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ANALYTICAL REPORT

PREPARED FOR

Attn: Rebecca Manzanares Colorado Analytical Laboratories Inc 10411 Heinz Way Commerce City, Colorado 80640

Generated 7/10/2023 9:38:27 AM

JOB DESCRIPTION

CO0162724 St Vrain WTP SDG NUMBER 230629078

JOB NUMBER

280-178553-1

Eurofins Denver 4955 Yarrow Street Arvada CO 80002



Eurofins Denver

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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 TestAmerica Project Manager.

Authorization

Natalie Stone

Generated 7/10/2023 9:38:27 AM

Authorized for release by Natalie Stone, Project Manager Natalie.Stone@et.eurofinsus.com (303)736-0100

Client: Colorado Analytical Laboratories Inc Project/Site: CO0162724 St Vrain WTP Laboratory Job ID: 280-178553-1 SDG: 230629078

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Case Narrative

Client: Colorado Analytical Laboratories Inc Project/Site: CO0162724 St Vrain WTP

Job ID: 280-178553-1

SDG: 230629078

Job ID: 280-178553-1

Laboratory: Eurofins Denver

Narrative

Job Narrative 280-178553-1

Comments

No additional comments.

Receipt

The samples were received on 6/30/2023 at 11:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.2°C.

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

Definitions/Glossary

Client: Colorado Analytical Laboratories Inc Job ID: 280-178553-1 Project/Site: CO0162724 St Vrain WTP SDG: 230629078

Glossary

DL, RA, RE, IN

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)			

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample Decision Level Concentration (Radiochemistry) DLC

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) Most Probable Number MPN 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

Detection Summary

Client: Colorado Analytical Laboratories Inc Project/Site: CO0162724 St Vrain WTP

Job ID: 280-178553-1 SDG: 230629078

Client Sample ID: 230629078-01 - CLO2 - FIRST

Lab Sample ID: 280-178553-1

PWSID Number: CO0162724

No Detections.

Client Sample ID: 230629078-02 - CLO2 - AVG Lab Sample ID: 280-178553-2

PWSID Number: CO0162724

Analyte Result Qualifier RLMDL Unit Dil Fac D Method **Prep Type** 5.9 ug/L Chlorite 360 10 300.0 Total/NA

Client Sample ID: 230629078-03 - CLO2 - MAX Lab Sample ID: 280-178553-3

PWSID Number: CO0162724

Analyte Result Qualifier RL **MDL** Unit Dil Fac D Method **Prep Type** 10 300.0 Chlorite 360 5.9 ug/L Total/NA

This Detection Summary does not include radiochemical test results.

7/10/2023

Method Summary

Client: Colorado Analytical Laboratories Inc Project/Site: CO0162724 St Vrain WTP

Job ID: 280-178553-1

SDG: 230629078

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EA SB

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Eurofins Denver

Sample Summary

Client: Colorado Analytical Laboratories Inc Project/Site: CO0162724 St Vrain WTP

Job ID: 280-178553-1

SDG: 230629078

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
280-178553-1	230629078-01 - CLO2 - FIRST	Water	06/29/23 13:30	06/30/23 11:20	CO0162724
280-178553-2	230629078-02 - CLO2 - AVG	Water	06/29/23 13:21	06/30/23 11:20	CO0162724
280-178553-3	230629078-03 - CLO2 - MAX	Water	06/29/23 13:10	06/30/23 11:20	CO0162724

Client Sample Results

Client: Colorado Analytical Laboratories Inc
Project/Site: CO0162724 St Vrain WTP

Job ID: 280-178553-1
SDG: 230629078

Method: EPA 300.0 - Anions, Ion Chromatography

Client Sample ID: 230629078-0	1 - CLO2 -	FIRST					Lab Sam	ple ID: 280-17	'8 55 3-1
Date Collected: 06/29/23 13:30								Matrix:	
Date Received: 06/30/23 11:20							PWSID	Number: CO0	162724
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chlorite	ND		10	5.9	ug/L			07/07/23 17:55	
- Client Sample ID: 230629078-0	2 - CLO2 -	AVG					Lab Sam	ple ID: 280-17	8553-2
Date Collected: 06/29/23 13:21								Matrix	: Wate
Date Received: 06/30/23 11:20							PWSID	Number: CO0	162724
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	360		10	5.9	ug/L			07/07/23 18:25	1
Client Sample ID: 230629078-0	3 - CLO2 -	MAX					Lab Sam	ple ID: 280-17	8553-3
Date Collected: 06/29/23 13:10								Matrix	: Watei
Date Received: 06/30/23 11:20							PWSID	Number: CO0	<mark>16272</mark> 4
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	360		10	5.9	ug/L			07/07/23 18:56	1

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QC Sample Results

Client: Colorado Analytical Laboratories Inc Project/Site: CO0162724 St Vrain WTP

Job ID: 280-178553-1

SDG: 230629078

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 810-64946/4

Matrix: Water

Analyte

Chlorite

Analysis Batch: 64946

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

MB MB **Result Qualifier** RL **MDL** Unit D Analyzed Dil Fac Prepared 07/07/23 15:25 10 ND 5.9 ug/L

Lab Sample ID: LCS 810-64946/5 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 64946

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chlorite	250	232		ug/L		93	90 - 110	

Lab Sample ID: LLCS 810-64946/1 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA **Matrix: Water**

Analysis Batch: 64946

Spike LLCS LLCS %Rec Result Qualifier Analyte Added Limits Unit %Rec Chlorite 10.0 10.8 ug/L 108 50 - 150

QC Association Summary

Client: Colorado Analytical Laboratories Inc
Project/Site: CO0162724 St Vrain WTP

Job ID: 280-178553-1
SDG: 230629078

HPLC/IC

Analysis Batch: 64946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-178553-1	230629078-01 - CLO2 - FIRST	Total/NA	Water	300.0	
280-178553-2	230629078-02 - CLO2 - AVG	Total/NA	Water	300.0	
280-178553-3	230629078-03 - CLO2 - MAX	Total/NA	Water	300.0	
MB 810-64946/4	Method Blank	Total/NA	Water	300.0	
LCS 810-64946/5	Lab Control Sample	Total/NA	Water	300.0	
LLCS 810-64946/1	Lab Control Sample	Total/NA	Water	300.0	

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Lab Chronicle

Client: Colorado Analytical Laboratories Inc

Project/Site: CO0162724 St Vrain WTP

Lab Sample ID: 280-178553-1

Matrix: Water

Job ID: 280-178553-1

SDG: 230629078

Date Collected: 06/29/23 13:30 Date Received: 06/30/23 11:20

Batch Batch Dil Initial Batch Final Prepared Method **Factor** or Analyzed **Prep Type** Type Run **Amount Amount** Number **Analyst** Lab Total/NA Analysis 300.0 64946 07/07/23 17:55 NR EA SB

Client Sample ID: 230629078-02 - CLO2 - AVG

Client Sample ID: 230629078-01 - CLO2 - FIRST

Lab Sample ID: 280-178553-2 Date Collected: 06/29/23 13:21 **Matrix: Water**

Date Received: 06/30/23 11:20

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Type Method Run Factor **Amount** Amount Number or Analyzed Analyst Lab Total/NA Analysis 300.0 64946 07/07/23 18:25 NR EA SB

Client Sample ID: 230629078-03 - CLO2 - MAX Lab Sample ID: 280-178553-3

Date Collected: 06/29/23 13:10 **Matrix: Water**

Date Received: 06/30/23 11:20

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Method **Factor Amount Amount** or Analyzed Type Run Number **Analyst** Lab Total/NA Analysis 300.0 64946 07/07/23 18:56 NR EA SB

Laboratory References:

EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Accreditation/Certification Summary

Client: Colorado Analytical Laboratories Inc Project/Site: CO0162724 St Vrain WTP Job ID: 280-178553-1 SDG: 230629078

Laboratory: Eurofins Eaton Analytical South Bend

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	ISO/IEC 17025	5794.01	07-31-24
Alaska	State	IN00035	06-30-24
Arizona	State	AZ0432	07-25-23
Arkansas (DW)	State	EPA IN00035	06-30-23 *
California	State	2920	06-30-23 *
Colorado	State	IN00035	02-29-24
Connecticut	State	PH-0132	03-31-22 *
Delaware (DW)	State	IN00035	06-30-23 *
Florida	NELAP	E87775	06-30-24
Georgia (DW)	State	929	06-30-23 *
Hawaii	State	IN035	06-30-23 *
Idaho (DW)	State	IN00035	12-31-23
IL Dept. of Public Health (Micro)	State	17767	07-01-24
Illinois	NELAP	200001	09-30-23
Indiana	State	C-71-01	12-31-25
Indiana (Micro)	State	M-76-07	12-31-25
lowa	State	IA Lab #098	11-01-23
Kansas	NELAP	E-10233	10-31-23
Kentucky (DW)	State	KY90056	12-31-23
Louisiana (DW)	State	LA014	12-31-23
Maine	State	IN00035	05-01-25
Maryland	State	209	06-30-24
Massachusetts	State		
		M-IN035	06-30-23 *
MI - RadChem Recognition	State	9926	06-30-23 *
Michigan	State	9926	06-30-23 *
Minnesota	NELAP	1989807	12-31-23
Mississippi	State	IN00035	06-30-24
Missouri	State	880	09-30-24
Montana (DW)	State	CERT0026	01-02-24
Nebraska	State	NE-OS-05-04	06-30-24
Nevada	State	IN000352021-2	07-31-23
New Hampshire	NELAP	2124	11-05-23
New Jersey	NELAP	IN598	06-30-24
New Mexico	State	IN00035	06-30-24
New York	NELAP	11398	04-01-24
North Carolina (DW)	State	18700	07-31-23
North Dakota	State	R-035	06-30-23 *
Northern Mariana Islands (DW)	State	IN00035	06-30-24
Ohio	State	87775	06-30-24
Oklahoma	NELAP	D9508	08-31-23
Oregon	NELAP	4156	09-16-23
Pennsylvania	NELAP	68-00466	04-30-24
Puerto Rico	State	IN00035	04-01-24
Rhode Island	State	LAO00343	12-30-23
South Carolina	State	95005001	06-30-23 *
South Dakota (DW)	State	IN00035	06-30-23 *
Tennessee	State	TN02973	06-30-24
Texas	NELAP	T104704187-22-16	12-31-23
Texas	TCEQ Water Supply	TX207	06-30-24
USEPA Reg X SDWA	US Federal Programs	IN00035	08-24-24

 $^{^{\}star}\, \text{Accreditation/Certification renewal pending - accreditation/certification considered valid}.$

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Accreditation/Certification Summary

Client: Colorado Analytical Laboratories Inc Project/Site: CO0162724 St Vrain WTP

Job ID: 280-178553-1 SDG: 230629078

Laboratory: Eurofins Eaton Analytical South Bend (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
USEPA UCMR 5	US Federal Programs	IN00035	12-31-25
Utah	NELAP	IN00035	07-31-23
Vermont	State	VT-8775	11-15-23
Virginia	NELAP	460275	03-14-24
Washington	State	C837	01-01-24
West Virginia (DW)	State	9927 C	12-31-23
Wisconsin	State	999766900	08-31-23
Wisconsin (Micro)	State	10121	12-31-22 *
Wyoming	State	8TMS-L	06-30-23 *

Eurofins Denver

^{*} Accreditation/Certification renewal pending - accreditation/certification considered valid.

Login Sample Receipt Checklist

Client: Colorado Analytical Laboratories Inc Job Nu

Job Number: 280-178553-1 SDG Number: 230629078

Login Number: 178553 List Source: Eurofins Denver

List Number: 1

Creator: Held, Wesley

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
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.	True	
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?	N/A	
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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Colorado Analytical Laboratories Inc

Job Number: 280-178553-1 SDG Number: 230629078

Login Number: 178553 List Source: Eurofins Eaton Analytical South Bend List Number: 2

List Creation: 07/06/23 01:35 PM

Creator: Spurgeon, Sheri

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
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	
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	
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	
Samples do not require splitting or compositing.	True	
Container provided by EEA	False	Client provided containers

Sub-Lab Chain of Custody Form

Report To Information	Bill To Information: (If different from report to)	Project Name
Company Name Colorado Analytical Laboratory		CO0162724 St Vrain WTP
Report To: Rebecca Manzanares		
E-Mail: rebeccamanzanares@coloradolab.com		
Address:	Address: CAL	CAL TASK Compliance Samples: Yes ✓ No ☐
10411 Heinz Way	230	230629078 Submit Data to CDPHE: Yes No 🗸
Commerce City, CO 80640	CJF	
Phone: <u>303-659-2313</u>		

Tests Requested

	Container Type	120 ml Cylinder - EDA	120 ml Cylinder - EDA	120 ml Cylinder - EDA	
Chlorite (Sub)	Matrix	Water - Drinking	Water - Drinking	Fac ID: Water - Drinking	
	Sample ID	6/29/23 1:30 PM 230629078-01 - CLO2 - FIRST - SP ID: CLO2 - FIRST / Fac	1:21 PM 230629078-02 - CLO2 - AVG- SP ID: CLO2 - AVG / Fac ID:	6/29/23 1:10 PM 230629078-03 - CLO2 - MAX- SP ID: CLO2 - MAX / Fac ID:	
* п	Sample Date/Time	29/23 1:30 PM	6/29/23 1:21 PM	29/23 1:10 PM	Comment

280-178553 Chain of Custody

56/08/0 Date: Time: Relinquished by: (Signature)

FRMD 1.2°C (Fo. o. IRTU).
Received by:
(Signature).

Relinquished by: (Signature)

Received by: (Signature)

Date: Time:

Date: Time:

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Eurofins Denver

4955 Yarrow Street Arvada, CO 80002

Chain of Custody Record



💸 eurofins

Environment Testing

Phone: 303-736-0100 Fax: 303-431-7171													<u> </u>		٤									
Client Information (Sub Contract Lab)	ient Information (Sub Contract Lab)				Lab PM: Stone, Nat				Carrie latalie B							No(s).			COC No: 280-662886.1				
Client Contact: Shipping/Receiving	Phone: E-M						-								Origin: do					Page: Page 1 of 1				
Company. Eurofins Eaton Analytical					Acc	redita	tions	Requir	ed (Se	e note):									Job #: 280-178553-1				
Address: 110 S Hill Street,	Due Date Request	ed:								Ana	lvei	e R	20110	eta	d				_	Preservation Co				
City:	TAT Requested (da	ays):							T		J	1			T	Т				A - HCL B - NaOH	N - No	lexane one sNaO2		
South Bend State, Zip: IN, 46617				_							t		ı							C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH	P - Na Q - Na R - Na	a2O4S la2SO3 la2S2O3		
Phone: 574-233-8207(Fax) Email:	WO#:	PO#: WO#:												1					100	G - Amchlor H - Ascorbic Acid I - Ice J - DI Water	U - Ad V - Mi	SP Dodecahy cetone ICAA	drate	
Project Name: CO0162724 St Vrain WTP Site:	Project #: 28018714						rite													K - EDTA L - EDA Other:	W - pi Y - Tr Z - oth			
Colorado Analytical	SSOW#.						V Chlorite									1			not co	Other.				
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, ST=Tissue, A=A	Feeld Filtered	The Park	300_OF_14D_B/												I No.	Special I	nstruc	tions/Note	e:	
			Preservat	ion Code:	X	X	Enables	Name and S											X		SINVERIMENTAL TO			
230629078-01 - CLO2 - FIRST (280-178553-1)	6/29/23	13:30 Mountain		Water			Х													/				
230629078-02 - CLO2 - AVG (280-178553-2)	6/29/23	13:21 Mountain		Water			х												1	V				
230629078-03 - CLO2 - MAX (280-178553-3)	6/29/23	13:10 Mountain		Water	\coprod		Х		4	+	_	-	_	_	_	_	-		1	~				
					+				+	+	+	+	+	1.		2	ndo i	cor		nef				
					+				_	+	Ū	in	t Pr	OH	110	، سران	1010			nitial Temp.	-	0.6		
					+				+			+	+	+	+	+	-			Incrected Tel	111/2	21		
					+			\Box	+	1		+	+	\dagger	+	T	1					wet		
					Н							T	1	\dagger	\perp									
Note: Since laboratory accreditations are subject to change, Eurofins Test maintain accreditation in the State of Origin listed above for analysis/tests/ TestAmerica attention immediately. If all requested accreditations are currently to the statement of the st	matrix being analyzed, the s	amples must b	e shipped back	to the Eurofi	ns Tes	tAme	rica la	aborato	ry or o	oratori ther in	ies. T	his sa ons wi	mple s	shipme	ent is fo	orward y chan	ed und ges to	er chai accred	in-of- litatio	custody. If the lab	oratory do brought t	oes not current to Eurofins	ntly	
Possible Hazard Identification						San	_				e ma	y be	ass	esse	d if s	amp	les ar			ed longer than				
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliver	able Rank:	2			Spe	_	<i>eturn</i> Instru		_	Regu				By L	.ab			Arch	ive For	M	lonths		
		Date:			Tin	ne:									ethod o	of Ship	ment:							
Empty Kit Relinquished by: Relinquished by:	Date/Time: / 7/5/23	/ <	-30 °	E TAG			Recei	ived by	: ,	G	1	20) A				e/Time	1-10	-2	3 0900	Com	Parry A		
Relinquished by:	Date/Time:	10		Company	مسر	~	Recei	ived by	:	(7	1	5			Dat	e/Time:		0	0 100	Comp	pany		
Relinquished by:	Date/Time:			Company		\exists	Recei	ived by	:							Dat	e/Time	:			Com	pany		
Custody Seals Intact: Custody Seal No.:								Cooler Temperature(s) °C and Other Remark																