.009	mg/L	100	12/22/23 12:58	8260B		MS
1,2-Dichlorobenzene*	<0.050	0.050	0.007	mg/L	100	12/22/23 12:58	8260B		MS
1,2-Dichloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 12:58	8260B		MS
1,2-Dichloropropane*	<0.050	0.050	0.008	mg/L	100	12/22/23 12:58	8260B		MS
1,3,5-Trimethylbenzene*	<0.050	0.050	0.004	mg/L	100	12/22/23 12:58	8260B		MS
1,3-Dichlorobenzene*	<0.050	0.050	0.005	mg/L	100	12/22/23 12:58	8260B		MS
1,3-Dichloropropane*	<0.050	0.050	0.013	mg/L	100	12/22/23 12:58	8260B		MS
1,4 Dichlorobenzene*	<0.050	0.050	0.004	mg/L	100	12/22/23 12:58	8260B		MS
1,4-Dioxane	<1.00	1.00	1.00	mg/L	100	12/22/23 12:58	8260B		MS
1,2,3-trichloropropane*	<0.050	0.050	0.012	mg/L	100	12/22/23 12:58	8260B		MS
2,2-Dichloropropane*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
2-Butanone*	<0.200	0.200	0.200	mg/L	100	12/22/23 12:58	8260B		MS
2-Chlorotoluene*	<0.050	0.050	0.004	mg/L	100	12/22/23 12:58	8260B		MS
2-Hexanone*	<0.100	0.100	0.032	mg/L	100	12/22/23 12:58	8260B		MS
4-Chlorotoluene*	<0.050	0.050	0.004	mg/L	100	12/22/23 12:58	8260B		MS
4-Methyl-2-pentanone*	<0.100	0.100	0.012	mg/L	100	12/22/23 12:58	8260B		MS
Acetone*	<1.00	1.00	0.086	mg/L	100	12/22/23 12:58	8260B		MS
Acrolein*	<0.500	0.500	0.108	mg/L	100	12/22/23 12:58	8260B		MS
Acrylonitrile*	<0.200	0.200	0.081	mg/L	100	12/22/23 12:58	8260B		MS
Benzene*	1.37	0.050	0.005	mg/L	100	12/22/23 12:58	8260B		MS
Bromobenzene*	<0.050	0.050	0.006	mg/L	100	12/22/23 12:58	8260B		MS

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

MW #2

2312147-01 (Ground Water)

Sampled Date: 12/15/23 12:05

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Bromochloromethane*	<0.050	0.050	0.014	mg/L	100	12/22/23 12:58	8260B		MS
Bromodichloromethane*	<0.050	0.050	0.004	mg/L	100	12/22/23 12:58	8260B		MS
Bromoform*	<0.050	0.050	0.009	mg/L	100	12/22/23 12:58	8260B		MS
Bromomethane*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
Carbon disulfide*	0.169	0.100	0.014	mg/L	100	12/22/23 12:58	8260B		MS
Carbon tetrachloride*	<0.050	0.050	0.016	mg/L	100	12/22/23 12:58	8260B		MS
Chlorobenzene*	<0.050	0.050	0.004	mg/L	100	12/22/23 12:58	8260B		MS
Chloroethane*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
Chloroform*	<0.050	0.050	0.002	mg/L	100	12/22/23 12:58	8260B		MS
Chloromethane*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
cis-1,2-Dichloroethene*	<0.050	0.050	0.025	mg/L	100	12/22/23 12:58	8260B		MS
cis-1,3-Dichloropropene*	<0.050	0.050	0.009	mg/L	100	12/22/23 12:58	8260B		MS
Dibromochloromethane*	<0.050	0.050	0.008	mg/L	100	12/22/23 12:58	8260B		MS
Dibromomethane*	<0.050	0.050	0.017	mg/L	100	12/22/23 12:58	8260B		MS
Dichlorodifluoromethane*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
Ethylbenzene*	0.264	0.050	0.003	mg/L	100	12/22/23 12:58	8260B		MS
Hexachlorobutadiene*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
Iodomethane	<0.100	0.100	0.006	mg/L	100	12/22/23 12:58	8260B		MS
Isopropylbenzene*	0.071	0.050	0.002	mg/L	100	12/22/23 12:58	8260B		MS
m+p - Xylene*	1.42	0.100	0.008	mg/L	100	12/22/23 12:58	8260B		MS
Methyl tert-butyl ether	<0.100	0.100	0.025	mg/L	100	12/22/23 12:58	8260B		MS
Methylene chloride*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
Naphthalene*	<0.050	0.050	0.008	mg/L	100	12/22/23 12:58	8260B		MS
n-Butylbenzene*	<0.050	0.050	0.007	mg/L	100	12/22/23 12:58	8260B		MS
n-Propylbenzene*	<0.050	0.050	0.005	mg/L	100	12/22/23 12:58	8260B		MS
o-Xylene*	0.176	0.050	0.013	mg/L	100	12/22/23 12:58	8260B		MS
p-Isopropyltoluene*	<0.050	0.050	0.004	mg/L	100	12/22/23 12:58	8260B		MS
sec-Butylbenzene*	<0.050	0.050	0.004	mg/L	100	12/22/23 12:58	8260B		MS
Styrene*	<0.050	0.050	0.012	mg/L	100	12/22/23 12:58	8260B		MS
tert-Butylbenzene*	<0.050	0.050	0.007	mg/L	100	12/22/23 12:58	8260B		MS
Tetrachloroethene*	<0.050	0.050	0.009	mg/L	100	12/22/23 12:58	8260B		MS
Toluene*	<0.050	0.050	0.008	mg/L	100	12/22/23 12:58	8260B		MS

Green Analytical Laboratories

Veronica J. Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

MW #2

2312147-01 (Ground Water)

Sampled Date: 12/15/23 12:05

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Total Xylenes*	1.59	0.100	0.021	mg/L	100	12/22/23 12:58	8260B		MS
trans-1,2-Dichloroethene*	<0.050	0.050	0.014	mg/L	100	12/22/23 12:58	8260B		MS
trans-1,3-Dichloropropene*	<0.050	0.050	0.005	mg/L	100	12/22/23 12:58	8260B		MS
trans-1,4-Dichloro-2-butene	<1.00	1.00	0.029	mg/L	100	12/22/23 12:58	8260B		MS
Trichloroethene*	<0.050	0.050	0.017	mg/L	100	12/22/23 12:58	8260B		MS
Trichlorofluoromethane*	<0.050	0.050	0.013	mg/L	100	12/22/23 12:58	8260B		MS
Vinyl acetate*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
Vinyl chloride*	<0.050	0.050	0.050	mg/L	100	12/22/23 12:58	8260B		MS
Surrogate: 4-Bromofluorobenzene			104 %	76.4-114		12/22/23 12:58	8260B		MS
Surrogate: Dibromofluoromethane			108 %	82.4-141		12/22/23 12:58	8260B		MS
Surrogate: Toluene-d8			100 %	87.1-110		12/22/23 12:58	8260B		MS

Green Analytical Laboratories

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

VOLATILES BY GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 3122038 - Volatiles

Blank (3122038-BLK1)

Prepared: 12/20/23 Analyzed: 12/21/23

1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,1-Trichloroethane	ND	0.0005	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,2-Trichloroethane	ND	0.0005	mg/L
1,1-Dichloroethane	ND	0.0005	mg/L
1,1-Dichloroethene	ND	0.0005	mg/L
1,1-Dichloropropene	ND	0.0005	mg/L
1,2,3-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trimethylbenzene	ND	0.0005	mg/L
1,2-Dibromo-3-chloropropane	ND	0.0005	mg/L
1,2-Dibromoethane	ND	0.0005	mg/L
1,2-Dichlorobenzene	ND	0.0005	mg/L
1,2-Dichloroethane	ND	0.0005	mg/L
1,2-Dichloropropane	ND	0.0005	mg/L
1,3,5-Trimethylbenzene	ND	0.0005	mg/L
1,3-Dichlorobenzene	ND	0.0005	mg/L
1,3-Dichloropropane	ND	0.0005	mg/L
1,4-Dichlorobenzene	ND	0.0005	mg/L
1,4-Dioxane	ND	0.010	mg/L
1,2,3-trichloropropane	ND	0.0005	mg/L
2,2-Dichloropropane	ND	0.0005	mg/L
2-Butanone	ND	0.002	mg/L
2-Chlorotoluene	ND	0.0005	mg/L
2-Hexanone	ND	0.001	mg/L

Surrogate: 4-Bromofluorobenzene	0.0224		mg/L	0.0250	89.4	76.4-114
4-Chlorotoluene	ND	0.0005	mg/L			
4-Methyl-2-pentanone	ND	0.001	mg/L			
Acetone	ND	0.010	mg/L			
Acrolein	ND	0.005	mg/L			
Acrylonitrile	ND	0.002	mg/L			
Benzene	ND	0.0005	mg/L			
Bromobenzene	ND	0.0005	mg/L			
Bromochloromethane	ND	0.0005	mg/L			
Bromodichloromethane	ND	0.0005	mg/L			
Bromoform	ND	0.0005	mg/L			

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Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

Blank (3122038-BLK1) (Continued)

Prepared: 12/20/23 Analyzed: 12/21/23

Bromomethane	ND	0.0005	mg/L							
Carbon disulfide	ND	0.001	mg/L							
Carbon tetrachloride	ND	0.0005	mg/L							
Chlorobenzene	ND	0.0005	mg/L							
Chloroethane	ND	0.0005	mg/L							
Chloroform	ND	0.0005	mg/L							
Chloromethane	ND	0.0005	mg/L							
cis-1,2-Dichloroethene	ND	0.0005	mg/L							
cis-1,3-Dichloropropene	ND	0.0005	mg/L							
Dibromochloromethane	ND	0.0005	mg/L							

Surrogate: Dibromofluoromethane 0.0285 mg/L 0.0250 114 82.4-141

Dibromomethane	ND	0.0005	mg/L							
Dichlorodifluoromethane	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
Hexachlorobutadiene	ND	0.0005	mg/L							
Iodomethane	ND	0.001	mg/L							
Isopropylbenzene	ND	0.0005	mg/L							
m+p - Xylene	ND	0.001	mg/L							
Methyl tert-butyl ether	ND	0.001	mg/L							
Methylene chloride	ND	0.0005	mg/L							
Naphthalene	ND	0.0005	mg/L							
n-Butylbenzene	ND	0.0005	mg/L							
n-Propylbenzene	ND	0.0005	mg/L							
o-Xylene	ND	0.0005	mg/L							
p-Isopropyltoluene	ND	0.0005	mg/L							
sec-Butylbenzene	ND	0.0005	mg/L							
Styrene	ND	0.0005	mg/L							
tert-Butylbenzene	ND	0.0005	mg/L							
Tetrachloroethene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							

Surrogate: Toluene-d8 0.0249 mg/L 0.0250 99.8 87.1-110

Total Xylenes	ND	0.001	mg/L							
trans-1,2-Dichloroethene	ND	0.0005	mg/L							
trans-1,3-Dichloropropene	ND	0.0005	mg/L							
trans-1,4-Dichloro-2-butene	ND	0.010	mg/L							
Trichloroethene	ND	0.0005	mg/L							
Trichlorofluoromethane	ND	0.0005	mg/L							
Vinyl acetate	ND	0.0005	mg/L							
Vinyl chloride	ND	0.0005	mg/L							

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Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

LCS (3122038-BS1)

Prepared: 12/20/23 Analyzed: 12/21/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		101	82.4-120			
1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		102	80.7-121			
1,1,2,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		88.3	76.5-121			
1,1,2-Trichloroethane	0.019	0.0005	mg/L	0.0200		96.5	81.7-118			
1,1-Dichloroethane	0.020	0.0005	mg/L	0.0200		97.6	74.8-123			
1,1-Dichloroethene	0.025	0.0005	mg/L	0.0200		124	53.9-149			
1,1-Dichloropropene	0.021	0.0005	mg/L	0.0200		103	85.9-115			
1,2,3-Trichlorobenzene	0.021	0.0005	mg/L	0.0200		103	76.1-134			
1,2,4-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		101	72.4-136			
1,2,4-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		105	67.4-138			
1,2-Dibromo-3-chloropropane	0.016	0.0005	mg/L	0.0200		81.2	71.7-124			
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		94.8	84.9-116			
1,2-Dichlorobenzene	0.022	0.0005	mg/L	0.0200		110	82.5-119			
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		97.6	72.5-123			
1,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		107	79.4-117			
1,3,5-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		112	69-137			
1,3-Dichlorobenzene	0.023	0.0005	mg/L	0.0200		115	84.4-120			
1,3-Dichloropropane	0.019	0.0005	mg/L	0.0200		95.4	82.6-117			
1,4 Dichlorobenzene	0.020	0.0005	mg/L	0.0200		101	81.7-118			
1,4-Dioxane	0.397	0.010	mg/L	0.400		99.2	-34.6-193			
1,2,3-trichloropropane	0.018	0.0005	mg/L	0.0200		91.6	44.7-168			
2,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		100	62.9-136			
2-Butanone	0.038	0.002	mg/L	0.0400		95.2	24.1-159			
2-Chlorotoluene	0.020	0.0005	mg/L	0.0200		102	80.2-121			
2-Hexanone	0.032	0.001	mg/L	0.0400		80.5	56.3-139			
Surrogate: 4-Bromofluorobenzene	0.0256		mg/L	0.0250		102	76.4-114			
4-Chlorotoluene	0.022	0.0005	mg/L	0.0200		108	82.2-125			
4-Methyl-2-pentanone	0.029	0.001	mg/L	0.0400		73.2	60.7-139			
Acetone	0.037	0.010	mg/L	0.0400		91.9	39.1-168			
Acrolein	0.234	0.005	mg/L	0.200		117	26.6-161			
Acrylonitrile	0.033	0.002	mg/L	0.0400		81.4	64.9-135			
Benzene	0.022	0.0005	mg/L	0.0200		110	69.4-129			
Bromobenzene	0.022	0.0005	mg/L	0.0200		108	83.5-115			
Bromochloromethane	0.020	0.0005	mg/L	0.0200		101	70.7-123			
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		102	80.3-119			
Bromoform	0.019	0.0005	mg/L	0.0200		97.1	71.1-141			
Bromomethane	0.023	0.0005	mg/L	0.0200		114	55.1-143			
Carbon disulfide	0.038	0.001	mg/L	0.0400		94.6	53.6-147			
Carbon tetrachloride	0.021	0.0005	mg/L	0.0200		105	79.5-125			

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Veronica J. Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

LCS (3122038-BS1) (Continued)

Prepared: 12/20/23 Analyzed: 12/21/23

Chlorobenzene	0.020	0.0005	mg/L	0.0200		100	85.1-115			
Chloroethane	0.024	0.0005	mg/L	0.0200		118	36.9-159			
Chloroform	0.017	0.0005	mg/L	0.0200		84.4	80.9-119			
Chloromethane	0.017	0.0005	mg/L	0.0200		83.4	54.2-142			
cis-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		101	73.8-128			
cis-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		92.9	82.5-122			
Dibromochloromethane	0.021	0.0005	mg/L	0.0200		103	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0243</i>		mg/L	<i>0.0250</i>		<i>97.2</i>	<i>82.4-141</i>			
Dibromomethane	0.019	0.0005	mg/L	0.0200		93.6	77-118			
Dichlorodifluoromethane	0.021	0.0005	mg/L	0.0200		103	38.7-147			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		97.0	70.2-130			
Hexachlorobutadiene	0.024	0.0005	mg/L	0.0200		120	78.9-148			
Iodomethane	0.039	0.001	mg/L	0.0400		96.8	63.5-135			
Isopropylbenzene	0.021	0.0005	mg/L	0.0200		104	85-124			
m+p - Xylene	0.040	0.001	mg/L	0.0400		100	71.9-133			
Methyl tert-butyl ether	0.039	0.001	mg/L	0.0400		97.5	57.7-137			
Methylene chloride	0.021	0.0005	mg/L	0.0200		103	49.3-163			
Naphthalene	0.019	0.0005	mg/L	0.0200		94.0	62.1-141			
n-Butylbenzene	0.021	0.0005	mg/L	0.0200		107	75.4-132			
n-Propylbenzene	0.020	0.0005	mg/L	0.0200		98.5	79.6-124			
o-Xylene	0.019	0.0005	mg/L	0.0200		96.0	69.4-132			
p-Isopropyltoluene	0.020	0.0005	mg/L	0.0200		101	79.8-131			
sec-Butylbenzene	0.022	0.0005	mg/L	0.0200		110	77.6-133			
Styrene	0.020	0.0005	mg/L	0.0200		100	71.7-128			
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		107	78.8-128			
Tetrachloroethene	0.021	0.0005	mg/L	0.0200		106	74.2-128			
Toluene	0.019	0.0005	mg/L	0.0200		97.4	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0247</i>		mg/L	<i>0.0250</i>		<i>98.7</i>	<i>87.1-110</i>			
Total Xylenes	0.059	0.001	mg/L	0.0600		98.8	71.6-132			
trans-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		98.5	65.2-133			
trans-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		96.8	84-123			
trans-1,4-Dichloro-2-butene	0.030	0.010	mg/L	0.0400		75.9	9.3-235			
Trichloroethene	0.020	0.0005	mg/L	0.0200		100	79.3-114			
Trichlorofluoromethane	0.022	0.0005	mg/L	0.0200		109	28.6-162			
Vinyl acetate	0.018	0.0005	mg/L	0.0200		88.6	50.9-135			
Vinyl chloride	0.023	0.0005	mg/L	0.0200		117	61.6-133			

LCS Dup (3122038-BSD1)

Prepared: 12/20/23 Analyzed: 12/21/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		97.6	82.4-120	2.98	6.88	
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Veronica J. Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

LCS Dup (3122038-BSD1) (Continued)

Prepared: 12/20/23 Analyzed: 12/21/23

1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		99.4	80.7-121	2.19	7.43	
1,1,2,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		100	76.5-121	12.7	8.68	QR-04
1,1,2-Trichloroethane	0.021	0.0005	mg/L	0.0200		103	81.7-118	6.18	6.82	
1,1-Dichloroethane	0.019	0.0005	mg/L	0.0200		94.9	74.8-123	2.86	4.3	
1,1-Dichloroethene	0.022	0.0005	mg/L	0.0200		109	53.9-149	13.0	16.5	
1,1-Dichloropropene	0.020	0.0005	mg/L	0.0200		99.3	85.9-115	3.51	5.47	
1,2,3-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		102	76.1-134	0.438	43	
1,2,4-Trichlorobenzene	0.019	0.0005	mg/L	0.0200		95.9	72.4-136	5.33	22.3	
1,2,4-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		102	67.4-138	2.76	8.94	
1,2-Dibromo-3-chloropropane	0.020	0.0005	mg/L	0.0200		102	71.7-124	23.2	15.1	QR-04
1,2-Dibromoethane	0.020	0.0005	mg/L	0.0200		101	84.9-116	5.98	5.83	QR-04
1,2-Dichlorobenzene	0.022	0.0005	mg/L	0.0200		109	82.5-119	0.774	8.72	
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		101	72.5-123	3.92	8.94	
1,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		104	79.4-117	3.42	5.51	
1,3,5-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		108	69-137	3.47	16.5	
1,3-Dichlorobenzene	0.022	0.0005	mg/L	0.0200		112	84.4-120	2.43	9	
1,3-Dichloropropane	0.020	0.0005	mg/L	0.0200		98.6	82.6-117	3.40	6.06	
1,4 Dichlorobenzene	0.020	0.0005	mg/L	0.0200		99.2	81.7-118	1.45	7.71	
1,4-Dioxane	0.548	0.010	mg/L	0.400		137	-34.6-193	32.0	35.2	
1,2,3-trichloropropane	0.022	0.0005	mg/L	0.0200		108	44.7-168	16.3	49.2	
2,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		96.6	62.9-136	3.46	9.62	
2-Butanone	0.045	0.002	mg/L	0.0400		111	24.1-159	15.6	14.2	QR-04
2-Chlorotoluene	0.020	0.0005	mg/L	0.0200		100	80.2-121	2.32	8.62	
2-Hexanone	0.046	0.001	mg/L	0.0400		116	56.3-139	35.9	7.28	QR-04
Surrogate: 4-Bromofluorobenzene	0.0255		mg/L	0.0250		102	76.4-114			
4-Chlorotoluene	0.021	0.0005	mg/L	0.0200		105	82.2-125	2.45	15.5	
4-Methyl-2-pentanone	0.040	0.001	mg/L	0.0400		101	60.7-139	31.5	7.57	QR-04
Acetone	0.046	0.010	mg/L	0.0400		115	39.1-168	22.2	30.5	
Acrolein	0.261	0.005	mg/L	0.200		131	26.6-161	10.9	22.4	
Acrylonitrile	0.044	0.002	mg/L	0.0400		109	64.9-135	29.2	7.62	QR-04
Benzene	0.021	0.0005	mg/L	0.0200		106	69.4-129	2.96	4.16	
Bromobenzene	0.021	0.0005	mg/L	0.0200		105	83.5-115	2.59	8.41	
Bromochloromethane	0.020	0.0005	mg/L	0.0200		98.8	70.7-123	2.50	5.16	
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		101	80.3-119	1.33	5.36	
Bromoform	0.019	0.0005	mg/L	0.0200		97.4	71.1-141	0.308	14.1	
Bromomethane	0.022	0.0005	mg/L	0.0200		111	55.1-143	3.29	21.5	
Carbon disulfide	0.037	0.001	mg/L	0.0400		93.3	53.6-147	1.38	20.3	
Carbon tetrachloride	0.020	0.0005	mg/L	0.0200		100	79.5-125	4.44	11.4	
Chlorobenzene	0.020	0.0005	mg/L	0.0200		99.0	85.1-115	1.45	5.18	

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Veronica J Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

LCS Dup (3122038-BSD1) (Continued)

Prepared: 12/20/23 Analyzed: 12/21/23

Chloroethane	0.022	0.0005	mg/L	0.0200		112	36.9-159	5.11	24.1	
Chloroform	0.019	0.0005	mg/L	0.0200		94.3	80.9-119	11.1	5.15	QR-04
Chloromethane	0.016	0.0005	mg/L	0.0200		79.3	54.2-142	5.04	27	
cis-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		99.1	73.8-128	1.95	5.73	
cis-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		90.8	82.5-122	2.34	6.09	
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		97.8	83.1-124	5.57	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0254</i>		mg/L	<i>0.0250</i>		<i>102</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		98.8	77-118	5.46	5.75	
Dichlorodifluoromethane	0.020	0.0005	mg/L	0.0200		97.5	38.7-147	5.15	22.6	
Ethylbenzene	0.019	0.0005	mg/L	0.0200		94.6	70.2-130	2.51	4.83	
Hexachlorobutadiene	0.020	0.0005	mg/L	0.0200		100	78.9-148	17.9	18.4	
Iodomethane	0.037	0.001	mg/L	0.0400		92.2	63.5-135	4.84	24.3	
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		99.6	85-124	4.13	6.25	
m+p - Xylene	0.039	0.001	mg/L	0.0400		97.0	71.9-133	3.14	5.77	
Methyl tert-butyl ether	0.041	0.001	mg/L	0.0400		103	57.7-137	5.27	12.8	
Methylene chloride	0.021	0.0005	mg/L	0.0200		105	49.3-163	1.49	19.7	
Naphthalene	0.022	0.0005	mg/L	0.0200		108	62.1-141	13.9	33.5	
n-Butylbenzene	0.020	0.0005	mg/L	0.0200		99.9	75.4-132	7.24	10.1	
n-Propylbenzene	0.019	0.0005	mg/L	0.0200		94.8	79.6-124	3.83	9.09	
o-Xylene	0.019	0.0005	mg/L	0.0200		92.8	69.4-132	3.44	6.29	
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		94.6	79.8-131	6.30	9.26	
sec-Butylbenzene	0.021	0.0005	mg/L	0.0200		105	77.6-133	4.96	9.85	
Styrene	0.019	0.0005	mg/L	0.0200		96.2	71.7-128	3.87	7.55	
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		103	78.8-128	4.00	18.6	
Tetrachloroethene	0.020	0.0005	mg/L	0.0200		101	74.2-128	4.34	6.38	
Toluene	0.018	0.0005	mg/L	0.0200		91.6	68.1-127	6.09	5.67	QR-04
<i>Surrogate: Toluene-d8</i>	<i>0.0241</i>		mg/L	<i>0.0250</i>		<i>96.4</i>	<i>87.1-110</i>			
Total Xylenes	0.057	0.001	mg/L	0.0600		95.6	71.6-132	3.24	5.83	
trans-1,2-Dichloroethene	0.019	0.0005	mg/L	0.0200		93.2	65.2-133	5.53	19.1	
trans-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		97.0	84-123	0.155	6.26	
trans-1,4-Dichloro-2-butene	0.034	0.010	mg/L	0.0400		85.6	9.3-235	12.0	92.8	
Trichloroethene	0.020	0.0005	mg/L	0.0200		99.6	79.3-114	0.849	4.92	
Trichlorofluoromethane	0.020	0.0005	mg/L	0.0200		100	28.6-162	8.12	19.8	
Vinyl acetate	0.021	0.0005	mg/L	0.0200		103	50.9-135	14.7	7.84	QR-04
Vinyl chloride	0.022	0.0005	mg/L	0.0200		111	61.6-133	5.57	23	

Green Analytical Laboratories

Veronica J. Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

Notes and Definitions

QR-04 The RPD for the BS/BSD was outside of historical limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
12/27/23 15:27

Qualifier Summary

<u>LabNumber</u>	<u>Analysis</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>TextBody</u>
3122038-BSD1	Volatile 8260	1,1,2,2-Tetrachloroethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	1,2-Dibromo-3-chloropropane	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	1,2-Dibromoethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	2-Butanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	2-Hexanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	4-Methyl-2-pentanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	Acrylonitrile	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	Chloroform	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	Toluene	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	Vinyl acetate	QR-04	The RPD for the BS/BSD was outside of historical limits.

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2312-147Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ KangarooCustody Seals on Box/Cooler Present: ☐ Yes ☒ NoSeals Intact: ☐ Yes ☒ NoThermometer Used: 2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 9.4 °C Correction Factor: 0 °C Final Temp: 9.4 °C

*Temp should be above freezing to 6°C

Date/Initials of person
examining contents: 12.15.23
RADLabeled by Initials: _____
(If different than above)

Chain of Custody Present:	☐ Yes ☒ No	1.
Chain of Custody Filled Out:	☐ Yes ☒ No	2.
Chain of Custody Relinquished:	☐ Yes ☒ No	3.
Sampler Name and Signature on COC:	☐ Yes ☒ No	4.
Samples arrived within hold time:	☐ Yes ☒ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☐ Yes ☒ No	9.
Containers Intact:	☐ Yes ☒ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☐ Yes ☒ No		
Sample Labels match COC: -Includes Date/Time/ID	☐ Yes ☒ No	12.
Matrix:	☒ WT ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☒ No ☐ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☒ No ☐ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



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23 March 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Sandoval GC A #001

Enclosed are the results of analyses for samples received by the laboratory on 03/09/23 14:45. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen
Laboratory Director

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: T104704514-23-17

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-22-15



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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2303108-01	Water	03/09/23 11:10	03/09/23 14:45	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

MW #2

2303108-01 (Ground Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Dichlorodifluoromethane*	<0.004	0.025	0.004	mg/L	50	03/21/23 15:15	8260B		MS
Chloromethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
Vinyl chloride*	<0.002	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
Bromomethane*	<0.002	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
Chloroethane*	<0.006	0.025	0.006	mg/L	50	03/21/23 15:15	8260B		MS
Trichlorofluoromethane*	<0.002	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
1,1-Dichloroethene*	<0.008	0.025	0.008	mg/L	50	03/21/23 15:15	8260B		MS
Carbon disulfide*	0.018	0.050	0.014	mg/L	50	03/21/23 15:15	8260B	J	MS
Iodomethane	<0.007	0.050	0.007	mg/L	50	03/21/23 15:15	8260B		MS
Acrolein*	<0.035	0.250	0.035	mg/L	50	03/21/23 15:15	8260B		MS
Methylene chloride*	0.018	0.025	0.016	mg/L	50	03/21/23 15:15	8260B	J	MS
Acetone*	<0.289	0.500	0.289	mg/L	50	03/21/23 15:15	8260B		MS
trans-1,2-Dichloroethene*	<0.009	0.025	0.009	mg/L	50	03/21/23 15:15	8260B		MS
Methyl t-Butyl Ether*	<0.013	0.050	0.013	mg/L	50	03/21/23 15:15	8260B		MS
1,1-Dichloroethane*	<0.004	0.025	0.004	mg/L	50	03/21/23 15:15	8260B		MS
Acrylonitrile*	<0.076	0.100	0.076	mg/L	50	03/21/23 15:15	8260B		MS
Vinyl acetate*	<0.018	0.025	0.018	mg/L	50	03/21/23 15:15	8260B		MS
cis-1,2-Dichloroethene*	<0.005	0.025	0.005	mg/L	50	03/21/23 15:15	8260B		MS
2,2-Dichloropropane*	<0.015	0.025	0.015	mg/L	50	03/21/23 15:15	8260B		MS
Bromochloromethane*	<0.004	0.025	0.004	mg/L	50	03/21/23 15:15	8260B		MS
Chloroform*	<0.002	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
Carbon tetrachloride*	<0.006	0.025	0.006	mg/L	50	03/21/23 15:15	8260B		MS
1,1,1-Trichloroethane*	<0.006	0.025	0.006	mg/L	50	03/21/23 15:15	8260B		MS
1,1-Dichloropropene*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
2-Butanone*	<0.083	0.100	0.083	mg/L	50	03/21/23 15:15	8260B		MS
Benzene*	1.84	0.025	0.004	mg/L	50	03/21/23 15:15	8260B		MS
1,2-Dichloroethane*	<0.007	0.025	0.007	mg/L	50	03/21/23 15:15	8260B		MS
Trichloroethene*	<0.008	0.025	0.008	mg/L	50	03/21/23 15:15	8260B		MS
Dibromomethane*	<0.008	0.025	0.008	mg/L	50	03/21/23 15:15	8260B		MS
1,2-Dichloropropane*	<0.007	0.025	0.007	mg/L	50	03/21/23 15:15	8260B		MS
Bromodichloromethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
cis-1,3-Dichloropropene*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

MW #2

2303108-01 (Ground Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Toluene*	0.008	0.025	0.003	mg/L	50	03/21/23 15:15	8260B	J	MS
4-Methyl-2-pentanone*	<0.007	0.050	0.007	mg/L	50	03/21/23 15:15	8260B		MS
Tetrachloroethene*	<0.005	0.025	0.005	mg/L	50	03/21/23 15:15	8260B		MS
trans-1,3-Dichloropropene*	<0.004	0.025	0.004	mg/L	50	03/21/23 15:15	8260B		MS
1,1,2-Trichloroethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
Dibromochloromethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
1,3-Dichloropropane*	<0.0006	0.025	0.0006	mg/L	50	03/21/23 15:15	8260B		MS
1,2-Dibromoethane*	<0.006	0.025	0.006	mg/L	50	03/21/23 15:15	8260B		MS
2-Hexanone*	<0.005	0.050	0.005	mg/L	50	03/21/23 15:15	8260B		MS
Chlorobenzene*	<0.001	0.025	0.001	mg/L	50	03/21/23 15:15	8260B		MS
Ethylbenzene*	0.663	0.025	0.004	mg/L	50	03/21/23 15:15	8260B		MS
1,1,1,2-Tetrachloroethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
m+p - Xylene*	2.93	0.050	0.023	mg/L	50	03/21/23 15:15	8260B		MS
o-Xylene*	0.509	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
Total Xylenes*	3.44	0.050	0.027	mg/L	50	03/21/23 15:15	8260B		MS
Bromoform*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
Styrene*	<0.0008	0.025	0.0008	mg/L	50	03/21/23 15:15	8260B		MS
Isopropylbenzene*	0.064	0.025	0.001	mg/L	50	03/21/23 15:15	8260B		MS
Bromobenzene*	<0.002	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
n-Propylbenzene*	0.069	0.025	0.0006	mg/L	50	03/21/23 15:15	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
2-Chlorotoluene*	<0.002	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
1,2,3-trichloropropane*	<0.002	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
1,3,5-Trimethylbenzene*	0.347	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
trans-1,4-Dichloro-2-butene	<0.294	0.500	0.294	mg/L	50	03/21/23 15:15	8260B		MS
4-Chlorotoluene*	<0.001	0.025	0.001	mg/L	50	03/21/23 15:15	8260B		MS
tert-Butylbenzene*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
1,2,4-Trimethylbenzene*	1.07	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
sec-Butylbenzene*	0.015	0.025	0.0009	mg/L	50	03/21/23 15:15	8260B	J	MS
p-Isopropyltoluene*	0.050	0.025	0.001	mg/L	50	03/21/23 15:15	8260B		MS
1,3-Dichlorobenzene*	<0.002	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
1,4 Dichlorobenzene*	<0.002	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

MW #2

2303108-01 (Ground Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

n-Butylbenzene*	<0.001	0.025	0.001	mg/L	50	03/21/23 15:15	8260B		MS
1,2-Dichlorobenzene*	<0.003	0.025	0.003	mg/L	50	03/21/23 15:15	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.012	0.025	0.012	mg/L	50	03/21/23 15:15	8260B		MS
Hexachlorobutadiene*	<0.005	0.025	0.005	mg/L	50	03/21/23 15:15	8260B		MS
1,2,4-Trichlorobenzene*	<0.004	0.025	0.004	mg/L	50	03/21/23 15:15	8260B		MS
Naphthalene*	0.071	0.025	0.002	mg/L	50	03/21/23 15:15	8260B		MS
1,2,3-Trichlorobenzene*	<0.005	0.025	0.005	mg/L	50	03/21/23 15:15	8260B		MS
1,4-Dioxane	<1.43	5.00	1.43	mg/L	50	03/21/23 15:15	8260B		MS
Surrogate: Dibromofluoromethane			101 %	82.4-141		03/21/23 15:15	8260B		MS
Surrogate: Toluene-d8			97.5 %	87.1-110		03/21/23 15:15	8260B		MS
Surrogate: 4-Bromofluorobenzene			96.9 %	76.4-114		03/21/23 15:15	8260B		MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

VOLATILES BY GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 3031706 - Volatiles

Blank (3031706-BLK1)

Prepared: 03/17/23 Analyzed: 03/20/23

1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,1-Trichloroethane	ND	0.0005	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,2-Trichloroethane	ND	0.0005	mg/L
1,1-Dichloroethane	ND	0.0005	mg/L
1,1-Dichloroethene	ND	0.0005	mg/L
1,1-Dichloropropene	ND	0.0005	mg/L
1,2,3-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trimethylbenzene	ND	0.0005	mg/L
1,2-Dibromo-3-chloropropane	ND	0.0005	mg/L
1,2-Dibromoethane	ND	0.0005	mg/L
1,2-Dichlorobenzene	ND	0.0005	mg/L
1,2-Dichloroethane	ND	0.0005	mg/L
1,2-Dichloropropane	ND	0.0005	mg/L
1,3,5-Trimethylbenzene	ND	0.0005	mg/L
1,3-Dichlorobenzene	ND	0.0005	mg/L
1,3-Dichloropropane	ND	0.0005	mg/L
1,4-Dichlorobenzene	ND	0.0005	mg/L
1,4-Dioxane	ND	0.100	mg/L
1,2,3-trichloropropane	ND	0.0005	mg/L
2,2-Dichloropropane	ND	0.0005	mg/L
2-Butanone	ND	0.002	mg/L
2-Chlorotoluene	ND	0.0005	mg/L
2-Hexanone	ND	0.001	mg/L
Surrogate: 4-Bromofluorobenzene	0.0229		mg/L
4-Chlorotoluene	ND	0.0005	mg/L
4-Methyl-2-pentanone	ND	0.001	mg/L
Acetone	ND	0.010	mg/L
Acrolein	ND	0.005	mg/L
Acrylonitrile	ND	0.002	mg/L
Benzene	ND	0.0005	mg/L
Bromobenzene	ND	0.0005	mg/L
Bromochloromethane	ND	0.0005	mg/L
Bromodichloromethane	ND	0.0005	mg/L
Bromoform	ND	0.0005	mg/L

0.0250 91.8 76.4-114

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Jeremy D Allen, Laboratory Director

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3031706 - Volatiles (Continued)

Blank (3031706-BLK1) (Continued)

Prepared: 03/17/23 Analyzed: 03/20/23

Bromomethane	ND	0.0005	mg/L							
Carbon disulfide	ND	0.001	mg/L							
Carbon tetrachloride	ND	0.0005	mg/L							
Chlorobenzene	ND	0.0005	mg/L							
Chloroethane	ND	0.0005	mg/L							
Chloroform	ND	0.0005	mg/L							
Chloromethane	ND	0.0005	mg/L							
cis-1,2-Dichloroethene	ND	0.0005	mg/L							
cis-1,3-Dichloropropene	ND	0.0005	mg/L							
Dibromochloromethane	ND	0.0005	mg/L							
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0270</i>		mg/L	<i>0.0250</i>		<i>108</i>	<i>82.4-141</i>			
Dibromomethane	ND	0.0005	mg/L							
Dichlorodifluoromethane	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
Hexachlorobutadiene	ND	0.0005	mg/L							
Iodomethane	ND	0.001	mg/L							
Isopropylbenzene	ND	0.0005	mg/L							
m+p - Xylene	ND	0.001	mg/L							
Methyl t-Butyl Ether	ND	0.001	mg/L							
Methylene chloride	ND	0.0005	mg/L							
Naphthalene	ND	0.0005	mg/L							
n-Butylbenzene	ND	0.0005	mg/L							
n-Propylbenzene	ND	0.0005	mg/L							
o-Xylene	ND	0.0005	mg/L							
p-Isopropyltoluene	ND	0.0005	mg/L							
sec-Butylbenzene	ND	0.0005	mg/L							
Styrene	ND	0.0005	mg/L							
tert-Butylbenzene	ND	0.0005	mg/L							
Tetrachloroethene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
<i>Surrogate: Toluene-d8</i>	<i>0.0246</i>		mg/L	<i>0.0250</i>		<i>98.4</i>	<i>87.1-110</i>			
Total Xylenes	ND	0.001	mg/L							
trans-1,2-Dichloroethene	ND	0.0005	mg/L							
trans-1,3-Dichloropropene	ND	0.0005	mg/L							
trans-1,4-Dichloro-2-butene	ND	0.010	mg/L							
Trichloroethene	ND	0.0005	mg/L							
Trichlorofluoromethane	ND	0.0005	mg/L							
Vinyl acetate	ND	0.0005	mg/L							
Vinyl chloride	ND	0.0005	mg/L							

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3031706 - Volatiles (Continued)

LCS (3031706-BS1)

Prepared: 03/17/23 Analyzed: 03/20/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		97.5	89.5-111			
1,1,1-Trichloroethane	0.021	0.0005	mg/L	0.0200		104	85.1-117			
1,1,2,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		90.2	68.8-127			
1,1,2-Trichloroethane	0.018	0.0005	mg/L	0.0200		87.6	77.4-118			
1,1-Dichloroethane	0.019	0.0005	mg/L	0.0200		95.2	78.1-121			
1,1-Dichloroethene	0.019	0.0005	mg/L	0.0200		93.2	64-124			
1,1-Dichloropropene	0.019	0.0005	mg/L	0.0200		95.1	81-122			
1,2,3-Trichlorobenzene	0.017	0.0005	mg/L	0.0200		86.0	85.7-115			
1,2,4-Trichlorobenzene	0.015	0.0005	mg/L	0.0200		76.8	83.5-117			BS2
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		94.0	78.4-126			
1,2-Dibromo-3-chloropropane	0.018	0.0005	mg/L	0.0200		89.0	77.2-116			
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		94.0	88.6-113			
1,2-Dichlorobenzene	0.018	0.0005	mg/L	0.0200		90.4	86.5-111			
1,2-Dichloroethane	0.018	0.0005	mg/L	0.0200		90.6	75.6-120			
1,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		98.1	76.8-121			
1,3,5-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		93.1	79.2-127			
1,3-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		93.4	87.7-112			
1,3-Dichloropropane	0.018	0.0005	mg/L	0.0200		91.7	82.1-119			
1,4 Dichlorobenzene	0.018	0.0005	mg/L	0.0200		92.0	85.2-111			
1,4-Dioxane	0.347	0.100	mg/L	0.400		86.7	-34.9-102			
1,2,3-trichloropropane	0.018	0.0005	mg/L	0.0200		87.8	53.2-135			
2,2-Dichloropropane	0.018	0.0005	mg/L	0.0200		89.8	74.3-136			
2-Butanone	0.036	0.002	mg/L	0.0400		90.0	65.6-132			
2-Chlorotoluene	0.018	0.0005	mg/L	0.0200		87.6	78.3-123			
2-Hexanone	0.031	0.001	mg/L	0.0400		78.5	66.6-126			
Surrogate: 4-Bromofluorobenzene	0.0237		mg/L	0.0250		95.0	76.4-114			
4-Chlorotoluene	0.019	0.0005	mg/L	0.0200		93.0	76.8-129			
4-Methyl-2-pentanone	0.033	0.001	mg/L	0.0400		81.4	67.7-128			
Acetone	0.036	0.010	mg/L	0.0400		91.0	54.3-140			
Acrolein	0.142	0.005	mg/L	0.200		71.0	29.4-149			
Acrylonitrile	0.034	0.002	mg/L	0.0400		85.2	60.8-143			
Benzene	0.020	0.0005	mg/L	0.0200		99.3	82.7-115			
Bromobenzene	0.019	0.0005	mg/L	0.0200		93.1	85.1-112			
Bromochloromethane	0.018	0.0005	mg/L	0.0200		89.6	77.8-118			
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		101	82.7-118			
Bromoform	0.017	0.0005	mg/L	0.0200		84.2	76.1-133			
Bromomethane	0.018	0.0005	mg/L	0.0200		89.2	61.1-126			
Carbon disulfide	0.036	0.001	mg/L	0.0400		90.3	67.2-128			
Carbon tetrachloride	0.021	0.0005	mg/L	0.0200		104	89.7-117			

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3031706 - Volatiles (Continued)

LCS (3031706-BS1) (Continued)

Prepared: 03/17/23 Analyzed: 03/20/23

Chlorobenzene	0.020	0.0005	mg/L	0.0200		97.8	86.2-112			
Chloroethane	0.017	0.0005	mg/L	0.0200		86.3	62.4-125			
Chloroform	0.019	0.0005	mg/L	0.0200		95.0	86.7-115			
Chloromethane	0.018	0.0005	mg/L	0.0200		92.0	47.1-145			
cis-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		88.0	76-117			
cis-1,3-Dichloropropene	0.016	0.0005	mg/L	0.0200		80.4	80.9-123			BS2
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		101	88.7-121			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0263</i>		mg/L	<i>0.0250</i>		<i>105</i>	<i>82.4-141</i>			
Dibromomethane	0.019	0.0005	mg/L	0.0200		93.0	86.4-114			
Dichlorodifluoromethane	0.018	0.0005	mg/L	0.0200		87.8	36.1-160			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		93.8	84.3-117			
Hexachlorobutadiene	0.021	0.0005	mg/L	0.0200		105	94.3-116			
Iodomethane	0.040	0.001	mg/L	0.0400		99.4	77.4-124			
Isopropylbenzene	0.019	0.0005	mg/L	0.0200		94.1	88.1-114			
m+p - Xylene	0.039	0.001	mg/L	0.0400		96.4	85.9-122			
Methyl t-Butyl Ether	0.034	0.001	mg/L	0.0400		85.4	78.9-118			
Methylene chloride	0.020	0.0005	mg/L	0.0200		99.1	64.2-134			
Naphthalene	0.016	0.0005	mg/L	0.0200		78.6	80.6-121			BS2
n-Butylbenzene	0.017	0.0005	mg/L	0.0200		85.2	82.2-123			
n-Propylbenzene	0.018	0.0005	mg/L	0.0200		91.0	78.9-125			
o-Xylene	0.017	0.0005	mg/L	0.0200		86.8	85.6-112			
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		92.6	82.5-123			
sec-Butylbenzene	0.019	0.0005	mg/L	0.0200		93.5	82.1-128			
Styrene	0.018	0.0005	mg/L	0.0200		89.0	78.3-117			
tert-Butylbenzene	0.020	0.0005	mg/L	0.0200		97.7	79.5-129			
Tetrachloroethene	0.020	0.0005	mg/L	0.0200		99.5	86.6-110			
Toluene	0.018	0.0005	mg/L	0.0200		90.6	82.8-112			
<i>Surrogate: Toluene-d8</i>	<i>0.0237</i>		mg/L	<i>0.0250</i>		<i>94.6</i>	<i>87.1-110</i>			
Total Xylenes	0.056	0.001	mg/L	0.0600		93.2	86.5-118			
trans-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		90.5	69.2-119			
trans-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		90.7	77.4-131			
trans-1,4-Dichloro-2-butene	0.029	0.010	mg/L	0.0400		72.7	41.4-204			
Trichloroethene	0.018	0.0005	mg/L	0.0200		91.0	82.2-114			
Trichlorofluoromethane	0.020	0.0005	mg/L	0.0200		101	78.2-126			
Vinyl acetate	0.013	0.0005	mg/L	0.0200		66.4	56.2-148			
Vinyl chloride	0.019	0.0005	mg/L	0.0200		92.8	62-135			

LCS Dup (3031706-BSD1)

Prepared: 03/17/23 Analyzed: 03/20/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		98.2	89.5-111	0.664	6.88	
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Jeremy D Allen, Laboratory Director

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3031706 - Volatiles (Continued)

LCS Dup (3031706-BSD1) (Continued)

Prepared: 03/17/23 Analyzed: 03/20/23

1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		102	85.1-117	1.41	7.43	
1,1,2,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		87.6	68.8-127	2.93	8.68	
1,1,2-Trichloroethane	0.018	0.0005	mg/L	0.0200		91.2	77.4-118	4.14	6.82	
1,1-Dichloroethane	0.019	0.0005	mg/L	0.0200		93.5	78.1-121	1.80	4.3	
1,1-Dichloroethene	0.018	0.0005	mg/L	0.0200		91.4	64-124	1.95	16.5	
1,1-Dichloropropene	0.019	0.0005	mg/L	0.0200		95.7	81-122	0.629	5.47	
1,2,3-Trichlorobenzene	0.017	0.0005	mg/L	0.0200		86.8	85.7-115	0.868	43	
1,2,4-Trichlorobenzene	0.015	0.0005	mg/L	0.0200		76.6	83.5-117	0.261	22.3	BS2
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		95.4	78.4-126	1.43	8.94	
1,2-Dibromo-3-chloropropane	0.017	0.0005	mg/L	0.0200		84.7	77.2-116	4.89	15.1	
1,2-Dibromoethane	0.020	0.0005	mg/L	0.0200		97.6	88.6-113	3.76	5.83	
1,2-Dichlorobenzene	0.018	0.0005	mg/L	0.0200		92.0	86.5-111	1.86	8.72	
1,2-Dichloroethane	0.018	0.0005	mg/L	0.0200		92.2	75.6-120	1.75	8.94	
1,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		96.4	76.8-121	1.75	5.51	
1,3,5-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		93.1	79.2-127	0.00	16.5	
1,3-Dichlorobenzene	0.018	0.0005	mg/L	0.0200		92.4	87.7-112	1.02	9	
1,3-Dichloropropane	0.019	0.0005	mg/L	0.0200		94.0	82.1-119	2.48	6.06	
1,4 Dichlorobenzene	0.018	0.0005	mg/L	0.0200		92.2	85.2-111	0.272	7.71	
1,4-Dioxane	0.339	0.100	mg/L	0.400		84.7	-34.9-102	2.36	35.2	
1,2,3-trichloropropane	0.017	0.0005	mg/L	0.0200		86.5	53.2-135	1.49	49.2	
2,2-Dichloropropane	0.018	0.0005	mg/L	0.0200		88.0	74.3-136	1.97	9.62	
2-Butanone	0.036	0.002	mg/L	0.0400		88.9	65.6-132	1.23	14.2	
2-Chlorotoluene	0.018	0.0005	mg/L	0.0200		88.8	78.3-123	1.36	8.62	
2-Hexanone	0.031	0.001	mg/L	0.0400		78.0	66.6-126	0.607	7.28	
Surrogate: 4-Bromofluorobenzene	0.0238		mg/L	0.0250		95.3	76.4-114			
4-Chlorotoluene	0.018	0.0005	mg/L	0.0200		89.9	76.8-129	3.39	15.5	
4-Methyl-2-pentanone	0.032	0.001	mg/L	0.0400		80.9	67.7-128	0.647	7.57	
Acetone	0.035	0.010	mg/L	0.0400		86.4	54.3-140	5.19	30.5	
Acrolein	0.130	0.005	mg/L	0.200		64.8	29.4-149	9.18	22.4	
Acrylonitrile	0.033	0.002	mg/L	0.0400		82.9	60.8-143	2.65	7.62	
Benzene	0.020	0.0005	mg/L	0.0200		100	82.7-115	0.802	4.16	
Bromobenzene	0.019	0.0005	mg/L	0.0200		93.9	85.1-112	0.856	8.41	
Bromochloromethane	0.018	0.0005	mg/L	0.0200		89.6	77.8-118	0.112	5.16	
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		99.8	82.7-118	1.15	5.36	
Bromoform	0.014	0.0005	mg/L	0.0200		72.5	76.1-133	14.9	14.1	BS2, QR-04
Bromomethane	0.018	0.0005	mg/L	0.0200		88.5	61.1-126	0.788	21.5	
Carbon disulfide	0.034	0.001	mg/L	0.0400		85.6	67.2-128	5.40	20.3	
Carbon tetrachloride	0.021	0.0005	mg/L	0.0200		105	89.7-117	0.621	11.4	
Chlorobenzene	0.020	0.0005	mg/L	0.0200		99.2	86.2-112	1.37	5.18	

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3031706 - Volatiles (Continued)										
LCS Dup (3031706-BSD1) (Continued)										
					Prepared: 03/17/23 Analyzed: 03/20/23					
Chloroethane	0.017	0.0005	mg/L	0.0200		85.7	62.4-125	0.698	24.1	
Chloroform	0.019	0.0005	mg/L	0.0200		95.2	86.7-115	0.210	5.15	
Chloromethane	0.020	0.0005	mg/L	0.0200		98.1	47.1-145	6.31	27	
cis-1,2-Dichloroethene	0.017	0.0005	mg/L	0.0200		84.6	76-117	4.00	5.73	
cis-1,3-Dichloropropene	0.016	0.0005	mg/L	0.0200		77.9	80.9-123	3.16	6.09	BS2
Dibromochloromethane	0.019	0.0005	mg/L	0.0200		95.0	88.7-121	5.83	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0264</i>		mg/L	<i>0.0250</i>		<i>106</i>	<i>82.4-141</i>			
Dibromomethane	0.019	0.0005	mg/L	0.0200		93.4	86.4-114	0.483	5.75	
Dichlorodifluoromethane	0.018	0.0005	mg/L	0.0200		87.6	36.1-160	0.171	22.6	
Ethylbenzene	0.019	0.0005	mg/L	0.0200		95.6	84.3-117	1.85	4.83	
Hexachlorobutadiene	0.020	0.0005	mg/L	0.0200		99.2	94.3-116	6.16	18.4	
Iodomethane	0.039	0.001	mg/L	0.0400		97.2	77.4-124	2.24	24.3	
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		97.8	88.1-114	3.91	6.25	
m+p - Xylene	0.040	0.001	mg/L	0.0400		99.2	85.9-122	2.84	5.77	
Methyl t-Butyl Ether	0.034	0.001	mg/L	0.0400		85.4	78.9-118	0.0293	12.8	
Methylene chloride	0.019	0.0005	mg/L	0.0200		95.8	64.2-134	3.44	19.7	
Naphthalene	0.016	0.0005	mg/L	0.0200		77.5	80.6-121	1.47	33.5	BS2
n-Butylbenzene	0.017	0.0005	mg/L	0.0200		82.6	82.2-123	3.22	10.1	
n-Propylbenzene	0.018	0.0005	mg/L	0.0200		90.8	78.9-125	0.330	9.09	
o-Xylene	0.018	0.0005	mg/L	0.0200		89.5	85.6-112	3.01	6.29	
p-Isopropyltoluene	0.018	0.0005	mg/L	0.0200		91.5	82.5-123	1.19	9.26	
sec-Butylbenzene	0.019	0.0005	mg/L	0.0200		93.4	82.1-128	0.107	9.85	
Styrene	0.017	0.0005	mg/L	0.0200		87.2	78.3-117	2.04	7.55	
tert-Butylbenzene	0.019	0.0005	mg/L	0.0200		95.6	79.5-129	2.23	18.6	
Tetrachloroethene	0.021	0.0005	mg/L	0.0200		103	86.6-110	3.02	6.38	
Toluene	0.018	0.0005	mg/L	0.0200		90.4	82.8-112	0.221	5.67	
<i>Surrogate: Toluene-d8</i>	<i>0.0238</i>		mg/L	<i>0.0250</i>		<i>95.2</i>	<i>87.1-110</i>			
Total Xylenes	0.058	0.001	mg/L	0.0600		96.0	86.5-118	2.89	5.83	
trans-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		89.4	69.2-119	1.28	19.1	
trans-1,3-Dichloropropene	0.017	0.0005	mg/L	0.0200		85.0	77.4-131	6.49	6.26	QR-04
trans-1,4-Dichloro-2-butene	0.013	0.010	mg/L	0.0400		32.7	41.4-204	76.0	92.8	BS2
Trichloroethene	0.019	0.0005	mg/L	0.0200		93.8	82.2-114	2.98	4.92	
Trichlorofluoromethane	0.020	0.0005	mg/L	0.0200		102	78.2-126	0.639	19.8	
Vinyl acetate	0.013	0.0005	mg/L	0.0200		64.2	56.2-148	3.29	7.84	
Vinyl chloride	0.019	0.0005	mg/L	0.0200		94.5	62-135	1.76	23	

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
03/23/23 12:13

Notes and Definitions

QR-04 The RPD for the BS/BSD was outside of historical limits.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

BS2 Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
 *Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



(970) 247-4220
Fax: (970) 247-4227

service@greenanalytical.com or dzufelt@greenanalytical.com
75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2303-108Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ ClientCustody Seals on Box/Cooler Present: ☐ Yes ☐ NoSeals Intact: ☐ Yes ☐ NoThermometer Used: #2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 15.1 °C Correction Factor: 0 °C Final Temp: 15.1 °C

*Temp should be above freezing to 6°C

Date/Initials of person
examining contents: MPN 3/9/23Labeled by Initials: _____
(If different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☐ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12.
Matrix:	☒ WT ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☒ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



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

July 07, 2023

Kyle Siesser
Cottonwood Consulting LLC
PO BOX 1653
Durango, CO 81302
TEL: (970) 764-7356
FAX

RE: Sandoval GCA 001A

OrderNo.: 2306D65

Dear Kyle Siesser:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/27/2023 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", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2306D65

Date Reported: 7/7/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Sandoval GCA 001A

Collection Date: 6/21/2023 3:20:00 PM

Lab ID: 2306D65-001

Matrix: AIR

Received Date: 6/27/2023 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
Benzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Toluene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Ethylbenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,2,4-Trimethylbenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,3,5-Trimethylbenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Naphthalene	ND	0.20		µg/L	1	6/28/2023 1:48:00 PM
1-Methylnaphthalene	ND	0.40		µg/L	1	6/28/2023 1:48:00 PM
2-Methylnaphthalene	ND	0.40		µg/L	1	6/28/2023 1:48:00 PM
Acetone	ND	1.0		µg/L	1	6/28/2023 1:48:00 PM
Bromobenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Bromodichloromethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Bromoform	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Bromomethane	ND	0.20		µg/L	1	6/28/2023 1:48:00 PM
2-Butanone	ND	1.0		µg/L	1	6/28/2023 1:48:00 PM
Carbon disulfide	ND	1.0		µg/L	1	6/28/2023 1:48:00 PM
Carbon tetrachloride	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Chlorobenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Chloroethane	ND	0.20		µg/L	1	6/28/2023 1:48:00 PM
Chloroform	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Chloromethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
2-Chlorotoluene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
4-Chlorotoluene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
cis-1,2-DCE	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	6/28/2023 1:48:00 PM
Dibromochloromethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Dibromomethane	ND	0.20		µg/L	1	6/28/2023 1:48:00 PM
1,2-Dichlorobenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,3-Dichlorobenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,4-Dichlorobenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Dichlorodifluoromethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,1-Dichloroethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,1-Dichloroethene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,2-Dichloropropane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,3-Dichloropropane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
2,2-Dichloropropane	ND	0.10		µg/L	1	6/28/2023 1:48:00 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 standard limits. If undiluted results may be estimated.

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

Page 1 of 2

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306D65
Date Reported: 7/7/2023

CLIENT: Cottonwood Consulting LLC
Project: Sandoval GCA 001A
Lab ID: 2306D65-001
Matrix: AIR
Client Sample ID: SVE
Collection Date: 6/21/2023 3:20:00 PM
Received Date: 6/27/2023 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
1,1-Dichloropropene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Hexachlorobutadiene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
2-Hexanone	ND	1.0		µg/L	1	6/28/2023 1:48:00 PM
Isopropylbenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
4-Isopropyltoluene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	6/28/2023 1:48:00 PM
Methylene chloride	ND	0.30		µg/L	1	6/28/2023 1:48:00 PM
n-Butylbenzene	ND	0.30		µg/L	1	6/28/2023 1:48:00 PM
n-Propylbenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
sec-Butylbenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Styrene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
tert-Butylbenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
trans-1,2-DCE	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,1,1-Trichloroethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,1,2-Trichloroethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Trichloroethene (TCE)	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Trichlorofluoromethane	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
1,2,3-Trichloropropane	ND	0.20		µg/L	1	6/28/2023 1:48:00 PM
Vinyl chloride	ND	0.10		µg/L	1	6/28/2023 1:48:00 PM
Xylenes, Total	0.16	0.15		µg/L	1	6/28/2023 1:48:00 PM
Surr: Dibromofluoromethane	104	70-130		%Rec	1	6/28/2023 1:48:00 PM
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	6/28/2023 1:48:00 PM
Surr: Toluene-d8	96.3	70-130		%Rec	1	6/28/2023 1:48:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	6/28/2023 1:48:00 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	Above Quantitation Range/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 standard limits. If undiluted results may be estimated.		



ANALYTICAL SUMMARY REPORT

July 06, 2023

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

Work Order: B23062505 Quote ID: B15626

Project Name: Not Indicated

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 6/29/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B23062505-001	2306D65-001A, SVE	06/21/23 15:20	06/29/23	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 S 27th St., 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.

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

Report Approved By:

Cindy Rohrer
Laboratory Manager

Digitally signed by
Cindy Rohrer
Date: 2023.07.06 14:15:45 -06:00



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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: Not Indicated
Lab ID: B23062505-001
Client Sample ID: 2306D65-001A, SVE

Report Date: 07/06/23
Collection Date: 06/21/23 15:20
Date Received: 06/29/23
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	06/30/23 09:56 / jrj
Nitrogen	78.07	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
Carbon Dioxide	0.05	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
Hexanes plus	<0.01	Mol %		0.01		GPA 2261-95	06/30/23 09:56 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	06/30/23 09:56 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	06/30/23 09:56 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	06/30/23 09:56 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	06/30/23 09:56 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	06/30/23 09:56 / jrj
Hexanes plus	< 0.001	gpm		0.001		GPA 2261-95	06/30/23 09:56 / jrj
GPM Total	< 0.001	gpm		0.001		GPA 2261-95	06/30/23 09:56 / jrj
GPM Pentanes plus	< 0.001	gpm		0.001		GPA 2261-95	06/30/23 09:56 / jrj

CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	ND	1	GPA 2261-95	06/30/23 09:56 / jrj
Net BTU per cu ft @ std cond. (LHV)	ND	1	GPA 2261-95	06/30/23 09:56 / jrj
Pseudo-critical Pressure, psia	545	1	GPA 2261-95	06/30/23 09:56 / jrj
Pseudo-critical Temperature, deg R	239	1	GPA 2261-95	06/30/23 09:56 / jrj
Specific Gravity @ 60/60F	0.998	0.001	D3588-81	06/30/23 09:56 / jrj
Air, %	99.95	0.01	GPA 2261-95	06/30/23 09:56 / jrj

- The analysis was not corrected for air.

COMMENTS

-	-	06/30/23 09:56 / 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 RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

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



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B23062505

Report Date: 07/06/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-95									Batch: R404747	
Lab ID: B23062510-001ADUP	12 Sample Duplicate					Run: GCNGA-B_230630A			06/30/23 12:12	
Oxygen		21.6	Mol %	0.01				0	20	
Nitrogen		77.8	Mol %	0.01				0	20	
Carbon Dioxide		0.38	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		0.25	Mol %	0.01				4.1	20	
Lab ID: LCS063023	11 Laboratory Control Sample					Run: GCNGA-B_230630A			06/30/23 12:48	
Oxygen		0.59	Mol %	0.01	118	70	130			
Nitrogen		6.05	Mol %	0.01	101	70	130			
Carbon Dioxide		1.00	Mol %	0.01	101	70	130			
Methane		74.4	Mol %	0.01	99	70	130			
Ethane		6.02	Mol %	0.01	100	70	130			
Propane		5.20	Mol %	0.01	105	70	130			
Isobutane		1.99	Mol %	0.01	99	70	130			
n-Butane		2.00	Mol %	0.01	100	70	130			
Isopentane		1.00	Mol %	0.01	100	70	130			
n-Pentane		1.01	Mol %	0.01	101	70	130			
Hexanes plus		0.79	Mol %	0.01	99	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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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

B23062505

Login completed by: Yvonna E. Smith

Date Received: 6/29/2023

Reviewed by: cindy

Received by: htm

Reviewed Date: 7/5/2023

Carrier name: FedEx

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:	17.8°C No Ice		
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

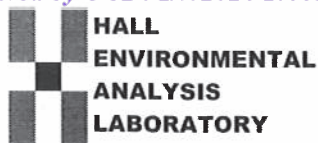
Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975
FAX: 505-345-4107
Website: www.hallenvironmental.com

SUB CONTRACTOR: Energy Labs -Billings		COMPANY: Energy Laboratories		PHONE: (406) 869-6253	FAX: (406) 252-6069
ADDRESS: 1120 South 27th Street		ACCOUNT #:			
CITY, STATE, ZIP: Billings, MT 59107					
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE
1	2306D65-001A	SVE	TEDLAR	Air	6/21/2023 3:20:00 PM
# CONTAINERS					1 Natural Gas Analysis O2, CO2
ANALYTICAL COMMENTS					B230002505

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: 6/27/2023	Time: 10:48 AM	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 6/29/23	Time: 10:05
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: www.hallenvironmental.com*

Sample Log-In Check List

Client Name: Cottonwood Consulting
LLC

Work Order Number: 2306D65

RcptNo: 1

Received By: **Joseph Alderette** 6/27/2023 8:40:00 AM

Completed By: **Desiree Dominguez** 6/27/2023 10:46:54 AM

Reviewed By: mu 6/27/23

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐

2. How was the sample delivered? FedEx

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐

4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C Yes ☒ No ☐ NA ☐

5. Sample(s) in proper container(s)? Yes ☒ No ☐

6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐

7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐

8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☒

10. Were any sample containers received broken? Yes ☐ No ☒

11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐

13. Is it clear what analyses were requested? Yes ☒ No ☐

14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)

Adjusted?

Checked by

by SUM 06/27/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	NA	Good	Yes	NA		

Chain-of-Custody Record

Client: Cottonwood Consulting LLC

Mailing Address: PO Box 1653

Durango, CO 81302

Phone #: 970-764-7356

email or Fax#: ksiesser@cottonwoodconsulting.com

QA/QC Package:

☒ Standard
 ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard
 ☐ Rush

Project Name:

Sandoval GCA #001A

Project #:

Project Manager:

Kyle Siesser

Sampler: Joseph LaFortune

On Ice: ☐ Yes ☒ No

of Coolers: 1

Cooler Temp (including CF): N/A

Container Type and #

tedlar bag - 1

Preservative Type

NA

HEAL No.

2306D05

-001

2306D05

-001

-001

-001

-001

-001

-001

-001

-001

-001

-001

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-001

-001

-001

-001

-001

-001

Date:

6/26/23

Time:

0900

Relinquished by:

Joseph LaFortune

Relinquished by:

Joseph LaFortune

Received by:

frees

6-27-23

8:40

Via:

Date

Time

Date

Time

Date

Time

Date

Time

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMB's (8021)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO₃, NO₂, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

TPH (8015) / CO₂

Remarks:

please cc emillar@cottonwoodconsulting.com

jlafortune@cottonwoodconsulting.com

Custody Seal present and intact 6-27-23

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.



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

06 July 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Sandoval GC A #001

Enclosed are the results of analyses for samples received by the laboratory on 06/22/23 09:20. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'. The signature is written in a cursive, flowing style.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: T104704514-23-17

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-23-16



jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2306225-01	Water	06/21/23 15:35	06/22/23 09:20	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

MW #2

2306225-01 (Ground Water)

Sampled Date: 06/21/23 15:35

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Dichlorodifluoromethane*	<0.010	0.010	0.010	mg/L	20	07/03/23 15:58	8260B		MS
Chloromethane*	<0.010	0.010	0.010	mg/L	20	07/03/23 15:58	8260B		MS
Vinyl chloride*	<0.010	0.010	0.010	mg/L	20	07/03/23 15:58	8260B		MS
Bromomethane*	<0.010	0.010	0.010	mg/L	20	07/03/23 15:58	8260B		MS
Chloroethane*	<0.010	0.010	0.010	mg/L	20	07/03/23 15:58	8260B		MS
Trichlorofluoromethane*	<0.010	0.010	0.003	mg/L	20	07/03/23 15:58	8260B		MS
1,1-Dichloroethene*	<0.010	0.010	0.0008	mg/L	20	07/03/23 15:58	8260B		MS
Carbon disulfide*	<0.020	0.020	0.002	mg/L	20	07/03/23 15:58	8260B		MS
Iodomethane	<0.020	0.020	0.001	mg/L	20	07/03/23 15:58	8260B		MS
Acrolein*	<0.100	0.100	0.010	mg/L	20	07/03/23 15:58	8260B		MS
Methylene chloride*	<0.010	0.010	0.010	mg/L	20	07/03/23 15:58	8260B		MS
Acetone*	<0.200	0.200	0.017	mg/L	20	07/03/23 15:58	8260B		MS
trans-1,2-Dichloroethene*	<0.010	0.010	0.002	mg/L	20	07/03/23 15:58	8260B		MS
Methyl tert-butyl ether	<0.020	0.020	0.0006	mg/L	20	07/03/23 15:58	8260B		MS
1,1-Dichloroethane*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
Acrylonitrile*	<0.040	0.040	0.003	mg/L	20	07/03/23 15:58	8260B		MS
Vinyl acetate*	<0.010	0.010	0.002	mg/L	20	07/03/23 15:58	8260B		MS
cis-1,2-Dichloroethene*	<0.010	0.010	0.005	mg/L	20	07/03/23 15:58	8260B		MS
2,2-Dichloropropane*	<0.010	0.010	0.003	mg/L	20	07/03/23 15:58	8260B		MS
Bromochloromethane*	<0.010	0.010	0.002	mg/L	20	07/03/23 15:58	8260B		MS
Chloroform*	<0.010	0.010	0.0003	mg/L	20	07/03/23 15:58	8260B		MS
Carbon tetrachloride*	<0.010	0.010	0.003	mg/L	20	07/03/23 15:58	8260B		MS
1,1,1-Trichloroethane*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
1,1-Dichloropropene*	<0.010	0.010	0.003	mg/L	20	07/03/23 15:58	8260B		MS
2-Butanone*	<0.040	0.040	0.010	mg/L	20	07/03/23 15:58	8260B		MS
Benzene*	0.975	0.010	0.0008	mg/L	20	07/03/23 15:58	8260B		MS
1,2-Dichloroethane*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
Trichloroethene*	<0.010	0.010	0.003	mg/L	20	07/03/23 15:58	8260B		MS
Dibromomethane*	<0.010	0.010	0.003	mg/L	20	07/03/23 15:58	8260B		MS
1,2-Dichloropropane*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
Bromodichloromethane*	<0.010	0.010	0.0008	mg/L	20	07/03/23 15:58	8260B		MS
cis-1,3-Dichloropropene*	<0.010	0.010	0.002	mg/L	20	07/03/23 15:58	8260B		MS

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

MW #2

2306225-01 (Ground Water)

Sampled Date: 06/21/23 15:35

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Toluene*	<0.010	0.010	0.0003	mg/L	20	07/03/23 15:58	8260B		MS
4-Methyl-2-pentanone*	<0.020	0.020	0.002	mg/L	20	07/03/23 15:58	8260B		MS
Tetrachloroethene*	<0.010	0.010	0.0007	mg/L	20	07/03/23 15:58	8260B		MS
trans-1,3-Dichloropropene*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
1,1,2-Trichloroethane*	<0.010	0.010	0.0008	mg/L	20	07/03/23 15:58	8260B		MS
Dibromochloromethane*	<0.010	0.010	0.002	mg/L	20	07/03/23 15:58	8260B		MS
1,3-Dichloropropane*	<0.010	0.010	0.003	mg/L	20	07/03/23 15:58	8260B		MS
1,2-Dibromoethane*	<0.010	0.010	0.0004	mg/L	20	07/03/23 15:58	8260B		MS
2-Hexanone*	<0.020	0.020	0.006	mg/L	20	07/03/23 15:58	8260B		MS
Chlorobenzene*	<0.010	0.010	0.0006	mg/L	20	07/03/23 15:58	8260B		MS
Ethylbenzene*	0.152	0.010	0.0006	mg/L	20	07/03/23 15:58	8260B		MS
1,1,1,2-Tetrachloroethane*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
m+p - Xylene*	1.48	0.020	0.0008	mg/L	20	07/03/23 15:58	8260B		MS
o-Xylene*	0.286	0.010	0.003	mg/L	20	07/03/23 15:58	8260B		MS
Total Xylenes*	1.77	0.020	0.003	mg/L	20	07/03/23 15:58	8260B		MS
Bromoform*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
Styrene*	<0.010	0.010	0.002	mg/L	20	07/03/23 15:58	8260B		MS
Isopropylbenzene*	0.028	0.010	0.0003	mg/L	20	07/03/23 15:58	8260B		MS
Bromobenzene*	<0.010	0.010	0.0004	mg/L	20	07/03/23 15:58	8260B		MS
n-Propylbenzene*	0.027	0.010	0.0003	mg/L	20	07/03/23 15:58	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.010	0.010	0.0008	mg/L	20	07/03/23 15:58	8260B		MS
2-Chlorotoluene*	<0.010	0.010	0.0006	mg/L	20	07/03/23 15:58	8260B		MS
1,2,3-trichloropropane*	<0.010	0.010	0.002	mg/L	20	07/03/23 15:58	8260B		MS
1,3,5-Trimethylbenzene*	0.468	0.010	0.0003	mg/L	20	07/03/23 15:58	8260B		MS
trans-1,4-Dichloro-2-butene	<0.200	0.200	0.003	mg/L	20	07/03/23 15:58	8260B		MS
4-Chlorotoluene*	<0.010	0.010	0.0003	mg/L	20	07/03/23 15:58	8260B		MS
tert-Butylbenzene*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
1,2,4-Trimethylbenzene*	1.10	0.010	0.0007	mg/L	20	07/03/23 15:58	8260B		MS
sec-Butylbenzene*	0.011	0.010	0.0002	mg/L	20	07/03/23 15:58	8260B		MS
p-Isopropyltoluene*	0.067	0.010	0.0008	mg/L	20	07/03/23 15:58	8260B		MS
1,3-Dichlorobenzene*	<0.010	0.010	0.0003	mg/L	20	07/03/23 15:58	8260B		MS
1,4 Dichlorobenzene*	<0.010	0.010	0.0006	mg/L	20	07/03/23 15:58	8260B		MS

Green Analytical Laboratories

Veronica Wells, Project Manager

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

MW #2

2306225-01 (Ground Water)

Sampled Date: 06/21/23 15:35

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

n-Butylbenzene*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
1,2-Dichlorobenzene*	<0.010	0.010	0.0009	mg/L	20	07/03/23 15:58	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.010	0.010	0.010	mg/L	20	07/03/23 15:58	8260B		MS
Hexachlorobutadiene*	<0.010	0.010	0.010	mg/L	20	07/03/23 15:58	8260B		MS
1,2,4-Trichlorobenzene*	<0.010	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
Naphthalene*	0.074	0.010	0.001	mg/L	20	07/03/23 15:58	8260B		MS
1,2,3-Trichlorobenzene*	<0.010	0.010	0.005	mg/L	20	07/03/23 15:58	8260B		MS
1,4-Dioxane	<0.200	0.200	0.200	mg/L	20	07/03/23 15:58	8260B		MS
Surrogate: Dibromofluoromethane			104 %	82.4-141		07/03/23 15:58	8260B		MS
Surrogate: Toluene-d8			98.6 %	87.1-110		07/03/23 15:58	8260B		MS
Surrogate: 4-Bromofluorobenzene			97.4 %	76.4-114		07/03/23 15:58	8260B		MS

Green Analytical Laboratories

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

VOLATILES BY GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles

Blank (3062935-BLK1)

Prepared: 06/29/23 Analyzed: 06/30/23

1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,1-Trichloroethane	ND	0.0005	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,2-Trichloroethane	ND	0.0005	mg/L
1,1-Dichloroethane	ND	0.0005	mg/L
1,1-Dichloroethene	ND	0.0005	mg/L
1,1-Dichloropropene	ND	0.0005	mg/L
1,2,3-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trimethylbenzene	ND	0.0005	mg/L
1,2-Dibromo-3-chloropropane	ND	0.0005	mg/L
1,2-Dibromoethane	ND	0.0005	mg/L
1,2-Dichlorobenzene	ND	0.0005	mg/L
1,2-Dichloroethane	ND	0.0005	mg/L
1,2-Dichloropropane	ND	0.0005	mg/L
1,3,5-Trimethylbenzene	ND	0.0005	mg/L
1,3-Dichlorobenzene	ND	0.0005	mg/L
1,3-Dichloropropane	ND	0.0005	mg/L
1,4-Dichlorobenzene	ND	0.0005	mg/L
1,4-Dioxane	ND	0.010	mg/L
1,2,3-trichloropropane	ND	0.0005	mg/L
2,2-Dichloropropane	ND	0.0005	mg/L
2-Butanone	ND	0.002	mg/L
2-Chlorotoluene	ND	0.0005	mg/L
2-Hexanone	ND	0.001	mg/L

Surrogate: 4-Bromofluorobenzene	0.0235		mg/L	0.0250	94.2	76.4-114
4-Chlorotoluene	ND	0.0005	mg/L			
4-Methyl-2-pentanone	ND	0.001	mg/L			
Acetone	ND	0.010	mg/L			
Acrolein	ND	0.005	mg/L			
Acrylonitrile	ND	0.002	mg/L			
Benzene	ND	0.0005	mg/L			
Bromobenzene	ND	0.0005	mg/L			
Bromochloromethane	ND	0.0005	mg/L			
Bromodichloromethane	ND	0.0005	mg/L			
Bromoform	ND	0.0005	mg/L			

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

Blank (3062935-BLK1) (Continued)

Prepared: 06/29/23 Analyzed: 06/30/23

Bromomethane	ND	0.0005	mg/L							
Carbon disulfide	ND	0.001	mg/L							
Carbon tetrachloride	ND	0.0005	mg/L							
Chlorobenzene	ND	0.0005	mg/L							
Chloroethane	ND	0.0005	mg/L							
Chloroform	ND	0.0005	mg/L							
Chloromethane	ND	0.0005	mg/L							
cis-1,2-Dichloroethene	ND	0.0005	mg/L							
cis-1,3-Dichloropropene	ND	0.0005	mg/L							
Dibromochloromethane	ND	0.0005	mg/L							
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0261</i>		mg/L	<i>0.0250</i>		<i>104</i>	<i>82.4-141</i>			
Dibromomethane	ND	0.0005	mg/L							
Dichlorodifluoromethane	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
Hexachlorobutadiene	ND	0.0005	mg/L							
Iodomethane	ND	0.001	mg/L							
Isopropylbenzene	ND	0.0005	mg/L							
m+p - Xylene	ND	0.001	mg/L							
Methyl tert-butyl ether	ND	0.001	mg/L							
Methylene chloride	ND	0.0005	mg/L							
Naphthalene	ND	0.0005	mg/L							
n-Butylbenzene	ND	0.0005	mg/L							
n-Propylbenzene	ND	0.0005	mg/L							
o-Xylene	ND	0.0005	mg/L							
p-Isopropyltoluene	ND	0.0005	mg/L							
sec-Butylbenzene	ND	0.0005	mg/L							
Styrene	ND	0.0005	mg/L							
tert-Butylbenzene	ND	0.0005	mg/L							
Tetrachloroethene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
<i>Surrogate: Toluene-d8</i>	<i>0.0247</i>		mg/L	<i>0.0250</i>		<i>98.9</i>	<i>87.1-110</i>			
Total Xylenes	ND	0.001	mg/L							
trans-1,2-Dichloroethene	ND	0.0005	mg/L							
trans-1,3-Dichloropropene	ND	0.0005	mg/L							
trans-1,4-Dichloro-2-butene	ND	0.010	mg/L							
Trichloroethene	ND	0.0005	mg/L							
Trichlorofluoromethane	ND	0.0005	mg/L							
Vinyl acetate	ND	0.0005	mg/L							
Vinyl chloride	ND	0.0005	mg/L							

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

LCS (3062935-BS1)

Prepared: 06/29/23 Analyzed: 06/30/23

1,1,1,2-Tetrachloroethane	0.019	0.0005	mg/L	0.0200		94.8	82.4-120			
1,1,1-Trichloroethane	0.019	0.0005	mg/L	0.0200		94.8	80.7-121			
1,1,2,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		98.6	76.5-121			
1,1,2-Trichloroethane	0.018	0.0005	mg/L	0.0200		91.2	81.7-118			
1,1-Dichloroethane	0.020	0.0005	mg/L	0.0200		101	74.8-123			
1,1-Dichloroethene	0.023	0.0005	mg/L	0.0200		113	53.9-149			
1,1-Dichloropropene	0.019	0.0005	mg/L	0.0200		96.8	85.9-115			
1,2,3-Trichlorobenzene	0.021	0.0005	mg/L	0.0200		107	76.1-134			
1,2,4-Trichlorobenzene	0.021	0.0005	mg/L	0.0200		105	72.4-136			
1,2,4-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		97.8	67.4-138			
1,2-Dibromo-3-chloropropane	0.020	0.0005	mg/L	0.0200		98.6	71.7-124			
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		93.3	84.9-116			
1,2-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		96.4	82.5-119			
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		102	72.5-123			
1,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		97.0	79.4-117			
1,3,5-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		98.4	69-137			
1,3-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		96.4	84.4-120			
1,3-Dichloropropane	0.018	0.0005	mg/L	0.0200		91.4	82.6-117			
1,4 Dichlorobenzene	0.019	0.0005	mg/L	0.0200		95.8	81.7-118			
1,4-Dioxane	0.366	0.010	mg/L	0.400		91.4	-34.6-193			
1,2,3-trichloropropane	0.021	0.0005	mg/L	0.0200		103	44.7-168			
2,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		95.6	62.9-136			
2-Butanone	0.037	0.002	mg/L	0.0400		93.6	24.1-159			
2-Chlorotoluene	0.019	0.0005	mg/L	0.0200		97.3	80.2-121			
2-Hexanone	0.035	0.001	mg/L	0.0400		88.0	56.3-139			
Surrogate: 4-Bromofluorobenzene	0.0236		mg/L	0.0250		94.6	76.4-114			
4-Chlorotoluene	0.020	0.0005	mg/L	0.0200		101	82.2-125			
4-Methyl-2-pentanone	0.037	0.001	mg/L	0.0400		93.3	60.7-139			
Acetone	0.041	0.010	mg/L	0.0400		102	39.1-168			
Acrolein	0.184	0.005	mg/L	0.200		92.1	26.6-161			
Acrylonitrile	0.039	0.002	mg/L	0.0400		97.8	64.9-135			
Benzene	0.020	0.0005	mg/L	0.0200		98.2	69.4-129			
Bromobenzene	0.019	0.0005	mg/L	0.0200		97.2	83.5-115			
Bromochloromethane	0.019	0.0005	mg/L	0.0200		97.2	70.7-123			
Bromodichloromethane	0.019	0.0005	mg/L	0.0200		93.6	80.3-119			
Bromoform	0.021	0.0005	mg/L	0.0200		103	71.1-141			
Bromomethane	0.024	0.0005	mg/L	0.0200		120	55.1-143			
Carbon disulfide	0.041	0.001	mg/L	0.0400		103	53.6-147			
Carbon tetrachloride	0.020	0.0005	mg/L	0.0200		99.7	79.5-125			

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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

LCS (3062935-BS1) (Continued)

Prepared: 06/29/23 Analyzed: 06/30/23

Chlorobenzene	0.019	0.0005	mg/L	0.0200		95.1	85.1-115			
Chloroethane	0.023	0.0005	mg/L	0.0200		115	36.9-159			
Chloroform	0.020	0.0005	mg/L	0.0200		101	80.9-119			
Chloromethane	0.022	0.0005	mg/L	0.0200		108	54.2-142			
cis-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		97.6	73.8-128			
cis-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		91.9	82.5-122			
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		101	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0260</i>		mg/L	<i>0.0250</i>		<i>104</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		99.3	77-118			
Dichlorodifluoromethane	0.018	0.0005	mg/L	0.0200		91.4	38.7-147			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		96.4	70.2-130			
Hexachlorobutadiene	0.022	0.0005	mg/L	0.0200		112	78.9-148			
Iodomethane	0.041	0.001	mg/L	0.0400		101	63.5-135			
Isopropylbenzene	0.019	0.0005	mg/L	0.0200		94.4	85-124			
m+p - Xylene	0.038	0.001	mg/L	0.0400		94.6	71.9-133			
Methyl tert-butyl ether	0.040	0.001	mg/L	0.0400		99.8	57.7-137			
Methylene chloride	0.023	0.0005	mg/L	0.0200		115	49.3-163			
Naphthalene	0.020	0.0005	mg/L	0.0200		99.9	62.1-141			
n-Butylbenzene	0.020	0.0005	mg/L	0.0200		99.8	75.4-132			
n-Propylbenzene	0.020	0.0005	mg/L	0.0200		101	79.6-124			
o-Xylene	0.018	0.0005	mg/L	0.0200		91.0	69.4-132			
p-Isopropyltoluene	0.020	0.0005	mg/L	0.0200		99.0	79.8-131			
sec-Butylbenzene	0.020	0.0005	mg/L	0.0200		101	77.6-133			
Styrene	0.019	0.0005	mg/L	0.0200		93.8	71.7-128			
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		104	78.8-128			
Tetrachloroethene	0.018	0.0005	mg/L	0.0200		89.8	74.2-128			
Toluene	0.019	0.0005	mg/L	0.0200		93.2	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0247</i>		mg/L	<i>0.0250</i>		<i>98.6</i>	<i>87.1-110</i>			
Total Xylenes	0.056	0.001	mg/L	0.0600		93.4	71.6-132			
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		104	65.2-133			
trans-1,3-Dichloropropene	0.020	0.0005	mg/L	0.0200		97.6	84-123			
trans-1,4-Dichloro-2-butene	0.047	0.010	mg/L	0.0400		119	9.3-235			
Trichloroethene	0.018	0.0005	mg/L	0.0200		92.1	79.3-114			
Trichlorofluoromethane	0.024	0.0005	mg/L	0.0200		122	28.6-162			
Vinyl acetate	0.018	0.0005	mg/L	0.0200		92.0	50.9-135			
Vinyl chloride	0.020	0.0005	mg/L	0.0200		102	61.6-133			

LCS Dup (3062935-BSD1)

Prepared: 06/29/23 Analyzed: 06/30/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		98.2	82.4-120	3.47	6.88	
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Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

LCS Dup (3062935-BSD1) (Continued)

Prepared: 06/29/23 Analyzed: 06/30/23

1,1,1-Trichloroethane	0.019	0.0005	mg/L	0.0200		97.1	80.7-121	2.45	7.43	
1,1,2,2-Tetrachloroethane	0.019	0.0005	mg/L	0.0200		97.2	76.5-121	1.38	8.68	
1,1,2-Trichloroethane	0.019	0.0005	mg/L	0.0200		93.1	81.7-118	2.01	6.82	
1,1-Dichloroethane	0.021	0.0005	mg/L	0.0200		105	74.8-123	3.40	4.3	
1,1-Dichloroethene	0.023	0.0005	mg/L	0.0200		113	53.9-149	0.00	16.5	
1,1-Dichloropropene	0.020	0.0005	mg/L	0.0200		98.2	85.9-115	1.49	5.47	
1,2,3-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		101	76.1-134	5.60	43	
1,2,4-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		102	72.4-136	2.52	22.3	
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		97.0	67.4-138	0.821	8.94	
1,2-Dibromo-3-chloropropane	0.020	0.0005	mg/L	0.0200		98.1	71.7-124	0.559	15.1	
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		94.6	84.9-116	1.44	5.83	
1,2-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		95.4	82.5-119	1.04	8.72	
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		101	72.5-123	0.788	8.94	
1,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		97.6	79.4-117	0.514	5.51	
1,3,5-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		96.0	69-137	2.47	16.5	
1,3-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		97.0	84.4-120	0.672	9	
1,3-Dichloropropane	0.019	0.0005	mg/L	0.0200		95.0	82.6-117	3.92	6.06	
1,4 Dichlorobenzene	0.019	0.0005	mg/L	0.0200		94.5	81.7-118	1.42	7.71	
1,4-Dioxane	0.367	0.010	mg/L	0.400		91.6	-34.6-193	0.210	35.2	
1,2,3-trichloropropane	0.020	0.0005	mg/L	0.0200		99.8	44.7-168	3.59	49.2	
2,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		96.4	62.9-136	0.886	9.62	
2-Butanone	0.038	0.002	mg/L	0.0400		96.0	24.1-159	2.50	14.2	
2-Chlorotoluene	0.019	0.0005	mg/L	0.0200		96.0	80.2-121	1.35	8.62	
2-Hexanone	0.036	0.001	mg/L	0.0400		90.0	56.3-139	2.25	7.28	
Surrogate: 4-Bromofluorobenzene	0.0235		mg/L	0.0250		94.0	76.4-114			
4-Chlorotoluene	0.019	0.0005	mg/L	0.0200		96.9	82.2-125	4.05	15.5	
4-Methyl-2-pentanone	0.038	0.001	mg/L	0.0400		95.1	60.7-139	1.86	7.57	
Acetone	0.042	0.010	mg/L	0.0400		105	39.1-168	2.15	30.5	
Acrolein	0.181	0.005	mg/L	0.200		90.5	26.6-161	1.82	22.4	
Acrylonitrile	0.039	0.002	mg/L	0.0400		97.1	64.9-135	0.718	7.62	
Benzene	0.020	0.0005	mg/L	0.0200		97.8	69.4-129	0.306	4.16	
Bromobenzene	0.020	0.0005	mg/L	0.0200		97.8	83.5-115	0.513	8.41	
Bromochloromethane	0.020	0.0005	mg/L	0.0200		101	70.7-123	3.69	5.16	
Bromodichloromethane	0.019	0.0005	mg/L	0.0200		94.7	80.3-119	1.22	5.36	
Bromoform	0.020	0.0005	mg/L	0.0200		98.4	71.1-141	5.01	14.1	
Bromomethane	0.024	0.0005	mg/L	0.0200		121	55.1-143	0.457	21.5	
Carbon disulfide	0.041	0.001	mg/L	0.0400		102	53.6-147	1.05	20.3	
Carbon tetrachloride	0.021	0.0005	mg/L	0.0200		103	79.5-125	3.45	11.4	
Chlorobenzene	0.020	0.0005	mg/L	0.0200		97.6	85.1-115	2.65	5.18	

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Veronica Wells, Project Manager

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

LCS Dup (3062935-BSD1) (Continued)

Prepared: 06/29/23 Analyzed: 06/30/23

Chloroethane	0.023	0.0005	mg/L	0.0200		114	36.9-159	0.262	24.1	
Chloroform	0.021	0.0005	mg/L	0.0200		103	80.9-119	1.96	5.15	
Chloromethane	0.023	0.0005	mg/L	0.0200		115	54.2-142	5.87	27	
cis-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		98.6	73.8-128	1.02	5.73	
cis-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		91.6	82.5-122	0.273	6.09	
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		101	83.1-124	0.297	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0258</i>		mg/L	<i>0.0250</i>		<i>103</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		100	77-118	0.652	5.75	
Dichlorodifluoromethane	0.019	0.0005	mg/L	0.0200		94.1	38.7-147	2.86	22.6	
Ethylbenzene	0.020	0.0005	mg/L	0.0200		97.8	70.2-130	1.49	4.83	
Hexachlorobutadiene	0.022	0.0005	mg/L	0.0200		108	78.9-148	4.32	18.4	
Iodomethane	0.041	0.001	mg/L	0.0400		103	63.5-135	1.59	24.3	
Isopropylbenzene	0.019	0.0005	mg/L	0.0200		95.7	85-124	1.37	6.25	
m+p - Xylene	0.039	0.001	mg/L	0.0400		96.6	71.9-133	2.09	5.77	
Methyl tert-butyl ether	0.041	0.001	mg/L	0.0400		102	57.7-137	2.47	12.8	
Methylene chloride	0.024	0.0005	mg/L	0.0200		118	49.3-163	2.83	19.7	
Naphthalene	0.019	0.0005	mg/L	0.0200		97.1	62.1-141	2.84	33.5	
n-Butylbenzene	0.019	0.0005	mg/L	0.0200		96.2	75.4-132	3.62	10.1	
n-Propylbenzene	0.020	0.0005	mg/L	0.0200		98.4	79.6-124	2.36	9.09	
o-Xylene	0.019	0.0005	mg/L	0.0200		93.4	69.4-132	2.49	6.29	
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		97.4	79.8-131	1.68	9.26	
sec-Butylbenzene	0.020	0.0005	mg/L	0.0200		100	77.6-133	0.991	9.85	
Styrene	0.019	0.0005	mg/L	0.0200		94.8	71.7-128	1.06	7.55	
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		103	78.8-128	1.25	18.6	
Tetrachloroethene	0.018	0.0005	mg/L	0.0200		92.5	74.2-128	2.91	6.38	
Toluene	0.019	0.0005	mg/L	0.0200		94.5	68.1-127	1.39	5.67	
<i>Surrogate: Toluene-d8</i>	<i>0.0249</i>		mg/L	<i>0.0250</i>		<i>99.5</i>	<i>87.1-110</i>			
Total Xylenes	0.057	0.001	mg/L	0.0600		95.5	71.6-132	2.22	5.83	
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		106	65.2-133	2.05	19.1	
trans-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		94.4	84-123	3.33	6.26	
trans-1,4-Dichloro-2-butene	0.028	0.010	mg/L	0.0400		69.6	9.3-235	52.2	92.8	
Trichloroethene	0.019	0.0005	mg/L	0.0200		92.9	79.3-114	0.865	4.92	
Trichlorofluoromethane	0.026	0.0005	mg/L	0.0200		130	28.6-162	6.02	19.8	
Vinyl acetate	0.019	0.0005	mg/L	0.0200		94.0	50.9-135	2.15	7.84	
Vinyl chloride	0.021	0.0005	mg/L	0.0200		107	61.6-133	4.27	23	

Green Analytical Laboratories

Veronica Wells, Project Manager

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www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Sandoval GC A #001
Project Manager: Kyle Siesser

Reported:
07/06/23 08:42

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(970) 247-4220 service@greenanalytical.com or dzufelt@greenanalytical.com
Fax: (970) 247-4227 75 Suttle St Durango, CO 81303

Company Name: Cottonwood Consulting LLC

Project Manager: Kyle Siesser

Address: PO Box 1653

City: Durango

State: CO Zip: 81302

Phone #: 970-764-7356

Email: ksiesser@cottonwoodconsulting.com

Additional Report To:

Project Name: Sandoval GC A #001

Project Number:

Sampler Name (Print): Joseph LaFortune

FOR LAB USE ONLY

Lab I.D.

2306-225

01

MM#2

6-21-13

1535

X

GROUNDWATER
SURFACEWATER
WASTEWATER
PRODUCEDWATER
SOIL
OTHER :

No preservation (general)
HNO₃
HCl
H₂SO₄
Other:
Other:

4

X

EPA Method 8260B (VOCs)

ANALYSIS REQUEST

Bill to (if different):

P.O. #:

Company:

Attn:

Address:

City:

State:

Zip:

Phone #:

Fax or Email:

Matrix (check one)

of containers

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date: 6-22-13

Received By:

ADDITIONAL REMARKS:

Report to State? (Circle)

Yes

No

Relinquished By:

Date:

Time: 0920

Received By:

Date:

Time:

Relinquished By:

Date:

Time:

Received By:

Date:

Time:

Delivered By: (Circle One)

Temperature at receipt:

CHECKED BY:

Sampler: UPS - FedEx - Kangaroo - Other:

on ice 2-70c #2

MPN

* Chain of Custody must be signed in "Relinquished By" as an acceptance of services and all applicable charges.

Analytical
Laboratories

SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2306-225Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ KangarooCustody Seals on Box/Cooler Present: ☐ Yes ☒ NoSeals Intact: ☐ Yes ☐ NoThermometer Used: #2Samples on Ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 27 °CCorrection Factor: 0 °CFinal Temp: 27 °C

Temp should be above freezing to 6°C

Date/Initials of person
examining contents: MPN 6/22/23Labeled by Initials: _____
(if different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☐ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☒ Yes ☐ No <u>WT</u> <u>SL</u> <u>OT</u>	12.
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☒ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____

FORM-039, Rev 1

Page 1 of 1

COTTONWOOD CONSULTING LLC

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

Sandoval GC A #001A - Compr Pit
Unit C Sec 35 T30N R9W

LABORATORY (S) USED :

GAL

Date :

3/9/23

DEVELOPER / SAMPLER :

DM, JL

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.19	-	<u>dry</u>	39.00	-	-	-	-	-
2	101.78	-	<u>38.40</u>	37.25	<u>1110</u>	<u>7.38</u>	<u>2640</u>	<u>15.6</u>	<u>0</u>
3	99.13	-	<u>dry</u>	38.73	-	-	-	-	-
4	98.96	-	<u>dry</u>	-	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
 (i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Collect sample from MW #2. Shut down SVE prior to sampling, then re-start.

unable to locate well #4~1 ft of water in well - unable to purge.

Top of casing MW #1 ~ 1.00 ft. , MW #2 ~ 2.75 ft. , MW #3 ~ @ grade , MW #4 ~ 0.25 ft below grade

on-site	<u>1020</u>	temp	<u>~55°</u>
off-site	<u>1120</u>	temp	<u>~55°F</u>
sky cond.	<u>clear</u>		
wind speed		direct.	

COTTONWOOD CONSULTING LLC

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

Sandoval GC A #001A - Compr Pit
 Unit C Sec 35 T30N R9W

LABORATORY (S) USED :

GAL

Date :

9/19/23

DEVELOPER / SAMPLER :

EM/DS

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.19	-	<u>dry</u>	39.00	-	-	-	-	-
2	101.78	-	<u>36.77</u>	37.25	<u>0950</u>		<u>2.52</u>	<u>17.1</u>	<u>0.25</u>
3	99.13	-	<u>dry</u>	38.73	-	-	-	-	-
4	98.96	-	-	-	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.
 (i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Collect sample from MW #2. Shut down SVE prior to sampling, then re-start. unable to locate #4.No recharge from MW #2; sampled w/o purging.SVE PID = 64.3 ppmTop of casing MW #1 ~ 1.00 ft., MW #2 ~ 2.75 ft., MW #3 ~ @ grade, MW #4 ~ 0.25 ft below grade

on-site	<u>0925</u>	temp	<u>~70</u>
off-site	<u>1011</u>	temp	<u>~70</u>
sky cond.	<u>clear</u>		
wind speed	<u>0-5</u>	direct.	<u>N</u>

COTTONWOOD CONSULTING LLC
MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

Sandoval GC A #001A - Compr Pit
Unit C Sec 35 T30N R9W

LABORATORY (S) USED : GAL

Date : 12/15/23

DEVELOPER / SAMPLER : WOLDS

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.19	-	35.77 DRY 10	39.00	-	-	-	-	-
2	101.78	4.47	37.44	37.25	1205	7.38	2820	11.7	-
3	99.13	-	DRY	38.73	-	-	-	-	-
4	98.96			-	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Collect sample from MW #2. Shut down SVE prior to sampling, then re-start.

MW #2 Total depth = 41 Ft

Top of casing MW #1 ~ 1.00 ft. , MW #2 ~ 2.75 ft. , MW #3 ~ @ grade , MW #4 ~ 0.25 ft below grade

on-site	1150	temp	45°
off-site	1220	temp	45°
sky cond.	Cloudy		
wind speed	0-5	direct.	W

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Exhaust Rate (cfm) if known	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic ALS 9A	1-10-23	1	11.1	-46	-37	-	Y	26.5	Y	
Florence GCU 16	1	2	23.1	Broken	-	-	N	31.4	N	Drum Frozen
Sandoval	1	1	62.2	-8	Broken	-	N	14	Y	Tank 80-90% Full
Jacquez	1	3	7.4	0.0	Broken	-	N	9	Y	Attempted to restart unit will not turn on
Al Elliot	1	5	165.0	-10	-10	-	Y	27.5	Y	638.8 hours run time
GCU H80	1	All	-	-	-	-	Y	-	-	2.5 PSI 154°F 1947.1 Hrs 1)0.0 2)0.0 3)1.0 4)0.0
Heaton	1	unk	106.6	-66	Broken	-	Y	26.5	Y	
Mudge B12R	1/14/23	1	-	-	-	-	N	32	N	drum frozen - unable to drain. SVE not operational.
Mudge A2	1/12/23	2	0.8	-54	-	-	Y	31	N	water in drum below drain port.

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H2O"- inches water
 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 (H2O")	Vacuum Pressure downstream of drum (H2O")	Exhaust Rate (cfm) if known	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
AHARTIC ALS 9A	2-7-23	1	5.4	-38	-47	-	Y	26.5	Y	
Florence	↓	2	2.5 Broken	Broken	-	-	N	27	N	Restarted System, System carries when left
Sandoval	↓	1	2 0.4	-	-	-	N	14.25	Y	Attempted to restart Unit restart
Jacquez	↓	3	1.0	-	-	-	N	28	N	Attempted to restart Went restart, Drum Frozen
Al Elliot	↓	5	2.4	-	-	-	N	27.5	Y	Attempted to restart will not restart
BEU H80	↓	All	-	-	-	-	Y	-	-	2.6 PSI 150°F 2618.0 hrs 1) 0.5 2) 0.5 3) 0.5 4) 0.25
Hendon	↓	Unk	106.7	-56	-	-	Y	29.5	Y	
Mudge B12R	2-9-23	1	0.2	-	-	-	N	32.0	N	Attempted to restart System won't start, Drum Frozen
Mudge A2	2-9-23	2	2.1	-54	-	-	Y	30.5	N	Drum Frozen

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H2O"- inches water
 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 (H ₂ O")	Vacuum Pressure downstream of drum (H ₂ O")	Exhaust Rate (cfm) if known	System Operational at Arrival?	Drum H ₂ O (inches bTOD)	Drum Drained?	Comments
Atlantic	3/9/23	1	5.9	-36	-46	-	Y	31.25	Y	
Florance		2	131.3	broken	none	-	Y	24.5	Y	drum valve leaking
Sandoval		1	13.3	Broken	Broken	-	Y	31.0	Y	run time 1041.7 hrs Grabbed gas sample @ 1045
Jacquez		3	-	-	-	-	N	-	N	System not operational
Al Elliot		5	132.0	-8	-10	-	Y	30.25	Y	run time 971.7 hours
GCU H80	↓	All	-	-	-	-	Y	-		2.5 PSI 150°F 3339.0 hours 1)0.2 2)0.2 3)1.25 4)0.1
Heaton	3/10/23	unk	113.8	-42	-	-	Y	28.5	Y	
Mudge B12R	↓	1	-	-	-	-	-	-	-	unable to access site
Mudge A2	↓	2	109.1	-52	-	-	Y	31.5	N	water in drum below valve

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H₂O"- inches water
 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 (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic	4-6-23	1	5.1	-44	-36	—	Y	30.5	N	Drum Frozen
Florance		2	104.1	Broken	—	—	Y	20.5	Y	Drum leaking from Drain Valve
Sandoval		1	10.5	Broken	Broken	1681.2	N	14.3	Y	system restarted after Draining drum
Jaquez		3	142.1	-30	—	334.3	Y	28.75	Y	
AL Elliott		5	110.5	-8	-12	1347.5	Y	30.5	Y	
GC4 H180		411	—	—	—	4005.7	Y	—	—	2.6 ps: 160° (1) 0.5 (2) 0.6 (3) 0.5 (4) 0.5
Henton		unlabeled	122.7	-56	—	—	Y	31.25	Y	
Mudge B12R		1	204.7	-44	-30	—	Y	29.25	Y	
Mudge A002	✓	2	96.5	-52	—	—	Y	30.5	Y	

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H2O"- inches water
 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 (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic	5/3/23	1	38.4	-35	-45	-	Y	32	N	water below port
Florance		2	101.9	Broken	-	-	N	33	N	water below port Restarted system.
Sandoval		1	9.6	Broken	Broken	2329.0	Y	26.5	Y	2329.0 hrs
Jaquez		3	-	-	-	-	N	29	Y	System won't start.
AL Elliott		5	106.2	-8	-11	1951.3	Y	32	Y	1951.3 hrs
GCU H180		All	-	-	-	4510.2	Y	-	-	2.5 psi 165° Temp 1) 0.5 2) 0.5 3) 1.0 4) 0.5
Heaton		unk	104.3	-53	-	-	Y	Dry	N	
Mudge B12R		1	122.3	-44	-29	-	Y	31.5	Y	
Mudge A002	✓	2	69.3	-59	-	-	N	31	N	water below port. restarted system.

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

Drain valve
still leaking.4510.2 hrs
psi

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic	6/6/23	1	5.5	-44	0	—	Y	Dry	N	
Florence	↓	2	99.6	Broken	—	—	Y	29"	Y	Drum leaking from drain valve
Sandoval	↓	1	7.3	Broken	Broken	3144.4	Y	Below Port	N	3144.4 hrs
Juarez	↓	3	123.2	-24	—	1606.7	Y	30"	Y	1606.7 hrs
Al Elliott	↓	5	96.8	-8	-11	2683.0	Y	Below Port	N	2683.0 hrs
GCU H180	↓	All	—	—	—	5326.6	Y	—	—	110° 2.4 PSI 1) 1.75 2) 0.5 3) 0.5 4) 0.5 PSI 5326.6 hrs
Heaton	↓	Unk	110.5	-54	—	—	Y	Dry	N	Vacuum Pressure gauge removed (downstream)
Mudge B12R	↓	1	101.1	-44	-29	—	Y	Dry	N	
Mudge A002	↓	2	171.6	-50	—	—	Y	Below Port	N	

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H2O"- inches water
 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 (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic	7/7/23	1	8.0	-34	-44	—	Y	Dry	N	
Florence		2	64.9	Broken	—	—	Y	Dry	N	
Sandoval		1	5.7	Broken	Broken	3889.3	Y	Dry	N	3889.3 hrs
Jacquez		3	88.7	-24	—	2351.8	Y	Dry	N	2351.8 hrs
AL Elliott		5	92.1	-11	-12	3333.9	Y	Dry	N	3333.9 hrs
GCU H 180		All	—	—	—	6071.9	Y	—	—	175 OF 2.4 PSI 6071.9 hrs
Heaton		unk	118.6	-52	—	—	Y	Dry	N	
Mudge B12R		1	99.3	-44	-30	—	Y	Dry	N	
Mudge A002	✓	2	153.3	-50	—	—	Y	Dry	N	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

1) 0.5 (3) 0.75
2) 0.5 (4) 0.5



SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H ₂ O")	Vacuum Pressure downstream of drum (H ₂ O")	Run Time (Hours)	System Operational at Arrival?	Drum H ₂ O (inches bTOD)	Drum Drained?	Comments
Atlantic	8-9-23	1	7.8	-35	-46	-	Y	Dry	N	
Florence		2	85.2	-3	-	-	Y	Dry	N	
Sandoval		1	7.6	Broken	Broken	4679.6	Y	Dry	N	
Jacquez		3	115.3	-24	-	3137.9	Y	Dry	N	
AL Elliott		5	83.8	-9	-12	4128.0	Y	Dry	N	
GCU H180		All	-	-	-	6688.3	Y	-	-	165°F 2.5 psi; 1.2.5psi) 2. 2psi) 3. 2.2psi) 4. 2.4 psi;
Horton		unk	104.2	-52	-	-	Y	Dry	N	
Mudge B12R		1	75.9	-44	-30	-	Y	Dry	N	
Mudge A002		2	354.9	-50	-	-	Y	Dry	N	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H₂O"- inches water

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 (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	9-7-23	1	1.1	-35	-46	-	Y	Dry	No	
Florance GC J 16		2	26.8	-3	-	-	Y	Dry	No	
Sandoval GC A 1A		3	3.7	Broken	Broken	5375.3	Y	Dry	No	
Jacquez GC B 3E		1	41.1	-24	-	3833.6	Y	Dry	No	
Al Elliot D 002		5	35.6	-10	-12	4779.2	Y	Dry	No	
GCU H180		All	-	-	-	7384.3	Y	-	-	190°F 1) 1.8 psi 2) 0.7 psi 3) 2.5 psi 4) 2.0 psi 5) 1.5 psi
Heaton LS 5		Unk	81.5	-54	-	-	Y	Dry	No	#3 A leak could be heard from Valve
Mudge B12 R		1	42.8	-44	-30	-	Y	Dry	No	
Mudge A 002 MV	V	2	228.6	-51	-	-	Y	Dry	No	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

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 (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	10-18-2023	1	201.5	-36	-46	-	Y	31.5 2	N	Water below drain level
Florance GC J 16		2	156.8	-6	-	-	Y	22.25	Y	Leaking from basket on drain valve
Sandoval GC A 1A		3	48.6	Broken	0	6358.6	Y	29.5	Y	
Jacquez GC B 3E		1	227.5	-24	-	4817.4	Y	25.5	Y	
Al Elliot D 002		5	93.7	-10	-14	5354.9	Y	29.75	Y	
GCU H180		All	-	-	-	8368.2	Y	-	-	140°F 2.0 PSI 1)0.0 2)0.0 3)0.0 4)0.0 The tubing at Vacuum Station #2 is damaged and leaking
Heaton LS 5		Unk	123.4	-54	-	-	Y	Day	N	
Mudge B12 R	✓	1	103.6	-45	-30	-	Y	29.75	Y	
Mudge A 002 MV		2	327.2	-52	-	-	Y	Day	N	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

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 (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	11-15-23	1	2.7	-36	-46	-	Y	Dry	N	
Florance GC J 16	11-15-23	2	0.7	-4(inhg)	-	-	N	Dry	N	
Sandoval GC A 1A	11-15-23	3	103.1	-20(lps)	Broken	6,540	N	22.5	Y	Replace gauge with -30(inhg) / -100(lps) gauge
Jacquez GC B 3E	11-15-23	1	30.2	-26	-	5,326	Y	20.5	Y	
Al Elliot D 002	11-15-23	5	37.8	-10	-12	5,775	Y	Dry	N	
GCU H180	11-14-23	All	-	-	-	-	N	-	-	Motor sounded rough with clicking sound upon restarting. SVE point leak fixed.
Heaton LS 5	11-14-23	Unk	75.2	-32	-	-	Y	Dry	N	
Mudge B12 R	11-14-23	1	35.7	-46	-12	-	Y	21.0	Y	Drum leaking at PVC connection.
Mudge A 002 MV	11-14-23	2	150.1	-40	-	-	Y	Dry	N	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

100°F 2.7 ps.
1) 1.0 2) 1.25
3) 2.5 4) 0.5

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	12/15/23	1	19.3	-40	-50	-	Yes	26	Y	
Florance GC J 16	12/15/23	2	4.05 60.3	-4.0	-	-	Yes	29	Y	Drum loadout leaking from gasket
Sandoval GC A 1A	12/15/23 12/15/23	3	135.8	3.0	0	7238.4	Yes	19	Y	
Jacquez GC B 3E	12/15/23	1	1.4	-2	-	Not Readable	Yes	29	Y	
Al Elliot D 002	12/15/23	5	110.3	-10	-10	6269.5	Yes	21.5	Y	
GCU H180	12/14/23	All	-	-	-	8656.4	8656.4 No	-	-	Not Running on arrival. sounds like its not running properly
Heaton LS 5	12/14/23	Unk	101.5	34	-	-	Yes	29	Y	
Mudge B12 R	12/14/23	1	180.6	-40	-10	-	Yes	30	Y	
Mudge A 002 MV	12/15/23	2	108.2	-50	30 05	-	Yes	-	-	Dry

Notes:

SVE - Soil Vapor Extraction
OVM - Organic Vapor Monitoring
ppm- parts per million
H2O"- inches water
cfm- cubic feet per minute
bTOD- below top of drum

at 85°F
152.0
all other
psi indicators
@ 0.0

COTTONWOOD CONSULTING LLC

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

Sandoval GC A #001A - Compr Pit
 Unit C Sec 35 T30N R9W

LABORATORY (S) USED :

GAL

Date :

6-21-23

DEVELOPER / SAMPLER :

DS/JL

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos) (mmhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.19	—	Dry	39.00	-	-	-	-	-
2	101.78	.65	36.6	37.25	03 1535	7.27	2.89	24.1	1
3	99.13	—	Dry	38.73	-	-	-	-	-
4	98.96			-	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
 (i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Collect sample from MW #2. Shut down SVE prior to sampling, then re-start.

Water bubbly, some black/grey sediment suspended, HC odor.

Top of casing MW #1 ~ 1.00 ft. , MW #2 ~ 2.75 ft. , MW #3 ~ @ grade , MW #4 ~ 0.25 ft below grade

on-site	<u>1515</u>	temp	<u>85°F</u>
off-site	<u>1550</u>	temp	<u>85</u>
sky cond.	<u>clear</u>		
wind speed	<u>5-10</u>	direct.	<u>W</u>

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 301738

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID: 329736
	Action Number: 301738
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Sandoval GC A #001A Gas Monitoring Lab Report and groundwater monitoring reports accepted for the record. Field notes included as part of submission. Quarterly for 2023.	3/29/2024