

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

December 12, 2023

Brian Sulzberger

Ensolum, LLC

11049 W. 44th Ave, Ste 100

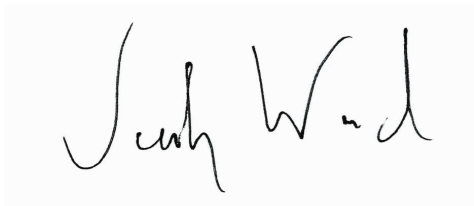
Wheat Ridge, CO 80033

RE: Civitas - Blue 3-65 33-32-31 Pad

Work Order #2312093

Enclosed are the results of analyses for samples received by Summit Scientific on 12/06/23 15:02. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President



Ensolum, LLC
11049 W. 44th Ave, Ste 100
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS02@1'	2312093-01	Soil	12/06/23 11:02	12/06/23 15:02
SS03(A)@0.5'	2312093-02	Soil	12/06/23 11:06	12/06/23 15:02
SS04@1'	2312093-03	Soil	12/06/23 11:13	12/06/23 15:02
SS05@1'	2312093-04	Soil	12/06/23 11:20	12/06/23 15:02
SS06@1'	2312093-05	Soil	12/06/23 11:24	12/06/23 15:02
SS07@1'	2312093-06	Soil	12/06/23 11:31	12/06/23 15:02
SS08(A)@0.5'	2312093-07	Soil	12/06/23 12:32	12/06/23 15:02
SS09@1'	2312093-08	Soil	12/06/23 12:28	12/06/23 15:02
SS13(A)@0.5'	2312093-10	Soil	12/06/23 11:36	12/06/23 15:02
SS15(A)@0.5'	2312093-11	Soil	12/06/23 12:08	12/06/23 15:02
SS16@1'	2312093-12	Soil	12/06/23 12:18	12/06/23 15:02
SS18(A)@0.5'	2312093-13	Soil	12/06/23 12:01	12/06/23 15:02
SS19(A)@0.5'	2312093-14	Soil	12/06/23 11:55	12/06/23 15:02
SS20@1'	2312093-15	Soil	12/06/23 11:44	12/06/23 15:02

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4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
2312093	

Client: <i>Ensolum</i>		Send Data To:		Send Invoice To:	
Address:		Project Manager: <i>Brian Sulzeberger</i>		Company: <i>Civitas</i>	
City/State/Zip:		E-Mail: <i>Bsulzeberger@ensolum.com</i>		Project Name/Location: <i>Blue 3-65 33-32-31 Pod</i>	
Phone:		Project Name: <i>Blue 3-65 33-32-31 Pod</i>		AFE#: <i>P1671PD</i>	
Sampler Name: <i>Kyle Matherne</i>		Project Number: <i>09C2407007</i>		PO/Billing Codes: <i>M/M 8520,162</i>	
				Contact: <i>Costin McQueen</i>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested					Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Arsenic	pH	SAR	EC	TPH	
1	SS02 @ 1'	12/6/23	1102	2			X			X			X	X				X No results sent
2	SS03 (A) @ 0.5'		1106										X	X	X			on Friday's
3	SS04 @ 1'		1113										X	X				
4	SS05 (A) @ SS05 @ 1'		1120										X	X				
5	SS06 @ 1'		1124										X	X				
6	SS07 @ 1'		1131										X	X				
7	SS08 (A) @ 0.5'		1232										X	X	X	X		
8	SS09 @ 1'		1228											X				
9	SS10 SS12 @ 1'		1214										X					
10	SS13 (A) @ 0.5'		1136	↓									X		X			
11	SS15 (A) @ 0.5'		1208	3													X	
12	SS16 @ 1'		1218	2													X	
13	SS18 (A) @ 0.5'		1201	1									X					
14	SS19 (A) @ 0.5'		1155	1									X	X				
15	SS20 @ 1'	↓	1144	↓												X		

Relinquished by: <i>Kyle Matherne</i>	Date/Time: <i>12/6/23 15:01</i>	Received by: <i>John Wal</i>	Date/Time: <i>12/6/23 15:02</i>	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: <i>3.6</i>	Corrected Temperature	IR gun #: <i>2</i>	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2312093Client: Civilis Ensolm Client Project ID: Blc 3-65 33-32-31 PcdShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☒ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 3.6 Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on file
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	same day
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				


 Custodian Printed Name

 12/6/23 15:02
 Date/Time



Ensolum, LLC
11049 W. 44th Ave, Ste 100
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS02@1'
2312093-01 (Soil)

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Total Metals by EPA 6020B

Date Sampled: 12/06/23 11:02									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.13	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/06/23 11:02									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.8		%	1	BGL0320	12/08/23	12/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: 12/06/23 11:02									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.40		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS03(A)@0.5'
2312093-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.843	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	197	0.0500	mg/L dry	1	BGL0245	12/06/23	12/09/23	EPA 6020B	
Magnesium	23.4	0.0500	"	"	"	"	"	"	
Sodium	274	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	4.92	0.00100	units	1	BGL0425	12/12/23	12/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	89.9		%	1	BGL0320	12/08/23	12/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **12/06/23 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.26		pH Units	1	BGL0251	12/07/23	12/08/23	EPA 9045D	

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Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS04@1'
2312093-03 (Soil)

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Total Metals by EPA 6020B

Date Sampled: **12/06/23 11:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.26	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/06/23 11:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.6		%	1	BGL0320	12/08/23	12/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **12/06/23 11:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.49		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

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Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS05@1'
2312093-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **12/06/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.05	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/06/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.6		%	1	BGL0320	12/08/23	12/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **12/06/23 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.43		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

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Ensolum, LLC
11049 W. 44th Ave, Ste 100
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS06@1'
2312093-05 (Soil)

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Total Metals by EPA 6020B

Date Sampled: **12/06/23 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.975	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/06/23 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.4		%	1	BGL0320	12/08/23	12/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **12/06/23 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.30		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

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Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS07@1'
2312093-06 (Soil)

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Total Metals by EPA 6020B

Date Sampled: **12/06/23 11:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.14	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/06/23 11:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.5		%	1	BGL0320	12/08/23	12/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **12/06/23 11:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.54		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

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Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS08(A)@0.5'
2312093-07 (Soil)

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Total Metals by EPA 6020B

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.791	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	34.4	0.0500	mg/L dry	1	BGL0245	12/06/23	12/09/23	EPA 6020B	
Magnesium	4.05	0.0500	"	"	"	"	"	"	
Sodium	127	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	5.46	0.00100	units	1	BGL0425	12/12/23	12/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	99.1		%	1	BGL0320	12/08/23	12/08/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	0.929	0.0100	mmhos/cm	1	BGL0249	12/07/23	12/08/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

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Project Number: 09C2407007
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Reported:
12/12/23 15:53

SS08(A)@0.5'
2312093-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **12/06/23 12:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.61			pH Units	1	BGL0251	12/07/23	12/08/23	EPA 9045D	

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Project Number: 09C2407007
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Reported:
12/12/23 15:53

SS09@1'
2312093-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **12/06/23 12:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.31			pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

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Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS13(A)@0.5'
2312093-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **12/06/23 11:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.748	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **12/06/23 11:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	51.6	0.0500	mg/L dry	1	BGL0245	12/06/23	12/09/23	EPA 6020B	
Magnesium	7.81	0.0500	"	"	"	"	"	"	
Sodium	327	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **12/06/23 11:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	11.2	0.00100	units	1	BGL0425	12/12/23	12/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/06/23 11:36**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	98.3		%	1	BGL0320	12/08/23	12/08/23	Calculation	

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Project Number: 09C2407007
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Reported:
12/12/23 15:53

SS15(A)@0.5'
2312093-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/06/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Hydrocarbons	ND	0.50	mg/kg	1	BGL0240	12/06/23	12/06/23	EPA 8260B	

Date Sampled: **12/06/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0449	112 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0376	94.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/06/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	150	50	mg/kg	1	BGL0241	"	12/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **12/06/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.3	82.1 %	30-150		"	"	"	"	

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Ensolum, LLC
11049 W. 44th Ave, Ste 100
Wheat Ridge CO, 80033

Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS16@1'
2312093-12 (Soil)

Summit Scientific

Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013

Date Sampled: **12/06/23 12:18**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.948	0.0100		mmhos/cm	1	BGL0281	12/07/23	12/07/23	EPA 120.1	

Summit Scientific

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Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS18(A)@0.5'
2312093-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **12/06/23 12:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.944	0.200		mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/06/23 12:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.8			%	1	BGL0320	12/08/23	12/08/23	Calculation	

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Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

SS19(A)@0.5'
2312093-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **12/06/23 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.847	0.200	mg/kg dry	1	BGL0294	12/08/23	12/11/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/06/23 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	99.7		%	1	BGL0320	12/08/23	12/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **12/06/23 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.79		pH Units	1	BGL0279	12/07/23	12/07/23	EPA 9045D	

Summit Scientific

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Reported:
12/12/23 15:53

SS20@1'
2312093-15 (Soil)

Summit Scientific

Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013

Date Sampled: **12/06/23 11:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.671	0.0100		mmhos/cm	1	BGL0281	12/07/23	12/07/23	EPA 120.1	

Summit Scientific

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11049 W. 44th Ave, Ste 100
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Project: Civitas - Blue 3-65 33-32-31 Pad
Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGL0240 - EPA 5030 Soil MS

Blank (BGL0240-BLK1)

Prepared: 12/06/23 Analyzed: 12/07/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
m,p-Xylene	ND	0.010	"							
o-Xylene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0455		"	0.0400		114	50-150			
Surrogate: Toluene-d8	0.0376		"	0.0400		94.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.3	50-150			

LCS (BGL0240-BS1)

Prepared: 12/06/23 Analyzed: 12/07/23

Benzene	0.0802	0.0020	mg/kg	0.100		80.2	70-130			
Toluene	0.0760	0.0050	"	0.100		76.0	70-130			
Ethylbenzene	0.0989	0.0050	"	0.100		98.9	70-130			
m,p-Xylene	0.194	0.010	"	0.200		97.2	70-130			
o-Xylene	0.0936	0.0050	"	0.100		93.6	70-130			
1,2,4-Trimethylbenzene	0.0927	0.0050	"	0.100		92.7	70-130			
1,3,5-Trimethylbenzene	0.0936	0.0050	"	0.100		93.6	70-130			
Naphthalene	0.0930	0.0038	"	0.100		93.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0433		"	0.0400		108	50-150			
Surrogate: Toluene-d8	0.0377		"	0.0400		94.3	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		97.9	50-150			

Matrix Spike (BGL0240-MS1)

Source: 2312093-11

Prepared: 12/06/23 Analyzed: 12/07/23

Benzene	0.0982	0.0020	mg/kg	0.100	ND	98.2	70-130			
Toluene	0.0860	0.0050	"	0.100	ND	86.0	70-130			
Ethylbenzene	0.0893	0.0050	"	0.100	ND	89.3	70-130			
m,p-Xylene	0.194	0.010	"	0.200	ND	97.1	70-130			
o-Xylene	0.0857	0.0050	"	0.100	ND	85.7	70-130			
1,2,4-Trimethylbenzene	0.0908	0.0050	"	0.100	ND	90.8	70-130			
Naphthalene	0.0863	0.0038	"	0.100	ND	86.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0461		"	0.0400		115	50-150			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.7	50-150			

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Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch BGL0240 - EPA 5030 Soil MS

Matrix Spike Dup (BGL0240-MSD1)	Source: 2312093-11			Prepared: 12/06/23 Analyzed: 12/07/23						
Benzene	0.0933	0.0020	mg/kg	0.100	ND	93.3	70-130	5.17	30	
Toluene	0.0974	0.0050	"	0.100	ND	97.4	70-130	12.5	30	
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	11.8	30	
m,p-Xylene	0.183	0.010	"	0.200	ND	91.5	70-130	5.98	30	
o-Xylene	0.0992	0.0050	"	0.100	ND	99.2	70-130	14.6	30	
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	11.7	30	
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130	15.3	30	
Naphthalene	0.0966	0.0038	"	0.100	ND	96.6	70-130	11.2	30	
Surrogate: 1,2-Dichloroethane-d4	0.0455		"	0.0400		114	50-150			
Surrogate: Toluene-d8	0.0376		"	0.0400		93.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.2	50-150			

Summit Scientific

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Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGL0241 - EPA 3550A

Blank (BGL0241-BLK1)

Prepared: 12/06/23 Analyzed: 12/07/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	12.7		"	12.5		102	30-150			

LCS (BGL0241-BS1)

Prepared: 12/06/23 Analyzed: 12/07/23

C10-C28 (DRO)	429	50	mg/kg	500		85.8	70-130			
Surrogate: o-Terphenyl	9.23		"	12.5		73.9	30-150			

Matrix Spike (BGL0241-MS1)

Source: 2312093-11

Prepared: 12/06/23 Analyzed: 12/07/23

C10-C28 (DRO)	436	50	mg/kg	500	152	56.8	70-130			QM-07
Surrogate: o-Terphenyl	5.56		"	12.5		44.4	30-150			

Matrix Spike Dup (BGL0241-MSD1)

Source: 2312093-11

Prepared: 12/06/23 Analyzed: 12/07/23

C10-C28 (DRO)	350	50	mg/kg	500	152	39.7	70-130	21.9	20	QM-07
Surrogate: o-Terphenyl	5.34		"	12.5		42.7	30-150			

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Reported:
12/12/23 15:53

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGL0294 - EPA 3050B

Blank (BGL0294-BLK1)

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic ND 0.200 mg/kg wet

LCS (BGL0294-BS1)

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic 42.4 0.200 mg/kg wet 40.0 106 80-120

Duplicate (BGL0294-DUP1)

Source: 2312012-01

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic 0.965 0.200 mg/kg dry 0.966 0.0911 20

Matrix Spike (BGL0294-MS1)

Source: 2312012-01

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic 16.8 0.200 mg/kg dry 44.0 0.966 36.1 75-125 QM-07

Matrix Spike Dup (BGL0294-MSD1)

Source: 2312012-01

Prepared: 12/08/23 Analyzed: 12/11/23

Arsenic 17.4 0.200 mg/kg dry 44.0 0.966 37.4 75-125 3.41 25 QM-07

Summit Scientific

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Reported:
12/12/23 15:53

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BGL0245 - General Preparation

Blank (BGL0245-BLK1)

Prepared: 12/06/23 Analyzed: 12/09/23

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

LCS (BGL0245-BS1)

Prepared: 12/06/23 Analyzed: 12/09/23

Calcium	5.84	0.0500	mg/L wet	5.00	117	70-130
Magnesium	5.25	0.0500	"	5.00	105	70-130
Sodium	4.89	0.0500	"	5.00	97.7	70-130

Summit Scientific

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Project Number: 09C2407007

Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch BGL0320 - General Preparation

Duplicate (BGL0320-DUP1)

Source: 2311618-02

Prepared & Analyzed: 12/08/23

% Solids	84.6	%	85.2	0.684	20
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Reported:
12/12/23 15:53

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BGL0249 - General Preparation

Blank (BGL0249-BLK1)

Prepared: 12/07/23 Analyzed: 12/08/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGL0249-BS1)

Prepared: 12/07/23 Analyzed: 12/08/23

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BGL0249-DUP1)

Source: 2312033-02

Prepared: 12/07/23 Analyzed: 12/08/23

Specific Conductance (EC) 1.03 0.0100 mmhos/cm 1.02 0.587 20

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Project Number: 09C2407007
Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BGL0251 - General Preparation

LCS (BGL0251-BS1)					Prepared: 12/07/23 Analyzed: 12/08/23					
pH	9.12		pH Units	9.18		99.3	95-105			
Duplicate (BGL0251-DUP1)					Source: 2312033-02 Prepared: 12/07/23 Analyzed: 12/08/23					
pH	8.40		pH Units		8.40			0.00	20	

Batch BGL0279 - General Preparation

LCS (BGL0279-BS1)					Prepared & Analyzed: 12/07/23					
pH	9.12		pH Units	9.18		99.3	95-105			
Duplicate (BGL0279-DUP1)					Source: 2312093-01 Prepared & Analyzed: 12/07/23					
pH	8.37		pH Units		8.40			0.358	20	

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Project: Civitas - Blue 3-65 33-32-31 Pad

Project Number: 09C2407007

Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013 - Quality Control

Summit Scientific

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

Batch BGL0281 - General Preparation

Blank (BGL0281-BLK1)

Prepared & Analyzed: 12/07/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGL0281-BS1)

Prepared & Analyzed: 12/07/23

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BGL0281-DUP1)

Source: 2310563-09RE2

Prepared & Analyzed: 12/07/23

Specific Conductance (EC) 4.16 0.0100 mmhos/cm 5.22 22.5 20 I-04

Summit Scientific

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Project: Civitas - Blue 3-65 33-32-31 Pad

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Project Manager: Brian Sulzberger

Reported:
12/12/23 15:53

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
I-04	Sample was analyzed out of recommended holding time per clients request.
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
RPD	Relative Percent Difference