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11 April 2024

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 03/27/24 15:45. 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 '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: TX-C24-00019

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:
04/11/24 08:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2403226-01	Water	03/27/24 13:00	03/27/24 15:45	

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 #001A
Project Manager: Kyle Siesser

Reported:
04/11/24 08:19

MW #2

2403226-01 (Ground Water)

Sampled Date: 03/27/24 13:00

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*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
1,1,1-Trichloroethane*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
1,1,2-Trichloroethane*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
1,1-Dichloroethane*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
1,1-Dichloroethene*	<0.010	0.010	0.004	mg/L	20	04/08/24 13:08	8260B		MS
1,1-Dichloropropene*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
1,2,3-Trichlorobenzene*	<0.010	0.010	0.005	mg/L	20	04/08/24 13:08	8260B		MS
1,2,4-Trichlorobenzene*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
1,2,4-Trimethylbenzene*	1.08	0.010	0.0009	mg/L	20	04/08/24 13:08	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.010	0.010	0.010	mg/L	20	04/08/24 13:08	8260B		MS
1,2-Dibromoethane*	<0.010	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
1,2-Dichlorobenzene*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
1,2-Dichloroethane*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
1,2-Dichloropropane*	<0.010	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
1,3,5-Trimethylbenzene*	0.017	0.010	0.0009	mg/L	20	04/08/24 13:08	8260B		MS
1,3-Dichlorobenzene*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
1,3-Dichloropropane*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
1,4-Dichlorobenzene	<0.010	0.010	0.0007	mg/L	20	04/08/24 13:08	8260B		MS
1,4-Dioxane	<0.200	0.200	0.200	mg/L	20	04/08/24 13:08	8260B		MS
1,2,3-trichloropropane*	<0.010	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
2,2-Dichloropropane*	<0.010	0.010	0.010	mg/L	20	04/08/24 13:08	8260B		MS
2-Butanone*	<0.040	0.040	0.040	mg/L	20	04/08/24 13:08	8260B		MS
2-Chlorotoluene*	<0.010	0.010	0.0008	mg/L	20	04/08/24 13:08	8260B		MS
2-Hexanone*	<0.020	0.020	0.006	mg/L	20	04/08/24 13:08	8260B		MS
4-Chlorotoluene*	<0.010	0.010	0.0009	mg/L	20	04/08/24 13:08	8260B		MS
4-Methyl-2-pentanone*	<0.020	0.020	0.002	mg/L	20	04/08/24 13:08	8260B		MS
Acetone*	<0.200	0.200	0.017	mg/L	20	04/08/24 13:08	8260B		MS
Acrolein*	<0.100	0.100	0.022	mg/L	20	04/08/24 13:08	8260B		MS
Acrylonitrile*	<0.040	0.040	0.016	mg/L	20	04/08/24 13:08	8260B		MS

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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 #001A
Project Manager: Kyle Siesser

Reported:
04/11/24 08:19

MW #2

2403226-01 (Ground Water)

Sampled Date: 03/27/24 13:00

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

Benzene*	1.21	0.010	0.0009	mg/L	20	04/08/24 13:08	8260B		MS
Bromobenzene*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
Bromochloromethane*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
Bromodichloromethane*	<0.010	0.010	0.0008	mg/L	20	04/08/24 13:08	8260B		MS
Bromoform*	<0.010	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
Bromomethane*	<0.010	0.010	0.010	mg/L	20	04/08/24 13:08	8260B		MS
Carbon disulfide*	<0.100	0.100	0.003	mg/L	20	04/08/24 13:08	8260B		MS
Carbon tetrachloride*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
Chlorobenzene*	<0.010	0.010	0.0008	mg/L	20	04/08/24 13:08	8260B		MS
Chloroethane*	<0.010	0.010	0.010	mg/L	20	04/08/24 13:08	8260B		MS
Chloroform*	<0.010	0.010	0.0003	mg/L	20	04/08/24 13:08	8260B		MS
Chloromethane*	<0.010	0.010	0.010	mg/L	20	04/08/24 13:08	8260B		MS
cis-1,2-Dichloroethene*	<0.010	0.010	0.005	mg/L	20	04/08/24 13:08	8260B		MS
cis-1,3-Dichloropropene*	<0.010	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
Dibromochloromethane*	<0.010	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
Dibromomethane*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
Dichlorodifluoromethane*	<0.010	0.010	0.010	mg/L	20	04/08/24 13:08	8260B		MS
Ethylbenzene*	0.499	0.010	0.0006	mg/L	20	04/08/24 13:08	8260B		MS
Hexachlorobutadiene*	<0.010	0.010	0.010	mg/L	20	04/08/24 13:08	8260B		MS
Iodomethane	<0.020	0.020	0.001	mg/L	20	04/08/24 13:08	8260B		MS
Isopropylbenzene*	0.049	0.010	0.0004	mg/L	20	04/08/24 13:08	8260B		MS
m+p - Xylene*	1.72	0.020	0.002	mg/L	20	04/08/24 13:08	8260B		MS
Methyl tert-butyl ether	<0.020	0.020	0.005	mg/L	20	04/08/24 13:08	8260B		MS
Methylene chloride*	<0.040	0.040	0.010	mg/L	20	04/08/24 13:08	8260B		MS
Naphthalene*	0.072	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
n-Butylbenzene*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
n-Propylbenzene*	0.048	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
o-Xylene*	0.264	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
p-Isopropyltoluene*	0.048	0.010	0.0009	mg/L	20	04/08/24 13:08	8260B		MS
sec-Butylbenzene*	<0.010	0.010	0.0009	mg/L	20	04/08/24 13:08	8260B		MS
Styrene*	<0.010	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
tert-Butylbenzene*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS

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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 #001A
Project Manager: Kyle Siesser

Reported:
04/11/24 08:19

MW #2

2403226-01 (Ground Water)

Sampled Date: 03/27/24 13:00

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

Tetrachloroethene*	<0.010	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
Toluene*	<0.010	0.010	0.002	mg/L	20	04/08/24 13:08	8260B		MS
Total Xylenes*	1.98	0.020	0.004	mg/L	20	04/08/24 13:08	8260B		MS
trans-1,2-Dichloroethene*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
trans-1,3-Dichloropropene*	<0.010	0.010	0.001	mg/L	20	04/08/24 13:08	8260B		MS
trans-1,4-Dichloro-2-butene	<0.200	0.200	0.006	mg/L	20	04/08/24 13:08	8260B		MS
Trichloroethene*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
Trichlorofluoromethane*	<0.010	0.010	0.003	mg/L	20	04/08/24 13:08	8260B		MS
Vinyl acetate*	<0.010	0.010	0.010	mg/L	20	04/08/24 13:08	8260B		MS
Vinyl chloride*	<0.010	0.010	0.010	mg/L	20	04/08/24 13:08	8260B		MS
Surrogate: 4-Bromofluorobenzene			101 %	76.4-114		04/08/24 13:08	8260B		MS
Surrogate: Dibromofluoromethane			93.6 %	82.4-141		04/08/24 13:08	8260B		MS
Surrogate: Toluene-d8			101 %	87.1-110		04/08/24 13:08	8260B		MS

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

Reported:
04/11/24 08:19

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 4040332 - Volatiles

Blank (4040332-BLK1)

Prepared: 04/03/24 Analyzed: 04/04/24

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	0.0523		mg/L	0.0500	105	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:
04/11/24 08:19

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 4040332 - Volatiles (Continued)

Blank (4040332-BLK1) (Continued)

Prepared: 04/03/24 Analyzed: 04/04/24

Bromomethane	ND	0.0005	mg/L							
Carbon disulfide	0.001	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	0.0473		mg/L	0.0500		94.5	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	0.0007	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	0.0511		mg/L	0.0500		102	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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Project: VOC 8260
Project Name / Number: Sandoval GC A #001A
Project Manager: Kyle Siesser

Reported:
04/11/24 08:19

**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 4040332 - Volatiles (Continued)

LCS (4040332-BS1)

Prepared: 04/03/24 Analyzed: 04/04/24

1,1,1,2-Tetrachloroethane	0.022	0.0005	mg/L	0.0200		108	82.4-120			
1,1,1-Trichloroethane	0.019	0.0005	mg/L	0.0200		93.4	80.7-121			
1,1,2,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		99.8	76.5-121			
1,1,2-Trichloroethane	0.021	0.0005	mg/L	0.0200		104	81.7-118			
1,1-Dichloroethane	0.019	0.0005	mg/L	0.0200		94.7	74.8-123			
1,1-Dichloroethene	0.021	0.0005	mg/L	0.0200		103	53.9-149			
1,1-Dichloropropene	0.018	0.0005	mg/L	0.0200		92.4	85.9-115			
1,2,3-Trichlorobenzene	0.019	0.0005	mg/L	0.0200		92.8	76.1-134			
1,2,4-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		100	72.4-136			
1,2,4-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		109	67.4-138			
1,2-Dibromo-3-chloropropane	0.018	0.0005	mg/L	0.0200		89.6	71.7-124			
1,2-Dibromoethane	0.020	0.0005	mg/L	0.0200		100	84.9-116			
1,2-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		98.9	82.5-119			
1,2-Dichloroethane	0.018	0.0005	mg/L	0.0200		89.2	72.5-123			
1,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		97.8	79.4-117			
1,3,5-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		106	69-137			
1,3-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		101	84.4-120			
1,3-Dichloropropane	0.022	0.0005	mg/L	0.0200		108	82.6-117			
1,4-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		101	81.7-118			
1,4-Dioxane	0.594	0.010	mg/L	0.400		149	-34.6-193			
1,2,3-trichloropropane	0.019	0.0005	mg/L	0.0200		94.1	44.7-168			
2,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		93.4	62.9-136			
2-Butanone	0.037	0.002	mg/L	0.0400		91.4	24.1-159			
2-Chlorotoluene	0.021	0.0005	mg/L	0.0200		105	80.2-121			
2-Hexanone	0.034	0.001	mg/L	0.0400		84.5	56.3-139			
Surrogate: 4-Bromofluorobenzene	0.0506		mg/L	0.0500		101	76.4-114			
4-Chlorotoluene	0.021	0.0005	mg/L	0.0200		103	82.2-125			
4-Methyl-2-pentanone	0.035	0.001	mg/L	0.0400		87.2	60.7-139			
Acetone	0.037	0.010	mg/L	0.0400		92.8	39.1-168			
Acrolein	0.183	0.005	mg/L	0.200		91.4	26.6-161			
Acrylonitrile	0.034	0.002	mg/L	0.0400		84.7	64.9-135			
Benzene	0.020	0.0005	mg/L	0.0200		97.7	69.4-129			
Bromobenzene	0.026	0.0005	mg/L	0.0200		131	83.5-115			BS1
Bromochloromethane	0.023	0.0005	mg/L	0.0200		113	70.7-123			
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		99.6	80.3-119			
Bromoform	0.022	0.0005	mg/L	0.0200		111	71.1-141			
Bromomethane	0.017	0.0005	mg/L	0.0200		84.7	55.1-143			
Carbon disulfide	0.039	0.001	mg/L	0.0400		98.6	53.6-147			
Carbon tetrachloride	0.020	0.0005	mg/L	0.0200		101	79.5-125			

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 #001A
Project Manager: Kyle Siesser

Reported:
04/11/24 08:19

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 4040332 - Volatiles (Continued)

LCS (4040332-BS1) (Continued)

Prepared: 04/03/24 Analyzed: 04/04/24

Chlorobenzene	0.020	0.0005	mg/L	0.0200		101	85.1-115			
Chloroethane	0.018	0.0005	mg/L	0.0200		88.4	36.9-159			
Chloroform	0.018	0.0005	mg/L	0.0200		92.0	80.9-119			
Chloromethane	0.017	0.0005	mg/L	0.0200		85.4	54.2-142			
cis-1,2-Dichloroethene	0.019	0.0005	mg/L	0.0200		94.6	73.8-128			
cis-1,3-Dichloropropene	0.023	0.0005	mg/L	0.0200		115	82.5-122			
Dibromochloromethane	0.023	0.0005	mg/L	0.0200		114	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0483</i>		mg/L	<i>0.0500</i>		<i>96.6</i>	<i>82.4-141</i>			
Dibromomethane	0.018	0.0005	mg/L	0.0200		88.8	77-118			
Dichlorodifluoromethane	0.018	0.0005	mg/L	0.0200		92.0	38.7-147			
Ethylbenzene	0.021	0.0005	mg/L	0.0200		104	70.2-130			
Hexachlorobutadiene	0.022	0.0005	mg/L	0.0200		108	78.9-148			
Iodomethane	0.036	0.001	mg/L	0.0400		89.2	63.5-135			
Isopropylbenzene	0.022	0.0005	mg/L	0.0200		109	85-124			
m+p - Xylene	0.043	0.001	mg/L	0.0400		108	71.9-133			
Methyl tert-butyl ether	0.035	0.001	mg/L	0.0400		86.7	57.7-137			
Methylene chloride	0.019	0.0005	mg/L	0.0200		97.2	49.3-163			
Naphthalene	0.016	0.0005	mg/L	0.0200		82.4	62.1-141			
n-Butylbenzene	0.023	0.0005	mg/L	0.0200		113	75.4-132			
n-Propylbenzene	0.021	0.0005	mg/L	0.0200		106	79.6-124			
o-Xylene	0.022	0.0005	mg/L	0.0200		109	69.4-132			
p-Isopropyltoluene	0.021	0.0005	mg/L	0.0200		107	79.8-131			
sec-Butylbenzene	0.021	0.0005	mg/L	0.0200		104	77.6-133			
Styrene	0.022	0.0005	mg/L	0.0200		110	71.7-128			
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		106	78.8-128			
Tetrachloroethene	0.019	0.0005	mg/L	0.0200		94.8	74.2-128			
Toluene	0.022	0.0005	mg/L	0.0200		109	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0530</i>		mg/L	<i>0.0500</i>		<i>106</i>	<i>87.1-110</i>			
Total Xylenes	0.065	0.001	mg/L	0.0600		108	71.6-132			
trans-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		89.5	65.2-133			
trans-1,3-Dichloropropene	0.022	0.0005	mg/L	0.0200		111	84-123			
trans-1,4-Dichloro-2-butene	0.138	0.010	mg/L	0.0400		345	9.3-235			BS1
Trichloroethene	0.018	0.0005	mg/L	0.0200		90.6	79.3-114			
Trichlorofluoromethane	0.018	0.0005	mg/L	0.0200		91.1	28.6-162			
Vinyl acetate	0.019	0.0005	mg/L	0.0200		93.9	50.9-135			
Vinyl chloride	0.019	0.0005	mg/L	0.0200		93.9	61.6-133			

LCS Dup (4040332-BSD1)

Prepared: 04/03/24 Analyzed: 04/04/24

1,1,1,2-Tetrachloroethane	0.021	0.0005	mg/L	0.0200		103	82.4-120	5.22	6.88	
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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 #001A
Project Manager: Kyle Siesser

Reported:
04/11/24 08:19

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 4040332 - Volatiles (Continued)

LCS Dup (4040332-BSD1) (Continued)

Prepared: 04/03/24 Analyzed: 04/04/24

1,1,1-Trichloroethane	0.018	0.0005	mg/L	0.0200		90.4	80.7-121	3.26	7.43	
1,1,2,2-Tetrachloroethane	0.022	0.0005	mg/L	0.0200		108	76.5-121	8.03	8.68	
1,1,2-Trichloroethane	0.021	0.0005	mg/L	0.0200		106	81.7-118	2.53	6.82	
1,1-Dichloroethane	0.018	0.0005	mg/L	0.0200		90.2	74.8-123	4.87	4.3	QR-04
1,1-Dichloroethene	0.020	0.0005	mg/L	0.0200		98.9	53.9-149	3.87	16.5	
1,1-Dichloropropene	0.018	0.0005	mg/L	0.0200		91.8	85.9-115	0.706	5.47	
1,2,3-Trichlorobenzene	0.019	0.0005	mg/L	0.0200		96.6	76.1-134	3.91	43	
1,2,4-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		101	72.4-136	1.04	22.3	
1,2,4-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		105	67.4-138	3.68	8.94	
1,2-Dibromo-3-chloropropane	0.018	0.0005	mg/L	0.0200		89.0	71.7-124	0.672	15.1	
1,2-Dibromoethane	0.021	0.0005	mg/L	0.0200		103	84.9-116	2.22	5.83	
1,2-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		95.4	82.5-119	3.60	8.72	
1,2-Dichloroethane	0.018	0.0005	mg/L	0.0200		88.0	72.5-123	1.47	8.94	
1,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		99.0	79.4-117	1.27	5.51	
1,3,5-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		103	69-137	2.82	16.5	
1,3-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		97.8	84.4-120	3.67	9	
1,3-Dichloropropane	0.021	0.0005	mg/L	0.0200		105	82.6-117	2.81	6.06	
1,4-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		97.7	81.7-118	3.62	7.71	
1,4-Dioxane	0.535	0.010	mg/L	0.400		134	-34.6-193	10.6	35.2	
1,2,3-trichloropropane	0.020	0.0005	mg/L	0.0200		99.9	44.7-168	5.98	49.2	
2,2-Dichloropropane	0.018	0.0005	mg/L	0.0200		90.6	62.9-136	2.99	9.62	
2-Butanone	0.040	0.002	mg/L	0.0400		101	24.1-159	9.64	14.2	
2-Chlorotoluene	0.020	0.0005	mg/L	0.0200		101	80.2-121	3.16	8.62	
2-Hexanone	0.040	0.001	mg/L	0.0400		100	56.3-139	16.8	7.28	QR-04
Surrogate: 4-Bromofluorobenzene	0.0515		mg/L	0.0500		103	76.4-114			
4-Chlorotoluene	0.020	0.0005	mg/L	0.0200		101	82.2-125	1.42	15.5	
4-Methyl-2-pentanone	0.040	0.001	mg/L	0.0400		99.8	60.7-139	13.5	7.57	QR-04
Acetone	0.040	0.010	mg/L	0.0400		101	39.1-168	8.64	30.5	
Acrolein	0.197	0.005	mg/L	0.200		98.3	26.6-161	7.24	22.4	
Acrylonitrile	0.038	0.002	mg/L	0.0400		95.7	64.9-135	12.2	7.62	QR-04
Benzene	0.019	0.0005	mg/L	0.0200		96.1	69.4-129	1.65	4.16	
Bromobenzene	0.022	0.0005	mg/L	0.0200		109	83.5-115	18.7	8.41	QR-04
Bromochloromethane	0.017	0.0005	mg/L	0.0200		85.5	70.7-123	27.4	5.16	QR-04
Bromodichloromethane	0.019	0.0005	mg/L	0.0200		96.9	80.3-119	2.75	5.36	
Bromoform	0.024	0.0005	mg/L	0.0200		118	71.1-141	6.14	14.1	
Bromomethane	0.017	0.0005	mg/L	0.0200		83.8	55.1-143	1.13	21.5	
Carbon disulfide	0.037	0.001	mg/L	0.0400		93.5	53.6-147	5.33	20.3	
Carbon tetrachloride	0.019	0.0005	mg/L	0.0200		94.9	79.5-125	6.57	11.4	
Chlorobenzene	0.020	0.0005	mg/L	0.0200		98.0	85.1-115	3.16	5.18	

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 #001A
Project Manager: Kyle Siesser

Reported:
04/11/24 08:19

**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 4040332 - Volatiles (Continued)

LCS Dup (4040332-BSD1) (Continued)

Prepared: 04/03/24 Analyzed: 04/04/24

Chloroethane	0.017	0.0005	mg/L	0.0200		86.1	36.9-159	2.58	24.1	
Chloroform	0.017	0.0005	mg/L	0.0200		86.3	80.9-119	6.39	5.15	QR-04
Chloromethane	0.016	0.0005	mg/L	0.0200		82.1	54.2-142	3.88	27	
cis-1,2-Dichloroethene	0.019	0.0005	mg/L	0.0200		93.9	73.8-128	0.796	5.73	
cis-1,3-Dichloropropene	0.022	0.0005	mg/L	0.0200		112	82.5-122	2.78	6.09	
Dibromochloromethane	0.021	0.0005	mg/L	0.0200		106	83.1-124	7.87	7.24	QR-04
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0481</i>		mg/L	<i>0.0500</i>		<i>96.1</i>	<i>82.4-141</i>			
Dibromomethane	0.018	0.0005	mg/L	0.0200		87.8	77-118	1.19	5.75	
Dichlorodifluoromethane	0.018	0.0005	mg/L	0.0200		90.0	38.7-147	2.14	22.6	
Ethylbenzene	0.020	0.0005	mg/L	0.0200		102	70.2-130	2.27	4.83	
Hexachlorobutadiene	0.023	0.0005	mg/L	0.0200		114	78.9-148	5.52	18.4	
Iodomethane	0.035	0.001	mg/L	0.0400		88.3	63.5-135	1.01	24.3	
Isopropylbenzene	0.021	0.0005	mg/L	0.0200		107	85-124	1.80	6.25	
m+p - Xylene	0.043	0.001	mg/L	0.0400		107	71.9-133	0.697	5.77	
Methyl tert-butyl ether	0.036	0.001	mg/L	0.0400		89.1	57.7-137	2.67	12.8	
Methylene chloride	0.019	0.0005	mg/L	0.0200		94.4	49.3-163	2.97	19.7	
Naphthalene	0.018	0.0005	mg/L	0.0200		87.8	62.1-141	6.28	33.5	
n-Butylbenzene	0.022	0.0005	mg/L	0.0200		111	75.4-132	1.74	10.1	
n-Propylbenzene	0.021	0.0005	mg/L	0.0200		105	79.6-124	0.332	9.09	
o-Xylene	0.021	0.0005	mg/L	0.0200		103	69.4-132	5.70	6.29	
p-Isopropyltoluene	0.021	0.0005	mg/L	0.0200		106	79.8-131	1.46	9.26	
sec-Butylbenzene	0.021	0.0005	mg/L	0.0200		106	77.6-133	1.66	9.85	
Styrene	0.022	0.0005	mg/L	0.0200		108	71.7-128	2.15	7.55	
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		103	78.8-128	2.49	18.6	
Tetrachloroethene	0.019	0.0005	mg/L	0.0200		96.2	74.2-128	1.36	6.38	
Toluene	0.021	0.0005	mg/L	0.0200		105	68.1-127	3.36	5.67	
<i>Surrogate: Toluene-d8</i>	<i>0.0525</i>		mg/L	<i>0.0500</i>		<i>105</i>	<i>87.1-110</i>			
Total Xylenes	0.064	0.001	mg/L	0.0600		106	71.6-132	2.35	5.83	
trans-1,2-Dichloroethene	0.017	0.0005	mg/L	0.0200		87.0	65.2-133	2.89	19.1	
trans-1,3-Dichloropropene	0.022	0.0005	mg/L	0.0200		108	84-123	2.10	6.26	
trans-1,4-Dichloro-2-butene	0.126	0.010	mg/L	0.0400		315	9.3-235	8.88	92.8	BS1
Trichloroethene	0.018	0.0005	mg/L	0.0200		89.6	79.3-114	1.17	4.92	
Trichlorofluoromethane	0.018	0.0005	mg/L	0.0200		89.8	28.6-162	1.44	19.8	
Vinyl acetate	0.020	0.0005	mg/L	0.0200		97.7	50.9-135	3.97	7.84	
Vinyl chloride	0.019	0.0005	mg/L	0.0200		92.9	61.6-133	1.07	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 #001A
Project Manager: Kyle Siesser

Reported:
04/11/24 08:19

Notes and Definitions

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

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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PO Box 1653
Durango CO, 81302

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

Reported:
04/11/24 08:19

Qualifier Summary

<u>LabNumber</u>	<u>Analysis</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>TextBody</u>
4040332-BS1	Volatile 8260	Bromobenzene	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
4040332-BS1	Volatile 8260	trans-1,4-Dichloro-2-butene	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
4040332-BSD1	Volatile 8260	1,1-Dichloroethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4040332-BSD1	Volatile 8260	2-Hexanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
4040332-BSD1	Volatile 8260	4-Methyl-2-pentanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
4040332-BSD1	Volatile 8260	Acrylonitrile	QR-04	The RPD for the BS/BSD was outside of historical limits.
4040332-BSD1	Volatile 8260	Bromobenzene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4040332-BSD1	Volatile 8260	Bromochloromethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4040332-BSD1	Volatile 8260	Chloroform	QR-04	The RPD for the BS/BSD was outside of historical limits.
4040332-BSD1	Volatile 8260	Dibromochloromethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4040332-BSD1	Volatile 8260	trans-1,4-Dichloro-2-butene	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.

Green Analytical Laboratories

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

Veronica Wells, Project Manager

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**75 Suttle Street
Durango, CO 81303
(970) 247-4220**

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Write-OutTM or similar products cannot be used on the Chain of Custody

[illegible]



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2403-226Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo ☐ Third Party ☐ OtherCustody 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: 12.3 °C Correction Factor: 0 °C Final Temp: 12.3 °C

* Temp should be above freezing to 6°C

Date/Initials of person examining contents: CON 3/27Labeled 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:	☒ W ☐ 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: _____



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kyle Siesser
Cottonwood Consulting LLC
PO BOX 1653
Durango, Colorado 81302
Generated 12/19/2024 3:15:53 PM

JOB DESCRIPTION

Sandoval GCA#001A

JOB NUMBER

885-16879-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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

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Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Laboratory Job ID: 885-16879-1

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Definitions/Glossary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Cottonwood Consulting LLC
Project: Sandoval GCA#001A

Job ID: 885-16879-1

Job ID: 885-16879-1Eurofins Albuquerque

Job Narrative
885-16879-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

Receipt

The sample was received on 12/12/2024 6:35 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 14.1°C.

Subcontract Work

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

GC/MS VOA

Method 8260B: The continuing calibration verification (CCV) associated with batch 885-17948 recovered outside acceptance criteria, low biased, for Bromomethane. CCV meets 8260B criteria. Since the associated samples were non-detect for the analyte(s), the data are reported.

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

Eurofins Albuquerque

Client Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

Client Sample ID: SVE

Lab Sample ID: 885-16879-1

Date Collected: 12/11/24 13:10

Matrix: Air

Date Received: 12/12/24 06:35

Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10	ug/L			12/16/24 17:34	1
1,1,1-Trichloroethane	ND		0.10	ug/L			12/16/24 17:34	1
1,1,2,2-Tetrachloroethane	ND		0.20	ug/L			12/16/24 17:34	1
1,1,2-Trichloroethane	ND		0.10	ug/L			12/16/24 17:34	1
1,1-Dichloroethane	ND		0.10	ug/L			12/16/24 17:34	1
1,1-Dichloroethene	ND		0.10	ug/L			12/16/24 17:34	1
1,1-Dichloropropene	ND		0.10	ug/L			12/16/24 17:34	1
1,2,3-Trichlorobenzene	ND		0.10	ug/L			12/16/24 17:34	1
1,2,3-Trichloropropane	ND		0.20	ug/L			12/16/24 17:34	1
1,2,4-Trichlorobenzene	ND		0.10	ug/L			12/16/24 17:34	1
1,2,4-Trimethylbenzene	ND		0.10	ug/L			12/16/24 17:34	1
1,2-Dibromo-3-Chloropropane	ND		0.20	ug/L			12/16/24 17:34	1
1,2-Dibromoethane (EDB)	ND		0.10	ug/L			12/16/24 17:34	1
1,2-Dichlorobenzene	ND		0.10	ug/L			12/16/24 17:34	1
1,2-Dichloroethane (EDC)	ND		0.10	ug/L			12/16/24 17:34	1
1,2-Dichloropropane	ND		0.10	ug/L			12/16/24 17:34	1
1,3,5-Trimethylbenzene	ND		0.10	ug/L			12/16/24 17:34	1
1,3-Dichlorobenzene	ND		0.10	ug/L			12/16/24 17:34	1
1,3-Dichloropropane	ND		0.10	ug/L			12/16/24 17:34	1
1,4-Dichlorobenzene	ND		0.10	ug/L			12/16/24 17:34	1
1-Methylnaphthalene	ND		0.40	ug/L			12/16/24 17:34	1
2,2-Dichloropropane	ND		0.20	ug/L			12/16/24 17:34	1
2-Butanone	ND		1.0	ug/L			12/16/24 17:34	1
2-Chlorotoluene	ND		0.10	ug/L			12/16/24 17:34	1
2-Hexanone	ND		1.0	ug/L			12/16/24 17:34	1
2-Methylnaphthalene	ND		0.40	ug/L			12/16/24 17:34	1
4-Chlorotoluene	ND		0.10	ug/L			12/16/24 17:34	1
4-Isopropyltoluene	ND		0.10	ug/L			12/16/24 17:34	1
4-Methyl-2-pentanone	ND		1.0	ug/L			12/16/24 17:34	1
Acetone	ND		1.0	ug/L			12/16/24 17:34	1
Benzene	ND		0.10	ug/L			12/16/24 17:34	1
Bromobenzene	ND		0.10	ug/L			12/16/24 17:34	1
Bromodichloromethane	ND		0.10	ug/L			12/16/24 17:34	1
Dibromochloromethane	ND		0.10	ug/L			12/16/24 17:34	1
Bromoform	ND		0.10	ug/L			12/16/24 17:34	1
Bromomethane	ND		0.30	ug/L			12/16/24 17:34	1
Carbon disulfide	ND		1.0	ug/L			12/16/24 17:34	1
Carbon tetrachloride	ND		0.10	ug/L			12/16/24 17:34	1
Chlorobenzene	ND		0.10	ug/L			12/16/24 17:34	1
Chloroethane	ND		0.20	ug/L			12/16/24 17:34	1
Chloroform	ND		0.10	ug/L			12/16/24 17:34	1
Chloromethane	ND		0.30	ug/L			12/16/24 17:34	1
cis-1,2-Dichloroethene	ND		0.10	ug/L			12/16/24 17:34	1
cis-1,3-Dichloropropene	ND		0.10	ug/L			12/16/24 17:34	1
Dibromomethane	ND		0.10	ug/L			12/16/24 17:34	1
Dichlorodifluoromethane	ND		0.10	ug/L			12/16/24 17:34	1
Ethylbenzene	ND		0.10	ug/L			12/16/24 17:34	1
Hexachlorobutadiene	ND		0.10	ug/L			12/16/24 17:34	1

Eurofins Albuquerque

Client Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

Client Sample ID: SVE

Lab Sample ID: 885-16879-1

Date Collected: 12/11/24 13:10

Matrix: Air

Date Received: 12/12/24 06:35

Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.10	ug/L			12/16/24 17:34	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10	ug/L			12/16/24 17:34	1
Methylene Chloride	ND		0.30	ug/L			12/16/24 17:34	1
n-Butylbenzene	ND		0.30	ug/L			12/16/24 17:34	1
N-Propylbenzene	ND		0.10	ug/L			12/16/24 17:34	1
Naphthalene	ND		0.20	ug/L			12/16/24 17:34	1
sec-Butylbenzene	ND		0.10	ug/L			12/16/24 17:34	1
Styrene	ND		0.10	ug/L			12/16/24 17:34	1
tert-Butylbenzene	ND		0.10	ug/L			12/16/24 17:34	1
Tetrachloroethene (PCE)	ND		0.10	ug/L			12/16/24 17:34	1
Toluene	ND		0.10	ug/L			12/16/24 17:34	1
trans-1,2-Dichloroethene	ND		0.10	ug/L			12/16/24 17:34	1
trans-1,3-Dichloropropene	ND		0.10	ug/L			12/16/24 17:34	1
Trichloroethene (TCE)	ND		0.10	ug/L			12/16/24 17:34	1
Trichlorofluoromethane	ND		0.10	ug/L			12/16/24 17:34	1
Vinyl chloride	ND		0.10	ug/L			12/16/24 17:34	1
Xylenes, Total	ND		0.15	ug/L			12/16/24 17:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		12/16/24 17:34	1
Toluene-d8 (Surr)	97		70 - 130		12/16/24 17:34	1
4-Bromofluorobenzene (Surr)	95		70 - 130		12/16/24 17:34	1
Dibromofluoromethane (Surr)	99		70 - 130		12/16/24 17:34	1

Eurofins Albuquerque

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-17948/13

Matrix: Air

Analysis Batch: 17948

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10	ug/L			12/16/24 16:21	1
1,1,1-Trichloroethane	ND		0.10	ug/L			12/16/24 16:21	1
1,1,2,2-Tetrachloroethane	ND		0.20	ug/L			12/16/24 16:21	1
1,1,2-Trichloroethane	ND		0.10	ug/L			12/16/24 16:21	1
1,1-Dichloroethane	ND		0.10	ug/L			12/16/24 16:21	1
1,1-Dichloroethene	ND		0.10	ug/L			12/16/24 16:21	1
1,1-Dichloropropene	ND		0.10	ug/L			12/16/24 16:21	1
1,2,3-Trichlorobenzene	ND		0.10	ug/L			12/16/24 16:21	1
1,2,3-Trichloropropane	ND		0.20	ug/L			12/16/24 16:21	1
1,2,4-Trichlorobenzene	ND		0.10	ug/L			12/16/24 16:21	1
1,2,4-Trimethylbenzene	ND		0.10	ug/L			12/16/24 16:21	1
1,2-Dibromo-3-Chloropropane	ND		0.20	ug/L			12/16/24 16:21	1
1,2-Dibromoethane (EDB)	ND		0.10	ug/L			12/16/24 16:21	1
1,2-Dichlorobenzene	ND		0.10	ug/L			12/16/24 16:21	1
1,2-Dichloroethane (EDC)	ND		0.10	ug/L			12/16/24 16:21	1
1,2-Dichloropropane	ND		0.10	ug/L			12/16/24 16:21	1
1,3,5-Trimethylbenzene	ND		0.10	ug/L			12/16/24 16:21	1
1,3-Dichlorobenzene	ND		0.10	ug/L			12/16/24 16:21	1
1,3-Dichloropropane	ND		0.10	ug/L			12/16/24 16:21	1
1,4-Dichlorobenzene	ND		0.10	ug/L			12/16/24 16:21	1
1-Methylnaphthalene	ND		0.40	ug/L			12/16/24 16:21	1
2,2-Dichloropropane	ND		0.20	ug/L			12/16/24 16:21	1
2-Butanone	ND		1.0	ug/L			12/16/24 16:21	1
2-Chlorotoluene	ND		0.10	ug/L			12/16/24 16:21	1
2-Hexanone	ND		1.0	ug/L			12/16/24 16:21	1
2-Methylnaphthalene	ND		0.40	ug/L			12/16/24 16:21	1
4-Chlorotoluene	ND		0.10	ug/L			12/16/24 16:21	1
4-Isopropyltoluene	ND		0.10	ug/L			12/16/24 16:21	1
4-Methyl-2-pentanone	ND		1.0	ug/L			12/16/24 16:21	1
Acetone	ND		1.0	ug/L			12/16/24 16:21	1
Benzene	ND		0.10	ug/L			12/16/24 16:21	1
Bromobenzene	ND		0.10	ug/L			12/16/24 16:21	1
Bromodichloromethane	ND		0.10	ug/L			12/16/24 16:21	1
Dibromochloromethane	ND		0.10	ug/L			12/16/24 16:21	1
Bromoform	ND		0.10	ug/L			12/16/24 16:21	1
Bromomethane	ND		0.30	ug/L			12/16/24 16:21	1
Carbon disulfide	ND		1.0	ug/L			12/16/24 16:21	1
Carbon tetrachloride	ND		0.10	ug/L			12/16/24 16:21	1
Chlorobenzene	ND		0.10	ug/L			12/16/24 16:21	1
Chloroethane	ND		0.20	ug/L			12/16/24 16:21	1
Chloroform	ND		0.10	ug/L			12/16/24 16:21	1
Chloromethane	ND		0.30	ug/L			12/16/24 16:21	1
cis-1,2-Dichloroethene	ND		0.10	ug/L			12/16/24 16:21	1
cis-1,3-Dichloropropene	ND		0.10	ug/L			12/16/24 16:21	1
Dibromomethane	ND		0.10	ug/L			12/16/24 16:21	1
Dichlorodifluoromethane	ND		0.10	ug/L			12/16/24 16:21	1
Ethylbenzene	ND		0.10	ug/L			12/16/24 16:21	1
Hexachlorobutadiene	ND		0.10	ug/L			12/16/24 16:21	1

Eurofins Albuquerque

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-17948/13

Matrix: Air

Analysis Batch: 17948

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.10	ug/L			12/16/24 16:21	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10	ug/L			12/16/24 16:21	1
Methylene Chloride	ND		0.30	ug/L			12/16/24 16:21	1
n-Butylbenzene	ND		0.30	ug/L			12/16/24 16:21	1
N-Propylbenzene	ND		0.10	ug/L			12/16/24 16:21	1
Naphthalene	ND		0.20	ug/L			12/16/24 16:21	1
sec-Butylbenzene	ND		0.10	ug/L			12/16/24 16:21	1
Styrene	ND		0.10	ug/L			12/16/24 16:21	1
tert-Butylbenzene	ND		0.10	ug/L			12/16/24 16:21	1
Tetrachloroethene (PCE)	ND		0.10	ug/L			12/16/24 16:21	1
Toluene	ND		0.10	ug/L			12/16/24 16:21	1
trans-1,2-Dichloroethene	ND		0.10	ug/L			12/16/24 16:21	1
trans-1,3-Dichloropropene	ND		0.10	ug/L			12/16/24 16:21	1
Trichloroethene (TCE)	ND		0.10	ug/L			12/16/24 16:21	1
Trichlorofluoromethane	ND		0.10	ug/L			12/16/24 16:21	1
Vinyl chloride	ND		0.10	ug/L			12/16/24 16:21	1
Xylenes, Total	ND		0.15	ug/L			12/16/24 16:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		12/16/24 16:21	1
Toluene-d8 (Surr)	98		70 - 130		12/16/24 16:21	1
4-Bromofluorobenzene (Surr)	97		70 - 130		12/16/24 16:21	1
Dibromofluoromethane (Surr)	100		70 - 130		12/16/24 16:21	1

Lab Sample ID: LCS 885-17948/12

Matrix: Air

Analysis Batch: 17948

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.1	19.0		ug/L		94	70 - 130
Benzene	20.1	21.1		ug/L		105	70 - 130
Chlorobenzene	20.1	19.7		ug/L		98	70 - 130
Toluene	20.2	19.7		ug/L		98	70 - 130
Trichloroethene (TCE)	20.2	18.5		ug/L		92	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
Toluene-d8 (Surr)	99		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130

Eurofins Albuquerque

QC Association Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

GC/MS VOA

Analysis Batch: 17948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16879-1	SVE	Total/NA	Air	8260B	
MB 885-17948/13	Method Blank	Total/NA	Air	8260B	
LCS 885-17948/12	Lab Control Sample	Total/NA	Air	8260B	

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Lab Chronicle

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

Client Sample ID: SVE
Date Collected: 12/11/24 13:10
Date Received: 12/12/24 06:35

Lab Sample ID: 885-16879-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	17948	CM	EET ALB	12/16/24 17:34

Laboratory References:

= , 1120 South 27th Street, Billings, MT 59101, TEL (406)252-6325

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
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The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Oregon

NELAP

NM100001

02-25-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA#001A

Job ID: 885-16879-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
-----------	---------	-----------------------	-----------------

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Eurofins Albuquerque



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ANALYTICAL SUMMARY REPORT

December 19, 2024

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

Work Order: B24121324 Quote ID: B15626

Project Name: Sandoval GCA #001A 88501577

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 12/17/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24121324-001	SVE (885-16879-1)	12/11/24 13:10	12/17/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond./1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

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

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

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

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



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LABORATORY ANALYTICAL REPORT
Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Sandoval GCA #001A 88501577
Lab ID: B24121324-001
Client Sample ID: SVE (885-16879-1)

Report Date: 12/19/24
Collection Date: 12/11/24 13:10
Date Received: 12/17/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	18.97	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Nitrogen	80.97	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Carbon Dioxide	0.05	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Hexanes plus	0.01	Mol %		0.01		GPA 2261-13	12/18/24 11:23 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-13	12/18/24 11:23 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-13	12/18/24 11:23 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-13	12/18/24 11:23 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-13	12/18/24 11:23 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-13	12/18/24 11:23 / jrj
Hexanes plus	0.004	gpm		0.001		GPA 2261-13	12/18/24 11:23 / jrj
GPM Total	0.004	gpm		0.001		GPA 2261-13	12/18/24 11:23 / jrj
GPM Pentanes plus	0.004	gpm		0.001		GPA 2261-13	12/18/24 11:23 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	ND			1		GPA 2261-13	12/18/24 11:23 / jrj
Net BTU per cu ft @ std cond. (LHV)	ND			1		GPA 2261-13	12/18/24 11:23 / jrj
Pseudo-critical Pressure, psia	538			1		GPA 2261-13	12/18/24 11:23 / jrj
Pseudo-critical Temperature, deg R	237			1		GPA 2261-13	12/18/24 11:23 / jrj
Specific Gravity @ 60/60F	0.994			0.001		D3588-81	12/18/24 11:23 / jrj
Air, %	86.68			0.01		GPA 2261-13	12/18/24 11:23 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-							12/18/24 11:23 / 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)
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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B24121324

Report Date: 12/19/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-13									Batch: R434175	
Lab ID: B24121324-001ADUP	12	Sample Duplicate			Run: GCNGA-B_241218A				12/18/24 12:12	
Oxygen		19.3	Mol %	0.01				1.9	20	
Nitrogen		80.6	Mol %	0.01				0.4	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				0.0	20	
Lab ID: LCS121824									12/18/24 13:50	
	11	Laboratory Control Sample			Run: GCNGA-B_241218A					
Oxygen		0.63	Mol %	0.01	126	70	130			
Nitrogen		6.11	Mol %	0.01	102	70	130			
Carbon Dioxide		0.98	Mol %	0.01	99	70	130			
Methane		74.6	Mol %	0.01	100	70	130			
Ethane		6.01	Mol %	0.01	100	70	130			
Propane		5.03	Mol %	0.01	102	70	130			
Isobutane		1.69	Mol %	0.01	84	70	130			
n-Butane		1.99	Mol %	0.01	99	70	130			
Isopentane		1.12	Mol %	0.01	112	70	130			
n-Pentane		1.00	Mol %	0.01	100	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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Work Order Receipt Checklist

Hall Environmental

B24121324

Login completed by: Danielle N. Harris

Date Received: 12/17/2024

Reviewed by: darcy

Received by: KLP

Reviewed Date: 12/18/2024

Carrier name: FedEx NDA

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:	14.7°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.

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

Contact and Corrective Action Comments:

Custody seal affixed to cooler unsigned and undated. DEC 12/18/24



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Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT  	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY 	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-3976

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)			Sampler: N/A	Lab PM: Cason, Cheyenne	Carrier Tracking No(s): N/A	COC No: 885-3212.1
Client Contact: Shipping/Receiving			Phone: N/A	E-Mail: cheyenne.cason@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.			Accreditations Required (See note): NELAP - Oregon; State - New Mexico			
Address: 1120 South 27th Street,			Job #: 885-16879-1			
City: Billings			Preservation Codes:			
State, Zip: MT, 59101						
Phone: 406-252-6325(Tel)						
Email: N/A						
Project Name: Sandoval GCA#001A						
Site: N/A						
Due Date Requested: 12/19/2024			Total Number of Containers			
TAT Requested (days): N/A						
P.O.#: N/A	Sample Type (C=Comp, G=grab)	Matrix (W=water, B=solid, O=wastewater, BT=Tissue, A=Air)				
WO #: N/A	Sample Time 13:10 Mountain	Preservation Code: G Air				
Project #: 88501577	Sample Date 12/11/24					
SSOW#: N/A						
Special Instructions / Note:						
Analysis Requested						
Perform MS/MSD (Yes or No)						
Field Filtered Sample (Yes or No)						
SUB (Natural Gases O₂, CO₂)						
Other: N/A						
See Attached Instructions						
BQ4121324						
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.						
Possible Hazard Identification						
Unconfirmed						
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months			
Date: Date/Time: Date/Time: Date/Time:			Method of Shipment Received by: Received by: Received by:			
Empty Kit Relinquished by: Relinquished by: Relinquished by: Relinquished by:			Cooler Temperature(s) °C and Other Remarks: Cooler Temperature(s) °C and Other Remarks:			
Custody Seals Intact: A Yes A No			Custody Seal No.: ELI			

Ver: 10/10/2024

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

ICOC No:
885-3212

Containers

<u>Count</u>	<u>Container Type</u>	<u>Preservative</u>
1	Tedlar Bag 1L	None

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (Natural Gases O2, CO2)	Fixed Gases - Natural Gases O2, CO2

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

Chain-of-Custody Record

Cha -of-Custody Record	Turn-Around Time: _____
Client: Cottonwood Consulting LLC	☒ Standard ☐ Rush
	Project Name: Sandoval GCA #001A
Mailing Address: PO Box 1653	Project #: _____
Phone #: 970-764-7356	Project Manager: Kyle Siesser
Email or Fax#: ksiesser@cottonwoodconsulting.com	Sampler: Kelsey O'Brien
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)	On Ice: ☐ Yes ☒ No
Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other _____	# of Coolers: 1
☐ EDD (Type) _____	409

[illegible]

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

Login Sample Receipt Checklist

Client: Cottonwood Consulting LLC

Job Number: 885-16879-1

Login Number: 16879

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

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



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kyle Siesser
Cottonwood Consulting LLC
PO BOX 1653
Durango, Colorado 81302
Generated 4/12/2024 8:28:22 AM

JOB DESCRIPTION

Sandoval GCA #001A

JOB NUMBER

885-1960-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
4/12/2024 8:28:22 AM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Laboratory Job ID: 885-1960-1

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Definitions/Glossary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Cottonwood Consulting LLC
Project: Sandoval GCA #001A

Job ID: 885-1960-1

Job ID: 885-1960-1Eurofins Albuquerque

Job Narrative
885-1960-1

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

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

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

Receipt

The sample was received on 3/28/2024 7:08 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 21.1°C.

Subcontract Work

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

GC/MS VOA

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

Eurofins Albuquerque

Client Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

Client Sample ID: SVE

Lab Sample ID: 885-1960-1

Date Collected: 03/27/24 12:30

Matrix: Air

Date Received: 03/28/24 07:08

Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10	ug/L			04/05/24 15:44	1
1,1,1-Trichloroethane	ND		0.10	ug/L			04/05/24 15:44	1
1,1,2,2-Tetrachloroethane	ND		0.20	ug/L			04/05/24 15:44	1
1,1,2-Trichloroethane	ND		0.10	ug/L			04/05/24 15:44	1
1,1-Dichloroethane	ND		0.10	ug/L			04/05/24 15:44	1
1,1-Dichloroethene	ND		0.10	ug/L			04/05/24 15:44	1
1,1-Dichloropropene	ND		0.10	ug/L			04/05/24 15:44	1
1,2,3-Trichlorobenzene	ND		0.10	ug/L			04/05/24 15:44	1
1,2,3-Trichloropropane	ND		0.20	ug/L			04/05/24 15:44	1
1,2,4-Trichlorobenzene	ND		0.10	ug/L			04/05/24 15:44	1
1,2,4-Trimethylbenzene	ND		0.10	ug/L			04/05/24 15:44	1
1,2-Dibromo-3-Chloropropane	ND		0.20	ug/L			04/05/24 15:44	1
1,2-Dibromoethane (EDB)	ND		0.10	ug/L			04/05/24 15:44	1
1,2-Dichlorobenzene	ND		0.10	ug/L			04/05/24 15:44	1
1,2-Dichloroethane (EDC)	ND		0.10	ug/L			04/05/24 15:44	1
1,2-Dichloropropane	ND		0.10	ug/L			04/05/24 15:44	1
1,3,5-Trimethylbenzene	ND		0.10	ug/L			04/05/24 15:44	1
1,3-Dichlorobenzene	ND		0.10	ug/L			04/05/24 15:44	1
1,3-Dichloropropane	ND		0.10	ug/L			04/05/24 15:44	1
1,4-Dichlorobenzene	ND		0.10	ug/L			04/05/24 15:44	1
1-Methylnaphthalene	ND		0.40	ug/L			04/05/24 15:44	1
2,2-Dichloropropane	ND		0.20	ug/L			04/05/24 15:44	1
2-Butanone	ND		1.0	ug/L			04/05/24 15:44	1
2-Chlorotoluene	ND		0.10	ug/L			04/05/24 15:44	1
2-Hexanone	ND		1.0	ug/L			04/05/24 15:44	1
2-Methylnaphthalene	ND		0.40	ug/L			04/05/24 15:44	1
4-Chlorotoluene	ND		0.10	ug/L			04/05/24 15:44	1
4-Isopropyltoluene	ND		0.10	ug/L			04/05/24 15:44	1
4-Methyl-2-pentanone	ND		1.0	ug/L			04/05/24 15:44	1
Acetone	ND		1.0	ug/L			04/05/24 15:44	1
Benzene	ND		0.10	ug/L			04/05/24 15:44	1
Bromobenzene	ND		0.10	ug/L			04/05/24 15:44	1
Bromodichloromethane	ND		0.10	ug/L			04/05/24 15:44	1
Dibromochloromethane	ND		0.10	ug/L			04/05/24 15:44	1
Bromoform	ND		0.10	ug/L			04/05/24 15:44	1
Bromomethane	ND		0.30	ug/L			04/05/24 15:44	1
Carbon disulfide	ND		1.0	ug/L			04/05/24 15:44	1
Carbon tetrachloride	ND		0.10	ug/L			04/05/24 15:44	1
Chlorobenzene	ND		0.10	ug/L			04/05/24 15:44	1
Chloroethane	ND		0.20	ug/L			04/05/24 15:44	1
Chloroform	ND		0.10	ug/L			04/05/24 15:44	1
Chloromethane	ND		0.30	ug/L			04/05/24 15:44	1
cis-1,2-Dichloroethene	ND		0.10	ug/L			04/05/24 15:44	1
cis-1,3-Dichloropropene	ND		0.10	ug/L			04/05/24 15:44	1
Dibromomethane	ND		0.10	ug/L			04/05/24 15:44	1
Dichlorodifluoromethane	ND		0.10	ug/L			04/05/24 15:44	1
Ethylbenzene	ND		0.10	ug/L			04/05/24 15:44	1
Hexachlorobutadiene	ND		0.10	ug/L			04/05/24 15:44	1

Eurofins Albuquerque

Client Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

Client Sample ID: SVE
Date Collected: 03/27/24 12:30
Date Received: 03/28/24 07:08
Sample Container: Tedlar Bag 1L

Lab Sample ID: 885-1960-1
Matrix: Air

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Isopropylbenzene	ND		0.10	ug/L			04/05/24 15:44	1	
Methyl-tert-butyl Ether (MTBE)	ND		0.10	ug/L			04/05/24 15:44	1	
Methylene Chloride	ND		0.30	ug/L			04/05/24 15:44	1	
n-Butylbenzene	ND		0.30	ug/L			04/05/24 15:44	1	
N-Propylbenzene	ND		0.10	ug/L			04/05/24 15:44	1	
Naphthalene	ND		0.20	ug/L			04/05/24 15:44	1	
sec-Butylbenzene	ND		0.10	ug/L			04/05/24 15:44	1	
Styrene	ND		0.10	ug/L			04/05/24 15:44	1	
tert-Butylbenzene	ND		0.10	ug/L			04/05/24 15:44	1	
Tetrachloroethene (PCE)	ND		0.10	ug/L			04/05/24 15:44	1	
Toluene	ND		0.10	ug/L			04/05/24 15:44	1	
trans-1,2-Dichloroethene	ND		0.10	ug/L			04/05/24 15:44	1	
trans-1,3-Dichloropropene	ND		0.10	ug/L			04/05/24 15:44	1	
Trichloroethene (TCE)	ND		0.10	ug/L			04/05/24 15:44	1	
Trichlorofluoromethane	ND		0.10	ug/L			04/05/24 15:44	1	
Vinyl chloride	ND		0.10	ug/L			04/05/24 15:44	1	
Xylenes, Total	ND		0.15	ug/L			04/05/24 15:44	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				04/05/24 15:44	1	
Toluene-d8 (Surr)	97		70 - 130				04/05/24 15:44	1	
4-Bromofluorobenzene (Surr)	101		70 - 130				04/05/24 15:44	1	
Dibromofluoromethane (Surr)	103		70 - 130				04/05/24 15:44	1	

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-2920/3

Matrix: Air

Analysis Batch: 2920

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10	ug/L			04/05/24 14:07	1
1,1,1-Trichloroethane	ND		0.10	ug/L			04/05/24 14:07	1
1,1,2,2-Tetrachloroethane	ND		0.20	ug/L			04/05/24 14:07	1
1,1,2-Trichloroethane	ND		0.10	ug/L			04/05/24 14:07	1
1,1-Dichloroethane	ND		0.10	ug/L			04/05/24 14:07	1
1,1-Dichloroethene	ND		0.10	ug/L			04/05/24 14:07	1
1,1-Dichloropropene	ND		0.10	ug/L			04/05/24 14:07	1
1,2,3-Trichlorobenzene	ND		0.10	ug/L			04/05/24 14:07	1
1,2,3-Trichloropropane	ND		0.20	ug/L			04/05/24 14:07	1
1,2,4-Trichlorobenzene	ND		0.10	ug/L			04/05/24 14:07	1
1,2,4-Trimethylbenzene	ND		0.10	ug/L			04/05/24 14:07	1
1,2-Dibromo-3-Chloropropane	ND		0.20	ug/L			04/05/24 14:07	1
1,2-Dibromoethane (EDB)	ND		0.10	ug/L			04/05/24 14:07	1
1,2-Dichlorobenzene	ND		0.10	ug/L			04/05/24 14:07	1
1,2-Dichloroethane (EDC)	ND		0.10	ug/L			04/05/24 14:07	1
1,2-Dichloropropane	ND		0.10	ug/L			04/05/24 14:07	1
1,3,5-Trimethylbenzene	ND		0.10	ug/L			04/05/24 14:07	1
1,3-Dichlorobenzene	ND		0.10	ug/L			04/05/24 14:07	1
1,3-Dichloropropane	ND		0.10	ug/L			04/05/24 14:07	1
1,4-Dichlorobenzene	ND		0.10	ug/L			04/05/24 14:07	1
1-Methylnaphthalene	ND		0.40	ug/L			04/05/24 14:07	1
2,2-Dichloropropane	ND		0.20	ug/L			04/05/24 14:07	1
2-Butanone	ND		1.0	ug/L			04/05/24 14:07	1
2-Chlorotoluene	ND		0.10	ug/L			04/05/24 14:07	1
2-Hexanone	ND		1.0	ug/L			04/05/24 14:07	1
2-Methylnaphthalene	ND		0.40	ug/L			04/05/24 14:07	1
4-Chlorotoluene	ND		0.10	ug/L			04/05/24 14:07	1
4-Isopropyltoluene	ND		0.10	ug/L			04/05/24 14:07	1
4-Methyl-2-pentanone	ND		1.0	ug/L			04/05/24 14:07	1
Acetone	ND		1.0	ug/L			04/05/24 14:07	1
Benzene	ND		0.10	ug/L			04/05/24 14:07	1
Bromobenzene	ND		0.10	ug/L			04/05/24 14:07	1
Bromodichloromethane	ND		0.10	ug/L			04/05/24 14:07	1
Dibromochloromethane	ND		0.10	ug/L			04/05/24 14:07	1
Bromoform	ND		0.10	ug/L			04/05/24 14:07	1
Bromomethane	ND		0.30	ug/L			04/05/24 14:07	1
Carbon disulfide	ND		1.0	ug/L			04/05/24 14:07	1
Carbon tetrachloride	ND		0.10	ug/L			04/05/24 14:07	1
Chlorobenzene	ND		0.10	ug/L			04/05/24 14:07	1
Chloroethane	ND		0.20	ug/L			04/05/24 14:07	1
Chloroform	ND		0.10	ug/L			04/05/24 14:07	1
Chloromethane	ND		0.30	ug/L			04/05/24 14:07	1
cis-1,2-Dichloroethene	ND		0.10	ug/L			04/05/24 14:07	1
cis-1,3-Dichloropropene	ND		0.10	ug/L			04/05/24 14:07	1
Dibromomethane	ND		0.10	ug/L			04/05/24 14:07	1
Dichlorodifluoromethane	ND		0.10	ug/L			04/05/24 14:07	1
Ethylbenzene	ND		0.10	ug/L			04/05/24 14:07	1
Hexachlorobutadiene	ND		0.10	ug/L			04/05/24 14:07	1

Eurofins Albuquerque

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-2920/3
Matrix: Air
Analysis Batch: 2920

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Isopropylbenzene	ND		0.10	ug/L			04/05/24 14:07	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10	ug/L			04/05/24 14:07	1
Methylene Chloride	ND		0.30	ug/L			04/05/24 14:07	1
n-Butylbenzene	ND		0.30	ug/L			04/05/24 14:07	1
N-Propylbenzene	ND		0.10	ug/L			04/05/24 14:07	1
Naphthalene	ND		0.20	ug/L			04/05/24 14:07	1
sec-Butylbenzene	ND		0.10	ug/L			04/05/24 14:07	1
Styrene	ND		0.10	ug/L			04/05/24 14:07	1
tert-Butylbenzene	ND		0.10	ug/L			04/05/24 14:07	1
Tetrachloroethene (PCE)	ND		0.10	ug/L			04/05/24 14:07	1
Toluene	ND		0.10	ug/L			04/05/24 14:07	1
trans-1,2-Dichloroethene	ND		0.10	ug/L			04/05/24 14:07	1
trans-1,3-Dichloropropene	ND		0.10	ug/L			04/05/24 14:07	1
Trichloroethene (TCE)	ND		0.10	ug/L			04/05/24 14:07	1
Trichlorofluoromethane	ND		0.10	ug/L			04/05/24 14:07	1
Vinyl chloride	ND		0.10	ug/L			04/05/24 14:07	1
Xylenes, Total	ND		0.15	ug/L			04/05/24 14:07	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		04/05/24 14:07	1
Toluene-d8 (Surr)	98		70 - 130		04/05/24 14:07	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/05/24 14:07	1
Dibromofluoromethane (Surr)	102		70 - 130		04/05/24 14:07	1

Lab Sample ID: LCS 885-2920/2
Matrix: Air
Analysis Batch: 2920

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.1	19.1		ug/L		95	
Benzene	20.1	20.5		ug/L		102	
Chlorobenzene	20.1	21.0		ug/L		105	
Toluene	20.2	20.7		ug/L		102	
Trichloroethene (TCE)	20.2	19.4		ug/L		96	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130

QC Association Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

GC/MS VOA

Analysis Batch: 2920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1960-1	SVE	Total/NA	Air	8260B	
MB 885-2920/3	Method Blank	Total/NA	Air	8260B	
LCS 885-2920/2	Lab Control Sample	Total/NA	Air	8260B	

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Lab Chronicle

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

Client Sample ID: SVE

Date Collected: 03/27/24 12:30

Date Received: 03/28/24 07:08

Lab Sample ID: 885-1960-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2920	CM	EET ALB	04/05/24 15:44

Laboratory References:
= , 1120 South 27th Street, Billings, MT 59107
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-1960-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Eurofins Albuquerque



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ANALYTICAL SUMMARY REPORT

April 10, 2024

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

Work Order: B24031829 Quote ID: B15626

Project Name: Sandoval GCA #001A, 88501577

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 3/29/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24031829-001	SVE (885-1960-1)	03/27/24 12:30	03/29/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond./1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 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:



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LABORATORY ANALYTICAL REPORT
Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Sandoval GCA #001A, 88501577
Lab ID: B24031829-001
Client Sample ID: SVE (885-1960-1)

Report Date: 04/10/24
Collection Date: 03/27/24 12:30
Date Received: 03/29/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.96	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Nitrogen	77.99	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Carbon Dioxide	0.04	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Hexanes plus	0.01	Mol %		0.01		GPA 2261-95	04/01/24 11:25 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	04/01/24 11:25 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	04/01/24 11:25 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	04/01/24 11:25 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	04/01/24 11:25 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	04/01/24 11:25 / jrj
Hexanes plus	0.004	gpm		0.001		GPA 2261-95	04/01/24 11:25 / jrj
GPM Total	0.004	gpm		0.001		GPA 2261-95	04/01/24 11:25 / jrj
GPM Pentanes plus	0.004	gpm		0.001		GPA 2261-95	04/01/24 11:25 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	ND			1		GPA 2261-95	04/01/24 11:25 / jrj
Net BTU per cu ft @ std cond. (LHV)	ND			1		GPA 2261-95	04/01/24 11:25 / jrj
Pseudo-critical Pressure, psia	545			1		GPA 2261-95	04/01/24 11:25 / jrj
Pseudo-critical Temperature, deg R	239			1		GPA 2261-95	04/01/24 11:25 / jrj
Specific Gravity @ 60/60F	0.998			0.001		D3588-81	04/01/24 11:25 / jrj
Air, %	100.34			0.01		GPA 2261-95	04/01/24 11:25 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-							04/01/24 11:25 / 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 MCL - Maximum Contaminant Level
QCL - Quality Control Limit ND - Not detected at the Reporting Limit (RL)



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 Gillette, WY **307.686.7175** • Helena, MT **406.442.0711**

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B24031829

Report Date: 04/10/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-95									Batch: R419039	
Lab ID:	B24031829-001ADUP	12 Sample Duplicate			Run: GCNGA-B_240401A				04/01/24 12:31	
Oxygen		21.6	Mol %	0.01				1.7	20	
Nitrogen		78.4	Mol %	0.01				0.5	20	
Carbon Dioxide		0.04	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				0.0	20	
Lab ID:	LCS040124	11 Laboratory Control Sample			Run: GCNGA-B_240401A				04/01/24 02:37	
Oxygen		0.65	Mol %	0.01	130	70	130			
Nitrogen		6.34	Mol %	0.01	106	70	130			
Carbon Dioxide		0.98	Mol %	0.01	99	70	130			
Methane		74.5	Mol %	0.01	100	70	130			
Ethane		6.02	Mol %	0.01	100	70	130			
Propane		5.00	Mol %	0.01	101	70	130			
Isobutane		1.74	Mol %	0.01	87	70	130			
n-Butane		2.00	Mol %	0.01	100	70	130			
Isopentane		1.00	Mol %	0.01	100	70	130			
n-Pentane		1.00	Mol %	0.01	100	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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Work Order Receipt Checklist

Hall Environmental

B24031829

Login completed by: Crystal M. Jones

Date Received: 3/29/2024

Reviewed by: dharris

Received by: CMJ

Reviewed Date: 4/1/2024

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:	15.6°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

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

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler: Caldwell, John		Carrier Tracking No(s): 885-257.1		COC No: 885-257.1	
Client Contact:		Phone: john.caldwell@eurofins.com		State of Origin: New Mexico		Page: Page 1 of 1	
Shipping/Receiving		E-Mail: john.caldwell@eurofins.com		Job #:		Job #:	
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Preservation Codes:		Preservation Codes:	
Address: 1120 South 27th Street,		Due Date Requested: 4/9/2024		Analysis Requested		Analysis Requested	
City: Billings		TAT Requested (days):		Total Number of containers		Total Number of containers	
State: MT, 59107		PO #:		SUB (Natural Gases O2, CO2)		SUB (Natural Gases O2, CO2)	
Phone: 59107		WO #:		Perform MS/MSD (Yes or No)		Perform MS/MSD (Yes or No)	
Email: 88501577		Project #:		Field Filtered Sample (Yes or No)		Field Filtered Sample (Yes or No)	
Project Name: Sandoval GCA #001A		SSOW#:		Matrix (W=water, B=soil, O=oil, L=leachate, A=air)		Matrix (W=water, B=soil, O=oil, L=leachate, A=air)	
Site:		Sample Date: 3/27/24		Sample Type (C=Comp, G=grab)		Sample Type (C=Comp, G=grab)	
Sample Identification - Client ID (Lab ID)		Sample Time: 12:30 Mountain		Preservation Code:		Preservation Code:	
SVE (885-1960-1)		3/27/24		Air		Air	
Special Instructions/Note:		See Attached Instructions		Special Instructions/Note:		Special Instructions/Note:	
1		1		1		1	
B24031829		B24031829		B24031829		B24031829	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		Return To Client		Disposal By Lab		Archive For	
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date:		Method of Shipment:		Method of Shipment:	
Relinquished by:		Date/Time: 3/28/24 15:15		Received by:		Received by:	
Relinquished by:		Date/Time:		Received by:		Received by:	
Relinquished by:		Date/Time:		Received by:		Received by:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Company: Energy Laboratories, Inc.		Company: Energy Laboratories, Inc.	
Ver: 06/08/2021		Ver: 06/08/2021		Ver: 06/08/2021		Ver: 06/08/2021	

ICOC No:
885-257

Containers

<u>Count</u>	<u>Container Type</u>	<u>Preservative</u>
1	Tedlar Bag 1L	None

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (Natural Gases O2, CO2)	Fixed Gases - Natural Gases O2, CO2

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

Login Sample Receipt Checklist

Client: Cottonwood Consulting LLC

Job Number: 885-1960-1

Login Number: 1960

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	



Environment Testing

1

2

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12

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kyle Siesser
Cottonwood Consulting LLC
PO BOX 1653
Durango, Colorado 81302
Generated 10/3/2024 12:30:41 PM

JOB DESCRIPTION

Sandoval GCA #001A

JOB NUMBER

885-12107-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.
Released to Imaging: 12/30/2024 11:27:32 AM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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

Generated
10/3/2024 12:30:41 PM

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Laboratory Job ID: 885-12107-1

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Definitions/Glossary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Cottonwood Consulting LLC
Project: Sandoval GCA #001A

Job ID: 885-12107-1

Job ID: 885-12107-1

Eurofins Albuquerque

Job Narrative 885-12107-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

Receipt

The sample was received on 9/19/2024 7:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 15.0°C.

Subcontract Work

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

GC/MS VOA

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

Eurofins Albuquerque

Client Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Client Sample ID: SVE

Lab Sample ID: 885-12107-1

Date Collected: 09/18/24 11:35

Matrix: Air

Date Received: 09/19/24 07:00

Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			09/26/24 17:26	1
1,1,1-Trichloroethane	ND		1.0	ug/L			09/26/24 17:26	1
1,1,2,2-Tetrachloroethane	ND		2.0	ug/L			09/26/24 17:26	1
1,1,2-Trichloroethane	ND		1.0	ug/L			09/26/24 17:26	1
1,1-Dichloroethane	ND		1.0	ug/L			09/26/24 17:26	1
1,1-Dichloroethene	ND		1.0	ug/L			09/26/24 17:26	1
1,1-Dichloropropene	ND		1.0	ug/L			09/26/24 17:26	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			09/26/24 17:26	1
1,2,3-Trichloropropane	ND		2.0	ug/L			09/26/24 17:26	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			09/26/24 17:26	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			09/26/24 17:26	1
1,2-Dibromo-3-Chloropropane	ND		2.0	ug/L			09/26/24 17:26	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			09/26/24 17:26	1
1,2-Dichlorobenzene	ND		1.0	ug/L			09/26/24 17:26	1
1,2-Dichloroethane (EDC)	ND		1.0	ug/L			09/26/24 17:26	1
1,2-Dichloropropane	ND		1.0	ug/L			09/26/24 17:26	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			09/26/24 17:26	1
1,3-Dichlorobenzene	ND		1.0	ug/L			09/26/24 17:26	1
1,3-Dichloropropane	ND		1.0	ug/L			09/26/24 17:26	1
1,4-Dichlorobenzene	ND		1.0	ug/L			09/26/24 17:26	1
1-Methylnaphthalene	ND		4.0	ug/L			09/26/24 17:26	1
2,2-Dichloropropane	ND		2.0	ug/L			09/26/24 17:26	1
2-Butanone	ND		10	ug/L			09/26/24 17:26	1
2-Chlorotoluene	ND		1.0	ug/L			09/26/24 17:26	1
2-Hexanone	ND		10	ug/L			09/26/24 17:26	1
2-Methylnaphthalene	ND		4.0	ug/L			09/26/24 17:26	1
4-Chlorotoluene	ND		1.0	ug/L			09/26/24 17:26	1
4-Isopropyltoluene	ND		1.0	ug/L			09/26/24 17:26	1
4-Methyl-2-pentanone	ND		10	ug/L			09/26/24 17:26	1
Acetone	ND		10	ug/L			09/26/24 17:26	1
Benzene	ND		1.0	ug/L			09/26/24 17:26	1
Bromobenzene	ND		1.0	ug/L			09/26/24 17:26	1
Bromodichloromethane	ND		1.0	ug/L			09/26/24 17:26	1
Dibromochloromethane	ND		1.0	ug/L			09/26/24 17:26	1
Bromoform	ND		1.0	ug/L			09/26/24 17:26	1
Bromomethane	ND		3.0	ug/L			09/26/24 17:26	1
Carbon disulfide	ND		10	ug/L			09/26/24 17:26	1
Carbon tetrachloride	ND		1.0	ug/L			09/26/24 17:26	1
Chlorobenzene	ND		1.0	ug/L			09/26/24 17:26	1
Chloroethane	ND		2.0	ug/L			09/26/24 17:26	1
Chloroform	ND		1.0	ug/L			09/26/24 17:26	1
Chloromethane	ND		3.0	ug/L			09/26/24 17:26	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			09/26/24 17:26	1
cis-1,3-Dichloropropene	ND		1.0	ug/L			09/26/24 17:26	1
Dibromomethane	ND		1.0	ug/L			09/26/24 17:26	1
Dichlorodifluoromethane	ND		1.0	ug/L			09/26/24 17:26	1
Ethylbenzene	ND		1.0	ug/L			09/26/24 17:26	1
Hexachlorobutadiene	ND		1.0	ug/L			09/26/24 17:26	1

Eurofins Albuquerque

Client Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Client Sample ID: SVE

Lab Sample ID: 885-12107-1

Date Collected: 09/18/24 11:35

Matrix: Air

Date Received: 09/19/24 07:00

Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Isopropylbenzene	ND		1.0	ug/L			09/26/24 17:26	1	
Methyl-tert-butyl Ether (MTBE)	ND		1.0	ug/L			09/26/24 17:26	1	
Methylene Chloride	ND		3.0	ug/L			09/26/24 17:26	1	
n-Butylbenzene	ND		3.0	ug/L			09/26/24 17:26	1	
N-Propylbenzene	ND		1.0	ug/L			09/26/24 17:26	1	
Naphthalene	ND		2.0	ug/L			09/26/24 17:26	1	
sec-Butylbenzene	ND		1.0	ug/L			09/26/24 17:26	1	
Styrene	ND		1.0	ug/L			09/26/24 17:26	1	
tert-Butylbenzene	ND		1.0	ug/L			09/26/24 17:26	1	
Tetrachloroethene (PCE)	ND		1.0	ug/L			09/26/24 17:26	1	
Toluene	ND		1.0	ug/L			09/26/24 17:26	1	
trans-1,2-Dichloroethene	ND		1.0	ug/L			09/26/24 17:26	1	
trans-1,3-Dichloropropene	ND		1.0	ug/L			09/26/24 17:26	1	
Trichloroethene (TCE)	ND		1.0	ug/L			09/26/24 17:26	1	
Trichlorofluoromethane	ND		1.0	ug/L			09/26/24 17:26	1	
Vinyl chloride	ND		1.0	ug/L			09/26/24 17:26	1	
Xylenes, Total	ND		1.5	ug/L			09/26/24 17:26	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				09/26/24 17:26	1	
Toluene-d8 (Surr)	98		70 - 130				09/26/24 17:26	1	
4-Bromofluorobenzene (Surr)	91		70 - 130				09/26/24 17:26	1	
Dibromofluoromethane (Surr)	106		70 - 130				09/26/24 17:26	1	

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-13097/1006

Matrix: Air

Analysis Batch: 13097

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10	ug/L			09/26/24 16:12	10
1,1,1-Trichloroethane	ND		10	ug/L			09/26/24 16:12	10
1,1,2,2-Tetrachloroethane	ND		20	ug/L			09/26/24 16:12	10
1,1,2-Trichloroethane	ND		10	ug/L			09/26/24 16:12	10
1,1-Dichloroethane	ND		10	ug/L			09/26/24 16:12	10
1,1-Dichloroethene	ND		10	ug/L			09/26/24 16:12	10
1,1-Dichloropropene	ND		10	ug/L			09/26/24 16:12	10
1,2,3-Trichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1,2,3-Trichloropropane	ND		20	ug/L			09/26/24 16:12	10
1,2,4-Trichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1,2,4-Trimethylbenzene	ND		10	ug/L			09/26/24 16:12	10
1,2-Dibromo-3-Chloropropane	ND		20	ug/L			09/26/24 16:12	10
1,2-Dibromoethane (EDB)	ND		10	ug/L			09/26/24 16:12	10
1,2-Dichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1,2-Dichloroethane (EDC)	ND		10	ug/L			09/26/24 16:12	10
1,2-Dichloropropane	ND		10	ug/L			09/26/24 16:12	10
1,3,5-Trimethylbenzene	ND		10	ug/L			09/26/24 16:12	10
1,3-Dichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1,3-Dichloropropane	ND		10	ug/L			09/26/24 16:12	10
1,4-Dichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1-Methylnaphthalene	ND		40	ug/L			09/26/24 16:12	10
2,2-Dichloropropane	ND		20	ug/L			09/26/24 16:12	10
2-Butanone	ND		100	ug/L			09/26/24 16:12	10
2-Chlorotoluene	ND		10	ug/L			09/26/24 16:12	10
2-Hexanone	ND		100	ug/L			09/26/24 16:12	10
2-Methylnaphthalene	ND		40	ug/L			09/26/24 16:12	10
4-Chlorotoluene	ND		10	ug/L			09/26/24 16:12	10
4-Isopropyltoluene	ND		10	ug/L			09/26/24 16:12	10
4-Methyl-2-pentanone	ND		100	ug/L			09/26/24 16:12	10
Acetone	ND		100	ug/L			09/26/24 16:12	10
Benzene	ND		10	ug/L			09/26/24 16:12	10
Bromobenzene	ND		10	ug/L			09/26/24 16:12	10
Bromodichloromethane	ND		10	ug/L			09/26/24 16:12	10
Dibromochloromethane	ND		10	ug/L			09/26/24 16:12	10
Bromoform	ND		10	ug/L			09/26/24 16:12	10
Bromomethane	ND		30	ug/L			09/26/24 16:12	10
Carbon disulfide	ND		100	ug/L			09/26/24 16:12	10
Carbon tetrachloride	ND		10	ug/L			09/26/24 16:12	10
Chlorobenzene	ND		10	ug/L			09/26/24 16:12	10
Chloroethane	ND		20	ug/L			09/26/24 16:12	10
Chloroform	ND		10	ug/L			09/26/24 16:12	10
Chloromethane	ND		30	ug/L			09/26/24 16:12	10
cis-1,2-Dichloroethene	ND		10	ug/L			09/26/24 16:12	10
cis-1,3-Dichloropropene	ND		10	ug/L			09/26/24 16:12	10
Dibromomethane	ND		10	ug/L			09/26/24 16:12	10
Dichlorodifluoromethane	ND		10	ug/L			09/26/24 16:12	10
Ethylbenzene	ND		10	ug/L			09/26/24 16:12	10
Hexachlorobutadiene	ND		10	ug/L			09/26/24 16:12	10

Eurofins Albuquerque

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-13097/1006

Matrix: Air

Analysis Batch: 13097

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		10	ug/L			09/26/24 16:12	10
Methyl-tert-butyl Ether (MTBE)	ND		10	ug/L			09/26/24 16:12	10
Methylene Chloride	ND		30	ug/L			09/26/24 16:12	10
n-Butylbenzene	ND		30	ug/L			09/26/24 16:12	10
N-Propylbenzene	ND		10	ug/L			09/26/24 16:12	10
Naphthalene	ND		20	ug/L			09/26/24 16:12	10
sec-Butylbenzene	ND		10	ug/L			09/26/24 16:12	10
Styrene	ND		10	ug/L			09/26/24 16:12	10
tert-Butylbenzene	ND		10	ug/L			09/26/24 16:12	10
Tetrachloroethene (PCE)	ND		10	ug/L			09/26/24 16:12	10
Toluene	ND		10	ug/L			09/26/24 16:12	10
trans-1,2-Dichloroethene	ND		10	ug/L			09/26/24 16:12	10
trans-1,3-Dichloropropene	ND		10	ug/L			09/26/24 16:12	10
Trichloroethene (TCE)	ND		10	ug/L			09/26/24 16:12	10
Trichlorofluoromethane	ND		10	ug/L			09/26/24 16:12	10
Vinyl chloride	ND		10	ug/L			09/26/24 16:12	10
Xylenes, Total	ND		15	ug/L			09/26/24 16:12	10

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		09/26/24 16:12	10
Toluene-d8 (Surr)	98		70 - 130		09/26/24 16:12	10
4-Bromofluorobenzene (Surr)	90		70 - 130		09/26/24 16:12	10
Dibromofluoromethane (Surr)	103		70 - 130		09/26/24 16:12	10

Lab Sample ID: MB 885-13097/6

Matrix: Air

Analysis Batch: 13097

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10	ug/L			09/26/24 16:12	10
1,1,1-Trichloroethane	ND		10	ug/L			09/26/24 16:12	10
1,1,2,2-Tetrachloroethane	ND		20	ug/L			09/26/24 16:12	10
1,1,2-Trichloroethane	ND		10	ug/L			09/26/24 16:12	10
1,1-Dichloroethane	ND		10	ug/L			09/26/24 16:12	10
1,1-Dichloroethene	ND		10	ug/L			09/26/24 16:12	10
1,1-Dichloropropene	ND		10	ug/L			09/26/24 16:12	10
1,2,3-Trichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1,2,3-Trichloropropane	ND		20	ug/L			09/26/24 16:12	10
1,2,4-Trichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1,2,4-Trimethylbenzene	ND		10	ug/L			09/26/24 16:12	10
1,2-Dibromo-3-Chloropropane	ND		20	ug/L			09/26/24 16:12	10
1,2-Dibromoethane (EDB)	ND		10	ug/L			09/26/24 16:12	10
1,2-Dichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1,2-Dichloroethane (EDC)	ND		10	ug/L			09/26/24 16:12	10
1,2-Dichloropropane	ND		10	ug/L			09/26/24 16:12	10
1,3,5-Trimethylbenzene	ND		10	ug/L			09/26/24 16:12	10
1,3-Dichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1,3-Dichloropropane	ND		10	ug/L			09/26/24 16:12	10

Eurofins Albuquerque

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-13097/6

Matrix: Air

Analysis Batch: 13097

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,4-Dichlorobenzene	ND		10	ug/L			09/26/24 16:12	10
1-Methylnaphthalene	ND		40	ug/L			09/26/24 16:12	10
2,2-Dichloropropane	ND		20	ug/L			09/26/24 16:12	10
2-Butanone	ND		100	ug/L			09/26/24 16:12	10
2-Chlorotoluene	ND		10	ug/L			09/26/24 16:12	10
2-Hexanone	ND		100	ug/L			09/26/24 16:12	10
2-Methylnaphthalene	ND		40	ug/L			09/26/24 16:12	10
4-Chlorotoluene	ND		10	ug/L			09/26/24 16:12	10
4-Isopropyltoluene	ND		10	ug/L			09/26/24 16:12	10
4-Methyl-2-pentanone	ND		100	ug/L			09/26/24 16:12	10
Acetone	ND		100	ug/L			09/26/24 16:12	10
Benzene	ND		10	ug/L			09/26/24 16:12	10
Bromobenzene	ND		10	ug/L			09/26/24 16:12	10
Bromodichloromethane	ND		10	ug/L			09/26/24 16:12	10
Dibromochloromethane	ND		10	ug/L			09/26/24 16:12	10
Bromoform	ND		10	ug/L			09/26/24 16:12	10
Bromomethane	ND		30	ug/L			09/26/24 16:12	10
Carbon disulfide	ND		100	ug/L			09/26/24 16:12	10
Carbon tetrachloride	ND		10	ug/L			09/26/24 16:12	10
Chlorobenzene	ND		10	ug/L			09/26/24 16:12	10
Chloroethane	ND		20	ug/L			09/26/24 16:12	10
Chloroform	ND		10	ug/L			09/26/24 16:12	10
Chloromethane	ND		30	ug/L			09/26/24 16:12	10
cis-1,2-Dichloroethene	ND		10	ug/L			09/26/24 16:12	10
cis-1,3-Dichloropropene	ND		10	ug/L			09/26/24 16:12	10
Dibromomethane	ND		10	ug/L			09/26/24 16:12	10
Dichlorodifluoromethane	ND		10	ug/L			09/26/24 16:12	10
Ethylbenzene	ND		10	ug/L			09/26/24 16:12	10
Hexachlorobutadiene	ND		10	ug/L			09/26/24 16:12	10
Isopropylbenzene	ND		10	ug/L			09/26/24 16:12	10
Methyl-tert-butyl Ether (MTBE)	ND		10	ug/L			09/26/24 16:12	10
Methylene Chloride	ND		30	ug/L			09/26/24 16:12	10
n-Butylbenzene	ND		30	ug/L			09/26/24 16:12	10
N-Propylbenzene	ND		10	ug/L			09/26/24 16:12	10
Naphthalene	ND		20	ug/L			09/26/24 16:12	10
sec-Butylbenzene	ND		10	ug/L			09/26/24 16:12	10
Styrene	ND		10	ug/L			09/26/24 16:12	10
tert-Butylbenzene	ND		10	ug/L			09/26/24 16:12	10
Tetrachloroethene (PCE)	ND		10	ug/L			09/26/24 16:12	10
Toluene	ND		10	ug/L			09/26/24 16:12	10
trans-1,2-Dichloroethene	ND		10	ug/L			09/26/24 16:12	10
trans-1,3-Dichloropropene	ND		10	ug/L			09/26/24 16:12	10
Trichloroethene (TCE)	ND		10	ug/L			09/26/24 16:12	10
Trichlorofluoromethane	ND		10	ug/L			09/26/24 16:12	10
Vinyl chloride	ND		10	ug/L			09/26/24 16:12	10
Xylenes, Total	ND		15	ug/L			09/26/24 16:12	10

Eurofins Albuquerque

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-13097/6
Matrix: Air
Analysis Batch: 13097

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		09/26/24 16:12	10
Toluene-d8 (Surr)	98		70 - 130		09/26/24 16:12	10
4-Bromofluorobenzene (Surr)	90		70 - 130		09/26/24 16:12	10
Dibromofluoromethane (Surr)	103		70 - 130		09/26/24 16:12	10

Lab Sample ID: LCS 885-13097/5
Matrix: Air
Analysis Batch: 13097

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.1	21.3		ug/L		106	70 - 130
Benzene	20.1	23.5		ug/L		117	70 - 130
Chlorobenzene	20.1	20.5		ug/L		102	70 - 130
Toluene	20.2	20.6		ug/L		102	70 - 130
Trichloroethene (TCE)	20.2	21.5		ug/L		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	99		70 - 130
4-Bromofluorobenzene (Surr)	91		70 - 130
Dibromofluoromethane (Surr)	104		70 - 130

QC Association Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

GC/MS VOA

Analysis Batch: 13097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12107-1	SVE	Total/NA	Air	8260B	
MB 885-13097/1006	Method Blank	Total/NA	Air	8260B	
MB 885-13097/6	Method Blank	Total/NA	Air	8260B	
LCS 885-13097/5	Lab Control Sample	Total/NA	Air	8260B	

Lab Chronicle

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Client Sample ID: SVE

Date Collected: 09/18/24 11:35

Date Received: 09/19/24 07:00

Lab Sample ID: 885-12107-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	13097	CM	EET ALB	09/26/24 17:26

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

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Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001A

Job ID: 885-12107-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total



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ANALYTICAL SUMMARY REPORT

September 27, 2024

Hall Environmental

4901 Hawkins St NE Ste D

Albuquerque, NM 87109-4372

Work Order: B24091883

Quote ID: B15626

Project Name: Sandoval GCA #001A 88501577

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 9/20/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24091883-001	SVE (885-12107-1)	09/18/24 11:35	09/20/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond./1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

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

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

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Sandoval GCA #001A 88501577
Lab ID: B24091883-001
Client Sample ID: SVE (885-12107-1)

Report Date: 09/27/24
Collection Date: 09/18/24 11:35
Date Received: 09/20/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	22.05	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Nitrogen	77.86	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Carbon Dioxide	0.04	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Hexanes plus	0.04	Mol %		0.01		GPA 2261-95	09/27/24 11:34 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	09/27/24 11:34 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	09/27/24 11:34 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	09/27/24 11:34 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	09/27/24 11:34 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	09/27/24 11:34 / jrj
Hexanes plus	0.017	gpm		0.001		GPA 2261-95	09/27/24 11:34 / jrj
GPM Total	0.017	gpm		0.001		GPA 2261-95	09/27/24 11:34 / jrj
GPM Pentanes plus	0.017	gpm		0.001		GPA 2261-95	09/27/24 11:34 / jrj

CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	2		1		GPA 2261-95	09/27/24 11:34 / jrj
Net BTU per cu ft @ std cond. (LHV)	2		1		GPA 2261-95	09/27/24 11:34 / jrj
Pseudo-critical Pressure, psia	545		1		GPA 2261-95	09/27/24 11:34 / jrj
Pseudo-critical Temperature, deg R	239		1		GPA 2261-95	09/27/24 11:34 / jrj
Specific Gravity @ 60/60F	0.999		0.001		D3588-81	09/27/24 11:34 / jrj
Air, %	100.73		0.01		GPA 2261-95	09/27/24 11:34 / jrj

- The analysis was not corrected for air.

COMMENTS

-						09/27/24 11:34 / 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)



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 Gillette, WY **307.686.7175** • Helena, MT **406.442.0711**

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B24091883

Report Date: 09/27/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-95										Batch: R429654
Lab ID: B24092283-001ADUP	12	Sample Duplicate					Run: GCNGA-B_240927A			09/27/24 10:45
Oxygen		21.6	Mol %	0.01				1.2	20	
Nitrogen		77.9	Mol %	0.01				0.3	20	
Carbon Dioxide		0.48	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		0.04	Mol %	0.01				0.0	20	
Lab ID: LCS092724	11	Laboratory Control Sample					Run: GCNGA-B_240927A			09/27/24 02:03
Oxygen		0.62	Mol %	0.01	124	70	130			
Nitrogen		6.03	Mol %	0.01	100	70	130			
Carbon Dioxide		0.99	Mol %	0.01	100	70	130			
Methane		74.9	Mol %	0.01	100	70	130			
Ethane		6.05	Mol %	0.01	101	70	130			
Propane		5.05	Mol %	0.01	102	70	130			
Isobutane		1.54	Mol %	0.01	77	70	130			
n-Butane		2.01	Mol %	0.01	100	70	130			
Isopentane		1.02	Mol %	0.01	102	70	130			
n-Pentane		1.01	Mol %	0.01	101	70	130			
Hexanes plus		0.81	Mol %	0.01	101	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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Work Order Receipt Checklist

Hall Environmental

B24091883

Login completed by: Danielle N. Harris

Date Received: 9/20/2024

Reviewed by: lleprorowse

Received by: KLP

Reviewed Date: 9/27/2024

Carrier name: FedEx NDA

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:	17.9°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.

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

Contact and Corrective Action Comments:

None

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-3456

Chain of Custody Record



Environment Testing

[illegible]

Ver: 05/06/2024

Chain-of-Custody Record

Turn-Around Time:		☒ Standard ☐ Rush	
Project Name:		Sandoval GCA #001A	
Project #:			
Project Manager:		Kyle Siesser	
Sampler: <i>Kelsey O'Brien</i>		On Ice: ☐ Yes ☒ No <i>chucky</i>	
# of Coolers: <i>1</i>		Cooler Temp (including CF): <i>15.1 - 0.1 = 15.0 °C</i>	
Date	Time	Matrix	Sample Name
9/18/24	11:35	AIR	SVE
Container Type and #		Preservative Type	HEAL No.
tedlar bag - <i>2</i>		NA	<i>1</i>
Date		Time	Relinquished by:
9/18/24	1400		<i>Wyo O'Brien</i>
Date	Time	Relinquished by:	
9/18/24	1714		<i>Chawasta</i>

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.



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87108 885-12107 COO

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

Analysis Request

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, NO₂, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

CO₂

O₂

Remarks:

please cc emillar@cottonwoodconsulting.com

Login Sample Receipt Checklist

Client: Cottonwood Consulting LLC

Job Number: 885-12107-1

Login Number: 12107

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kyle Siesser
Cottonwood Consulting LLC
PO BOX 1653
Durango, Colorado 81302

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JOB DESCRIPTION

Sandoval GCA #001

JOB NUMBER

885-6339-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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

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Revision 1

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Laboratory Job ID: 885-6339-1

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Definitions/Glossary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⌵	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Cottonwood Consulting LLC
Project: Sandoval GCA #001

Job ID: 885-6339-1

Job ID: 885-6339-1

Eurofins Albuquerque

Job Narrative
885-6339-1

REVISION

The report being provided is a revision of the original report sent on 7/5/2024. The report (revision 1) is being revised due to The MB doesn't reflect the correct reporting levels.

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

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

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

Receipt

The sample was received on 6/14/2024 7:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 25.3°C.

Subcontract Work

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

GC/MS VOA

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

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Client Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Client Sample ID: SVE

Lab Sample ID: 885-6339-1

Date Collected: 06/13/24 11:50

Matrix: Air

Date Received: 06/14/24 07:00

Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10	ug/L			06/27/24 18:22	1
1,1,1-Trichloroethane	ND		0.10	ug/L			06/27/24 18:22	1
1,1,2,2-Tetrachloroethane	ND		0.20	ug/L			06/27/24 18:22	1
1,1,2-Trichloroethane	ND		0.10	ug/L			06/27/24 18:22	1
1,1-Dichloroethane	ND		0.10	ug/L			06/27/24 18:22	1
1,1-Dichloroethene	ND		0.10	ug/L			06/27/24 18:22	1
1,1-Dichloropropene	ND		0.10	ug/L			06/27/24 18:22	1
1,2,3-Trichlorobenzene	ND		0.10	ug/L			06/27/24 18:22	1
1,2,3-Trichloropropane	ND		0.20	ug/L			06/27/24 18:22	1
1,2,4-Trichlorobenzene	ND		0.10	ug/L			06/27/24 18:22	1
1,2,4-Trimethylbenzene	ND		0.10	ug/L			06/27/24 18:22	1
1,2-Dibromo-3-Chloropropane	ND		0.20	ug/L			06/27/24 18:22	1
1,2-Dibromoethane (EDB)	ND		0.10	ug/L			06/27/24 18:22	1
1,2-Dichlorobenzene	ND		0.10	ug/L			06/27/24 18:22	1
1,2-Dichloroethane (EDC)	ND		0.10	ug/L			06/27/24 18:22	1
1,2-Dichloropropane	ND		0.10	ug/L			06/27/24 18:22	1
1,3,5-Trimethylbenzene	ND		0.10	ug/L			06/27/24 18:22	1
1,3-Dichlorobenzene	ND		0.10	ug/L			06/27/24 18:22	1
1,3-Dichloropropane	ND		0.10	ug/L			06/27/24 18:22	1
1,4-Dichlorobenzene	ND		0.10	ug/L			06/27/24 18:22	1
1-Methylnaphthalene	ND		0.40	ug/L			06/27/24 18:22	1
2,2-Dichloropropane	ND		0.20	ug/L			06/27/24 18:22	1
2-Butanone	ND		1.0	ug/L			06/27/24 18:22	1
2-Chlorotoluene	ND		0.10	ug/L			06/27/24 18:22	1
2-Hexanone	ND		1.0	ug/L			06/27/24 18:22	1
2-Methylnaphthalene	ND		0.40	ug/L			06/27/24 18:22	1
4-Chlorotoluene	ND		0.10	ug/L			06/27/24 18:22	1
4-Isopropyltoluene	ND		0.10	ug/L			06/27/24 18:22	1
4-Methyl-2-pentanone	ND		1.0	ug/L			06/27/24 18:22	1
Acetone	ND		1.0	ug/L			06/27/24 18:22	1
Benzene	ND		0.10	ug/L			06/27/24 18:22	1
Bromobenzene	ND		0.10	ug/L			06/27/24 18:22	1
Bromodichloromethane	ND		0.10	ug/L			06/27/24 18:22	1
Dibromochloromethane	ND		0.10	ug/L			06/27/24 18:22	1
Bromoform	ND		0.10	ug/L			06/27/24 18:22	1
Bromomethane	ND		0.30	ug/L			06/27/24 18:22	1
Carbon disulfide	ND		1.0	ug/L			06/27/24 18:22	1
Carbon tetrachloride	ND		0.10	ug/L			06/27/24 18:22	1
Chlorobenzene	ND		0.10	ug/L			06/27/24 18:22	1
Chloroethane	ND		0.20	ug/L			06/27/24 18:22	1
Chloroform	ND		0.10	ug/L			06/27/24 18:22	1
Chloromethane	ND		0.30	ug/L			06/27/24 18:22	1
cis-1,2-Dichloroethene	ND		0.10	ug/L			06/27/24 18:22	1
cis-1,3-Dichloropropene	ND		0.10	ug/L			06/27/24 18:22	1
Dibromomethane	ND		0.10	ug/L			06/27/24 18:22	1
Dichlorodifluoromethane	ND		0.10	ug/L			06/27/24 18:22	1
Ethylbenzene	ND		0.10	ug/L			06/27/24 18:22	1
Hexachlorobutadiene	ND		0.10	ug/L			06/27/24 18:22	1

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Client Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Client Sample ID: SVE
Date Collected: 06/13/24 11:50
Date Received: 06/14/24 07:00
Sample Container: Tedlar Bag 1L

Lab Sample ID: 885-6339-1
Matrix: Air

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.10	ug/L			06/27/24 18:22	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10	ug/L			06/27/24 18:22	1
Methylene Chloride	ND		0.30	ug/L			06/27/24 18:22	1
n-Butylbenzene	ND		0.30	ug/L			06/27/24 18:22	1
N-Propylbenzene	ND		0.10	ug/L			06/27/24 18:22	1
Naphthalene	ND		0.20	ug/L			06/27/24 18:22	1
sec-Butylbenzene	ND		0.10	ug/L			06/27/24 18:22	1
Styrene	ND		0.10	ug/L			06/27/24 18:22	1
tert-Butylbenzene	ND		0.10	ug/L			06/27/24 18:22	1
Tetrachloroethene (PCE)	ND		0.10	ug/L			06/27/24 18:22	1
Toluene	ND		0.10	ug/L			06/27/24 18:22	1
trans-1,2-Dichloroethene	ND		0.10	ug/L			06/27/24 18:22	1
trans-1,3-Dichloropropene	ND		0.10	ug/L			06/27/24 18:22	1
Trichloroethene (TCE)	ND		0.10	ug/L			06/27/24 18:22	1
Trichlorofluoromethane	ND		0.10	ug/L			06/27/24 18:22	1
Vinyl chloride	ND		0.10	ug/L			06/27/24 18:22	1
Xylenes, Total	ND		0.15	ug/L			06/27/24 18:22	1
Method: SW846 8260B - Volatile Organic Compounds (GC/MS)								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130				06/27/24 18:22	1
Toluene-d8 (Surr)	93		70 - 130				06/27/24 18:22	1
4-Bromofluorobenzene (Surr)	92		70 - 130				06/27/24 18:22	1
Dibromofluoromethane (Surr)	105		70 - 130				06/27/24 18:22	1

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-7511/28

Matrix: Air

Analysis Batch: 7511

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10	ug/L			06/27/24 17:09	1
1,1,1-Trichloroethane	ND		0.10	ug/L			06/27/24 17:09	1
1,1,2,2-Tetrachloroethane	ND		0.20	ug/L			06/27/24 17:09	1
1,1,2-Trichloroethane	ND		0.10	ug/L			06/27/24 17:09	1
1,1-Dichloroethane	ND		0.10	ug/L			06/27/24 17:09	1
1,1-Dichloroethene	ND		0.10	ug/L			06/27/24 17:09	1
1,1-Dichloropropene	ND		0.10	ug/L			06/27/24 17:09	1
1,2,3-Trichlorobenzene	ND		0.10	ug/L			06/27/24 17:09	1
1,2,3-Trichloropropane	ND		0.20	ug/L			06/27/24 17:09	1
1,2,4-Trichlorobenzene	ND		0.10	ug/L			06/27/24 17:09	1
1,2,4-Trimethylbenzene	ND		0.10	ug/L			06/27/24 17:09	1
1,2-Dibromo-3-Chloropropane	ND		0.20	ug/L			06/27/24 17:09	1
1,2-Dibromoethane (EDB)	ND		0.10	ug/L			06/27/24 17:09	1
1,2-Dichlorobenzene	ND		0.10	ug/L			06/27/24 17:09	1
1,2-Dichloroethane (EDC)	ND		0.10	ug/L			06/27/24 17:09	1
1,2-Dichloropropane	ND		0.10	ug/L			06/27/24 17:09	1
1,3,5-Trimethylbenzene	ND		0.10	ug/L			06/27/24 17:09	1
1,3-Dichlorobenzene	ND		0.10	ug/L			06/27/24 17:09	1
1,3-Dichloropropane	ND		0.10	ug/L			06/27/24 17:09	1
1,4-Dichlorobenzene	ND		0.10	ug/L			06/27/24 17:09	1
1-Methylnaphthalene	ND		0.40	ug/L			06/27/24 17:09	1
2,2-Dichloropropane	ND		0.20	ug/L			06/27/24 17:09	1
2-Butanone	ND		1.0	ug/L			06/27/24 17:09	1
2-Chlorotoluene	ND		0.10	ug/L			06/27/24 17:09	1
2-Hexanone	ND		1.0	ug/L			06/27/24 17:09	1
2-Methylnaphthalene	ND		0.40	ug/L			06/27/24 17:09	1
4-Chlorotoluene	ND		0.10	ug/L			06/27/24 17:09	1
4-Isopropyltoluene	ND		0.10	ug/L			06/27/24 17:09	1
4-Methyl-2-pentanone	ND		1.0	ug/L			06/27/24 17:09	1
Acetone	ND		1.0	ug/L			06/27/24 17:09	1
Benzene	ND		0.10	ug/L			06/27/24 17:09	1
Bromobenzene	ND		0.10	ug/L			06/27/24 17:09	1
Bromodichloromethane	ND		0.10	ug/L			06/27/24 17:09	1
Dibromochloromethane	ND		0.10	ug/L			06/27/24 17:09	1
Bromoform	ND		0.10	ug/L			06/27/24 17:09	1
Bromomethane	ND		0.30	ug/L			06/27/24 17:09	1
Carbon disulfide	ND		1.0	ug/L			06/27/24 17:09	1
Carbon tetrachloride	ND		0.10	ug/L			06/27/24 17:09	1
Chlorobenzene	ND		0.10	ug/L			06/27/24 17:09	1
Chloroethane	ND		0.20	ug/L			06/27/24 17:09	1
Chloroform	ND		0.10	ug/L			06/27/24 17:09	1
Chloromethane	ND		0.30	ug/L			06/27/24 17:09	1
cis-1,2-Dichloroethene	ND		0.10	ug/L			06/27/24 17:09	1
cis-1,3-Dichloropropene	ND		0.10	ug/L			06/27/24 17:09	1
Dibromomethane	ND		0.10	ug/L			06/27/24 17:09	1
Dichlorodifluoromethane	ND		0.10	ug/L			06/27/24 17:09	1
Ethylbenzene	ND		0.10	ug/L			06/27/24 17:09	1
Hexachlorobutadiene	ND		0.10	ug/L			06/27/24 17:09	1

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QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-7511/28

Matrix: Air

Analysis Batch: 7511

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.10	ug/L			06/27/24 17:09	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10	ug/L			06/27/24 17:09	1
Methylene Chloride	ND		0.30	ug/L			06/27/24 17:09	1
n-Butylbenzene	ND		0.30	ug/L			06/27/24 17:09	1
N-Propylbenzene	ND		0.10	ug/L			06/27/24 17:09	1
Naphthalene	ND		0.20	ug/L			06/27/24 17:09	1
sec-Butylbenzene	ND		0.10	ug/L			06/27/24 17:09	1
Styrene	ND		0.10	ug/L			06/27/24 17:09	1
tert-Butylbenzene	ND		0.10	ug/L			06/27/24 17:09	1
Tetrachloroethene (PCE)	ND		0.10	ug/L			06/27/24 17:09	1
Toluene	ND		0.10	ug/L			06/27/24 17:09	1
trans-1,2-Dichloroethene	ND		0.10	ug/L			06/27/24 17:09	1
trans-1,3-Dichloropropene	ND		0.10	ug/L			06/27/24 17:09	1
Trichloroethene (TCE)	ND		0.10	ug/L			06/27/24 17:09	1
Trichlorofluoromethane	ND		0.10	ug/L			06/27/24 17:09	1
Vinyl chloride	ND		0.10	ug/L			06/27/24 17:09	1
Xylenes, Total	ND		0.15	ug/L			06/27/24 17:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		06/27/24 17:09	1
Toluene-d8 (Surr)	95		70 - 130		06/27/24 17:09	1
4-Bromofluorobenzene (Surr)	95		70 - 130		06/27/24 17:09	1
Dibromofluoromethane (Surr)	105		70 - 130		06/27/24 17:09	1

Lab Sample ID: MB 885-7511/5

Matrix: Air

Analysis Batch: 7511

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			06/27/24 17:09	1
1,1,1-Trichloroethane	ND		1.0	ug/L			06/27/24 17:09	1
1,1,2,2-Tetrachloroethane	ND		2.0	ug/L			06/27/24 17:09	1
1,1,2-Trichloroethane	ND		1.0	ug/L			06/27/24 17:09	1
1,1-Dichloroethane	ND		1.0	ug/L			06/27/24 17:09	1
1,1-Dichloroethene	ND		1.0	ug/L			06/27/24 17:09	1
1,1-Dichloropropene	ND		1.0	ug/L			06/27/24 17:09	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			06/27/24 17:09	1
1,2,3-Trichloropropane	ND		2.0	ug/L			06/27/24 17:09	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			06/27/24 17:09	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			06/27/24 17:09	1
1,2-Dibromo-3-Chloropropane	ND		2.0	ug/L			06/27/24 17:09	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			06/27/24 17:09	1
1,2-Dichlorobenzene	ND		1.0	ug/L			06/27/24 17:09	1
1,2-Dichloroethane (EDC)	ND		1.0	ug/L			06/27/24 17:09	1
1,2-Dichloropropane	ND		1.0	ug/L			06/27/24 17:09	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			06/27/24 17:09	1
1,3-Dichlorobenzene	ND		1.0	ug/L			06/27/24 17:09	1
1,3-Dichloropropane	ND		1.0	ug/L			06/27/24 17:09	1

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QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-7511/5

Matrix: Air

Analysis Batch: 7511

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.0	ug/L			06/27/24 17:09	1
1-Methylnaphthalene	ND		4.0	ug/L			06/27/24 17:09	1
2,2-Dichloropropane	ND		2.0	ug/L			06/27/24 17:09	1
2-Butanone	ND		10	ug/L			06/27/24 17:09	1
2-Chlorotoluene	ND		1.0	ug/L			06/27/24 17:09	1
2-Hexanone	ND		10	ug/L			06/27/24 17:09	1
2-Methylnaphthalene	ND		4.0	ug/L			06/27/24 17:09	1
4-Chlorotoluene	ND		1.0	ug/L			06/27/24 17:09	1
4-Isopropyltoluene	ND		1.0	ug/L			06/27/24 17:09	1
4-Methyl-2-pentanone	ND		10	ug/L			06/27/24 17:09	1
Acetone	ND		10	ug/L			06/27/24 17:09	1
Benzene	ND		1.0	ug/L			06/27/24 17:09	1
Bromobenzene	ND		1.0	ug/L			06/27/24 17:09	1
Bromodichloromethane	ND		1.0	ug/L			06/27/24 17:09	1
Dibromochloromethane	ND		1.0	ug/L			06/27/24 17:09	1
Bromoform	ND		1.0	ug/L			06/27/24 17:09	1
Bromomethane	ND		3.0	ug/L			06/27/24 17:09	1
Carbon disulfide	ND		10	ug/L			06/27/24 17:09	1
Carbon tetrachloride	ND		1.0	ug/L			06/27/24 17:09	1
Chlorobenzene	ND		1.0	ug/L			06/27/24 17:09	1
Chloroethane	ND		2.0	ug/L			06/27/24 17:09	1
Chloroform	ND		1.0	ug/L			06/27/24 17:09	1
Chloromethane	ND		3.0	ug/L			06/27/24 17:09	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			06/27/24 17:09	1
cis-1,3-Dichloropropene	ND		1.0	ug/L			06/27/24 17:09	1
Dibromomethane	ND		1.0	ug/L			06/27/24 17:09	1
Dichlorodifluoromethane	ND		1.0	ug/L			06/27/24 17:09	1
Ethylbenzene	ND		1.0	ug/L			06/27/24 17:09	1
Hexachlorobutadiene	ND		1.0	ug/L			06/27/24 17:09	1
Isopropylbenzene	ND		1.0	ug/L			06/27/24 17:09	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0	ug/L			06/27/24 17:09	1
Methylene Chloride	ND		3.0	ug/L			06/27/24 17:09	1
n-Butylbenzene	ND		3.0	ug/L			06/27/24 17:09	1
N-Propylbenzene	ND		1.0	ug/L			06/27/24 17:09	1
Naphthalene	ND		2.0	ug/L			06/27/24 17:09	1
sec-Butylbenzene	ND		1.0	ug/L			06/27/24 17:09	1
Styrene	ND		1.0	ug/L			06/27/24 17:09	1
tert-Butylbenzene	ND		1.0	ug/L			06/27/24 17:09	1
Tetrachloroethene (PCE)	ND		1.0	ug/L			06/27/24 17:09	1
Toluene	ND		1.0	ug/L			06/27/24 17:09	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			06/27/24 17:09	1
trans-1,3-Dichloropropene	ND		1.0	ug/L			06/27/24 17:09	1
Trichloroethene (TCE)	ND		1.0	ug/L			06/27/24 17:09	1
Trichlorofluoromethane	ND		1.0	ug/L			06/27/24 17:09	1
Vinyl chloride	ND		1.0	ug/L			06/27/24 17:09	1
Xylenes, Total	ND		1.5	ug/L			06/27/24 17:09	1

Eurofins Albuquerque

QC Sample Results

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-7511/5

Matrix: Air

Analysis Batch: 7511

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130		06/27/24 17:09	1
Toluene-d8 (Surr)	95		70 - 130		06/27/24 17:09	1
4-Bromofluorobenzene (Surr)	95		70 - 130		06/27/24 17:09	1
Dibromofluoromethane (Surr)	105		70 - 130		06/27/24 17:09	1

Lab Sample ID: LCS 885-7511/3

Matrix: Air

Analysis Batch: 7511

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.1	21.9		ug/L		109	
Benzene	20.1	22.8		ug/L		113	
Chlorobenzene	20.1	22.9		ug/L		114	
Toluene	20.2	21.9		ug/L		108	
Trichloroethene (TCE)	20.2	22.1		ug/L		110	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
Toluene-d8 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	103		70 - 130

Eurofins Albuquerque

QC Association Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

GC/MS VOA

Analysis Batch: 7511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-6339-1	SVE	Total/NA	Air	8260B	
MB 885-7511/28	Method Blank	Total/NA	Air	8260B	
MB 885-7511/5	Method Blank	Total/NA	Air	8260B	
LCS 885-7511/3	Lab Control Sample	Total/NA	Air	8260B	

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Lab Chronicle

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Client Sample ID: SVE
Date Collected: 06/13/24 11:50
Date Received: 06/14/24 07:00

Lab Sample ID: 885-6339-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	7511	CM	EET ALB	06/27/24 18:22

Laboratory References:

= , 1120 South 27th Street, Billings, MT 59101, TEL (406)252-6325

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane

Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
-----------	---------	-----------------------	-----------------

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Oregon

NELAP

NM100001

02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Cottonwood Consulting LLC
Project/Site: Sandoval GCA #001

Job ID: 885-6339-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Eurofins Albuquerque



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ANALYTICAL SUMMARY REPORT

June 21, 2024

Hall Environmental

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

Work Order: B24061613 Quote ID: B15626

Project Name: Sandoval GCA #001, 88501577

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

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24061613-001	SVE (885-6339-1)	06/13/24 11:50	06/18/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond./1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

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

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

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

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



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LABORATORY ANALYTICAL REPORT
Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Sandoval GCA #001, 88501577
Lab ID: B24061613-001
Client Sample ID: SVE (885-6339-1)

Report Date: 06/21/24
Collection Date: 06/13/24 11:50
Date Received: 06/18/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	22.31	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Nitrogen	77.61	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Carbon Dioxide	0.05	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Hexanes plus	0.03	Mol %		0.01		GPA 2261-95	06/20/24 12:08 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 12:08 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 12:08 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 12:08 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 12:08 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	06/20/24 12:08 / jrj
Hexanes plus	0.013	gpm		0.001		GPA 2261-95	06/20/24 12:08 / jrj
GPM Total	0.013	gpm		0.001		GPA 2261-95	06/20/24 12:08 / jrj
GPM Pentanes plus	0.013	gpm		0.001		GPA 2261-95	06/20/24 12:08 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	1			1		GPA 2261-95	06/20/24 12:08 / jrj
Net BTU per cu ft @ std cond. (LHV)	1			1		GPA 2261-95	06/20/24 12:08 / jrj
Pseudo-critical Pressure, psia	546			1		GPA 2261-95	06/20/24 12:08 / jrj
Pseudo-critical Temperature, deg R	239			1		GPA 2261-95	06/20/24 12:08 / jrj
Specific Gravity @ 60/60F	0.999			0.001		D3588-81	06/20/24 12:08 / jrj
Air, %	101.93			0.01		GPA 2261-95	06/20/24 12:08 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-							06/20/24 12:08 / 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)
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Gillette, WY **307.686.7175** • Helena, MT **406.442.0711**

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B24061613

Report Date: 06/21/24

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

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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Work Order Receipt Checklist

Hall Environmental

B24061613

Login completed by: Danielle N. Harris

Date Received: 6/18/2024

Reviewed by: cindy

Received by: CMJ

Reviewed Date: 6/21/2024

Carrier name: FedEx NDA

Shipping container/cooler in good condition?	Yes ☒	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:	13.0°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.

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

Contact and Corrective Action Comments:

None

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-3976

Chain of Custody Record



Environment Testing

[illegible]

[illegible]

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

Login Sample Receipt Checklist

Client: Cottonwood Consulting LLC

Job Number: 885-6339-1

Login Number: 6339
List Number: 1
Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

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



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

27 June 2024

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 06/13/24 15:00. 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 and is contained within a light gray rectangular box.

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: TX-C24-00019

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: TX-C24-00112

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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:
06/27/24 17:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2406191-01	Water	06/13/24 12:05	06/13/24 15:00	

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:
06/27/24 17:39

MW #2

2406191-01 (Ground Water)

Sampled Date: 06/13/24 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*	<0.025	0.025	0.003	mg/L	50	06/27/24 12:36	8260B		CK
1,1,1-Trichloroethane*	<0.025	0.025	0.003	mg/L	50	06/27/24 12:36	8260B		CK
1,1,2,2-Tetrachloroethane*	<0.025	0.025	0.003	mg/L	50	06/27/24 12:36	8260B		CK
1,1,2-Trichloroethane*	<0.025	0.025	0.003	mg/L	50	06/27/24 12:36	8260B		CK
1,1-Dichloroethane*	<0.025	0.025	0.008	mg/L	50	06/27/24 12:36	8260B		CK
1,1-Dichloroethene*	<0.025	0.025	0.009	mg/L	50	06/27/24 12:36	8260B		CK
1,1-Dichloropropene*	<0.025	0.025	0.008	mg/L	50	06/27/24 12:36	8260B		CK
1,2,3-Trichlorobenzene*	<0.025	0.025	0.012	mg/L	50	06/27/24 12:36	8260B		CK
1,2,4-Trichlorobenzene*	<0.025	0.025	0.006	mg/L	50	06/27/24 12:36	8260B		CK
1,2,4-Trimethylbenzene*	1.15	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
1,2-Dibromo-3-chloropropane*	<0.025	0.025	0.025	mg/L	50	06/27/24 12:36	8260B		CK
1,2-Dibromoethane*	<0.025	0.025	0.005	mg/L	50	06/27/24 12:36	8260B		CK
1,2-Dichlorobenzene*	<0.025	0.025	0.003	mg/L	50	06/27/24 12:36	8260B		CK
1,2-Dichloroethane*	<0.025	0.025	0.003	mg/L	50	06/27/24 12:36	8260B		CK
1,2-Dichloropropane*	<0.025	0.025	0.004	mg/L	50	06/27/24 12:36	8260B		CK
1,3,5-Trimethylbenzene*	0.069	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
1,3-Dichlorobenzene*	<0.025	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
1,3-Dichloropropane*	<0.025	0.025	0.007	mg/L	50	06/27/24 12:36	8260B		CK
1,4-Dichlorobenzene	<0.025	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
1,4-Dioxane	<0.500	0.500	0.500	mg/L	50	06/27/24 12:36	8260B		CK
1,2,3-trichloropropane*	<0.025	0.025	0.006	mg/L	50	06/27/24 12:36	8260B		CK
2,2-Dichloropropane*	<0.025	0.025	0.025	mg/L	50	06/27/24 12:36	8260B		CK
2-Butanone*	<0.100	0.100	0.100	mg/L	50	06/27/24 12:36	8260B		CK
2-Chlorotoluene*	<0.025	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
2-Hexanone*	<0.050	0.050	0.016	mg/L	50	06/27/24 12:36	8260B		CK
4-Chlorotoluene*	<0.025	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
4-Methyl-2-pentanone*	<0.050	0.050	0.006	mg/L	50	06/27/24 12:36	8260B		CK
Acetone*	<0.500	0.500	0.043	mg/L	50	06/27/24 12:36	8260B		CK
Acrolein*	<0.250	0.250	0.054	mg/L	50	06/27/24 12:36	8260B		CK
Acrylonitrile*	<0.100	0.100	0.040	mg/L	50	06/27/24 12:36	8260B		CK

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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:
06/27/24 17:39

MW #2

2406191-01 (Ground Water)

Sampled Date: 06/13/24 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

Benzene*	0.826	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
Bromobenzene*	<0.025	0.025	0.003	mg/L	50	06/27/24 12:36	8260B		CK
Bromochloromethane*	<0.025	0.025	0.007	mg/L	50	06/27/24 12:36	8260B		CK
Bromodichloromethane*	<0.025	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
Bromoform*	<0.025	0.025	0.004	mg/L	50	06/27/24 12:36	8260B		CK
Bromomethane*	<0.025	0.025	0.025	mg/L	50	06/27/24 12:36	8260B		CK
Carbon disulfide*	<0.050	0.050	0.007	mg/L	50	06/27/24 12:36	8260B		CK
Carbon tetrachloride*	<0.025	0.025	0.008	mg/L	50	06/27/24 12:36	8260B		CK
Chlorobenzene*	<0.025	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
Chloroethane*	<0.025	0.025	0.025	mg/L	50	06/27/24 12:36	8260B		CK
Chloroform*	<0.025	0.025	0.0008	mg/L	50	06/27/24 12:36	8260B		CK
Chloromethane*	<0.025	0.025	0.025	mg/L	50	06/27/24 12:36	8260B		CK
cis-1,2-Dichloroethene*	<0.025	0.025	0.012	mg/L	50	06/27/24 12:36	8260B		CK
cis-1,3-Dichloropropene*	<0.025	0.025	0.004	mg/L	50	06/27/24 12:36	8260B		CK
Dibromochloromethane*	<0.025	0.025	0.004	mg/L	50	06/27/24 12:36	8260B		CK
Dibromomethane*	<0.025	0.025	0.008	mg/L	50	06/27/24 12:36	8260B		CK
Dichlorodifluoromethane*	<0.025	0.025	0.025	mg/L	50	06/27/24 12:36	8260B		CK
Ethylbenzene*	0.538	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
Hexachlorobutadiene*	<0.050	0.050	0.025	mg/L	50	06/27/24 12:36	8260B		CK
Iodomethane	<0.050	0.050	0.003	mg/L	50	06/27/24 12:36	8260B		CK
Isopropylbenzene*	0.053	0.025	0.001	mg/L	50	06/27/24 12:36	8260B		CK
m+p - Xylene*	1.83	0.050	0.004	mg/L	50	06/27/24 12:36	8260B		CK
Methyl tert-butyl ether	<0.050	0.050	0.012	mg/L	50	06/27/24 12:36	8260B		CK
Methylene chloride*	<0.025	0.025	0.025	mg/L	50	06/27/24 12:36	8260B		CK
Naphthalene*	0.116	0.025	0.004	mg/L	50	06/27/24 12:36	8260B		CK
n-Butylbenzene*	<0.025	0.025	0.003	mg/L	50	06/27/24 12:36	8260B		CK
n-Propylbenzene*	0.064	0.025	0.003	mg/L	50	06/27/24 12:36	8260B		CK
o-Xylene*	0.213	0.025	0.006	mg/L	50	06/27/24 12:36	8260B		CK
p-Isopropyltoluene*	0.088	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
sec-Butylbenzene*	<0.025	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
Styrene*	<0.025	0.025	0.006	mg/L	50	06/27/24 12:36	8260B		CK
tert-Butylbenzene*	<0.025	0.025	0.004	mg/L	50	06/27/24 12:36	8260B		CK

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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:
06/27/24 17:39

MW #2

2406191-01 (Ground Water)

Sampled Date: 06/13/24 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

Tetrachloroethene*	<0.025	0.025	0.005	mg/L	50	06/27/24 12:36	8260B		CK
Toluene*	<0.025	0.025	0.004	mg/L	50	06/27/24 12:36	8260B		CK
Total Xylenes*	2.04	0.050	0.010	mg/L	50	06/27/24 12:36	8260B		CK
trans-1,2-Dichloroethene*	<0.025	0.025	0.007	mg/L	50	06/27/24 12:36	8260B		CK
trans-1,3-Dichloropropene*	<0.025	0.025	0.002	mg/L	50	06/27/24 12:36	8260B		CK
trans-1,4-Dichloro-2-butene	<0.500	0.500	0.014	mg/L	50	06/27/24 12:36	8260B		CK
Trichloroethene*	<0.025	0.025	0.009	mg/L	50	06/27/24 12:36	8260B		CK
Trichlorofluoromethane*	<0.025	0.025	0.007	mg/L	50	06/27/24 12:36	8260B		CK
Vinyl acetate*	<0.025	0.025	0.025	mg/L	50	06/27/24 12:36	8260B		CK
Vinyl chloride*	<0.025	0.025	0.025	mg/L	50	06/27/24 12:36	8260B		CK
Surrogate: 4-Bromofluorobenzene			104 %	76.4-114		06/27/24 12:36	8260B		CK
Surrogate: Dibromofluoromethane			108 %	82.4-141		06/27/24 12:36	8260B		CK
Surrogate: Toluene-d8			97.3 %	87.1-110		06/27/24 12:36	8260B		CK

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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:
06/27/24 17:39

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 4061928 - Volatiles

Blank (4061928-BLK1)

Prepared: 06/19/24 Analyzed: 06/26/24

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	0.0233		mg/L	0.0250	93.2	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			

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:
06/27/24 17:39

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 4061928 - Volatiles (Continued)

Blank (4061928-BLK1) (Continued)

Prepared: 06/19/24 Analyzed: 06/26/24

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>0.0294</i>		mg/L	<i>0.0250</i>		<i>118</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	0.0006	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>0.0252</i>		mg/L	<i>0.0250</i>		<i>101</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							

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:
06/27/24 17:39

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 4061928 - Volatiles (Continued)

LCS (4061928-BS1)

Prepared: 06/19/24 Analyzed: 06/26/24

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		102	82.4-120			
1,1,1-Trichloroethane	0.023	0.0005	mg/L	0.0200		113	80.7-121			
1,1,2,2-Tetrachloroethane	0.021	0.0005	mg/L	0.0200		105	76.5-121			
1,1,2-Trichloroethane	0.020	0.0005	mg/L	0.0200		101	81.7-118			
1,1-Dichloroethane	0.016	0.0005	mg/L	0.0200		77.6	74.8-123			
1,1-Dichloroethene	0.020	0.0005	mg/L	0.0200		100	53.9-149			
1,1-Dichloropropene	0.022	0.0005	mg/L	0.0200		111	85.9-115			
1,2,3-Trichlorobenzene	0.021	0.0005	mg/L	0.0200		107	76.1-134			
1,2,4-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		98.6	72.4-136			
1,2,4-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		100	67.4-138			
1,2-Dibromo-3-chloropropane	0.023	0.0005	mg/L	0.0200		115	71.7-124			
1,2-Dibromoethane	0.021	0.0005	mg/L	0.0200		103	84.9-116			
1,2-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		102	82.5-119			
1,2-Dichloroethane	0.021	0.0005	mg/L	0.0200		104	72.5-123			
1,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		101	79.4-117			
1,3,5-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		102	69-137			
1,3-Dichlorobenzene	0.021	0.0005	mg/L	0.0200		106	84.4-120			
1,3-Dichloropropane	0.021	0.0005	mg/L	0.0200		107	82.6-117			
1,4-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		95.2	81.7-118			
1,4-Dioxane	0.361	0.010	mg/L	0.400		90.3	-34.6-193			
1,2,3-trichloropropane	0.022	0.0005	mg/L	0.0200		112	44.7-168			
2,2-Dichloropropane	0.015	0.0005	mg/L	0.0200		74.2	62.9-136			
2-Butanone	0.042	0.002	mg/L	0.0400		105	24.1-159			
2-Chlorotoluene	0.021	0.0005	mg/L	0.0200		105	80.2-121			
2-Hexanone	0.047	0.001	mg/L	0.0400		117	56.3-139			
Surrogate: 4-Bromofluorobenzene	0.0252		mg/L	0.0250		101	76.4-114			
4-Chlorotoluene	0.022	0.0005	mg/L	0.0200		110	82.2-125			
4-Methyl-2-pentanone	0.044	0.001	mg/L	0.0400		111	60.7-139			
Acetone	0.038	0.010	mg/L	0.0400		96.0	39.1-168			
Acrolein	0.251	0.005	mg/L	0.200		126	26.6-161			
Acrylonitrile	0.022	0.002	mg/L	0.0400		55.9	64.9-135			BS2
Benzene	0.020	0.0005	mg/L	0.0200		102	69.4-129			
Bromobenzene	0.020	0.0005	mg/L	0.0200		98.2	83.5-115			
Bromochloromethane	0.020	0.0005	mg/L	0.0200		97.6	70.7-123			
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		102	80.3-119			
Bromoform	0.020	0.0005	mg/L	0.0200		98.4	71.1-141			
Bromomethane	0.018	0.0005	mg/L	0.0200		90.8	55.1-143			
Carbon disulfide	0.045	0.001	mg/L	0.0400		113	53.6-147			
Carbon tetrachloride	0.026	0.0005	mg/L	0.0200		128	79.5-125			BS1

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:
06/27/24 17:39

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 4061928 - Volatiles (Continued)

LCS (4061928-BS1) (Continued)

Prepared: 06/19/24 Analyzed: 06/26/24

Chlorobenzene	0.021	0.0005	mg/L	0.0200		103	85.1-115			
Chloroethane	0.018	0.0005	mg/L	0.0200		92.2	36.9-159			
Chloroform	0.024	0.0005	mg/L	0.0200		122	80.9-119			BS1
Chloromethane	0.018	0.0005	mg/L	0.0200		88.7	54.2-142			
cis-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		89.0	73.8-128			
cis-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		107	82.5-122			
Dibromochloromethane	0.021	0.0005	mg/L	0.0200		103	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0272</i>		mg/L	<i>0.0250</i>		<i>109</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		100	77-118			
Dichlorodifluoromethane	0.021	0.0005	mg/L	0.0200		106	38.7-147			
Ethylbenzene	0.021	0.0005	mg/L	0.0200		104	70.2-130			
Hexachlorobutadiene	0.022	0.0005	mg/L	0.0200		112	78.9-148			
Iodomethane	0.037	0.001	mg/L	0.0400		93.6	63.5-135			
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		101	85-124			
m+p - Xylene	0.041	0.001	mg/L	0.0400		103	71.9-133			
Methyl tert-butyl ether	0.035	0.001	mg/L	0.0400		86.6	57.7-137			
Methylene chloride	0.019	0.0005	mg/L	0.0200		95.2	49.3-163			
Naphthalene	0.023	0.0005	mg/L	0.0200		114	62.1-141			
n-Butylbenzene	0.020	0.0005	mg/L	0.0200		102	75.4-132			
n-Propylbenzene	0.021	0.0005	mg/L	0.0200		106	79.6-124			
o-Xylene	0.021	0.0005	mg/L	0.0200		103	69.4-132			
p-Isopropyltoluene	0.016	0.0005	mg/L	0.0200		81.8	79.8-131			
sec-Butylbenzene	0.020	0.0005	mg/L	0.0200		98.5	77.6-133			
Styrene	0.020	0.0005	mg/L	0.0200		99.0	71.7-128			
tert-Butylbenzene	0.022	0.0005	mg/L	0.0200		109	78.8-128			
Tetrachloroethene	0.021	0.0005	mg/L	0.0200		105	74.2-128			
Toluene	0.021	0.0005	mg/L	0.0200		104	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0250</i>		mg/L	<i>0.0250</i>		<i>100</i>	<i>87.1-110</i>			
Total Xylenes	0.062	0.001	mg/L	0.0600		103	71.6-132			
trans-1,2-Dichloroethene	0.019	0.0005	mg/L	0.0200		95.6	65.2-133			
trans-1,3-Dichloropropene	0.022	0.0005	mg/L	0.0200		109	84-123			
trans-1,4-Dichloro-2-butene	0.031	0.010	mg/L	0.0400		76.4	9.3-235			
Trichloroethene	0.020	0.0005	mg/L	0.0200		102	79.3-114			
Trichlorofluoromethane	0.021	0.0005	mg/L	0.0200		103	28.6-162			
Vinyl acetate	0.011	0.0005	mg/L	0.0200		57.0	50.9-135			
Vinyl chloride	0.020	0.0005	mg/L	0.0200		99.8	61.6-133			

LCS Dup (4061928-BSD1)

Prepared: 06/19/24 Analyzed: 06/26/24

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		101	82.4-120	0.786	6.88	
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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:
06/27/24 17:39

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 4061928 - Volatiles (Continued)

LCS Dup (4061928-BSD1) (Continued)

Prepared: 06/19/24 Analyzed: 06/26/24

1,1,1-Trichloroethane	0.022	0.0005	mg/L	0.0200		111	80.7-121	2.01	7.43	
1,1,2,2-Tetrachloroethane	0.021	0.0005	mg/L	0.0200		106	76.5-121	0.332	8.68	
1,1,2-Trichloroethane	0.020	0.0005	mg/L	0.0200		98.8	81.7-118	2.35	6.82	
1,1-Dichloroethane	0.016	0.0005	mg/L	0.0200		78.3	74.8-123	0.962	4.3	
1,1-Dichloroethene	0.020	0.0005	mg/L	0.0200		101	53.9-149	0.993	16.5	
1,1-Dichloropropene	0.022	0.0005	mg/L	0.0200		108	85.9-115	3.06	5.47	
1,2,3-Trichlorobenzene	0.021	0.0005	mg/L	0.0200		104	76.1-134	2.33	43	
1,2,4-Trichlorobenzene	0.019	0.0005	mg/L	0.0200		94.3	72.4-136	4.46	22.3	
1,2,4-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		100	67.4-138	0.0498	8.94	
1,2-Dibromo-3-chloropropane	0.022	0.0005	mg/L	0.0200		111	71.7-124	3.37	15.1	
1,2-Dibromoethane	0.021	0.0005	mg/L	0.0200		103	84.9-116	0.388	5.83	
1,2-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		99.8	82.5-119	1.69	8.72	
1,2-Dichloroethane	0.021	0.0005	mg/L	0.0200		103	72.5-123	0.922	8.94	
1,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		99.8	79.4-117	0.798	5.51	
1,3,5-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		103	69-137	0.975	16.5	
1,3-Dichlorobenzene	0.021	0.0005	mg/L	0.0200		104	84.4-120	2.00	9	
1,3-Dichloropropane	0.021	0.0005	mg/L	0.0200		107	82.6-117	0.468	6.06	
1,4-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		94.5	81.7-118	0.685	7.71	
1,4-Dioxane	0.361	0.010	mg/L	0.400		90.3	-34.6-193	0.0692	35.2	
1,2,3-trichloropropane	0.022	0.0005	mg/L	0.0200		112	44.7-168	0.224	49.2	
2,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		106	62.9-136	35.0	9.62	QR-04
2-Butanone	0.042	0.002	mg/L	0.0400		104	24.1-159	1.31	14.2	
2-Chlorotoluene	0.021	0.0005	mg/L	0.0200		104	80.2-121	0.575	8.62	
2-Hexanone	0.045	0.001	mg/L	0.0400		111	56.3-139	5.20	7.28	
Surrogate: 4-Bromofluorobenzene	0.0249		mg/L	0.0250		99.8	76.4-114			
4-Chlorotoluene	0.022	0.0005	mg/L	0.0200		110	82.2-125	0.273	15.5	
4-Methyl-2-pentanone	0.042	0.001	mg/L	0.0400		106	60.7-139	4.20	7.57	
Acetone	0.033	0.010	mg/L	0.0400		81.8	39.1-168	15.9	30.5	
Acrolein	0.205	0.005	mg/L	0.200		102	26.6-161	20.4	22.4	
Acrylonitrile	0.022	0.002	mg/L	0.0400		54.2	64.9-135	3.18	7.62	BS2
Benzene	0.020	0.0005	mg/L	0.0200		102	69.4-129	0.735	4.16	
Bromobenzene	0.020	0.0005	mg/L	0.0200		98.4	83.5-115	0.254	8.41	
Bromochloromethane	0.024	0.0005	mg/L	0.0200		122	70.7-123	22.0	5.16	QR-04
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		101	80.3-119	1.08	5.36	
Bromoform	0.019	0.0005	mg/L	0.0200		95.4	71.1-141	3.04	14.1	
Bromomethane	0.019	0.0005	mg/L	0.0200		96.3	55.1-143	5.88	21.5	
Carbon disulfide	0.044	0.001	mg/L	0.0400		109	53.6-147	3.00	20.3	
Carbon tetrachloride	0.025	0.0005	mg/L	0.0200		126	79.5-125	0.827	11.4	BS1
Chlorobenzene	0.020	0.0005	mg/L	0.0200		102	85.1-115	1.46	5.18	

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:
06/27/24 17:39

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 4061928 - Volatiles (Continued)

LCS Dup (4061928-BSD1) (Continued)

Prepared: 06/19/24 Analyzed: 06/26/24

Chloroethane	0.018	0.0005	mg/L	0.0200		91.9	36.9-159	0.272	24.1	
Chloroform	0.024	0.0005	mg/L	0.0200		122	80.9-119	0.123	5.15	BS1
Chloromethane	0.020	0.0005	mg/L	0.0200		99.2	54.2-142	11.2	27	
cis-1,2-Dichloroethene	0.023	0.0005	mg/L	0.0200		113	73.8-128	23.3	5.73	QR-04
cis-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		105	82.5-122	1.79	6.09	
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		101	83.1-124	1.62	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0277</i>		mg/L	<i>0.0250</i>		<i>111</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		98.6	77-118	1.56	5.75	
Dichlorodifluoromethane	0.021	0.0005	mg/L	0.0200		106	38.7-147	0.282	22.6	
Ethylbenzene	0.020	0.0005	mg/L	0.0200		102	70.2-130	1.84	4.83	
Hexachlorobutadiene	0.023	0.0005	mg/L	0.0200		113	78.9-148	0.842	18.4	
Iodomethane	0.036	0.001	mg/L	0.0400		89.1	63.5-135	4.90	24.3	
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		98.9	85-124	1.90	6.25	
m+p - Xylene	0.040	0.001	mg/L	0.0400		99.7	71.9-133	2.87	5.77	
Methyl tert-butyl ether	0.034	0.001	mg/L	0.0400		85.3	57.7-137	1.54	12.8	
Methylene chloride	0.015	0.0005	mg/L	0.0200		76.6	49.3-163	21.6	19.7	QR-04
Naphthalene	0.022	0.0005	mg/L	0.0200		109	62.1-141	4.27	33.5	
n-Butylbenzene	0.020	0.0005	mg/L	0.0200		99.6	75.4-132	2.67	10.1	
n-Propylbenzene	0.021	0.0005	mg/L	0.0200		106	79.6-124	0.520	9.09	
o-Xylene	0.020	0.0005	mg/L	0.0200		99.1	69.4-132	3.76	6.29	
p-Isopropyltoluene	0.016	0.0005	mg/L	0.0200		81.0	79.8-131	0.983	9.26	
sec-Butylbenzene	0.019	0.0005	mg/L	0.0200		97.2	77.6-133	1.33	9.85	
Styrene	0.019	0.0005	mg/L	0.0200		96.0	71.7-128	2.97	7.55	
tert-Butylbenzene	0.022	0.0005	mg/L	0.0200		109	78.8-128	0.183	18.6	
Tetrachloroethene	0.021	0.0005	mg/L	0.0200		104	74.2-128	0.668	6.38	
Toluene	0.020	0.0005	mg/L	0.0200		102	68.1-127	1.36	5.67	
<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	0.060	0.001	mg/L	0.0600		99.5	71.6-132	3.16	5.83	
trans-1,2-Dichloroethene	0.017	0.0005	mg/L	0.0200		84.5	65.2-133	12.3	19.1	
trans-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		106	84-123	2.78	6.26	
trans-1,4-Dichloro-2-butene	0.029	0.010	mg/L	0.0400		72.3	9.3-235	5.51	92.8	
Trichloroethene	0.020	0.0005	mg/L	0.0200		101	79.3-114	0.888	4.92	
Trichlorofluoromethane	0.020	0.0005	mg/L	0.0200		102	28.6-162	1.22	19.8	
Vinyl acetate	0.011	0.0005	mg/L	0.0200		55.4	50.9-135	2.76	7.84	
Vinyl chloride	0.021	0.0005	mg/L	0.0200		106	61.6-133	6.31	23	

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:
06/27/24 17:39

Notes and Definitions

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

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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PO Box 1653
Durango CO, 81302

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

Reported:
06/27/24 17:39

Qualifier Summary

<u>LabNumber</u>	<u>Analysis</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>TextBody</u>
4061928-BS1	Volatile 8260	Acrylonitrile	BS2	Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
4061928-BS1	Volatile 8260	Carbon tetrachloride	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
4061928-BS1	Volatile 8260	Chloroform	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
4061928-BSD1	Volatile 8260	2,2-Dichloropropane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4061928-BSD1	Volatile 8260	Acrylonitrile	BS2	Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
4061928-BSD1	Volatile 8260	Bromochloromethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4061928-BSD1	Volatile 8260	Carbon tetrachloride	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
4061928-BSD1	Volatile 8260	Chloroform	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
4061928-BSD1	Volatile 8260	cis-1,2-Dichloroethene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4061928-BSD1	Volatile 8260	Methylene chloride	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 Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: White-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: Cottonwood Consulting LLC		Bill to (if different):		ANALYSIS REQUEST	
Address: PO Box 1653					
City: Durango		State: CO Zip: 81302			
Phone #: 970-764-7356					
Contact Person: Kyle Siesser					
Email Report to: ksiesser@cottonwoodconsulting.com					
Project Name(optional):		P.O. #:			
Sandoval GC A #001		Rush? ☐ N ☐ Y		TAT Needed? ☐	
Sampler Name (Print): Welsey O'Brien		Matrix (check one)		# of containers	
		☐ GROUNDWATER			
		☐ SURFACE WATER			
		☐ WASTEWATER			
		☐ PRODUCED WATER			
		☐ DRINKING WATER			
		☐ SOIL			
		☐ OTHER:			
		☐ No preservation			
		☐ Nitric Acid			
		☐ Hydrochloric Acid			
		☐ Sulfuric Acid			
		☐ Sodium Hydroxide			
		☐ OTHER:			
Lab I.D. 2406-191 Lab Use Only		Date: 6/13/24 Time: 09:25		EPA Method 8260B (VOCs)	
1) MMV#2		✓			
2)		6/13/24 12:05			
3)		CON			
4)		6/14/24			
5)					
6)					
7)					
8)					
9)					
10)					

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 analysis. 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 of the applicable service. 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: 6/13/24	Received By:	Date: 6/13/24	ADDITIONAL REMARKS:	
Relinquished By:	Time: 15:00	Received By:	Time: 15:00		
Relinquished By:	Date:	Received By:	Date:		
Relinquished By:	Time:	Received By:	Time:		
Relinquished By:	Date:	Received By:	Date:	Temperature at receipt:	Checked by:
Relinquished By:	Time:	Received By:	Time:	33.0 °C	MMV
				On Ice? ☒ Y ☐ N	Therm. used: Welsey

* GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* 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 # 2406-191Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo ☐ Third Party ☐ OtherCustody 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: 33.0 °C Correction Factor: 0 °C Final Temp: 33.0 °C

*Temp should be above freezing to 6°C

Date/Initials of person
examining contents: 6.14.24
CDWLabeled 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. <u>Small bubble in oil</u>
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☐ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12. <u>Times on bottle labels mismatched from COC</u> <u>Bottle 12305 COC 0925</u>
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: KelseyDate/Time: 6-14-24 1138Comments/Resolution: VJW spoke w/K.O. she verified the correct time/date & sent an email



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

26 September 2024

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 09/18/24 15:27. 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 clear, legible script.

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: TX-C24-00019

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: TX-C24-00112

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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:
09/26/24 10:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2409217-01	Water	09/18/24 12:00	09/18/24 15:27	

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 #001A
Project Manager: Kyle Siesser

Reported:
09/26/24 10:12

MW #2

2409217-01 (Ground Water)

Sampled Date: 09/18/24 12:00

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*	<0.025	0.025	0.003	mg/L	50	09/24/24 18:37	8260B		MS
1,1,1-Trichloroethane*	<0.025	0.025	0.003	mg/L	50	09/24/24 18:37	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.025	0.025	0.003	mg/L	50	09/24/24 18:37	8260B		MS
1,1,2-Trichloroethane*	<0.025	0.025	0.003	mg/L	50	09/24/24 18:37	8260B		MS
1,1-Dichloroethane*	<0.025	0.025	0.008	mg/L	50	09/24/24 18:37	8260B		MS
1,1-Dichloroethene*	<0.025	0.025	0.009	mg/L	50	09/24/24 18:37	8260B		MS
1,1-Dichloropropene*	<0.025	0.025	0.008	mg/L	50	09/24/24 18:37	8260B		MS
1,2,3-Trichlorobenzene*	<0.025	0.025	0.012	mg/L	50	09/24/24 18:37	8260B		MS
1,2,4-Trichlorobenzene*	<0.025	0.025	0.006	mg/L	50	09/24/24 18:37	8260B		MS
1,2,4-Trimethylbenzene*	1.04	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
1,2-Dibromoethane*	<0.025	0.025	0.005	mg/L	50	09/24/24 18:37	8260B		MS
1,2-Dichlorobenzene*	<0.025	0.025	0.003	mg/L	50	09/24/24 18:37	8260B		MS
1,2-Dichloroethane*	<0.025	0.025	0.003	mg/L	50	09/24/24 18:37	8260B		MS
1,2-Dichloropropane*	<0.025	0.025	0.004	mg/L	50	09/24/24 18:37	8260B		MS
1,3,5-Trimethylbenzene*	0.216	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
1,3-Dichlorobenzene*	<0.025	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
1,3-Dichloropropane*	<0.025	0.025	0.007	mg/L	50	09/24/24 18:37	8260B		MS
1,4-Dichlorobenzene	<0.025	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
1,4-Dioxane	<0.500	0.500	0.500	mg/L	50	09/24/24 18:37	8260B		MS
1,2,3-trichloropropane*	<0.025	0.025	0.006	mg/L	50	09/24/24 18:37	8260B		MS
2,2-Dichloropropane*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
2-Butanone*	<0.100	0.100	0.100	mg/L	50	09/24/24 18:37	8260B		MS
2-Chlorotoluene*	<0.025	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
2-Hexanone*	<0.050	0.050	0.016	mg/L	50	09/24/24 18:37	8260B		MS
4-Chlorotoluene*	<0.025	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
4-Methyl-2-pentanone*	<0.050	0.050	0.006	mg/L	50	09/24/24 18:37	8260B		MS
Acetone*	<0.500	0.500	0.043	mg/L	50	09/24/24 18:37	8260B		MS
Acrolein*	<0.250	0.250	0.054	mg/L	50	09/24/24 18:37	8260B		MS
Acrylonitrile*	<0.100	0.100	0.040	mg/L	50	09/24/24 18:37	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 #001A
Project Manager: Kyle Siesser

Reported:
09/26/24 10:12

MW #2

2409217-01 (Ground Water)

Sampled Date: 09/18/24 12:00

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

Benzene*	1.27	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
Bromobenzene*	<0.025	0.025	0.003	mg/L	50	09/24/24 18:37	8260B		MS
Bromochloromethane*	<0.025	0.025	0.007	mg/L	50	09/24/24 18:37	8260B		MS
Bromodichloromethane*	<0.025	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
Bromoform*	<0.025	0.025	0.004	mg/L	50	09/24/24 18:37	8260B		MS
Bromomethane*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
Carbon disulfide*	<0.050	0.050	0.007	mg/L	50	09/24/24 18:37	8260B		MS
Carbon tetrachloride*	<0.025	0.025	0.008	mg/L	50	09/24/24 18:37	8260B		MS
Chlorobenzene*	<0.025	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
Chloroethane*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
Chloroform*	<0.025	0.025	0.0008	mg/L	50	09/24/24 18:37	8260B		MS
Chloromethane*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
cis-1,2-Dichloroethene*	<0.025	0.025	0.012	mg/L	50	09/24/24 18:37	8260B		MS
cis-1,3-Dichloropropene*	<0.025	0.025	0.004	mg/L	50	09/24/24 18:37	8260B		MS
Dibromochloromethane*	<0.025	0.025	0.004	mg/L	50	09/24/24 18:37	8260B		MS
Dibromomethane*	<0.025	0.025	0.008	mg/L	50	09/24/24 18:37	8260B		MS
Dichlorodifluoromethane*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
Ethylbenzene*	0.318	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
Hexachlorobutadiene*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
Iodomethane	<0.050	0.050	0.003	mg/L	50	09/24/24 18:37	8260B		MS
Isopropylbenzene*	0.050	0.025	0.001	mg/L	50	09/24/24 18:37	8260B		MS
m+p - Xylene*	1.40	0.050	0.004	mg/L	50	09/24/24 18:37	8260B		MS
Methyl tert-butyl ether	<0.050	0.050	0.012	mg/L	50	09/24/24 18:37	8260B		MS
Methylene chloride*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
Naphthalene*	0.094	0.025	0.004	mg/L	50	09/24/24 18:37	8260B		MS
n-Butylbenzene*	<0.025	0.025	0.003	mg/L	50	09/24/24 18:37	8260B		MS
n-Propylbenzene*	0.048	0.025	0.003	mg/L	50	09/24/24 18:37	8260B		MS
o-Xylene*	0.044	0.025	0.006	mg/L	50	09/24/24 18:37	8260B		MS
p-Isopropyltoluene*	0.138	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
sec-Butylbenzene*	<0.025	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
Styrene*	<0.025	0.025	0.006	mg/L	50	09/24/24 18:37	8260B		MS
tert-Butylbenzene*	<0.025	0.025	0.004	mg/L	50	09/24/24 18:37	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 #001A
Project Manager: Kyle Siesser

Reported:
09/26/24 10:12

MW #2

2409217-01 (Ground Water)

Sampled Date: 09/18/24 12:00

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

Tetrachloroethene*	<0.025	0.025	0.005	mg/L	50	09/24/24 18:37	8260B		MS
Toluene*	<0.025	0.025	0.004	mg/L	50	09/24/24 18:37	8260B		MS
Total Xylenes*	1.44	0.050	0.010	mg/L	50	09/24/24 18:37	8260B		MS
trans-1,2-Dichloroethene*	<0.025	0.025	0.007	mg/L	50	09/24/24 18:37	8260B		MS
trans-1,3-Dichloropropene*	<0.025	0.025	0.002	mg/L	50	09/24/24 18:37	8260B		MS
trans-1,4-Dichloro-2-butene	<0.500	0.500	0.014	mg/L	50	09/24/24 18:37	8260B		MS
Trichloroethene*	<0.025	0.025	0.009	mg/L	50	09/24/24 18:37	8260B		MS
Trichlorofluoromethane*	<0.025	0.025	0.007	mg/L	50	09/24/24 18:37	8260B		MS
Vinyl acetate*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
Vinyl chloride*	<0.025	0.025	0.025	mg/L	50	09/24/24 18:37	8260B		MS
Surrogate: 4-Bromofluorobenzene			99.5 %	76.4-114		09/24/24 18:37	8260B		MS
Surrogate: Dibromofluoromethane			104 %	82.4-141		09/24/24 18:37	8260B		MS
Surrogate: Toluene-d8			101 %	87.1-110		09/24/24 18:37	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:
09/26/24 10:12

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 4091935 - Volatiles

Blank (4091935-BLK1)

Prepared: 09/19/24 Analyzed: 09/24/24

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	0.0246		mg/L	0.0250	98.4	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			

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 #001A
Project Manager: Kyle Siesser

Reported:
09/26/24 10:12

**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 4091935 - Volatiles (Continued)

Blank (4091935-BLK1) (Continued)

Prepared: 09/19/24 Analyzed: 09/24/24

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>0.0254</i>		mg/L	<i>0.0250</i>		<i>102</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>0.0249</i>		mg/L	<i>0.0250</i>		<i>99.7</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							

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 #001A
Project Manager: Kyle Siesser

Reported:
09/26/24 10:12

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 4091935 - Volatiles (Continued)

LCS (4091935-BS1)

Prepared: 09/19/24 Analyzed: 09/24/24

1,1,1,2-Tetrachloroethane	0.017	0.0005	mg/L	0.0200		87.2	82.4-120			
1,1,1-Trichloroethane	0.019	0.0005	mg/L	0.0200		95.6	80.7-121			
1,1,2,2-Tetrachloroethane	0.021	0.0005	mg/L	0.0200		105	76.5-121			
1,1,2-Trichloroethane	0.019	0.0005	mg/L	0.0200		93.4	81.7-118			
1,1-Dichloroethane	0.020	0.0005	mg/L	0.0200		100	74.8-123			
1,1-Dichloroethene	0.021	0.0005	mg/L	0.0200		105	53.9-149			
1,1-Dichloropropene	0.020	0.0005	mg/L	0.0200		100	85.9-115			
1,2,3-Trichlorobenzene	0.023	0.0005	mg/L	0.0200		114	76.1-134			
1,2,4-Trichlorobenzene	0.023	0.0005	mg/L	0.0200		117	72.4-136			
1,2,4-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		112	67.4-138			
1,2-Dibromo-3-chloropropane	0.021	0.0005	mg/L	0.0200		106	71.7-124			
1,2-Dibromoethane	0.020	0.0005	mg/L	0.0200		100	84.9-116			
1,2-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		97.8	82.5-119			
1,2-Dichloroethane	0.018	0.0005	mg/L	0.0200		87.8	72.5-123			
1,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		105	79.4-117			
1,3,5-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		110	69-137			
1,3-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		97.6	84.4-120			
1,3-Dichloropropane	0.020	0.0005	mg/L	0.0200		101	82.6-117			
1,4-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		96.4	81.7-118			
1,4-Dioxane	0.350	0.010	mg/L	0.400		87.4	-34.6-193			
1,2,3-trichloropropane	0.023	0.0005	mg/L	0.0200		116	44.7-168			
2,2-Dichloropropane	0.015	0.0005	mg/L	0.0200		73.0	62.9-136			
2-Butanone	0.036	0.002	mg/L	0.0400		89.1	24.1-159			
2-Chlorotoluene	0.021	0.0005	mg/L	0.0200		107	80.2-121			
2-Hexanone	0.036	0.001	mg/L	0.0400		90.8	56.3-139			
Surrogate: 4-Bromofluorobenzene	0.0251		mg/L	0.0250		101	76.4-114			
4-Chlorotoluene	0.022	0.0005	mg/L	0.0200		111	82.2-125			
4-Methyl-2-pentanone	0.041	0.001	mg/L	0.0400		103	60.7-139			
Acetone	0.045	0.010	mg/L	0.0400		112	39.1-168			
Acrolein	0.185	0.005	mg/L	0.200		92.7	26.6-161			
Acrylonitrile	0.041	0.002	mg/L	0.0400		103	64.9-135			
Benzene	0.020	0.0005	mg/L	0.0200		98.6	69.4-129			
Bromobenzene	0.020	0.0005	mg/L	0.0200		98.4	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		97.7	80.3-119			
Bromoform	0.019	0.0005	mg/L	0.0200		96.8	71.1-141			
Bromomethane	0.017	0.0005	mg/L	0.0200		87.4	55.1-143			
Carbon disulfide	0.042	0.001	mg/L	0.0400		104	53.6-147			
Carbon tetrachloride	0.019	0.0005	mg/L	0.0200		93.9	79.5-125			

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 #001A
Project Manager: Kyle Siesser

Reported:
09/26/24 10:12

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 4091935 - Volatiles (Continued)

LCS (4091935-BS1) (Continued)

Prepared: 09/19/24 Analyzed: 09/24/24

Chlorobenzene	0.019	0.0005	mg/L	0.0200		95.4	85.1-115			
Chloroethane	0.019	0.0005	mg/L	0.0200		94.1	36.9-159			
Chloroform	0.018	0.0005	mg/L	0.0200		92.2	80.9-119			
Chloromethane	0.020	0.0005	mg/L	0.0200		102	54.2-142			
cis-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		101	73.8-128			
cis-1,3-Dichloropropene	0.020	0.0005	mg/L	0.0200		102	82.5-122			
Dibromochloromethane	0.019	0.0005	mg/L	0.0200		96.8	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0241</i>		mg/L	<i>0.0250</i>		<i>96.4</i>	<i>82.4-141</i>			
Dibromomethane	0.019	0.0005	mg/L	0.0200		94.0	77-118			
Dichlorodifluoromethane	0.021	0.0005	mg/L	0.0200		104	38.7-147			
Ethylbenzene	0.020	0.0005	mg/L	0.0200		100	70.2-130			
Hexachlorobutadiene	0.025	0.0005	mg/L	0.0200		123	78.9-148			
Iodomethane	0.036	0.001	mg/L	0.0400		90.3	63.5-135			
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		100	85-124			
m+p - Xylene	0.040	0.001	mg/L	0.0400		101	71.9-133			
Methyl tert-butyl ether	0.037	0.001	mg/L	0.0400		93.6	57.7-137			
Methylene chloride	0.021	0.0005	mg/L	0.0200		103	49.3-163			
Naphthalene	0.021	0.0005	mg/L	0.0200		105	62.1-141			
n-Butylbenzene	0.022	0.0005	mg/L	0.0200		108	75.4-132			
n-Propylbenzene	0.022	0.0005	mg/L	0.0200		111	79.6-124			
o-Xylene	0.021	0.0005	mg/L	0.0200		104	69.4-132			
p-Isopropyltoluene	0.021	0.0005	mg/L	0.0200		107	79.8-131			
sec-Butylbenzene	0.023	0.0005	mg/L	0.0200		117	77.6-133			
Styrene	0.020	0.0005	mg/L	0.0200		98.8	71.7-128			
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		106	78.8-128			
Tetrachloroethene	0.018	0.0005	mg/L	0.0200		89.8	74.2-128			
Toluene	0.018	0.0005	mg/L	0.0200		92.0	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0254</i>		mg/L	<i>0.0250</i>		<i>101</i>	<i>87.1-110</i>			
Total Xylenes	0.061	0.001	mg/L	0.0600		102	71.6-132			
trans-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		98.6	65.2-133			
trans-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		104	84-123			
trans-1,4-Dichloro-2-butene	0.069	0.010	mg/L	0.0400		172	9.3-235			
Trichloroethene	0.019	0.0005	mg/L	0.0200		95.2	79.3-114			
Trichlorofluoromethane	0.018	0.0005	mg/L	0.0200		89.2	28.6-162			
Vinyl acetate	0.013	0.0005	mg/L	0.0200		66.4	50.9-135			
Vinyl chloride	0.021	0.0005	mg/L	0.0200		106	61.6-133			

LCS Dup (4091935-BSD1)

Prepared: 09/19/24 Analyzed: 09/24/24

1,1,1,2-Tetrachloroethane	0.017	0.0005	mg/L	0.0200		85.5	82.4-120	1.97	6.88	
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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 #001A
Project Manager: Kyle Siesser

Reported:
09/26/24 10:12

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 4091935 - Volatiles (Continued)

LCS Dup (4091935-BSD1) (Continued)

Prepared: 09/19/24 Analyzed: 09/24/24

1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		97.9	80.7-121	2.38	7.43	
1,1,2,2-Tetrachloroethane	0.022	0.0005	mg/L	0.0200		109	76.5-121	4.21	8.68	
1,1,2-Trichloroethane	0.019	0.0005	mg/L	0.0200		96.2	81.7-118	2.95	6.82	
1,1-Dichloroethane	0.020	0.0005	mg/L	0.0200		102	74.8-123	1.98	4.3	
1,1-Dichloroethene	0.021	0.0005	mg/L	0.0200		103	53.9-149	2.31	16.5	
1,1-Dichloropropene	0.020	0.0005	mg/L	0.0200		99.4	85.9-115	0.602	5.47	
1,2,3-Trichlorobenzene	0.022	0.0005	mg/L	0.0200		111	76.1-134	2.89	43	
1,2,4-Trichlorobenzene	0.022	0.0005	mg/L	0.0200		112	72.4-136	4.68	22.3	
1,2,4-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		111	67.4-138	1.30	8.94	
1,2-Dibromo-3-chloropropane	0.020	0.0005	mg/L	0.0200		101	71.7-124	4.68	15.1	
1,2-Dibromoethane	0.020	0.0005	mg/L	0.0200		101	84.9-116	0.299	5.83	
1,2-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		96.0	82.5-119	1.86	8.72	
1,2-Dichloroethane	0.018	0.0005	mg/L	0.0200		92.4	72.5-123	5.05	8.94	
1,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		107	79.4-117	1.42	5.51	
1,3,5-Trimethylbenzene	0.023	0.0005	mg/L	0.0200		113	69-137	2.33	16.5	
1,3-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		100	84.4-120	2.73	9	
1,3-Dichloropropane	0.020	0.0005	mg/L	0.0200		98.6	82.6-117	2.50	6.06	
1,4-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		98.6	81.7-118	2.26	7.71	
1,4-Dioxane	0.372	0.010	mg/L	0.400		93.1	-34.6-193	6.28	35.2	
1,2,3-trichloropropane	0.024	0.0005	mg/L	0.0200		118	44.7-168	1.97	49.2	
2,2-Dichloropropane	0.015	0.0005	mg/L	0.0200		73.0	62.9-136	0.137	9.62	
2-Butanone	0.043	0.002	mg/L	0.0400		109	24.1-159	19.6	14.2	QR-04
2-Chlorotoluene	0.021	0.0005	mg/L	0.0200		104	80.2-121	2.23	8.62	
2-Hexanone	0.040	0.001	mg/L	0.0400		99.3	56.3-139	8.92	7.28	QR-04
Surrogate: 4-Bromofluorobenzene	0.0251		mg/L	0.0250		100	76.4-114			
4-Chlorotoluene	0.022	0.0005	mg/L	0.0200		110	82.2-125	0.902	15.5	
4-Methyl-2-pentanone	0.043	0.001	mg/L	0.0400		107	60.7-139	3.63	7.57	
Acetone	0.047	0.010	mg/L	0.0400		119	39.1-168	5.43	30.5	
Acrolein	0.196	0.005	mg/L	0.200		98.2	26.6-161	5.72	22.4	
Acrylonitrile	0.043	0.002	mg/L	0.0400		107	64.9-135	4.13	7.62	
Benzene	0.020	0.0005	mg/L	0.0200		101	69.4-129	2.31	4.16	
Bromobenzene	0.020	0.0005	mg/L	0.0200		98.3	83.5-115	0.102	8.41	
Bromochloromethane	0.019	0.0005	mg/L	0.0200		97.4	70.7-123	3.23	5.16	
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		99.7	80.3-119	2.03	5.36	
Bromoform	0.020	0.0005	mg/L	0.0200		101	71.1-141	4.64	14.1	
Bromomethane	0.017	0.0005	mg/L	0.0200		85.0	55.1-143	2.79	21.5	
Carbon disulfide	0.042	0.001	mg/L	0.0400		105	53.6-147	0.671	20.3	
Carbon tetrachloride	0.019	0.0005	mg/L	0.0200		94.6	79.5-125	0.690	11.4	
Chlorobenzene	0.020	0.0005	mg/L	0.0200		97.6	85.1-115	2.23	5.18	

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 #001A
Project Manager: Kyle Siesser

Reported:
09/26/24 10:12

**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 4091935 - Volatiles (Continued)

LCS Dup (4091935-BSD1) (Continued)

Prepared: 09/19/24 Analyzed: 09/24/24

Chloroethane	0.019	0.0005	mg/L	0.0200		95.9	36.9-159	1.89	24.1	
Chloroform	0.018	0.0005	mg/L	0.0200		90.8	80.9-119	1.48	5.15	
Chloromethane	0.020	0.0005	mg/L	0.0200		101	54.2-142	0.785	27	
cis-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		105	73.8-128	3.15	5.73	
cis-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		106	82.5-122	3.93	6.09	
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		98.6	83.1-124	1.84	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0244</i>		mg/L	<i>0.0250</i>		<i>97.5</i>	<i>82.4-141</i>			
Dibromomethane	0.019	0.0005	mg/L	0.0200		96.8	77-118	2.88	5.75	
Dichlorodifluoromethane	0.020	0.0005	mg/L	0.0200		102	38.7-147	1.02	22.6	
Ethylbenzene	0.020	0.0005	mg/L	0.0200		99.8	70.2-130	0.200	4.83	
Hexachlorobutadiene	0.025	0.0005	mg/L	0.0200		124	78.9-148	0.731	18.4	
Iodomethane	0.036	0.001	mg/L	0.0400		90.5	63.5-135	0.249	24.3	
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		100	85-124	0.0499	6.25	
m+p - Xylene	0.040	0.001	mg/L	0.0400		101	71.9-133	0.447	5.77	
Methyl tert-butyl ether	0.039	0.001	mg/L	0.0400		97.0	57.7-137	3.57	12.8	
Methylene chloride	0.021	0.0005	mg/L	0.0200		104	49.3-163	1.21	19.7	
Naphthalene	0.021	0.0005	mg/L	0.0200		105	62.1-141	0.476	33.5	
n-Butylbenzene	0.021	0.0005	mg/L	0.0200		106	75.4-132	1.35	10.1	
n-Propylbenzene	0.022	0.0005	mg/L	0.0200		112	79.6-124	0.850	9.09	
o-Xylene	0.021	0.0005	mg/L	0.0200		103	69.4-132	0.727	6.29	
p-Isopropyltoluene	0.023	0.0005	mg/L	0.0200		114	79.8-131	5.65	9.26	
sec-Butylbenzene	0.023	0.0005	mg/L	0.0200		117	77.6-133	0.384	9.85	
Styrene	0.020	0.0005	mg/L	0.0200		99.4	71.7-128	0.606	7.55	
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		106	78.8-128	0.283	18.6	
Tetrachloroethene	0.018	0.0005	mg/L	0.0200		89.1	74.2-128	0.783	6.38	
Toluene	0.019	0.0005	mg/L	0.0200		93.3	68.1-127	1.40	5.67	
<i>Surrogate: Toluene-d8</i>	<i>0.0253</i>		mg/L	<i>0.0250</i>		<i>101</i>	<i>87.1-110</i>			
Total Xylenes	0.061	0.001	mg/L	0.0600		101	71.6-132	0.541	5.83	
trans-1,2-Dichloroethene	0.019	0.0005	mg/L	0.0200		95.4	65.2-133	3.25	19.1	
trans-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		104	84-123	0.672	6.26	
trans-1,4-Dichloro-2-butene	0.069	0.010	mg/L	0.0400		172	9.3-235	0.218	92.8	
Trichloroethene	0.020	0.0005	mg/L	0.0200		99.8	79.3-114	4.62	4.92	
Trichlorofluoromethane	0.018	0.0005	mg/L	0.0200		89.0	28.6-162	0.224	19.8	
Vinyl acetate	0.014	0.0005	mg/L	0.0200		70.6	50.9-135	6.13	7.84	
Vinyl chloride	0.021	0.0005	mg/L	0.0200		105	61.6-133	1.14	23	

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 #001A
Project Manager: Kyle Siesser

Reported:
09/26/24 10:12

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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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

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

Reported:
09/26/24 10:12

Qualifier Summary

<u>LabNumber</u>	<u>Analysis</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>TextBody</u>
4091935-BSD1	Volatile 8260	2-Butanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
4091935-BSD1	Volatile 8260	2-Hexanone	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 Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Write-Out™ or similar products cannot be used on the Chain of Custody

Company or Client: Cottonwood Consulting LLC

Address: PO Box 1653

City: Durango

State: CO Zip: 81302

Phone #: 970-764-7356

Contact Person: Kyle Siesser

Email Report to: ksiesser@cottonwoodconsulting.com

Project Name(optional):

Sandoval GC A #001A

Sampler Name (Print):

Bill to (if different):

ANALYSIS REQUEST

P.O. #:

Rush?

TAT
Needed?

Collected

Matrix (check one)

of containers

Lab I.D.
2469-217

Sample Name or Location

Lab Use Only

1) MM#2

Date

Time

✓

GROUNDWATER
SURFACE WATER
WASTEWATER
PRODUCED WATER
DRINKING WATER
SOIL
OTHER:

No preservation
Nitric Acid
Hydrochloric Acid
Sulfuric Acid
Sodium Hydroxide
OTHER:

✓

EPA Method 8260B (VOCs)

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ADDITIONAL REMARKS:

Relinquished By:

Date: 9/18/24

Received By:

Date: 9/18/24

Relinquished By:

Date: 10/25

Received By:

Date: 10/27

Relinquished By:

Date:

Received By:

Date:

Temperature at receipt: 17.8 °C

Checked by: [Signature]

On Ice? ☒ Y ☐ N

Therm. used: [Signature]

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* 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 # 2409-217Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo ☐ Third Party ☐ OtherCustody Seals on Box/Cooler Present: ☐ Yes ☒ NoSeals Intact: ☐ Yes ☐ NoThermometer Used: #7 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 17.8 °C Correction Factor: 0 °C Final Temp: 128 °C

* Temp should be above freezing to 6°C

Date/Initials of person
examining contents: 2/18/21
CDNLabeled 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

26 December 2024

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 12/11/24 16:15. 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: TX-C24-00019

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: TX-C24-00112

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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:
12/26/24 15:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2412124-01	Water	12/11/24 13:20	12/11/24 16:15	

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:
12/26/24 15:27

MW #2

2412124-01 (Ground Water)

Sampled Date: 12/11/24 13:20

Sampled By: Kelsey O'brien

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	<0.0005	0.0005	0.00006	mg/L	1	12/17/24 16:58	8260B		SK
1,1,1-Trichloroethane	<0.0005	0.0005	0.00006	mg/L	1	12/17/24 16:58	8260B		SK
1,1,2,2-Tetrachloroethane	<0.0005	0.0005	0.00006	mg/L	1	12/17/24 16:58	8260B		SK
1,1,2-Trichloroethane	<0.0005	0.0005	0.00006	mg/L	1	12/17/24 16:58	8260B		SK
1,1-Dichloroethane	<0.0005	0.0005	0.0002	mg/L	1	12/17/24 16:58	8260B		SK
1,1-Dichloroethene	<0.0005	0.0005	0.0002	mg/L	1	12/17/24 16:58	8260B		SK
1,1-Dichloropropene	<0.0005	0.0005	0.0002	mg/L	1	12/17/24 16:58	8260B		SK
1,2,3-Trichlorobenzene	<0.0005	0.0005	0.0002	mg/L	1	12/17/24 16:58	8260B		SK
1,2,4-Trichlorobenzene	<0.0005	0.0005	0.0001	mg/L	1	12/17/24 16:58	8260B		SK
1,2,4-Trimethylbenzene	0.563	0.002	0.0002	mg/L	5	12/23/24 14:13	8260B	E	SK
1,2-Dibromo-3-chloropropane	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
1,2-Dibromoethane	<0.0005	0.0005	0.00009	mg/L	1	12/17/24 16:58	8260B		SK
1,2-Dichlorobenzene	<0.0005	0.0005	0.00007	mg/L	1	12/17/24 16:58	8260B		SK
1,2-Dichloroethane	<0.0005	0.0005	0.00006	mg/L	1	12/17/24 16:58	8260B		SK
1,2-Dichloropropane	<0.0005	0.0005	0.00008	mg/L	1	12/17/24 16:58	8260B		SK
1,3,5-Trimethylbenzene	0.247	0.002	0.0002	mg/L	5	12/23/24 14:13	8260B		SK
1,3-Dichlorobenzene	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 16:58	8260B		SK
1,3-Dichloropropane	<0.0005	0.0005	0.0001	mg/L	1	12/17/24 16:58	8260B		SK
1,4-Dichlorobenzene	<0.0005	0.0005	0.00004	mg/L	1	12/17/24 16:58	8260B		SK
1,4-Dioxane	<0.020	0.020	0.020	mg/L	1	12/17/24 16:58	8260B		SK
1,2,3-trichloropropane	<0.0005	0.0005	0.0001	mg/L	1	12/17/24 16:58	8260B		SK
2,2-Dichloropropane	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
2-Butanone	<0.002	0.002	0.002	mg/L	1	12/17/24 16:58	8260B		SK
2-Chlorotoluene	<0.0005	0.0005	0.00004	mg/L	1	12/17/24 16:58	8260B		SK
2-Hexanone	<0.001	0.001	0.0003	mg/L	1	12/17/24 16:58	8260B		SK
4-Chlorotoluene	<0.0005	0.0005	0.00004	mg/L	1	12/17/24 16:58	8260B		SK
4-Methyl-2-pentanone	<0.001	0.001	0.0001	mg/L	1	12/17/24 16:58	8260B		SK
Acetone	<0.010	0.010	0.0009	mg/L	1	12/17/24 16:58	8260B		SK

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:
12/26/24 15:27

MW #2

2412124-01 (Ground Water)

Sampled Date: 12/11/24 13:20

Sampled By: Kelsey O'brien

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

Acrolein	<0.005	0.005	0.001	mg/L	1	12/17/24 16:58	8260B		SK
Acrylonitrile	<0.002	0.002	0.0008	mg/L	1	12/17/24 16:58	8260B		SK
Benzene	0.412	0.002	0.0002	mg/L	5	12/23/24 14:13	8260B		SK
Bromobenzene	<0.0005	0.0005	0.00006	mg/L	1	12/17/24 16:58	8260B		SK
Bromochloromethane	<0.0005	0.0005	0.0001	mg/L	1	12/17/24 16:58	8260B		SK
Bromodichloromethane	<0.0005	0.0005	0.00004	mg/L	1	12/17/24 16:58	8260B		SK
Bromoform	<0.0005	0.0005	0.00009	mg/L	1	12/17/24 16:58	8260B		SK
Bromomethane	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
Carbon disulfide	0.003	0.001	0.0001	mg/L	1	12/17/24 16:58	8260B		SK
Carbon tetrachloride	<0.0005	0.0005	0.0002	mg/L	1	12/17/24 16:58	8260B		SK
Chlorobenzene	<0.0005	0.0005	0.00004	mg/L	1	12/17/24 16:58	8260B		SK
Chloroethane	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
Chloroform	<0.0005	0.0005	0.00002	mg/L	1	12/17/24 16:58	8260B		SK
Chloromethane	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
cis-1,2-Dichloroethene	<0.0005	0.0005	0.0002	mg/L	1	12/17/24 16:58	8260B		SK
cis-1,3-Dichloropropene	<0.0005	0.0005	0.00009	mg/L	1	12/17/24 16:58	8260B		SK
Dibromochloromethane	<0.0005	0.0005	0.00008	mg/L	1	12/17/24 16:58	8260B		SK
Dibromomethane	<0.0005	0.0005	0.0002	mg/L	1	12/17/24 16:58	8260B		SK
Dichlorodifluoromethane	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
Ethylbenzene	0.192	0.002	0.0002	mg/L	5	12/23/24 14:13	8260B		SK
Hexachlorobutadiene	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
Iodomethane	<0.001	0.001	0.00006	mg/L	1	12/17/24 16:58	8260B		SK
Isopropylbenzene	0.029	0.002	0.0001	mg/L	5	12/23/24 14:13	8260B		SK
m+p - Xylene	0.573	0.005	0.0004	mg/L	5	12/23/24 14:13	8260B		SK
Methyl tert-butyl ether	<0.001	0.001	0.0002	mg/L	1	12/17/24 16:58	8260B		SK
Methylene chloride	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
Naphthalene	0.074	0.002	0.0004	mg/L	5	12/23/24 14:13	8260B		SK
n-Butylbenzene	<0.0005	0.0005	0.00007	mg/L	1	12/17/24 16:58	8260B		SK
n-Propylbenzene	0.031	0.002	0.0003	mg/L	5	12/23/24 14:13	8260B		SK
o-Xylene	0.019	0.002	0.0006	mg/L	5	12/23/24 14:13	8260B		SK
p-Isopropyltoluene	0.079	0.002	0.0002	mg/L	5	12/23/24 14:13	8260B		SK

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:
12/26/24 15:27

MW #2

2412124-01 (Ground Water)

Sampled Date: 12/11/24 13:20

Sampled By: Kelsey O'brien

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

sec-Butylbenzene	<0.0005	0.0005	0.00004	mg/L	1	12/17/24 16:58	8260B		SK
Styrene	<0.0005	0.0005	0.0001	mg/L	1	12/17/24 16:58	8260B		SK
tert-Butylbenzene	<0.0005	0.0005	0.00007	mg/L	1	12/17/24 16:58	8260B		SK
Tetrachloroethene	<0.0005	0.0005	0.00009	mg/L	1	12/17/24 16:58	8260B		SK
Toluene	0.019	0.0005	0.00008	mg/L	1	12/17/24 16:58	8260B		SK
Total Xylenes	0.592	0.005	0.001	mg/L	5	12/23/24 14:13	8260B		SK
trans-1,2-Dichloroethene	<0.0005	0.0005	0.0001	mg/L	1	12/17/24 16:58	8260B		SK
trans-1,3-Dichloropropene	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 16:58	8260B		SK
trans-1,4-Dichloro-2-butene	<0.010	0.010	0.0003	mg/L	1	12/17/24 16:58	8260B		SK
Trichloroethene	<0.0005	0.0005	0.0002	mg/L	1	12/17/24 16:58	8260B		SK
Trichlorofluoromethane	<0.0005	0.0005	0.0001	mg/L	1	12/17/24 16:58	8260B		SK
Vinyl acetate	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
Vinyl chloride	<0.0005	0.0005	0.0005	mg/L	1	12/17/24 16:58	8260B		SK
Surrogate: 4-Bromofluorobenzene			103 %	76.4-114		12/23/24 14:13	8260B		SK
Surrogate: Dibromofluoromethane			101 %	82.4-141		12/23/24 14:13	8260B		SK
Surrogate: Toluene-d8			102 %	87.1-110		12/23/24 14:13	8260B		SK

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:
12/26/24 15:27

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 4121709 - Volatiles

Blank (4121709-BLK1)

Prepared & Analyzed: 12/17/24

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	0.020	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	0.0466		mg/L	0.0500	93.3	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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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

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

Reported:
12/26/24 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 4121709 - Volatiles (Continued)

Blank (4121709-BLK1) (Continued)

Prepared & Analyzed: 12/17/24

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 0.0528 mg/L 0.0500 106 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 0.0489 mg/L 0.0500 97.7 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

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:
12/26/24 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 4121709 - Volatiles (Continued)

LCS (4121709-BS1)

Prepared & Analyzed: 12/17/24

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		99.0	82.4-120			
1,1,1-Trichloroethane	0.021	0.0005	mg/L	0.0200		107	80.7-121			
1,1,2,2-Tetrachloroethane	0.014	0.0005	mg/L	0.0200		69.8	76.5-121			BS2
1,1,2-Trichloroethane	0.020	0.0005	mg/L	0.0200		98.6	81.7-118			
1,1-Dichloroethane	0.021	0.0005	mg/L	0.0200		103	74.8-123			
1,1-Dichloroethene	0.022	0.0005	mg/L	0.0200		109	53.9-149			
1,1-Dichloropropene	0.020	0.0005	mg/L	0.0200		98.4	85.9-115			
1,2,3-Trichlorobenzene	0.022	0.0005	mg/L	0.0200		112	76.1-134			
1,2,4-Trichlorobenzene	0.024	0.0005	mg/L	0.0200		118	72.4-136			
1,2,4-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		106	67.4-138			
1,2-Dibromo-3-chloropropane	0.013	0.0005	mg/L	0.0200		66.0	71.7-124			BS2
1,2-Dibromoethane	0.017	0.0005	mg/L	0.0200		85.2	84.9-116			
1,2-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		97.2	82.5-119			
1,2-Dichloroethane	0.022	0.0005	mg/L	0.0200		108	72.5-123			
1,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		93.6	79.4-117			
1,3,5-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		106	69-137			
1,3-Dichlorobenzene	0.022	0.0005	mg/L	0.0200		108	84.4-120			
1,3-Dichloropropane	0.017	0.0005	mg/L	0.0200		85.0	82.6-117			
1,4-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		102	81.7-118			
1,4-Dioxane	1.15	0.020	mg/L	2.00		57.4	-34.6-193			
1,2,3-trichloropropane	0.015	0.0005	mg/L	0.0200		73.8	44.7-168			
2,2-Dichloropropane	0.023	0.0005	mg/L	0.0200		114	62.9-136			
2-Butanone	0.040	0.002	mg/L	0.0400		99.1	24.1-159			
2-Chlorotoluene	0.019	0.0005	mg/L	0.0200		96.4	80.2-121			
2-Hexanone	0.022	0.001	mg/L	0.0400		56.0	56.3-139			BS2
Surrogate: 4-Bromofluorobenzene	0.0474		mg/L	0.0500		94.8	76.4-114			
4-Chlorotoluene	0.020	0.0005	mg/L	0.0200		99.7	82.2-125			
4-Methyl-2-pentanone	0.026	0.001	mg/L	0.0400		64.0	60.7-139			
Acetone	0.071	0.010	mg/L	0.0400		178	39.1-168			BS1
Acrolein	0.243	0.005	mg/L	0.200		121	26.6-161			
Acrylonitrile	0.040	0.002	mg/L	0.0400		99.8	64.9-135			
Benzene	0.019	0.0005	mg/L	0.0200		95.5	69.4-129			
Bromobenzene	0.020	0.0005	mg/L	0.0200		101	83.5-115			
Bromochloromethane	0.020	0.0005	mg/L	0.0200		97.5	70.7-123			
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		102	80.3-119			
Bromoform	0.018	0.0005	mg/L	0.0200		91.9	71.1-141			
Bromomethane	0.021	0.0005	mg/L	0.0200		106	55.1-143			
Carbon disulfide	0.061	0.001	mg/L	0.0400		153	53.6-147			BS1
Carbon tetrachloride	0.022	0.0005	mg/L	0.0200		108	79.5-125			

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:
12/26/24 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 4121709 - Volatiles (Continued)

LCS (4121709-BS1) (Continued)

Prepared & Analyzed: 12/17/24

Chlorobenzene	0.020	0.0005	mg/L	0.0200		100	85.1-115			
Chloroethane	0.021	0.0005	mg/L	0.0200		103	36.9-159			
Chloroform	0.019	0.0005	mg/L	0.0200		93.6	80.9-119			
Chloromethane	0.018	0.0005	mg/L	0.0200		89.8	54.2-142			
cis-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		103	73.8-128			
cis-1,3-Dichloropropene	0.020	0.0005	mg/L	0.0200		102	82.5-122			
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		98.8	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0514</i>		mg/L	<i>0.0500</i>		<i>103</i>	<i>82.4-141</i>			
Dibromomethane	0.019	0.0005	mg/L	0.0200		96.2	77-118			
Dichlorodifluoromethane	0.022	0.0005	mg/L	0.0200		108	38.7-147			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		95.2	70.2-130			
Hexachlorobutadiene	0.024	0.0005	mg/L	0.0200		122	78.9-148			
Iodomethane	0.043	0.001	mg/L	0.0400		108	63.5-135			
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		102	85-124			
m+p - Xylene	0.039	0.001	mg/L	0.0400		98.7	71.9-133			
Methyl tert-butyl ether	0.037	0.001	mg/L	0.0400		93.3	57.7-137			
Methylene chloride	0.024	0.0005	mg/L	0.0200		122	49.3-163			
Naphthalene	0.017	0.0005	mg/L	0.0200		84.4	62.1-141			
n-Butylbenzene	0.024	0.0005	mg/L	0.0200		118	75.4-132			
n-Propylbenzene	0.021	0.0005	mg/L	0.0200		105	79.6-124			
o-Xylene	0.019	0.0005	mg/L	0.0200		97.2	69.4-132			
p-Isopropyltoluene	0.022	0.0005	mg/L	0.0200		109	79.8-131			
sec-Butylbenzene	0.022	0.0005	mg/L	0.0200		108	77.6-133			
Styrene	0.019	0.0005	mg/L	0.0200		93.1	71.7-128			
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		103	78.8-128			
Tetrachloroethene	0.019	0.0005	mg/L	0.0200		96.2	74.2-128			
Toluene	0.018	0.0005	mg/L	0.0200		91.4	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0500</i>		mg/L	<i>0.0500</i>		<i>100</i>	<i>87.1-110</i>			
Total Xylenes	0.059	0.001	mg/L	0.0600		98.2	71.6-132			
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		103	65.2-133			
trans-1,3-Dichloropropene	0.020	0.0005	mg/L	0.0200		98.8	84-123			
trans-1,4-Dichloro-2-butene	0.044	0.010	mg/L	0.0400		111	9.3-235			
Trichloroethene	0.019	0.0005	mg/L	0.0200		92.6	79.3-114			
Trichlorofluoromethane	0.023	0.0005	mg/L	0.0200		114	28.6-162			
Vinyl acetate	0.019	0.0005	mg/L	0.0200		93.4	50.9-135			
Vinyl chloride	0.021	0.0005	mg/L	0.0200		106	61.6-133			

LCS Dup (4121709-BSD1)

Prepared & Analyzed: 12/17/24

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		97.9	82.4-120	1.07	6.88	
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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:
12/26/24 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 4121709 - Volatiles (Continued)

LCS Dup (4121709-BSD1) (Continued)

Prepared & Analyzed: 12/17/24

1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		101	80.7-121	5.40	7.43	
1,1,2,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		87.6	76.5-121	22.7	8.68	QR-04
1,1,2-Trichloroethane	0.020	0.0005	mg/L	0.0200		99.6	81.7-118	1.11	6.82	
1,1-Dichloroethane	0.020	0.0005	mg/L	0.0200		98.0	74.8-123	4.68	4.3	QR-04
1,1-Dichloroethene	0.020	0.0005	mg/L	0.0200		101	53.9-149	8.38	16.5	
1,1-Dichloropropene	0.019	0.0005	mg/L	0.0200		94.4	85.9-115	4.15	5.47	
1,2,3-Trichlorobenzene	0.025	0.0005	mg/L	0.0200		124	76.1-134	9.45	43	
1,2,4-Trichlorobenzene	0.022	0.0005	mg/L	0.0200		112	72.4-136	4.86	22.3	
1,2,4-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		101	67.4-138	5.51	8.94	
1,2-Dibromo-3-chloropropane	0.021	0.0005	mg/L	0.0200		104	71.7-124	44.3	15.1	QR-04
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		96.8	84.9-116	12.8	5.83	QR-04
1,2-Dichlorobenzene	0.018	0.0005	mg/L	0.0200		92.5	82.5-119	4.96	8.72	
1,2-Dichloroethane	0.022	0.0005	mg/L	0.0200		112	72.5-123	3.59	8.94	
1,2-Dichloropropane	0.018	0.0005	mg/L	0.0200		89.4	79.4-117	4.65	5.51	
1,3,5-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		104	69-137	1.95	16.5	
1,3-Dichlorobenzene	0.021	0.0005	mg/L	0.0200		103	84.4-120	4.26	9	
1,3-Dichloropropane	0.018	0.0005	mg/L	0.0200		89.8	82.6-117	5.55	6.06	
1,4-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		100	81.7-118	1.53	7.71	
1,4-Dioxane	1.30	0.020	mg/L	2.00		64.9	-34.6-193	12.3	35.2	
1,2,3-trichloropropane	0.018	0.0005	mg/L	0.0200		90.2	44.7-168	19.9	49.2	
2,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		107	62.9-136	6.92	9.62	
2-Butanone	0.049	0.002	mg/L	0.0400		123	24.1-159	21.5	14.2	QR-04
2-Chlorotoluene	0.018	0.0005	mg/L	0.0200		88.8	80.2-121	8.26	8.62	
2-Hexanone	0.038	0.001	mg/L	0.0400		94.6	56.3-139	51.3	7.28	QR-04
Surrogate: 4-Bromofluorobenzene	0.0473		mg/L	0.0500		94.6	76.4-114			
4-Chlorotoluene	0.019	0.0005	mg/L	0.0200		93.8	82.2-125	6.15	15.5	
4-Methyl-2-pentanone	0.041	0.001	mg/L	0.0400		103	60.7-139	46.6	7.57	QR-04
Acetone	0.073	0.010	mg/L	0.0400		181	39.1-168	2.13	30.5	BS1
Acrolein	0.278	0.005	mg/L	0.200		139	26.6-161	13.4	22.4	
Acrylonitrile	0.050	0.002	mg/L	0.0400		126	64.9-135	23.2	7.62	QR-04
Benzene	0.020	0.0005	mg/L	0.0200		97.9	69.4-129	2.48	4.16	
Bromobenzene	0.021	0.0005	mg/L	0.0200		104	83.5-115	2.97	8.41	
Bromochloromethane	0.019	0.0005	mg/L	0.0200		97.0	70.7-123	0.463	5.16	
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		98.1	80.3-119	3.41	5.36	
Bromoform	0.020	0.0005	mg/L	0.0200		102	71.1-141	10.9	14.1	
Bromomethane	0.020	0.0005	mg/L	0.0200		97.6	55.1-143	8.53	21.5	
Carbon disulfide	0.051	0.001	mg/L	0.0400		128	53.6-147	18.2	20.3	
Carbon tetrachloride	0.020	0.0005	mg/L	0.0200		99.6	79.5-125	8.13	11.4	
Chlorobenzene	0.019	0.0005	mg/L	0.0200		95.8	85.1-115	4.69	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:
12/26/24 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 4121709 - Volatiles (Continued)

LCS Dup (4121709-BSD1) (Continued)

Prepared & Analyzed: 12/17/24

Chloroethane	0.018	0.0005	mg/L	0.0200		88.8	36.9-159	14.5	24.1	
Chloroform	0.019	0.0005	mg/L	0.0200		97.2	80.9-119	3.83	5.15	
Chloromethane	0.018	0.0005	mg/L	0.0200		90.6	54.2-142	0.776	27	
cis-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		105	73.8-128	1.98	5.73	
cis-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		96.9	82.5-122	5.67	6.09	
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		101	83.1-124	2.40	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0529</i>		mg/L	<i>0.0500</i>		<i>106</i>	<i>82.4-141</i>			
Dibromomethane	0.021	0.0005	mg/L	0.0200		104	77-118	7.65	5.75	QR-04
Dichlorodifluoromethane	0.020	0.0005	mg/L	0.0200		101	38.7-147	6.83	22.6	
Ethylbenzene	0.018	0.0005	mg/L	0.0200		92.3	70.2-130	3.09	4.83	
Hexachlorobutadiene	0.023	0.0005	mg/L	0.0200		115	78.9-148	6.17	18.4	
Iodomethane	0.041	0.001	mg/L	0.0400		103	63.5-135	4.77	24.3	
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		101	85-124	0.591	6.25	
m+p - Xylene	0.039	0.001	mg/L	0.0400		97.7	71.9-133	1.02	5.77	
Methyl tert-butyl ether	0.042	0.001	mg/L	0.0400		105	57.7-137	12.1	12.8	
Methylene chloride	0.022	0.0005	mg/L	0.0200		111	49.3-163	9.04	19.7	
Naphthalene	0.021	0.0005	mg/L	0.0200		106	62.1-141	23.1	33.5	
n-Butylbenzene	0.024	0.0005	mg/L	0.0200		118	75.4-132	0.0424	10.1	
n-Propylbenzene	0.020	0.0005	mg/L	0.0200		99.4	79.6-124	5.62	9.09	
o-Xylene	0.019	0.0005	mg/L	0.0200		96.7	69.4-132	0.464	6.29	
p-Isopropyltoluene	0.021	0.0005	mg/L	0.0200		105	79.8-131	4.35	9.26	
sec-Butylbenzene	0.019	0.0005	mg/L	0.0200		97.2	77.6-133	11.0	9.85	QR-04
Styrene	0.018	0.0005	mg/L	0.0200		87.6	71.7-128	6.03	7.55	
tert-Butylbenzene	0.020	0.0005	mg/L	0.0200		97.5	78.8-128	5.29	18.6	
Tetrachloroethene	0.020	0.0005	mg/L	0.0200		98.3	74.2-128	2.16	6.38	
Toluene	0.018	0.0005	mg/L	0.0200		89.1	68.1-127	2.60	5.67	
<i>Surrogate: Toluene-d8</i>	<i>0.0501</i>		mg/L	<i>0.0500</i>		<i>100</i>	<i>87.1-110</i>			
Total Xylenes	0.058	0.001	mg/L	0.0600		97.4	71.6-132	0.835	5.83	
trans-1,2-Dichloroethene	0.019	0.0005	mg/L	0.0200		93.9	65.2-133	8.81	19.1	
trans-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		103	84-123	4.21	6.26	
trans-1,4-Dichloro-2-butene	0.045	0.010	mg/L	0.0400		112	9.3-235	0.808	92.8	
Trichloroethene	0.020	0.0005	mg/L	0.0200		99.8	79.3-114	7.43	4.92	QR-04
Trichlorofluoromethane	0.020	0.0005	mg/L	0.0200		101	28.6-162	11.9	19.8	
Vinyl acetate	0.023	0.0005	mg/L	0.0200		113	50.9-135	18.7	7.84	QR-04
Vinyl chloride	0.019	0.0005	mg/L	0.0200		94.6	61.6-133	11.8	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:
12/26/24 15:27

Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
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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Durango CO, 81302

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

Reported:
12/26/24 15:27

Qualifier Summary

LabNumber	Analysis	Analyte	Qualifier	TextBody
4121709-BS1	Volatile 8260	1,1,2,2-Tetrachloroethane	BS2	Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
4121709-BS1	Volatile 8260	1,2-Dibromo-3-chloropropane	BS2	Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
4121709-BS1	Volatile 8260	2-Hexanone	BS2	Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
4121709-BS1	Volatile 8260	Acetone	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
4121709-BS1	Volatile 8260	Carbon disulfide	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
4121709-BSD1	Volatile 8260	1,1,2,2-Tetrachloroethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	1,1-Dichloroethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	1,2-Dibromo-3-chloropropane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	1,2-Dibromoethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	2-Butanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	2-Hexanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	4-Methyl-2-pentanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	Acetone	BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
4121709-BSD1	Volatile 8260	Acrylonitrile	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	Dibromomethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	sec-Butylbenzene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	Trichloroethene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121709-BSD1	Volatile 8260	Vinyl acetate	QR-04	The RPD for the BS/BSD was outside of historical limits.
2412124-01	Volatile 8260	1,2,4-Trimethylbenzene	E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

Green Analytical Laboratories

Veronica Wells, Project Manager

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.



**75 Suttle Street
Durango, CO 81303
(970) 247-4220**

Note: Write-Out™ or similar products cannot be used on the Chain of Custody.

CHAIN-OF-CUSTODY AND ANALYSIS REPORT
FORM-006, R 8.0

Company or Client: Cottonwood Consulting LLC						Bill to (if different):								ANALYSIS REQUEST															
Address: PO Box 1653																													
City: Durango						State: CO Zip: 81302																							
Phone #: 970-764-7356																													
Contact Person: Kyle Siesser																													
Email Report to: ksiesser@cottonwoodconsulting.com																													
Project Name(optional): Sandoval GC A #001						P.O. #:																							
Sampler Name (Print): Kelsey O'Brien						Rush? ☐ TAT Needed? ☐																							
Lab I.D. 2412-124 Lab Use Only						Sample Name or Location						Collected						Matrix (check one)						# of containers					
												Date Time						GROUNDWATER ☒ SURFACE WATER ☐ WASTEWATER ☐ PRODUCED WATER ☐ DRINKING WATER ☐ SOIL ☐ OTHER: ☐ No preservation ☐ Nitric Acid ☐ Hydrochloric Acid ☐ Sulfuric Acid ☐ Sodium Hydroxide ☐ OTHER:											
1) MW #2						12/11/24 04:25 PM						☒						4						☒					
2)																													
3)																													
4)																													
5)																													
6)																													
7)																													
8)																													
9)																													
10)																													
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 of the applicable service. 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: [Signature]						Date: 12/11/24 Time: 16:15						Received By: [Signature]						Date: 12/11/24 Time: 16:15						ADDITIONAL REMARKS:					
Relinquished By:						Date:						Received By:						Date:						Temperature at receipt: 84 °C					
Relinquished By:						Date:						Received By:						Date:						Checked by: [Signature]					
Relinquished By:						Date:						Received By:						Date:						On Ice? Y N Therm. used: [Signature]					



SAMPLE CONDITION RECEIPT FORM

Date/Initials of person examining contents: 12-11-21

Labeled by initials: _____
(if different than above)

Client Name: Cottonwood ConsultingWork Order # 2412-124Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo ☐ Third Party ☐ OtherCustody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____Thermometer Used: #2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 8.4°C Correction Factor: 0°C Final Temp: 8.4°C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☒ No

Chain of Custody Filled Out:	☒ Yes ☐ No	1.
COC Signed when Relinquished and Received:	☒ Yes ☐ No	2.
Sampler Name and Signature on COC: *Required for compliance	☒ Yes ☐ No	3.
Samples arrived within hold time:	☒ Yes ☐ No	4.
Correct Containers Used & Intact:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	☐ Yes ☒ No	7. Approved By:
Sufficient Volume:	☒ Yes ☐ No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	☐ Yes ☐ No ☒ N/A	9.
Dissolved Testing Needed:	☐ Yes ☒ No	10.
Field Filtered: ☐ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	11. <u>Time on VOAs say 1320 time on COC is 0925.</u>
Matrix:	WT ☒ SU ☐ OT	
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	12.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☒ N/A	
VOA's meet headspace requirement (<6mm bubbles)	☒ Yes ☐ No ☐ N/A	
Non-Conformance(s):	☐ Yes ☒ No	13.

Client Notification/Resolution:

Person Contacted: Kelsey O'Brien Date/Time: Dec 12, 24 1511Comments/Resolution: upon confirmed time of 1320 made changes on the COC.

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 :

12/11/24

DEVELOPER / SAMPLER :

DS/KO

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	—	Dry	39.00	-	-	-	-	-
2	101.78	—	38.75	37.25	1320	8.09	3.45	9.5	
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.

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	temp
off-site	temp
sky cond.	
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 :

3/27/24

DEVELOPER / SAMPLER :

DS/KO

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	-	DRY	39.00	-	-	-	-	-
2	101.78	-	39.53	37.25	1300	7.76	3340	15.5	-
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.

SVE not running upon arrivalSVE = 123.0 ppmlow water level, did not 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>1215</u>	temp	<u>45°F</u>
off-site	<u>1315</u>	temp	<u>45°F</u>
sky cond.	<u>clear</u>		
wind speed	<u>5-10 mph</u>	direct.	<u>W</u>

$$: DS/KO$$

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 A LS 9A	1-15-24	1	6.4	-38	-48	-	Y	22	N	Drum Frozen
Florance GC J 16		2	41.4	-6	-	-	Y	12.5	Y	Gasket leaking
Sandoval GC A 1A		3	124.8	-10 (H ₂ O)	Broken	7397.7	N	25	N	Drain Valve is broken (Needs replace) Restarted System, Drum Frozen,
Jacquez GC B 3E		1	0.1	-6	-	5520.1	Y	Dry	N	Run time gauge has condensation and is hard to read.
Al Elliot D 002		5	-	-	-	-	N	12.7	N	Drum Frozen and full, generator was running, attempted to restart, would not start.
GCU H180		All	-	-	-	8675.6	N	-	-	System not operational on arrival, attempted to start, could not start, would not start after drying.
Heaton LS 5		Unk	82.3	-	-54	-	Y	25.5	N	Drum Frozen
Mudge B12 R		1	84.4	-28	-8	-	N	32	N	Restarted System Drum Frozen.
Mudge A 002 MV	✓	2	32.0	-50	-	-	Y	Dry	N	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H₂O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

(in hg) SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (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*	2-5-24	1	6.2	-3.75	-3.75	-	Y	23.6	Y	
Florance GC J 16*	2-14-24	2	42.6	-2.1	-2.1	-	N	16.4	Y	Drum leaking, needs new gasket.
Sandoval GC A 1A*	2-5-24	3	41.0	-2.5	-2.5	7507.5	Y	31.75	Y	Valve Fixed Gauge Replaced
Jacquez GC B 3E*		1	0.8	-0.2	-	7031.1	Y	32.5	N	Water Frozen
Al Elliot D 002*		5	65.7	-0.5	-0.5	6664.1	Y	30.1	Y	B6T ≈ 90% Full
GCU H180		All	-	-	-	-	Y	-	-	2 psi) 110°F) 1) 2.5 2) 2.5 3) 2.5 4) 1.5 psi
Heaton LS 5*		Unk	98.9	-2.5	-2.5	-	Y	27.3	Y	
Mudge B12 R*	2-14-24	1	36.7	-2.2	-2.5	-	Y		N	Drum Frozen
Mudge A 002 MV*	2-14-24	2	22.0	-5.0	-4.0	-	Y	32.0	N	Drum Frozen

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

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

SVE Monitoring

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

Notes:

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

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

SVE Monitoring

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

Notes:

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

SVE Monitoring

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

Notes:

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

SVE Monitoring

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

Notes:

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

system off
on arrival.
Reset.



SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	7-5-24	1	48.3	3.75	3.75	-	Y	32	N	Drum dry
Florance GC J 16		2	14.0	3.75	3.75	-	Y	32	N	Drum dry
Sandoval GC A 1A		3	3.3	2.5	2.5	8209.3	Y	32	N	Drum dry
Jacquez GC B 3E		1	1.6	0.1	0.1	651.7	Y	32	N	Hours appear to be reset from previous inspection
Al Elliot D 002		5	-	-	-	-	N	32	N	Attempted to start, no power to system. Generator not on.
GCU H180		All	-	-	-	-	Y	-	-	Temp 130F System Pressure 2.5psi SVE Point (psi): (1) 1.25 (2) 2.5 (3) 2.5 (4) 2.1
Heaton LS 5		Unk	80.5	2.5	2.5	-	Y	32	N	Drum dry
Mudge B12 R		1	25.3	2.5	2.5	-	Y	32	N	Drum dry
Mudge A 002 MV		2	123.8	5.0	3.75	-	Y	32	N	Drum dry
	↓									

Drum dry
Run time
large disconnected

Notes:

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

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	8-7-24	1	0.2	3.75	3.75	—	Y	32	N	Drum dry
Florance GC J 16		2	21.5	4.0	4.0	—	Y	32	N	Drum dry
Sandoval GC A 1A		3	3.1	2.5	2.5	8922.6	N	32	N	Drum dry
Jacquez GC B 3E		1	3.0	0.1	0.1	1440.3	Y	32	N	Drum dry
Al Elliot D 002		5	—	—	—	—	N	32	N	System not running. Attempted to restart. Would not turn on.
GCU H180		All	-	-	-	—	N	-	-	Temp 105 F System Pressure 2.6 psi SVE Point (psi): (1) 1.8 (2) 2.5 (3) 2.5 (4) 1.2
Heaton LS 5		Unk	68.5	2.5	2.5	—	Y	32	N	Drum dry
Mudge B12 R		1	19.5	2.5	2.5	—	Y	32	N	Drum dry
Mudge A 002 MV		2	268.2	5.0	3.75	—	Y	32	N	Drum dry

Generator not running.
Run time gauge is connected

Notes:

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

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H ₂ O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	9/16/24	1	12.1	4.5	4.5	-	Y	Dry	No	
Florance GC J 16	9/16/24	2	90.2	4.0	4.0	-	Y	Dry	No	
Sandoval GC A 1A	9/18/24	3	5.3	1	2	5543.1	No	Dry	No	SVE restarted before departure
Jacquez GC B 3E	9/18/24	1	7.3	0.1	0.1	2449.7	Yes	Dry	No	
Al Elliot D 002	9/18/24	5	46.2	0.1	0.1	4156.3	Yes	Dry	No	
GCU H180	9/17/24	All	-	-	-	Dis-Connected	No	-	-	Temp 60 F System Pressure 2.4 psi SVE Point (psi): (1) 3.75 (2) 2.5 (3) 2.4 (4) 2.6
Heaton LS 5	9/17/24	Unk	77.3	3.9	2.5	-	Yes	Dry	No	
Mudge B12 R	9/17/24	1	19.9	2.5	2.5	-	Yes	Dry	No	
Mudge A 002 MV	9/18/24	2	284.0	5.0	4.8	-	Yes	Dry	No	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

inHg- inches of mercury

cfm- cubic feet per minute

bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	10-3-24	1	0.9	3.75	3.75	-	Y	Dry	N	
Florance GC J 16		2	15.1	3.75	3.75	=	Y	30"	Y	
Sandoval GC A 1A		3	35.8	2.25	2.25	9602.8	N	Dry	N	
Jacquez GC B 3E		1	14.7	1.25	1.25	2809.9	Y	Dry	N	Crack in PVC OR monitoring well SVE point
Al Elliot D 002		5	-	-	-	???	N	Dry	N	System not operational on arrival, attempted to restart, would not turn on
GCU H180		All	-	-	-	Gauge disconnected	N	-	-	Temp 110 F System Pressure 2.75 psi SVE Point (psi): (1) 2.5 (2) 2.5 (3) 2.5 (4) 2.5 Generator not running
Heaton LS 5		Unk	69.1	2.5	2.5	-	Y	Dry	N	
Mudge B12 R		1	7.6	2.5	2.5	-	Y	Dry	N	
Mudge A 002 MV	✓	2	217.1	5.0	3.75	-	Y	Dry	N	

Notes:

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

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	11/11/24	1	0.8	3.75	3.75	-	Y	2"	Y	
Florance GC J 16		2	8.4	3.75	3.75	-	Y	12"	Y	
Sandoval GC A 1A		3	1.3	2.25	2.25	9669.9	N	Dry	N	
Jacquez GC B 3E		1	17.8	1.25	1.25	3717.9	Y	21"	Y	
Al Elliot D 002		5	-	-	-	-	N	24"	Y	No Power, system would not start.
GCU H180		All	-	-	-	Gauge disconnected	Y	-	-	Temp 30 F System Pressure 2.75 psi SVE Point (psi): (1) 2.5 (2) 2.5 (3) 2.5 (4) 2.5
Heaton LS 5		Unk	68.9	2.5	2.5	-	Y	29"	Y	
Mudge B12 R		1	19.8	2.5	2.5	-	N	16"	Y	
Mudge A 002 MV	✓	2	144.3	5.0	4.75	-	Y	Dry	N	

Notes:

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

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (inHg)	Vacuum Pressure downstream of drum (inHg)	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	12/11/24	1	1.9	4.0	4.0	-	Y	26	Y	
Florance GC J 16	12/11/24	2	27.5	4.0	4.0	-	Y	13	Y	Fluid leaking from Drain gasket on Drum
Sandoval GC A 1A	12/11/24	3	1.4	2.23	2.25	38.1	N	Dry	N	
Jacquez GC B 3E	12/11/24	1	4.3	0	0	4461.9	Y	Dry	N	Missing PVC cap on down stream pipe 2" fitting
Al Elliot D 002	12/11/24	5	-	-	-	-	N	Dry	N	SVE non operational, unable to reset
GCU H180	12/10/24	All	-	-	-	-	Y	-	-	Temp 98 F System Pressure 1.75 psi SVE Point (psi): (1) 1.75 (2) 1.75 (3) 1.75 (4) 1.75
Heaton LS 5	12/11/24	Unk	-	-	-	-	N	23"	N	Frozen Fluid, SVE would not turn on
Mudge B12 R	12/10/24	1	30.0	2.5	2.5	-	Y	29"	Y	
Mudge A 002 MV	12/11/24	2	74.6	5.0	4.75	-	Y	Dry	N	

Plastic hose failing on SVE point #1

Notes:

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

Sante Fe Main Office
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<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 415793

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID: 329736
	Action Number: 415793
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Sandoval GC A #001A Groundwater Lab Results and SVE field forms accepted for the record. Two of the four wells appear to be dry. Please propose a contingency plan to collect a sufficient sample; Options may be the following:1. drill deeper into well development 2. purge 3 casing volumes and wait 24 hours to return to site and collect the sample 3. Drill separate adjacent wells, or 4. submit a variance with justification for a lesser number of samples. If the approved number of consecutive sample results for all groundwater wells have been collected for groundwater, and are below WQCC human health standards, please disregard; otherwise, propose an option to OCD within ninety (90) days from 01/08/2025.	1/8/2025