



Inorganics Case Narrative

COGCC

Inspection 697601578

Work Order Number: 2109426

1. This report consists of 3 soil samples and 3 saturation extracts.
2. The samples were received cool and intact by ALS on 09/17/2021.
3. The samples were prepared for analysis based on USDA Handbook 60 Chapter 6 procedures.
4. The samples were analyzed following USDA Handbook 60 Chapter 6 procedures for the current revision of the following SOP and method:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Electrical conductivity	USDA60	810 Draft
Sodium Adsorption Ratio	USDA60	810 Draft
Paste pH	USDA60	810 Draft

5. All standards and solutions were used within their recommended shelf life.

All in house quality control procedures were followed, as described below.

6. General quality control procedures.
 - n All initial and continuing calibration blanks were below the reporting limit for the requested analytes.
 - n All initial and continuing calibration verifications were within the acceptance criteria for the requested analytes.



The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Kath M. A.
Inorganics Final Data Reviewer

10/16/21
Date



Inorganic Data Reporting Qualifiers

The following qualifiers are used by the laboratory when reporting results of inorganic analyses.

- Concentration qualifier -- If the analyte was analyzed for but not detected a "U" is entered.
- QC qualifier -- Specified entries and their meanings are as follows:
 - N - Spiked sample recovery not within control limits.
 - * - Duplicate analysis (relative percent difference) not within control limits.
 - Z - Calibration spike recovery not within control limits.

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Sample Number(s) Cross-Reference Table

OrderNum: 2109426

Client Name: COGCC

Client Project Name: Inspection 697601578

Client Project Number:

Client PO Number: GAE- PHAA 2021*056

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
118086 #3 0-6"	2109426-1		SOIL	16-Sep-21	8:35
118086 #4 0-6"	2109426-2		SOIL	16-Sep-21	8:42
118086 #5 0-6"	2109426-3		SOIL	16-Sep-21	8:48
118086 #3 0-6"	2109426-4		SatExtract	16-Sep-21	8:35
118086 #4 0-6"	2109426-5		SatExtract	16-Sep-21	8:42
118086 #5 0-6"	2109426-6		SatExtract	16-Sep-21	8:48



Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.



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CONDITION OF SAMPLE UPON RECEIPT FORM

Client: COGCC Workorder No: 2109426
 Project Manager: kmo Initials: CXT Date: 09/17/2021

	N/A	YES	NO
1. Are airbills / shipping documents present and/or removable?	X		
Tracking number:			
2. Are custody seals on shipping containers intact?	X		
3. Are custody seals on sample containers intact?	X		
4. Is there a COC (chain-of-custody) present?		X	
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		X	
6. Are short-hold samples present?			X
7. Are all samples within holding times for the requested analyses?		X	
8. Were all sample containers received intact? (not broken or leaking)		X	
9. Is there sufficient sample for the requested analyses?		X	
10. Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)		X	
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	X		
12. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	X		
13. Were the samples shipped on ice?		X	
14. Were cooler temperatures measured at 0.1-6.0°C?	RAD ONLY	X	
IR gun used*: #5 Cooler #: <u>1</u> Temperature (°C): <u>0.8</u> # of custody seals on cooler: <u>0</u> External µR/hr reading: <u>NA</u> Background µR/hr reading: <u>11</u> Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES (If no, see Form 008.)			

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Were unpreserved bottles pH checked? NA All client bottle ID's vs ALS lab ID's double-checked by: CT

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 9/20/21

PASTE PH
Method USDA60
Sample Results

Lab Name: ALS -- Fort Collins
Client Name: COGCC
Client Project ID: Inspection 697601578
Work Order Number: 2109426
Reporting Basis: Dry Weight
Prep Method: NONE
Analyst: Abigail O. Williams
Final Volume: 20 ml
Matrix: SOIL
Result Units: pH

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	Flag	Sample Aliquot
118086 #3 0-6"	2109426-1	09/16/2021	09/23/2021	09/28/2021	N/A	1	7	0.1		20 ml
118086 #4 0-6"	2109426-2	09/16/2021	09/23/2021	09/28/2021	N/A	1	7.9	0.1		20 ml
118086 #5 0-6"	2109426-3	09/16/2021	09/23/2021	09/28/2021	N/A	1	8.2	0.1		20 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *pH2109426-1*

Date Printed: Friday, October 15, 2021

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LIMS Version: 7.021b

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ELECTRICAL CONDUCTIVITY @ SATURATION

Method USDA60

Sample Results

Lab Name: ALS -- Fort Collins
Client Name: COGCC
Client Project ID: Inspection 697601578
Work Order Number: 2109426
Reporting Basis: As Received
Prep Method: NONE
Analyst: Abigail O. Williams
Final Volume: 30 ml
Matrix: SatExtract
Result Units: umhos/cm

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	Flag	Sample Aliquot
118086 #3 0-6"	2109426-4	09/16/2021	09/24/2021	09/24/2021	N/A	1	20000	1		3 ml
118086 #4 0-6"	2109426-5	09/16/2021	09/24/2021	09/24/2021	N/A	1	36000	1		3 ml
118086 #5 0-6"	2109426-6	09/16/2021	09/24/2021	09/24/2021	N/A	1	46000	1		3 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: SC2109426-1

Date Printed: Friday, October 15, 2021

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Total Sodium Adsorption Ratio

Method USDA60 Revision D

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 2109426

Client Name: COGCC

ClientProject ID: Inspection 697601578

Field ID: 118086 #3 0-6"

Lab ID: 2109426-4

Sample Matrix: SatExtract

% Moisture: N/A

Date Collected: 16-Sep-21

Date Extracted: 21-Sep-21

Date Analyzed: 22-Sep-21

Prep Method: SW3010 Rev A

Prep Batch: IP210921-6

QCBatchID: IP210921-6-1

Run ID: IT210922-2A1

Cleanup: NONE

Basis: As Received

File Name: 210922A.

Analyst: Steve Workman

Sample Aliquot: 5 ML

Final Volume: 5 ML

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Result Qualifier	Reporting Limit	DL
7440-70-2	CALCIUM	10	410		10	
7439-95-4	MAGNESIUM	1	56		1	
7440-23-5	SODIUM	100	3100		100	
	SODIUM ADSORPTION RATIO	100	39		8.1	

Data Package ID: IT2109426-2

Total Sodium Adsorption Ratio

Method USDA60 Revision D

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 2109426

Client Name: COGCC

ClientProject ID: Inspection 697601578

Field ID: 118086 #4 0-6"

Lab ID: 2109426-5

Sample Matrix: SatExtract

% Moisture: N/A

Date Collected: 16-Sep-21

Date Extracted: 21-Sep-21

Date Analyzed: 22-Sep-21

Prep Method: SW3010 Rev A

Prep Batch: IP210921-6

QCBatchID: IP210921-6-1

Run ID: IT210922-2A1

Cleanup: NONE

Basis: As Received

File Name: 210922A.

Analyst: Steve Workman

Sample Aliquot: 5 ML

Final Volume: 5 ML

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Result Qualifier	Reporting Limit	DL
7440-70-2	CALCIUM	10	760		10	
7439-95-4	MAGNESIUM	10	340		10	
7440-23-5	SODIUM	100	5300		100	
	SODIUM ADSORPTION RATIO	100	40		8.1	

Data Package ID: IT2109426-2

Date Printed: Friday, October 15, 2021

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LIMS Version: 7.021b

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Total Sodium Adsorption Ratio

Method USDA60 Revision D

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 2109426

Client Name: COGCC

ClientProject ID: Inspection 697601578

Field ID: 118086 #5 0-6"

Lab ID: 2109426-6

Sample Matrix: SatExtract

% Moisture: N/A

Date Collected: 16-Sep-21

Date Extracted: 21-Sep-21

Date Analyzed: 22-Sep-21

Prep Method: SW3010 Rev A

Prep Batch: IP210921-6

QCBatchID: IP210921-6-1

Run ID: IT210922-2A1

Cleanup: NONE

Basis: As Received

File Name: 210922A.

Analyst: Steve Workman

Sample Aliquot: 5 ML

Final Volume: 5 ML

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Result Qualifier	Reporting Limit	DL
7440-70-2	CALCIUM	10	590		10	
7439-95-4	MAGNESIUM	1	31		1	
7440-23-5	SODIUM	100	7500		100	
	SODIUM ADSORPTION RATIO	100	81		8.1	

Data Package ID: IT2109426-2

Date Printed: Friday, October 15, 2021

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